

Planck 2018 Results: Cosmological Parameter Tables

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Abstract

These tables summarize the results of *Planck* 2018 parameter estimation exploration results. They are based on *Planck* HFI data and *Planck* lensing, as well as additional non-CMB data as detailed in the main parameter papers.

1 Introduction

The tables are arranged in groups, firstly by cosmological model, and then by data combination. The name tags match those of the full chains also provided on the PLA. The names all start with **base** to denote the baseline model, followed by the parameter tags of any additional parameters that are also varied (as defined in the parameter paper). Data combination tags are as follows (see the parameters paper for full description and references):

Data tag	Data used
plikHM	Baseline high- ℓ <i>Planck</i> power spectra (plik cross-half-mission, $30 \leq \ell \leq 2508$).
CamSpecHM	CamSpec high- ℓ <i>Planck</i> power spectra.
CleanedCamSpecHM	Foreground-cleaned CamSpec high- ℓ <i>Planck</i> power spectra.
lowl	Low- ℓ <i>Planck</i> temperature (Commander , $2 \leq \ell \leq 29$).
lowE	Low- ℓ HFI <i>EE</i> polarization only (SimAll , $2 \leq \ell \leq 29$).
lensing	<i>Planck</i> lensing power spectrum reconstruction. When used without other CMB likelihoods, it is marginalized over the theory CMB spectra given.
BAO	Baryon oscillation data from BOSS DR12, MGS, and 6DF.
Pantheon18	Supernova data from the Pantheon sample, with updated main distance file with heliocentric redshifts.
JLA	Supernova data from the SDSS-II/SNLS3 Joint Light-curve Analysis.
Riess18	Hubble parameter measurement from SHOES (Riess et al. 2018a, $H_0 = 73.45 \pm 1.66$).
BK15	Bicep-Keck (+Planck/WMAP) 2015 analysis (arXiv:1810.05216).
zre6p5	A hard prior, $z_{\text{re}} > 6.5$.
reion	A hard prior, $z_{\text{re}} > 6.5$, combined with a Gaussian prior, $z_{\text{re}} = 7 \pm 1$.
lenspriors	Standard base parameters with $n_s = 0.96 \pm 0.02$, $\Omega_b h^2 = 0.0222 \pm 0.0005$, $100 > H_0 > 40$, $\tau = 0.055$.
DESpriors	DES cosmological parameter priors (flat on $0.1 < \Omega_m < 0.9$, $0.03 < \Omega_b < 0.07$, $55 < H_0 < 91$, $0.5 < 10^9 A_s < 5$, $Y_P = 0.245341$ and, if varied, $0.05\text{eV} < \sum m_\nu < 1\text{eV}$).
CookeDH	A Gaussian prior $\Omega_b h^2 = 0.0222 \pm 0.0005$ (conservative, motivated by Cooke et al. 2017).
Cooke17	A Gaussian prior on D/H (Cooke et al. 2017), mean and error adjusted to approximately agree with CookeDH for $N_{\text{eff}} = 3.046$.
Aver15	A Gaussian constraint on $Y_P^{\text{BBN}} = 0.2449 \pm 0.0040$ (Aver et al. 2015).
theta	A Gaussian prior $100\theta_{\text{MC}} = 1.0409 \pm 0.0006$ (acoustic scale from <i>Planck</i> CMB without LCDM assumption).
WMAP	The full WMAP (temperature and polarization) 9-year data.
DES	DES 1yr, cosmic shear+galaxy auto+cross.
DESlens	DES 1yr, cosmic shear only.
DESw	DES 1yr, galaxy auto+cross only.

The high- ℓ *Planck* likelihoods have TT, TE, EE variants from each spectrum alone, plus the TTTEEE joint constraint. Note that unless **nnu** is specified in the file name, the neutrino mass sum is fixed to $\sum_\nu m_\nu = 0.06\text{eV}$ (including for DES chains). Non-linear corrections are modelled with HMCode in all cases (including when using DESpriors).

Data likelihoods are either included when running the chains, or by importance sampling. Data combinations that are added by importance sampling appear at the end of the list, following the **post_** tag. Note that the best fits are merely examples of parameter combinations that fit the data well; due to parameter degeneracies there may be other combinations of parameters that fit the data nearly equally well.

Beneath each table is the $\chi_{\text{eff}}^2 = -2\log(\text{likelihood})$ for each best-fit model, and also the contributions coming from each separate part of the likelihood. Mean minus log likelihoods are also given, as $\bar{\chi}_{\text{eff}}^2$. The tables also give the χ_{eff}^2 of the various component parts of the likelihood, where quoted values are the best-fit and mean, standard

deviation (in the case of 1σ tables), or effective degrees of freedom (ν , defined by $\sigma^2/2$). Normalization of likelihoods is arbitrary, i.e., a constant can be added to log likelihoods without affecting any results. Only some likelihoods normalize so that the number is immediately interpretable as similar to a χ^2 for some number of data points.

The $R - 1$ value is also given, which measures the convergence of the sampling chains, with small values being better converged. The sampling uncertainty on quoted mean values are typically of order $R - 1$ in units of the standard deviation.

Parameter constraints were calculated from Monte Carlo chains from **CosmoMC** using **GetDist** (getdist.readthedocs.org).

Parameters and derived parameters, along with the name tags used in the chain files, are briefly described in the tables below.

Additional nuisance parameters for each likelihood are described in more detail in the respective papers.

Parameter	Tag	baseline	Definition
$\Omega_b h^2$	omegab2	...	Baryon density today
$\Omega_c h^2$	omegac2	...	Cold dark matter density today
$100\theta_{\text{MC}}$	theta	...	$100\times$ approximation to r_s/D_M (CosmoMC)
τ	tau	...	Thomson scattering optical depth due to reionization
Ω_K	omegak	0	$\Omega_{\text{tot}} = 1 - \Omega_K$
Σm_ν	mnu	0.06	Sum of active neutrino masses in eV
$m_{\nu, \text{sterile}}^{\text{eff}}$	meffsterile	0	Effective mass in sterile neutrinos in eV
w_0	w	-1	Dark energy equation of state, $w(a) = w_0 + (1 - a)w_a$
w_a	wa	0	As above (perturbations modelled using PPF)
N_{eff}	nnu	3.046	Total effective number of massive and massless neutrinos (see text)
Y_P	yhe	BBN	Fraction of baryonic mass in helium (only if varied independently of BBN)
α_{-1}	alpha1	0	Fully correlated isocurvature amplitude parameter
A_L	Alens	1	Amplitude of the lensing power relative to the physical value
$A_L^{\phi\phi}$	Aphiphi	1	Amplitude of the lensing reconstruction power relative to the physical value
A_L^{fid}	Alensf	...	Amplitude of the lensing power relative to a fixed fiducial spectrum
n_s	ns	...	Scalar spectrum power-law index ($k_0 = 0.05\text{Mpc}^{-1}$)
n_t	nt	Inflation	Tensor spectrum power-law index ($k_0 = 0.05\text{Mpc}^{-1}$)
$d \ln n_s / d \ln k$	nrun	0	Running of the spectral index
$\log[10^{10} A_s]$	logA	...	Log power of the primordial curvature perturbations ($k_0 = 0.05\text{Mpc}^{-1}$)
$r_{0.05}$	r	0	Tensor power spectrum amplitude ($k_0 = 0.05\text{Mpc}^{-1}$)
H_0	H0	...	Current expansion rate in $\text{km s}^{-1}\text{Mpc}^{-1}$
Ω_m	omegam	...	Matter density (incl. massive neutrinos) today divided by the critical density
Ω_Λ	omegal	...	Dark energy density divided by the critical density today
$\Omega_m h^2$	omegamh2	...	Total matter density today (incl. massive neutrinos)
$\Omega_m h^3$	omegamh3	...	$h \times$ total matter density today
σ_8	sigma8	...	RMS matter fluctuations today in linear theory
S_8	S8	...	$\sigma_8(\Omega_m/0.3)^{0.5}$
$\sigma_8 \Omega_m^{0.5}$	s8omegamp5	...	$\sigma_8 \Omega_m^{0.5}$ constrained by low-redshift lensing
$\sigma_8 \Omega_m^{0.25}$	s8omegamp25	...	$\sigma_8 \Omega_m^{0.25}$ constrained by CMB lensing
$\sigma_8 / h^{0.5}$	s8h5	...	$\sigma_8 / h^{0.5}$
$\sigma_8 / h^{0.5}$	rdragh	...	$r_{\text{drag}} h$ in Mpc
$\langle d^2 \rangle^{1/2}$	rmsdeflect	...	RMS CMB lensing deflection angle in arcmin (approx. using $2 \leq L \leq 2000$)
z_{re}	zrei	...	Redshift at which Universe is half reionized
$10^9 A_s$	A	...	Power of the primordial curvature perturbations ($k_0 = 0.05\text{Mpc}^{-1}$)
$10^9 A_s e^{-2\tau}$	clamp	...	Parameter determining the small-scale CMB power
Y_P	yheused	bbn	Fraction of baryonic mass in helium
Y_P^{BBN}	YpBBN	bbn	Nucleon fraction in helium
10^5D/H	DHBBN	bbn	10^5 deuterium-helium ratio from Parthenope BBN prediction (pre-Marcucci rates)
Age/Gyr	age	...	Time since the start of the hot big bang

Parameter	Tag	baseline	Definitions
z_*	zstar	...	Redshift for which the optical depth equals unity
$r_* = r_s(z_*)$	rstar	...	Comoving size of the sound horizon at $z = z_*$
$100\theta_*$	thetastar	...	100× Angular size of the sound horizon at last scattering
$D_M/\text{Gpc}(z_*)$	DAstar	...	Comoving angular diameter distance to last scattering
z_{drag}	zdrag	...	Redshift at which baryon-drag optical depth equals unity
$r_{\text{drag}} = r_s(z_{\text{drag}})$	rdrag	...	Comoving size of the sound horizon at $z = z_{\text{drag}}$
k_D	kd	...	Characteristic damping comoving wavenumber (Mpc^{-1})
$100\theta_D$	thetad	...	100× angular extent of photon diffusion at last scattering
z_{eq}	zeq	...	Redshift of matter-radiation equality (massless neutrinos)
k_{eq}	keq	...	$[a(z_{\text{eq}})H(z_{\text{eq}})]^{-1}$
$100\theta_{\text{eq}}$	thetaeq	...	100× angular size of the comoving Horizon at matter-radiation equality
$100\theta_{s,\text{eq}}$	thetarseq	...	100× angular size of the comoving sound Horizon at matter-radiation equality
D_{40}	D40	...	$\ell(\ell+1)C_\ell^{TT}/2\pi$ at $\ell = 40$ in μK^2
D_{220}	D200	...	$\ell(\ell+1)C_\ell^{TT}/2\pi$ at $\ell = 220$ in μK^2
D_{810}	D810	...	$\ell(\ell+1)C_\ell^{TT}/2\pi$ at $\ell = 810$ in μK^2
D_{1420}	D1420	...	$\ell(\ell+1)C_\ell^{TT}/2\pi$ at $\ell = 1420$ in μK^2
D_{2000}	D2000	...	$\ell(\ell+1)C_\ell^{TT}/2\pi$ at $\ell = 2000$ in μK^2
$n_{s,0.002}$	ns02	...	Scalar spectral index at $k = 0.002\text{Mpc}^{-1}$
$r_{0.002}$	r02	0	Tensor/scalar ratio at $k = 0.002\text{Mpc}^{-1}$
$r_{0.01}$	rBB	0	Tensor/scalar ratio at $k = 0.01\text{Mpc}^{-1}$ (roughly BB peak)
r_{10}	r10	0	Tensor-scalar temperature C_ℓ amplitude at $\ell = 10$
A_t	AT	0	$10^9 A_t$ ($k_0 = 0.05\text{Mpc}^{-1}$)
$10^9 A_t e^{-2\tau}$	ctlamp	0	Parameter determining $\ell \simeq 100$ tensor C_ℓ amplitude
$H(z)$	Hubble{100z}	...	Hubble parameter at redshift z ($\text{km s}^{-1}\text{Mpc}^{-1}$)
$D_M(z)$	DM{100z}	...	Comoving angular diameter distance to redshift z in Mpc
$f\sigma_8(z)$	fsigma8z{100z}	...	Growth parameter $f\sigma_8$ at redshift z
$\sigma_8(z)$	sigma8z{100z}	...	σ_8 at redshift z
f_{2000}^{143}	f2000_143	...	Total temperature foreground power at $\ell = 2000$ in 143GHz C_ℓ
$f_{2000}^{143 \times 217}$	f2000_x	...	Total temperature foreground power at $\ell = 2000$ in $217\text{GHz} \times 143\text{GHz}$ C_ℓ
f_{2000}^{217}	f2000_217	...	Total temperature foreground power at $\ell = 2000$ in 217GHz C_ℓ
χ_x^2	chi2_x	...	$-2\log(\text{likelihood})$ for likelihood x ; (most are normalized like a χ^2).

Contents

1	Introduction	1
2	Baseline model	24
2.1	base_plikHM_TT_lowl_lowE	24
2.2	base_plikHM_TT_lowl_lowE_post_BAO	25
2.3	base_plikHM_TT_lowl_lowE_post_Riess18	26
2.4	base_plikHM_TT_lowl_lowE_post_zre6p5	27
2.5	base_plikHM_TT_lowl_lowE_post_BAO_zre6p5	28
2.6	base_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	29
2.7	base_plikHM_TTTEEE_lowl_lowE	30
2.8	base_plikHM_TTTEEE_lowl_lowE_post_BAO	31
2.9	base_plikHM_TTTEEE_lowl_lowE_post_Riess18	32
2.10	base_plikHM_TTTEEE_lowl_lowE_post_zre6p5	33
2.11	base_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	34
2.12	base_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	35
2.13	base_CamSpecHM_TT_lowl_lowE	36
2.14	base_CamSpecHM_TT_lowl_lowE_post_BAO	37
2.15	base_CamSpecHM_TT_lowl_lowE_post_Riess18	38
2.16	base_CamSpecHM_TT_lowl_lowE_post_zre6p5	39
2.17	base_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5	40
2.18	base_CamSpecHM_TT_lowl_lowE_post_Riess18_zre6p5	41
2.19	base_CamSpecHM_TTTEEE_lowl_lowE	42
2.20	base_CamSpecHM_TTTEEE_lowl_lowE_post_BAO	43
2.21	base_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18	44
2.22	base_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	45
2.23	base_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	46
2.24	base_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	47
2.25	base_plikHM_TE_lowE	48
2.26	base_plikHM_TE_lowE_post_zre6p5	49
2.27	base_plikHM_EE_lowE	50
2.28	base_plikHM_EE_lowE_post_zre6p5	51
2.29	base_CamSpecHM_TE_lowE	52
2.30	base_CamSpecHM_TE_lowE_post_zre6p5	53
2.31	base_CamSpecHM_EE_lowE	54
2.32	base_CamSpecHM_EE_lowE_post_zre6p5	55
2.33	base_plikHM_TE_lowE_BAO	56
2.34	base_plikHM_TE_lowE_BAO_post_lensing	57
2.35	base_plikHM_TE_lowE_BAO_post_zre6p5	58
2.36	base_plikHM_TE_lowE_BAO_post_lensing_zre6p5	59
2.37	base_plikHM_EE_lowE_BAO	60
2.38	base_plikHM_EE_lowE_BAO_post_lensing	61
2.39	base_plikHM_EE_lowE_BAO_post_zre6p5	62
2.40	base_plikHM_EE_lowE_BAO_post_lensing_zre6p5	63
2.41	base_CamSpecHM_TE_lowE_BAO	64
2.42	base_CamSpecHM_TE_lowE_BAO_post_lensing	65
2.43	base_CamSpecHM_TE_lowE_BAO_post_zre6p5	66
2.44	base_CamSpecHM_TE_lowE_BAO_post_lensing_zre6p5	67
2.45	base_CamSpecHM_EE_lowE_BAO	68
2.46	base_CamSpecHM_EE_lowE_BAO_post_lensing	69
2.47	base_CamSpecHM_EE_lowE_BAO_post_zre6p5	70
2.48	base_CamSpecHM_EE_lowE_BAO_post_lensing_zre6p5	71
2.49	base_plikHM_TE_lowE_lensing	72
2.50	base_plikHM_TE_lowE_lensing_post_zre6p5	73
2.51	base_plikHM_EE_lowE_lensing	74
2.52	base_plikHM_EE_lowE_lensing_post_zre6p5	75
2.53	base_CamSpecHM_TE_lowE_lensing	76
2.54	base_CamSpecHM_TE_lowE_lensing_post_zre6p5	77
2.55	base_CamSpecHM_EE_lowE_lensing	78
2.56	base_CamSpecHM_EE_lowE_lensing_post_zre6p5	79
2.57	base_plikHM_TE_lowE_lensing_BAO_CookeDH	80
2.58	base_plikHM_EE_lowE_lensing_BAO_CookeDH	81
2.59	base_CamSpecHM_TE_lowE_lensing_BAO_CookeDH	82
2.60	base_CamSpecHM_EE_lowE_lensing_BAO_CookeDH	83
2.61	base_plikHM_TE_lowE_lensing_CookeDH	84
2.62	base_plikHM_EE_lowE_lensing_CookeDH	85
2.63	base_CamSpecHM_TE_lowE_lensing_CookeDH	86
2.64	base_CamSpecHM_EE_lowE_lensing_CookeDH	87

2.65	base_plikHM.TT_lowl	88
2.66	base_plikHM.TTTEEE_lowl	89
2.67	base_CamSpecHM.TT_lowl	90
2.68	base_CamSpecHM.TTTEEE_lowl	91
2.69	base_plikHM.TT_lowl.lensing	92
2.70	base_plikHM.TT_lowl.lensing_post_BAO	93
2.71	base_plikHM.TT_lowl.lensing_post_zre6p5	94
2.72	base_plikHM.TT_lowl.lensing_post_BAO_zre6p5	95
2.73	base_plikHM.TTTEEE_lowl.lensing	96
2.74	base_plikHM.TTTEEE_lowl.lensing_post_BAO	97
2.75	base_plikHM.TTTEEE_lowl.lensing_post_zre6p5	98
2.76	base_plikHM.TTTEEE_lowl.lensing_post_BAO_zre6p5	99
2.77	base_plikHM.TT_lowl.reion	100
2.78	base_plikHM.TT_lowl.reion_post_BAO	101
2.79	base_plikHM.TTTEEE_lowl.reion	102
2.80	base_plikHM.TTTEEE_lowl.reion_post_BAO	103
2.81	base_plikHM.TT_lowl_lowE.lensing	104
2.82	base_plikHM.TT_lowl_lowE.lensing_post_BAO	105
2.83	base_plikHM.TT_lowl_lowE.lensing_post_Riess18	106
2.84	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Riess18	107
2.85	base_plikHM.TT_lowl_lowE.lensing_post_Pantheon18	108
2.86	base_plikHM.TT_lowl_lowE.lensing_post_BAO_JLA_Riess18	109
2.87	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18	110
2.88	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18	111
2.89	base_plikHM.TT_lowl_lowE.lensing_post_zre6p5	112
2.90	base_plikHM.TT_lowl_lowE.lensing_post_BAO_zre6p5	113
2.91	base_plikHM.TT_lowl_lowE.lensing_post_Riess18_zre6p5	114
2.92	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Riess18_zre6p5	115
2.93	base_plikHM.TT_lowl_lowE.lensing_post_Pantheon18_zre6p5	116
2.94	base_plikHM.TT_lowl_lowE.lensing_post_BAO_JLA_Riess18_zre6p5	117
2.95	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_zre6p5	118
2.96	base_plikHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18_zre6p5	119
2.97	base_plikHM.TTTEEE_lowl_lowE.lensing	120
2.98	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO	121
2.99	base_plikHM.TTTEEE_lowl_lowE.lensing_post_Riess18	122
2.100	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Riess18	123
2.101	base_plikHM.TTTEEE_lowl_lowE.lensing_post_Pantheon18	124
2.102	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_JLA_Riess18	125
2.103	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Pantheon18	126
2.104	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18	127
2.105	base_plikHM.TTTEEE_lowl_lowE.lensing_post_zre6p5	128
2.106	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_zre6p5	129
2.107	base_plikHM.TTTEEE_lowl_lowE.lensing_post_Riess18_zre6p5	130
2.108	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Riess18_zre6p5	131
2.109	base_plikHM.TTTEEE_lowl_lowE.lensing_post_Pantheon18_zre6p5	132
2.110	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_JLA_Riess18_zre6p5	133
2.111	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Pantheon18_zre6p5	134
2.112	base_plikHM.TTTEEE_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18_zre6p5	135
2.113	base_CamSpecHM.TT_lowl_lowE.lensing	136
2.114	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO	137
2.115	base_CamSpecHM.TT_lowl_lowE.lensing_post_Riess18	138
2.116	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Riess18	139
2.117	base_CamSpecHM.TT_lowl_lowE.lensing_post_Pantheon18	140
2.118	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_JLA_Riess18	141
2.119	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18	142
2.120	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18	143
2.121	base_CamSpecHM.TT_lowl_lowE.lensing_post_zre6p5	144
2.122	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_zre6p5	145
2.123	base_CamSpecHM.TT_lowl_lowE.lensing_post_Riess18_zre6p5	146
2.124	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Riess18_zre6p5	147
2.125	base_CamSpecHM.TT_lowl_lowE.lensing_post_Pantheon18_zre6p5	148
2.126	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_JLA_Riess18_zre6p5	149
2.127	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_zre6p5	150
2.128	base_CamSpecHM.TT_lowl_lowE.lensing_post_BAO_Pantheon18_Riess18_zre6p5	151
2.129	base_CamSpecHM.TTTEEE_lowl_lowE.lensing	152
2.130	base_CamSpecHM.TTTEEE_lowl_lowE.lensing_post_BAO	153
2.131	base_CamSpecHM.TTTEEE_lowl_lowE.lensing_post_Riess18	154
2.132	base_CamSpecHM.TTTEEE_lowl_lowE.lensing_post_BAO_Riess18	155

2.133	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.Pantheon18	156
2.134	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_JLA_Riess18	157
2.135	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_Pantheon18	158
2.136	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_Pantheon18_Riess18	159
2.137	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.zre6p5	160
2.138	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_zre6p5	161
2.139	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.Riess18_zre6p5	162
2.140	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_Riess18_zre6p5	163
2.141	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.Pantheon18_zre6p5	164
2.142	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_JLA_Riess18_zre6p5	165
2.143	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_Pantheon18_zre6p5	166
2.144	base_CamSpecHM.TTTEEE_lowl.lowE.lensing.post.BAO_Pantheon18_Riess18_zre6p5	167
2.145	base_CleanedCamSpecHM.TT_lowl.lowE	168
2.146	base_lensing_lenspriors	169
2.147	base_lensing_lenspriors.post.Pantheon18	170
2.148	base_lensing_lenspriors.post.agr2	171
2.149	base_lensing_lenspriors.post.conslmin40	172
2.150	base_lensing_lenspriors.post.agrlmax425	173
2.151	base_lensing_lenspriors.post.ptt	174
2.152	base_lensing_lenspriors.post.bfcl	175
2.153	base_lensing_lenspriors.post.agr2bfcl	176
2.154	base_lensing_lenspriors.post.linear	177
2.155	base_lensing_lenspriors.post.acc	178
2.156	base_lensing_lenspriors.post.agr2acc	179
2.157	base_lensing_lenspriors.post.takahashi	180
2.158	base_lensing_lenspriors.post.agr2takahashi	181
2.159	base_lensing_lenspriors.post.Apr6	182
2.160	base_lensing_lenspriors.theta	183
2.161	base_lensing_lenspriors.theta.post.Pantheon18	184
2.162	base_lensing_lenspriors.theta.post.agr2	185
2.163	base_lensing_lenspriors.theta.post.conslmin40	186
2.164	base_lensing_lenspriors.theta.post.agrlmax425	187
2.165	base_lensing_lenspriors.theta.post.ptt	188
2.166	base_lensing_lenspriors.theta.post.bfcl	189
2.167	base_lensing_lenspriors.theta.post.agr2bfcl	190
2.168	base_lensing_lenspriors.theta.post.linear	191
2.169	base_lensing_lenspriors.theta.post.acc	192
2.170	base_lensing_lenspriors.theta.post.agr2acc	193
2.171	base_lensing_lenspriors.theta.post.takahashi	194
2.172	base_lensing_lenspriors.theta.post.agr2takahashi	195
2.173	base_lensing_lenspriors.theta.post.Apr6	196
2.174	base_lensing_lenspriors.BAO	197
2.175	base_lensing_lenspriors.BAO.post.Pantheon18	198
2.176	base_lensing_lenspriors.BAO.post.agr2	199
2.177	base_lensing_lenspriors.BAO.post.conslmin40	200
2.178	base_lensing_lenspriors.BAO.post.agrlmax425	201
2.179	base_lensing_lenspriors.BAO.post.ptt	202
2.180	base_lensing_lenspriors.BAO.post.bfcl	203
2.181	base_lensing_lenspriors.BAO.post.agr2bfcl	204
2.182	base_lensing_lenspriors.BAO.post.linear	205
2.183	base_lensing_lenspriors.BAO.post.acc	206
2.184	base_lensing_lenspriors.BAO.post.agr2acc	207
2.185	base_lensing_lenspriors.BAO.post.takahashi	208
2.186	base_lensing_lenspriors.BAO.post.agr2takahashi	209
2.187	base_lensing_lenspriors.BAO.post.Apr6	210
2.188	base_lensing_lenspriors.BAO.theta	211
2.189	base_lensing_lenspriors.BAO.theta.post.Pantheon18	212
2.190	base_lensing_lenspriors.BAO.theta.post.agr2	213
2.191	base_lensing_lenspriors.BAO.theta.post.conslmin40	214
2.192	base_lensing_lenspriors.BAO.theta.post.agrlmax425	215
2.193	base_lensing_lenspriors.BAO.theta.post.ptt	216
2.194	base_lensing_lenspriors.BAO.theta.post.bfcl	217
2.195	base_lensing_lenspriors.BAO.theta.post.agr2bfcl	218
2.196	base_lensing_lenspriors.BAO.theta.post.linear	219
2.197	base_lensing_lenspriors.BAO.theta.post.acc	220
2.198	base_lensing_lenspriors.BAO.theta.post.agr2acc	221
2.199	base_lensing_lenspriors.BAO.theta.post.takahashi	222
2.200	base_lensing_lenspriors.BAO.theta.post.agr2takahashi	223

2.201	base_lensing_lenspriors_BAO_theta_post_Apr6	224
2.202	base_lensing_lenspriors_pttagr2	225
2.203	base_lensing_lenspriors_pttagr2_theta	226
2.204	base_lensing_lenspriors_pttagr2_BAO	227
2.205	base_lensing_lenspriors_pttagr2_BAO_theta	228
2.206	base_lensing_DESpriors	228
2.207	base_lensing_DESpriors_BAO	228
2.208	base_lensing_DESpriors_CookeDH	229
2.209	base_lensing_DESpriors_CookeDH_BAO	229
2.210	base_plikHM_TT	230
2.211	base_plikHM_TT_lowl	231
2.212	base_plikHM_TT_lowl_post_BAO	232
2.213	base_plikHM_TT_lowl_post_zre6p5	233
2.214	base_plikHM_TT_lowl_post_BAO_zre6p5	234
2.215	base_plikHM_TT_lowE	235
2.216	base_plikHM_TTTEEE	236
2.217	base_plikHM_TTTEEE_lowl	237
2.218	base_plikHM_TTTEEE_lowl_post_BAO	238
2.219	base_plikHM_TTTEEE_lowl_post_zre6p5	239
2.220	base_plikHM_TTTEEE_lowl_post_BAO_zre6p5	240
2.221	base_plikHM_TTTEEE_lowE	241
2.222	base_CamSpecHM_TT	242
2.223	base_CamSpecHM_TT_lowl	243
2.224	base_CamSpecHM_TT_lowl_post_BAO	244
2.225	base_CamSpecHM_TT_lowl_post_zre6p5	245
2.226	base_CamSpecHM_TT_lowl_post_BAO_zre6p5	246
2.227	base_CamSpecHM_TT_lowE	247
2.228	base_CamSpecHM_TTTEEE	248
2.229	base_CamSpecHM_TTTEEE_lowl	249
2.230	base_CamSpecHM_TTTEEE_lowl_post_BAO	250
2.231	base_CamSpecHM_TTTEEE_lowl_post_zre6p5	251
2.232	base_CamSpecHM_TTTEEE_lowl_post_BAO_zre6p5	252
2.233	base_CamSpecHM_TTTEEE_lowE	253
2.234	base_WMAP	254
2.235	base_WMAP_post_BAO	255
2.236	base_DES_lenspriors	256
2.237	base_DESlens_lenspriors	257
2.238	base_DES_lenspriors_lensing	258
2.239	base_DESlens_lenspriors_lensing	259
2.240	base_DES_lenspriors_BAO	260
2.241	base_DESlens_lenspriors_BAO	261
2.242	base_DES_lenspriors_lensing_BAO	262
2.243	base_DESlens_lenspriors_lensing_BAO	263
2.244	base_DES_DESpriors	263
2.245	base_DESlens_DESpriors	264
2.246	base_DESwt_DESpriors	264
2.247	base_DES_DESpriors_lensing	264
2.248	base_DESlens_DESpriors_lensing	265
2.249	base_DESwt_DESpriors_lensing	265
2.250	base_DES_DESpriors_BAO_CookeDH	266
2.251	base_DESlens_DESpriors_BAO_CookeDH	266
2.252	base_DESwt_DESpriors_BAO_CookeDH	267
2.253	base_DES_DESpriors_lensing_BAO_CookeDH	267
2.254	base_DESlens_DESpriors_lensing_BAO_CookeDH	268
2.255	base_DESwt_DESpriors_lensing_BAO_CookeDH	268
2.256	base_plikHM_TTTEEE_lowl_lowE_DES	269
2.257	base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO	270
2.258	base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing	271
2.259	base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing	272
2.260	base_plikHM_TTTEEE_lowl_lowE_DES_post_zre6p5	273
2.261	base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_zre6p5	274
2.262	base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing_zre6p5	275
2.263	base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing_zre6p5	276
2.264	base_plikHM_TTTEEE_lowl_lowE_DESlens	277
2.265	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO	278
2.266	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing	279
2.267	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing	280
2.268	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_zre6p5	281

2.269	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_zre6p5	282
2.270	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing_zre6p5	283
2.271	base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5	284
2.272	base_BAO_Cooke17	285
2.273	base_BAO_Cooke17_Pantheon18	285
2.274	base_BAO_Cooke17_JLA	286
2.275	base_BAO_Cooke17_Pantheon18_theta	286
2.276	base_BAO_Cooke17_theta	287
3	Alens	288
3.1	base_Alens_plikHM_TT_lowl_lowE	288
3.2	base_Alens_plikHM_TT_lowl_lowE_post_BAO	289
3.3	base_Alens_plikHM_TT_lowl_lowE_post_Riess18	290
3.4	base_Alens_plikHM_TT_lowl_lowE_post_zre6p5	291
3.5	base_Alens_plikHM_TT_lowl_lowE_post_BAO_zre6p5	292
3.6	base_Alens_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	293
3.7	base_Alens_plikHM_TTTEEE_lowl_lowE	294
3.8	base_Alens_plikHM_TTTEEE_lowl_lowE_post_BAO	295
3.9	base_Alens_plikHM_TTTEEE_lowl_lowE_post_Riess18	296
3.10	base_Alens_plikHM_TTTEEE_lowl_lowE_post_zre6p5	297
3.11	base_Alens_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	298
3.12	base_Alens_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	299
3.13	base_Alens_CamSpecHM_TT_lowl_lowE	300
3.14	base_Alens_CamSpecHM_TT_lowl_lowE_post_BAO	301
3.15	base_Alens_CamSpecHM_TT_lowl_lowE_post_Riess18	302
3.16	base_Alens_CamSpecHM_TT_lowl_lowE_post_zre6p5	303
3.17	base_Alens_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5	304
3.18	base_Alens_CamSpecHM_TT_lowl_lowE_post_Riess18_zre6p5	305
3.19	base_Alens_CamSpecHM_TTTEEE_lowl_lowE	306
3.20	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_BAO	307
3.21	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18	308
3.22	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	309
3.23	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	310
3.24	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	311
3.25	base_Alens_plikHM_TE_lowE	312
3.26	base_Alens_plikHM_TE_lowE_post_BAO	313
3.27	base_Alens_plikHM_TE_lowE_post_zre6p5	314
3.28	base_Alens_plikHM_TE_lowE_post_BAO_zre6p5	315
3.29	base_Alens_plikHM_EE_lowE	316
3.30	base_Alens_plikHM_EE_lowE_post_BAO	317
3.31	base_Alens_plikHM_EE_lowE_post_zre6p5	318
3.32	base_Alens_plikHM_EE_lowE_post_BAO_zre6p5	319
3.33	base_Alens_CamSpecHM_TE_lowE	320
3.34	base_Alens_CamSpecHM_TE_lowE_post_BAO	321
3.35	base_Alens_CamSpecHM_TE_lowE_post_zre6p5	322
3.36	base_Alens_CamSpecHM_TE_lowE_post_BAO_zre6p5	323
3.37	base_Alens_CamSpecHM_EE_lowE	324
3.38	base_Alens_CamSpecHM_EE_lowE_post_BAO	325
3.39	base_Alens_CamSpecHM_EE_lowE_post_zre6p5	326
3.40	base_Alens_CamSpecHM_EE_lowE_post_BAO_zre6p5	327
3.41	base_Alens_plikHM_TT_lowl_lensing	328
3.42	base_Alens_plikHM_TT_lowl_lensing_post_BAO	329
3.43	base_Alens_plikHM_TT_lowl_lensing_post_zre6p5	330
3.44	base_Alens_plikHM_TT_lowl_lensing_post_BAO_zre6p5	331
3.45	base_Alens_plikHM_TTTEEE_lowl_lensing	332
3.46	base_Alens_plikHM_TTTEEE_lowl_lensing_post_BAO	333
3.47	base_Alens_plikHM_TTTEEE_lowl_lensing_post_zre6p5	334
3.48	base_Alens_plikHM_TTTEEE_lowl_lensing_post_BAO_zre6p5	335
3.49	base_Alens_plikHM_TT_lowl_lowE_lensing	336
3.50	base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO	337
3.51	base_Alens_plikHM_TT_lowl_lowE_lensing_post_zre6p5	338
3.52	base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5	339
3.53	base_Alens_plikHM_TTTEEE_lowl_lowE_lensing	340
3.54	base_Alens_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO	341
3.55	base_Alens_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	342
3.56	base_Alens_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	343
3.57	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing	344
3.58	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO	345

3.59	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	346
3.60	base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	347
3.61	base_Alens_CleanedCamSpecHM_TT_lowl_lowE	348
3.62	base_Alens_plikHM_TT	349
3.63	base_Alens_plikHM_TT_post_zre6p5	350
3.64	base_Alens_plikHM_TT_lowl	351
3.65	base_Alens_plikHM_TT_lowl_post_zre6p5	352
3.66	base_Alens_plikHM_TT_lowE	353
3.67	base_Alens_plikHM_TTTEEE	354
3.68	base_Alens_plikHM_TTTEEE_post_zre6p5	355
3.69	base_Alens_plikHM_TTTEEE_lowl	356
3.70	base_Alens_plikHM_TTTEEE_lowl_post_zre6p5	357
3.71	base_Alens_plikHM_TTTEEE_lowE	358
3.72	base_Alens_CamSpecHM_TT	359
3.73	base_Alens_CamSpecHM_TT_post_BAO	360
3.74	base_Alens_CamSpecHM_TT_post_zre6p5	361
3.75	base_Alens_CamSpecHM_TT_post_BAO_zre6p5	362
3.76	base_Alens_CamSpecHM_TT_lowl	363
3.77	base_Alens_CamSpecHM_TT_lowl_post_BAO	364
3.78	base_Alens_CamSpecHM_TT_lowl_post_zre6p5	365
3.79	base_Alens_CamSpecHM_TT_lowl_post_BAO_zre6p5	366
3.80	base_Alens_CamSpecHM_TT_lowE	367
3.81	base_Alens_CamSpecHM_TTTEEE	368
3.82	base_Alens_CamSpecHM_TTTEEE_post_BAO	369
3.83	base_Alens_CamSpecHM_TTTEEE_post_zre6p5	370
3.84	base_Alens_CamSpecHM_TTTEEE_post_BAO_zre6p5	371
3.85	base_Alens_CamSpecHM_TTTEEE_lowl	372
3.86	base_Alens_CamSpecHM_TTTEEE_lowl_post_BAO	373
3.87	base_Alens_CamSpecHM_TTTEEE_lowl_post_zre6p5	374
3.88	base_Alens_CamSpecHM_TTTEEE_lowl_post_BAO_zre6p5	375
3.89	base_Alens_CamSpecHM_TTTEEE_lowE	376
4	Ahiphi	377
4.1	base_Ahiphi_plikHM_TT_lowl_lowE_lensing	377
4.2	base_Ahiphi_plikHM_TT_lowl_lowE_lensing_post_zre6p5	378
4.3	base_Ahiphi_plikHM_TTTEEE_lowl_lowE_lensing	379
4.4	base_Ahiphi_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	380
5	alpha1	381
5.1	base_alpha1_plikHM_TT_lowl_lowE	381
5.2	base_alpha1_plikHM_TT_lowl_lowE_post_BAO	382
5.3	base_alpha1_plikHM_TT_lowl_lowE_post_lensing	383
5.4	base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing	384
5.5	base_alpha1_plikHM_TT_lowl_lowE_post_zre6p5	385
5.6	base_alpha1_plikHM_TT_lowl_lowE_post_BAO_zre6p5	386
5.7	base_alpha1_plikHM_TT_lowl_lowE_post_lensing_zre6p5	387
5.8	base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	388
5.9	base_alpha1_plikHM_TTTEEE_lowl_lowE	389
5.10	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO	390
5.11	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_lensing	391
5.12	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	392
5.13	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_Riess18	393
5.14	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_zre6p5	394
5.15	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	395
5.16	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	396
5.17	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	397
5.18	base_alpha1_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	398
5.19	base_alpha1_CamSpecHM_TT_lowl_lowE	399
5.20	base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO	400
5.21	base_alpha1_CamSpecHM_TT_lowl_lowE_post_lensing	401
5.22	base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_lensing	402
5.23	base_alpha1_CamSpecHM_TT_lowl_lowE_post_zre6p5	403
5.24	base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5	404
5.25	base_alpha1_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5	405
5.26	base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	406

6	mnu	407
6.1	base_mnu_plikHM_TT_lowl_lowE	407
6.2	base_mnu_plikHM_TT_lowl_lowE_post_zre6p5	408
6.3	base_mnu_plikHM_TTTEEE_lowl_lowE	409
6.4	base_mnu_plikHM_TTTEEE_lowl_lowE_post_Riess18	410
6.5	base_mnu_plikHM_TTTEEE_lowl_lowE_post_zre6p5	411
6.6	base_mnu_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	412
6.7	base_mnu_CamSpecHM_TT_lowl_lowE	413
6.8	base_mnu_CamSpecHM_TT_lowl_lowE_post_zre6p5	414
6.9	base_mnu_CamSpecHM_TTTEEE_lowl_lowE	415
6.10	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18	416
6.11	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	417
6.12	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	418
6.13	base_mnu_plikHM_TE_lowE	419
6.14	base_mnu_plikHM_TE_lowE_post_zre6p5	420
6.15	base_mnu_plikHM_EE_lowE	421
6.16	base_mnu_plikHM_EE_lowE_post_zre6p5	422
6.17	base_mnu_plikHM_TE_lowE_BAO	423
6.18	base_mnu_plikHM_TE_lowE_BAO_post_lensing	424
6.19	base_mnu_plikHM_TE_lowE_BAO_post_zre6p5	425
6.20	base_mnu_plikHM_TE_lowE_BAO_post_lensing_zre6p5	426
6.21	base_mnu_plikHM_EE_lowE_BAO	427
6.22	base_mnu_plikHM_EE_lowE_BAO_post_lensing	428
6.23	base_mnu_plikHM_EE_lowE_BAO_post_zre6p5	429
6.24	base_mnu_plikHM_EE_lowE_BAO_post_lensing_zre6p5	430
6.25	base_mnu_plikHM_TT_lowl_lensing	431
6.26	base_mnu_plikHM_TT_lowl_lensing_post_BAO	432
6.27	base_mnu_plikHM_TT_lowl_lensing_post_zre6p5	433
6.28	base_mnu_plikHM_TT_lowl_lensing_post_BAO_zre6p5	434
6.29	base_mnu_plikHM_TTTEEE_lowl_lensing	435
6.30	base_mnu_plikHM_TTTEEE_lowl_lensing_post_BAO	436
6.31	base_mnu_plikHM_TTTEEE_lowl_lensing_post_zre6p5	437
6.32	base_mnu_plikHM_TTTEEE_lowl_lensing_post_BAO_zre6p5	438
6.33	base_mnu_plikHM_TT_lowl_lowE_lensing	439
6.34	base_mnu_plikHM_TT_lowl_lowE_lensing_post_zre6p5	440
6.35	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing	441
6.36	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	442
6.37	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing	443
6.38	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	444
6.39	base_mnu_plikHM_TT_lowl_lowE_BAO	445
6.40	base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18	446
6.41	base_mnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5	447
6.42	base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5	448
6.43	base_mnu_plikHM_TTTEEE_lowl_lowE_BAO	449
6.44	base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	450
6.45	base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	451
6.46	base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	452
6.47	base_mnu_CamSpecHM_TT_lowl_lowE_BAO	453
6.48	base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18	454
6.49	base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_zre6p5	455
6.50	base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5	456
6.51	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO	457
6.52	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	458
6.53	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	459
6.54	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	460
6.55	base_mnu_plikHM_TT_lowl_lowE_lensing_BAO	461
6.56	base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18	462
6.57	base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5	463
6.58	base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	464
6.59	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO	465
6.60	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	466
6.61	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5	467
6.62	base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	468
6.63	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO	469
6.64	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	470
6.65	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5	471
6.66	base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	472
6.67	base_mnu_CleanedCamSpecHM_TT_lowl_lowE	473

6.68	base_mnu_lensing_lenspriors	474
6.69	base_mnu_lensing_lenspriors_post_Pantheon18	475
6.70	base_mnu_lensing_lenspriors_post_agr2	476
6.71	base_mnu_lensing_lenspriors_post_conslmin40	477
6.72	base_mnu_lensing_lenspriors_post_agrlmax425	478
6.73	base_mnu_lensing_lenspriors_post_ptt	479
6.74	base_mnu_lensing_lenspriors_post_bfcl	480
6.75	base_mnu_lensing_lenspriors_post_agr2bfcl	481
6.76	base_mnu_lensing_lenspriors_post_linear	482
6.77	base_mnu_lensing_lenspriors_post_acc	483
6.78	base_mnu_lensing_lenspriors_post_agr2acc	484
6.79	base_mnu_lensing_lenspriors_post_takahashi	485
6.80	base_mnu_lensing_lenspriors_post_agr2takahashi	486
6.81	base_mnu_lensing_lenspriors_post_Apr6	487
6.82	base_mnu_lensing_lenspriors_theta	488
6.83	base_mnu_lensing_lenspriors_theta_post_Pantheon18	489
6.84	base_mnu_lensing_lenspriors_theta_post_agr2	490
6.85	base_mnu_lensing_lenspriors_theta_post_conslmin40	491
6.86	base_mnu_lensing_lenspriors_theta_post_agrlmax425	492
6.87	base_mnu_lensing_lenspriors_theta_post_ptt	493
6.88	base_mnu_lensing_lenspriors_theta_post_bfcl	494
6.89	base_mnu_lensing_lenspriors_theta_post_agr2bfcl	495
6.90	base_mnu_lensing_lenspriors_theta_post_linear	496
6.91	base_mnu_lensing_lenspriors_theta_post_acc	497
6.92	base_mnu_lensing_lenspriors_theta_post_agr2acc	498
6.93	base_mnu_lensing_lenspriors_theta_post_takahashi	499
6.94	base_mnu_lensing_lenspriors_theta_post_agr2takahashi	500
6.95	base_mnu_lensing_lenspriors_theta_post_Apr6	501
6.96	base_mnu_lensing_lenspriors_BAO	502
6.97	base_mnu_lensing_lenspriors_BAO_post_Pantheon18	503
6.98	base_mnu_lensing_lenspriors_BAO_post_agr2	504
6.99	base_mnu_lensing_lenspriors_BAO_post_conslmin40	505
6.100	base_mnu_lensing_lenspriors_BAO_post_agrlmax425	506
6.101	base_mnu_lensing_lenspriors_BAO_post_bfcl	507
6.102	base_mnu_lensing_lenspriors_BAO_post_agr2bfcl	508
6.103	base_mnu_lensing_lenspriors_BAO_post_linear	509
6.104	base_mnu_lensing_lenspriors_BAO_post_acc	510
6.105	base_mnu_lensing_lenspriors_BAO_post_agr2acc	511
6.106	base_mnu_lensing_lenspriors_BAO_post_takahashi	512
6.107	base_mnu_lensing_lenspriors_BAO_post_agr2takahashi	513
6.108	base_mnu_lensing_lenspriors_BAO_post_Apr6	514
6.109	base_mnu_lensing_lenspriors_BAO_theta	515
6.110	base_mnu_lensing_lenspriors_BAO_theta_post_Pantheon18	516
6.111	base_mnu_lensing_lenspriors_BAO_theta_post_agr2	517
6.112	base_mnu_lensing_lenspriors_BAO_theta_post_conslmin40	518
6.113	base_mnu_lensing_lenspriors_BAO_theta_post_agrlmax425	519
6.114	base_mnu_lensing_lenspriors_BAO_theta_post_ptt	520
6.115	base_mnu_lensing_lenspriors_BAO_theta_post_bfcl	521
6.116	base_mnu_lensing_lenspriors_BAO_theta_post_agr2bfcl	522
6.117	base_mnu_lensing_lenspriors_BAO_theta_post_linear	523
6.118	base_mnu_lensing_lenspriors_BAO_theta_post_acc	524
6.119	base_mnu_lensing_lenspriors_BAO_theta_post_agr2acc	525
6.120	base_mnu_lensing_lenspriors_BAO_theta_post_takahashi	526
6.121	base_mnu_lensing_lenspriors_BAO_theta_post_agr2takahashi	527
6.122	base_mnu_lensing_lenspriors_BAO_theta_post_Apr6	528
6.123	base_mnu_lensing_lenspriors_pttagr2	529
6.124	base_mnu_lensing_lenspriors_pttagr2_theta	530
6.125	base_mnu_lensing_lenspriors_pttagr2_BAO	531
6.126	base_mnu_lensing_lenspriors_pttagr2_BAO_theta	532
6.127	base_mnu_lensing_DESpriors	532
6.128	base_mnu_lensing_DESpriors_BAO	533
6.129	base_mnu_lensing_DESpriors_CookeDH	533
6.130	base_mnu_lensing_DESpriors_CookeDH_BAO	533
6.131	base_mnu_DESlens_lenspriors	534
6.132	base_mnu_DESlens_lenspriors	535
6.133	base_mnu_DESlens_lenspriors_lensing	536
6.134	base_mnu_DESlens_lenspriors_lensing	537
6.135	base_mnu_DESlens_lenspriors_BAO	538

6.136	base_mnu_DESlens_lenspriors_BAO	539
6.137	base_mnu_DES_lenspriors_lensing_BAO	540
6.138	base_mnu_DESlens_lenspriors_lensing_BAO	541
6.139	base_mnu_DES_DESpriors	542
6.140	base_mnu_DESlens_DESpriors	542
6.141	base_mnu_DESwt_DESpriors	542
6.142	base_mnu_DES_DESpriors_lensing	543
6.143	base_mnu_DESlens_DESpriors_lensing	543
6.144	base_mnu_DESwt_DESpriors_lensing	544
6.145	base_mnu_DES_DESpriors_BAO_CookeDH	544
6.146	base_mnu_DESlens_DESpriors_BAO_CookeDH	545
6.147	base_mnu_DESwt_DESpriors_BAO_CookeDH	545
6.148	base_mnu_DES_DESpriors_lensing_BAO_CookeDH	546
6.149	base_mnu_DESlens_DESpriors_lensing_BAO_CookeDH	546
6.150	base_mnu_DESwt_DESpriors_lensing_BAO_CookeDH	547
6.151	base_mnu_plikHM_TTTEEE_lowl_lowE_DES	548
6.152	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO	549
6.153	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_lensing	550
6.154	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing	551
6.155	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_zre6p5	552
6.156	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_zre6p5	553
6.157	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_lensing_zre6p5	554
6.158	base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing_zre6p5	555
6.159	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens	556
6.160	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO	557
6.161	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing	558
6.162	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing	559
6.163	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_zre6p5	560
6.164	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_zre6p5	561
6.165	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing_zre6p5	562
6.166	base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5	563
6.167	base_mnu_BAO_Cooke17	564
6.168	base_mnu_BAO_Cooke17_Pantheon18	564
6.169	base_mnu_BAO_Cooke17_Pantheon18_theta	565
6.170	base_mnu_BAO_Cooke17_theta	565
7	nnu	566
7.1	base_nnu_plikHM_TT_lowl_lowE	566
7.2	base_nnu_plikHM_TT_lowl_lowE_post_lensing	567
7.3	base_nnu_plikHM_TT_lowl_lowE_post_Cooke17_Aver15	568
7.4	base_nnu_plikHM_TT_lowl_lowE_post_zre6p5	569
7.5	base_nnu_plikHM_TT_lowl_lowE_post_lensing_zre6p5	570
7.6	base_nnu_plikHM_TT_lowl_lowE_post_Cooke17_Aver15_zre6p5	571
7.7	base_nnu_plikHM_TTTEEE_lowl_lowE	572
7.8	base_nnu_plikHM_TTTEEE_lowl_lowE_post_lensing	573
7.9	base_nnu_plikHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15	574
7.10	base_nnu_plikHM_TTTEEE_lowl_lowE_post_zre6p5	575
7.11	base_nnu_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	576
7.12	base_nnu_plikHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15_zre6p5	577
7.13	base_nnu_CamSpecHM_TT_lowl_lowE	578
7.14	base_nnu_CamSpecHM_TT_lowl_lowE_post_lensing	579
7.15	base_nnu_CamSpecHM_TT_lowl_lowE_post_Cooke17_Aver15	580
7.16	base_nnu_CamSpecHM_TT_lowl_lowE_post_zre6p5	581
7.17	base_nnu_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5	582
7.18	base_nnu_CamSpecHM_TT_lowl_lowE_post_Cooke17_Aver15_zre6p5	583
7.19	base_nnu_CamSpecHM_TTTEEE_lowl_lowE	584
7.20	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	585
7.21	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15	586
7.22	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	587
7.23	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	588
7.24	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15_zre6p5	589
7.25	base_nnu_plikHM_TE_lowE	590
7.26	base_nnu_plikHM_TE_lowE_post_zre6p5	591
7.27	base_nnu_plikHM_EE_lowE	592
7.28	base_nnu_plikHM_EE_lowE_post_zre6p5	593
7.29	base_nnu_plikHM_TE_lowE_BAO	594
7.30	base_nnu_plikHM_TE_lowE_BAO_post_lensing	595
7.31	base_nnu_plikHM_TE_lowE_BAO_post_zre6p5	596

7.32	base_nnu_plikHM_TE_lowE_BAO_post_lensing_zre6p5	597
7.33	base_nnu_plikHM_EE_lowE_BAO	598
7.34	base_nnu_plikHM_EE_lowE_BAO_post_lensing	599
7.35	base_nnu_plikHM_EE_lowE_BAO_post_zre6p5	600
7.36	base_nnu_plikHM_EE_lowE_BAO_post_lensing_zre6p5	601
7.37	base_nnu_plikHM_TT_lowl_lowE_BAO	602
7.38	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_JLA	603
7.39	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18	604
7.40	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing	605
7.41	base_nnu_plikHM_TT_lowl_lowE_BAO_post_Aver15	606
7.42	base_nnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15	607
7.43	base_nnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5	608
7.44	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_JLA_zre6p5	609
7.45	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	610
7.46	base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5	611
7.47	base_nnu_plikHM_TT_lowl_lowE_BAO_post_Aver15_zre6p5	612
7.48	base_nnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	613
7.49	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO	614
7.50	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA	615
7.51	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18	616
7.52	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing	617
7.53	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15	618
7.54	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	619
7.55	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	620
7.56	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA_zre6p5	621
7.57	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	622
7.58	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	623
7.59	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5	624
7.60	base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	625
7.61	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO	626
7.62	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA	627
7.63	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18	628
7.64	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing	629
7.65	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15	630
7.66	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	631
7.67	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	632
7.68	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA_zre6p5	633
7.69	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	634
7.70	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	635
7.71	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5	636
7.72	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	637
7.73	base_nnu_plikHM_TT_lowl_lowE_Riess18	638
7.74	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO	639
7.75	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_Pantheon18	640
7.76	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_lensing	641
7.77	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing	642
7.78	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18	643
7.79	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_zre6p5	644
7.80	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_zre6p5	645
7.81	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5	646
7.82	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_lensing_zre6p5	647
7.83	base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5	648
7.84	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18	649
7.85	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO	650
7.86	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18	651
7.87	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_lensing	652
7.88	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing	653
7.89	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18	654
7.90	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_zre6p5	655
7.91	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_zre6p5	656
7.92	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5	657
7.93	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_lensing_zre6p5	658
7.94	base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5	659
7.95	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18	660
7.96	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO	661
7.97	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18	662
7.98	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_lensing	663
7.99	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing	664

7.100	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18	665
7.101	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_zre6p5	666
7.102	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_zre6p5	667
7.103	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5	668
7.104	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_lensing_zre6p5	669
7.105	base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5	670
7.106	base_nnu_CleanedCamSpecHM_TT_lowl_lowE	671
7.107	base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15	672
7.108	base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_post_Pantheon18	673
7.109	base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta	674
7.110	base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta_post_Pantheon18	675
7.111	base_nnu_BAO_Cooke17_Aver15	676
7.112	base_nnu_BAO_Cooke17_Aver15_Pantheon18	676
7.113	base_nnu_BAO_Cooke17_Aver15_theta	677
7.114	base_nnu_BAO_Cooke17_Aver15_Pantheon18_theta	677
7.115	base_nnu_BAO_Cooke17Marc_Aver15	678
7.116	base_nnu_BAO_Cooke17Marc_Aver15_Pantheon18	678
7.117	base_nnu_BAO_Cooke17Marc_Aver15_theta	679
7.118	base_nnu_BAO_Cooke17Marc_Aver15_Pantheon18_theta	679
7.119	base_nnu_BAO_Cooke17Adel_Aver15	680
7.120	base_nnu_BAO_Cooke17Adel_Aver15_Pantheon18	680
7.121	base_nnu_BAO_Cooke17Adel_Aver15_theta	681
7.122	base_nnu_BAO_Cooke17Adel_Aver15_Pantheon18_theta	681
8	nnu+meffsterile	682
8.1	base_nnu_meffsterile_plikHM_TT_lowl_lowE	682
8.2	base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing	683
8.3	base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_zre6p5	684
8.4	base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing_zre6p5	685
8.5	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE	686
8.6	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_post_lensing	687
8.7	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_post_zre6p5	688
8.8	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	689
8.9	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE	690
8.10	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	691
8.11	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	692
8.12	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	693
8.13	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO	694
8.14	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18	695
8.15	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Aver15	696
8.16	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15	697
8.17	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_zre6p5	698
8.18	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5	699
8.19	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Aver15_zre6p5	700
8.20	base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	701
8.21	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO	702
8.22	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	703
8.23	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15	704
8.24	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	705
8.25	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	706
8.26	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	707
8.27	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5	708
8.28	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	709
8.29	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO	710
8.30	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	711
8.31	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15	712
8.32	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	713
8.33	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	714
8.34	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	715
8.35	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5	716
8.36	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5	717
8.37	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO	718
8.38	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18	719
8.39	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15	720
8.40	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	721
8.41	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5	722
8.42	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	723
8.43	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15_zre6p5	724

8.44	base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5	725
8.45	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO	726
8.46	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	727
8.47	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15	728
8.48	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	729
8.49	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5	730
8.50	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	731
8.51	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15_zre6p5	732
8.52	base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5	733
8.53	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO	734
8.54	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	735
8.55	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15	736
8.56	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	737
8.57	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5	738
8.58	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	739
8.59	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15_zre6p5	740
8.60	base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5	741
9	nnu+mnu	742
9.1	base_nnu_mnu_plikHM_TT_lowl_lowE	742
9.2	base_nnu_mnu_plikHM_TT_lowl_lowE_post_lensing	743
9.3	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE	744
9.4	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_post_lensing	745
9.5	base_nnu_mnu_CamSpecHM_TT_lowl_lowE	746
9.6	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_post_lensing	747
9.7	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE	748
9.8	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	749
9.9	base_nnu_mnu_plikHM_TT_lowl_lowE_BAO	750
9.10	base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18	751
9.11	base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Aver15	752
9.12	base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15	753
9.13	base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5	754
9.14	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO	755
9.15	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	756
9.16	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15	757
9.17	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	758
9.18	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	759
9.19	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO	760
9.20	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18	761
9.21	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Aver15	762
9.22	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15	763
9.23	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5	764
9.24	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO	765
9.25	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18	766
9.26	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15	767
9.27	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15	768
9.28	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5	769
9.29	base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO	770
9.30	base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18	771
9.31	base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15	772
9.32	base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	773
9.33	base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	774
9.34	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO	775
9.35	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	776
9.36	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15	777
9.37	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	778
9.38	base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	779
9.39	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO	780
9.40	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18	781
9.41	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Aver15	782
9.42	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	783
9.43	base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	784
9.44	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO	785
9.45	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18	786
9.46	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15	787
9.47	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15	788
9.48	base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5	789
9.49	base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15	790

9.50	base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_post_Pantheon18	791
9.51	base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta	792
9.52	base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta_post_Pantheon18	793
9.53	base_nnu_mnu_BAO_Cooke17_Aver15	794
9.54	base_nnu_mnu_BAO_Cooke17_Aver15_Pantheon18	794
9.55	base_nnu_mnu_BAO_Cooke17_Aver15_theta	795
9.56	base_nnu_mnu_BAO_Cooke17_Aver15_Pantheon18_theta	795
9.57	base_nnu_mnu_BAO_Cooke17Marc_Aver15	796
9.58	base_nnu_mnu_BAO_Cooke17Marc_Aver15_Pantheon18	796
9.59	base_nnu_mnu_BAO_Cooke17Marc_Aver15_theta	797
9.60	base_nnu_mnu_BAO_Cooke17Marc_Aver15_Pantheon18_theta	797
9.61	base_nnu_mnu_BAO_Cooke17Adel_Aver15	798
9.62	base_nnu_mnu_BAO_Cooke17Adel_Aver15_Pantheon18	798
9.63	base_nnu_mnu_BAO_Cooke17Adel_Aver15_theta	799
9.64	base_nnu_mnu_BAO_Cooke17Adel_Aver15_Pantheon18_theta	799
10	nnu+nrn	800
10.1	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE	800
10.2	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO	801
10.3	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing	802
10.4	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	803
10.5	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5	804
10.6	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	805
10.7	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	806
10.8	base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	807
11	nnu+yhe	808
11.1	base_nnu_yhe_plikHM_TT_lowl_lowE	808
11.2	base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO	809
11.3	base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing	810
11.4	base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing	811
11.5	base_nnu_yhe_plikHM_TT_lowl_lowE_post_zre6p5	812
11.6	base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5	813
11.7	base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5	814
11.8	base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	815
11.9	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE	816
11.10	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO	817
11.11	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing	818
11.12	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	819
11.13	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_zre6p5	820
11.14	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	821
11.15	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	822
11.16	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	823
11.17	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE	824
11.18	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO	825
11.19	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	826
11.20	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing	827
11.21	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	828
11.22	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	829
11.23	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	830
11.24	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	831
11.25	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15	832
11.26	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO	833
11.27	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing	834
11.28	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing	835
11.29	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_zre6p5	836
11.30	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_zre6p5	837
11.31	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing_zre6p5	838
11.32	base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	839
11.33	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15	840
11.34	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO	841
11.35	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_lensing	842
11.36	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing	843
11.37	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5	844
11.38	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5	845
11.39	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5	846
11.40	base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	847
11.41	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15	848
11.42	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO	849

11.43	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing	850
11.44	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing	851
11.45	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5	852
11.46	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5	853
11.47	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5	854
11.48	base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	855
12	nrn	856
12.1	base_nrn_plikHM_TT_lowl_lowE	856
12.2	base_nrn_plikHM_TT_lowl_lowE_post_BAO	857
12.3	base_nrn_plikHM_TT_lowl_lowE_post_lensing	858
12.4	base_nrn_plikHM_TT_lowl_lowE_post_BAO_lensing	859
12.5	base_nrn_plikHM_TT_lowl_lowE_post_Riess18	860
12.6	base_nrn_plikHM_TT_lowl_lowE_post_zre6p5	861
12.7	base_nrn_plikHM_TT_lowl_lowE_post_BAO_zre6p5	862
12.8	base_nrn_plikHM_TT_lowl_lowE_post_lensing_zre6p5	863
12.9	base_nrn_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	864
12.10	base_nrn_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	865
12.11	base_nrn_plikHM_TTTEEE_lowl_lowE	866
12.12	base_nrn_plikHM_TTTEEE_lowl_lowE_post_BAO	867
12.13	base_nrn_plikHM_TTTEEE_lowl_lowE_post_lensing	868
12.14	base_nrn_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	869
12.15	base_nrn_plikHM_TTTEEE_lowl_lowE_post_Riess18	870
12.16	base_nrn_plikHM_TTTEEE_lowl_lowE_post_zre6p5	871
12.17	base_nrn_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	872
12.18	base_nrn_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	873
12.19	base_nrn_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	874
12.20	base_nrn_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	875
12.21	base_nrn_CamSpecHM_TT_lowl_lowE	876
12.22	base_nrn_CamSpecHM_TT_lowl_lowE_post_BAO	877
12.23	base_nrn_CamSpecHM_TT_lowl_lowE_post_lensing	878
12.24	base_nrn_CamSpecHM_TT_lowl_lowE_post_BAO_lensing	879
12.25	base_nrn_CamSpecHM_TT_lowl_lowE_post_zre6p5	880
12.26	base_nrn_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5	881
12.27	base_nrn_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5	882
12.28	base_nrn_CamSpecHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	883
12.29	base_nrn_CamSpecHM_TTTEEE_lowl_lowE	884
12.30	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_BAO	885
12.31	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	886
12.32	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing	887
12.33	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18	888
12.34	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	889
12.35	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	890
12.36	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	891
12.37	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	892
12.38	base_nrn_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	893
12.39	base_nrn_plikHM_TE_lowE	894
12.40	base_nrn_plikHM_TE_lowE_post_BAO	895
12.41	base_nrn_plikHM_TE_lowE_post_zre6p5	896
12.42	base_nrn_plikHM_TE_lowE_post_BAO_zre6p5	897
12.43	base_nrn_plikHM_EE_lowE	898
12.44	base_nrn_plikHM_EE_lowE_post_BAO	899
12.45	base_nrn_plikHM_EE_lowE_post_zre6p5	900
12.46	base_nrn_plikHM_EE_lowE_post_BAO_zre6p5	901
12.47	base_nrn_CleanedCamSpecHM_TT_lowl_lowE	902
13	nrn+nnu+w+mnu	903
13.1	base_nrn_nnu_w_mnu_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_lensing	903
13.2	base_nrn_nnu_w_mnu_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_lensing_post_zre6p5	904
14	nrn+nrnrun	905
14.1	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE	905
14.2	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_BAO	906
14.3	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_lensing	907
14.4	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	908
14.5	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5	909
14.6	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	910
14.7	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	911
14.8	base_nrn_nrnrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	912

15	nrun+r	913
15.1	base_nrun_r_plikHM_TT_lowl_lowE	913
15.2	base_nrun_r_plikHM_TT_lowl_lowE_post_BAO	914
15.3	base_nrun_r_plikHM_TT_lowl_lowE_post_Riess18	915
15.4	base_nrun_r_plikHM_TT_lowl_lowE_post_zre6p5	916
15.5	base_nrun_r_plikHM_TT_lowl_lowE_post_BAO_zre6p5	917
15.6	base_nrun_r_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	918
15.7	base_nrun_r_plikHM_TTTEEE_lowl_lowE	919
15.8	base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_BAO	920
15.9	base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_Riess18	921
15.10	base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_zre6p5	922
15.11	base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	923
15.12	base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	924
15.13	base_nrun_r_CamSpecHM_TT_lowl_lowE	925
15.14	base_nrun_r_CamSpecHM_TT_lowl_lowE_post_BAO	926
15.15	base_nrun_r_CamSpecHM_TT_lowl_lowE_post_zre6p5	927
15.16	base_nrun_r_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5	928
15.17	base_nrun_r_plikHM_TT_lowl_lowE_lensing	929
15.18	base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO	930
15.19	base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5	931
15.20	base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5	932
15.21	base_nrun_r_plikHM_TTTEEE_lowl_lowE_lensing	933
15.22	base_nrun_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO	934
15.23	base_nrun_r_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	935
15.24	base_nrun_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	936
15.25	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing	937
15.26	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO	938
15.27	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	939
15.28	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	940
15.29	base_nrun_r_plikHM_TT_lowl_lowE_BK15	941
15.30	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO	942
15.31	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_lensing	943
15.32	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing	944
15.33	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_zre6p5	945
15.34	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_zre6p5	946
15.35	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_lensing_zre6p5	947
15.36	base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5	948
15.37	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15	949
15.38	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO	950
15.39	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_post_zre6p5	951
15.40	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5	952
15.41	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15	953
15.42	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO	954
15.43	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing	955
15.44	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing	956
15.45	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_zre6p5	957
15.46	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_zre6p5	958
15.47	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing_zre6p5	959
15.48	base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5	960
15.49	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15	961
15.50	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO	962
15.51	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing	963
15.52	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing	964
15.53	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_zre6p5	965
15.54	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5	966
15.55	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing_zre6p5	967
15.56	base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing_zre6p5	968
15.57	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing	969
15.58	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO	970
15.59	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_zre6p5	971
15.60	base_nrun_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO_zre6p5	972

16	omegak	973
16.1	base_omegak_plikHM.TT_lowl_lowE	973
16.2	base_omegak_plikHM.TT_lowl_lowE_post_zre6p5	974
16.3	base_omegak_plikHM.TTTEEE_lowl_lowE	975
16.4	base_omegak_plikHM.TTTEEE_lowl_lowE_post_zre6p5	976
16.5	base_omegak_CamSpecHM.TT_lowl_lowE	977
16.6	base_omegak_CamSpecHM.TT_lowl_lowE_post_zre6p5	978
16.7	base_omegak_CamSpecHM.TTTEEE_lowl_lowE	979
16.8	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_post_zre6p5	980
16.9	base_omegak_plikHM.TT_lowl_lowE_BAO	981
16.10	base_omegak_plikHM.TT_lowl_lowE_BAO_post_lensing	982
16.11	base_omegak_plikHM.TT_lowl_lowE_BAO_post_lensing_Pantheon18	983
16.12	base_omegak_plikHM.TT_lowl_lowE_BAO_post_zre6p5	984
16.13	base_omegak_plikHM.TT_lowl_lowE_BAO_post_lensing_zre6p5	985
16.14	base_omegak_plikHM.TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	986
16.15	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO	987
16.16	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_post_lensing	988
16.17	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18	989
16.18	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_post_zre6p5	990
16.19	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	991
16.20	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	992
16.21	base_omegak_CamSpecHM.TT_lowl_lowE_BAO	993
16.22	base_omegak_CamSpecHM.TT_lowl_lowE_BAO_post_lensing	994
16.23	base_omegak_CamSpecHM.TT_lowl_lowE_BAO_post_lensing_Pantheon18	995
16.24	base_omegak_CamSpecHM.TT_lowl_lowE_BAO_post_zre6p5	996
16.25	base_omegak_CamSpecHM.TT_lowl_lowE_BAO_post_lensing_zre6p5	997
16.26	base_omegak_CamSpecHM.TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	998
16.27	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO	999
16.28	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO_post_lensing	1000
16.29	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18	1001
16.30	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO_post_zre6p5	1002
16.31	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	1003
16.32	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5	1004
16.33	base_omegak_plikHM.TT_lowl_lowE_BAO_Riess18_JLA	1005
16.34	base_omegak_plikHM.TT_lowl_lowE_BAO_Riess18_JLA_post_lensing	1006
16.35	base_omegak_plikHM.TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1007
16.36	base_omegak_plikHM.TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1008
16.37	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_Riess18_JLA	1009
16.38	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing	1010
16.39	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1011
16.40	base_omegak_plikHM.TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1012
16.41	base_omegak_plikHM.TT_lowl_lowE_lensing	1013
16.42	base_omegak_plikHM.TT_lowl_lowE_lensing_post_zre6p5	1014
16.43	base_omegak_plikHM.TTTEEE_lowl_lowE_lensing	1015
16.44	base_omegak_plikHM.TTTEEE_lowl_lowE_lensing_post_zre6p5	1016
16.45	base_omegak_CamSpecHM.TT_lowl_lowE_lensing	1017
16.46	base_omegak_CamSpecHM.TT_lowl_lowE_lensing_post_zre6p5	1018
16.47	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_lensing	1019
16.48	base_omegak_CamSpecHM.TTTEEE_lowl_lowE_lensing_post_zre6p5	1020
16.49	base_omegak_CleanedCamSpecHM.TT_lowl_lowE	1021
17	r	1022
17.1	base_r_plikHM.TT_lowl_lowE	1022
17.2	base_r_plikHM.TT_lowl_lowE_post_BAO	1023
17.3	base_r_plikHM.TT_lowl_lowE_post_Riess18	1024
17.4	base_r_plikHM.TT_lowl_lowE_post_zre6p5	1025
17.5	base_r_plikHM.TT_lowl_lowE_post_BAO_zre6p5	1026
17.6	base_r_plikHM.TT_lowl_lowE_post_Riess18_zre6p5	1027
17.7	base_r_plikHM.TTTEEE_lowl_lowE	1028
17.8	base_r_plikHM.TTTEEE_lowl_lowE_post_BAO	1029
17.9	base_r_plikHM.TTTEEE_lowl_lowE_post_Riess18	1030
17.10	base_r_plikHM.TTTEEE_lowl_lowE_post_zre6p5	1031
17.11	base_r_plikHM.TTTEEE_lowl_lowE_post_BAO_zre6p5	1032
17.12	base_r_plikHM.TTTEEE_lowl_lowE_post_Riess18_zre6p5	1033
17.13	base_r_CamSpecHM.TT_lowl_lowE	1034
17.14	base_r_CamSpecHM.TT_lowl_lowE_post_BAO	1035
17.15	base_r_CamSpecHM.TT_lowl_lowE_post_zre6p5	1036
17.16	base_r_CamSpecHM.TT_lowl_lowE_post_BAO_zre6p5	1037

17.17	base_r_CamSpecHM_TTTEEE_lowl_lowE	1038
17.18	base_r_CamSpecHM_TTTEEE_lowl_lowE_post_BAO	1039
17.19	base_r_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	1040
17.20	base_r_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	1041
17.21	base_r_plikHM_TE_lowE	1042
17.22	base_r_plikHM_TE_lowE_post_BAO	1043
17.23	base_r_plikHM_TE_lowE_post_zre6p5	1044
17.24	base_r_plikHM_TE_lowE_post_BAO_zre6p5	1045
17.25	base_r_plikHM_EE_lowE	1046
17.26	base_r_plikHM_EE_lowE_post_BAO	1047
17.27	base_r_plikHM_EE_lowE_post_zre6p5	1048
17.28	base_r_plikHM_EE_lowE_post_BAO_zre6p5	1049
17.29	base_r_plikHM_TT_lowl_lowE_lensing	1050
17.30	base_r_plikHM_TT_lowl_lowE_lensing_post_BAO	1051
17.31	base_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5	1052
17.32	base_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5	1053
17.33	base_r_plikHM_TTTEEE_lowl_lowE_lensing	1054
17.34	base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO	1055
17.35	base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	1056
17.36	base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	1057
17.37	base_r_CamSpecHM_TTTEEE_lowl_lowE_lensing	1058
17.38	base_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO	1059
17.39	base_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5	1060
17.40	base_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5	1061
17.41	base_r_CleanedCamSpecHM_TT_lowl_lowE	1062
17.42	base_r_plikHM_TT_lowl_lowE_BK15	1063
17.43	base_r_plikHM_TT_lowl_lowE_BK15_post_BAO	1064
17.44	base_r_plikHM_TT_lowl_lowE_BK15_post_lensing	1065
17.45	base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing	1066
17.46	base_r_plikHM_TT_lowl_lowE_BK15_post_zre6p5	1067
17.47	base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_zre6p5	1068
17.48	base_r_plikHM_TT_lowl_lowE_BK15_post_lensing_zre6p5	1069
17.49	base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5	1070
17.50	base_r_plikHM_TTTEEE_lowl_lowE_BK15	1071
17.51	base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO	1072
17.52	base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_zre6p5	1073
17.53	base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5	1074
17.54	base_r_CamSpecHM_TT_lowl_lowE_BK15	1075
17.55	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO	1076
17.56	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing	1077
17.57	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing	1078
17.58	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_zre6p5	1079
17.59	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_zre6p5	1080
17.60	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing_zre6p5	1081
17.61	base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5	1082
17.62	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15	1083
17.63	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO	1084
17.64	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing	1085
17.65	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing	1086
17.66	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_zre6p5	1087
17.67	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5	1088
17.68	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing_zre6p5	1089
17.69	base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing_zre6p5	1090
17.70	base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing	1091
17.71	base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO	1092
17.72	base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_zre6p5	1093
17.73	base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO_zre6p5	1094
18	w	1095
18.1	base_w_plikHM_TT_lowl_lowE	1095
18.2	base_w_plikHM_TT_lowl_lowE_post_lensing	1096
18.3	base_w_plikHM_TT_lowl_lowE_post_Riess18	1097
18.4	base_w_plikHM_TT_lowl_lowE_post_zre6p5	1098
18.5	base_w_plikHM_TT_lowl_lowE_post_lensing_zre6p5	1099
18.6	base_w_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	1100
18.7	base_w_plikHM_TTTEEE_lowl_lowE	1101
18.8	base_w_plikHM_TTTEEE_lowl_lowE_post_lensing	1102
18.9	base_w_plikHM_TTTEEE_lowl_lowE_post_Riess18	1103

18.10	base_w_plikHM_TTTEEE_lowl_lowE_post_zre6p5	1104
18.11	base_w_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	1105
18.12	base_w_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	1106
18.13	base_w_CamSpecHM_TT_lowl_lowE	1107
18.14	base_w_CamSpecHM_TT_lowl_lowE_post_lensing	1108
18.15	base_w_CamSpecHM_TT_lowl_lowE_post_zre6p5	1109
18.16	base_w_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5	1110
18.17	base_w_CamSpecHM_TTTEEE_lowl_lowE	1111
18.18	base_w_CamSpecHM_TTTEEE_lowl_lowE_post_lensing	1112
18.19	base_w_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18	1113
18.20	base_w_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5	1114
18.21	base_w_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5	1115
18.22	base_w_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5	1116
18.23	base_w_plikHM_TT_lowl_lowE_BAO	1117
18.24	base_w_plikHM_TT_lowl_lowE_BAO_post_lensing	1118
18.25	base_w_plikHM_TT_lowl_lowE_BAO_post_zre6p5	1119
18.26	base_w_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5	1120
18.27	base_w_plikHM_TTTEEE_lowl_lowE_BAO	1121
18.28	base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing	1122
18.29	base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	1123
18.30	base_w_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	1124
18.31	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO	1125
18.32	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing	1126
18.33	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	1127
18.34	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	1128
18.35	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA	1129
18.36	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing	1130
18.37	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1131
18.38	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1132
18.39	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA	1133
18.40	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing	1134
18.41	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1135
18.42	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1136
18.43	base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18	1137
18.44	base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing	1138
18.45	base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5	1139
18.46	base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1140
18.47	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18	1141
18.48	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	1142
18.49	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5	1143
18.50	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1144
18.51	base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18	1145
18.52	base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing	1146
18.53	base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5	1147
18.54	base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1148
18.55	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18	1149
18.56	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	1150
18.57	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5	1151
18.58	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1152
18.59	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18	1153
18.60	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1154
18.61	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1155
18.62	base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1156
18.63	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18	1157
18.64	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1158
18.65	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1159
18.66	base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1160
18.67	base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18	1161
18.68	base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1162
18.69	base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1163
18.70	base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1164
18.71	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18	1165
18.72	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1166
18.73	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1167
18.74	base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1168
18.75	base_w_CleanedCamSpecHM_TT_lowl_lowE	1169

19	w+wa	1170
19.1	base_w_wa_plikHM_TT_lowl_lowE_BAO	1170
19.2	base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing	1171
19.3	base_w_wa_plikHM_TT_lowl_lowE_BAO_post_zre6p5	1172
19.4	base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5	1173
19.5	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO	1174
19.6	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing	1175
19.7	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5	1176
19.8	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5	1177
19.9	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA	1178
19.10	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing	1179
19.11	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1180
19.12	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1181
19.13	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA	1182
19.14	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing	1183
19.15	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5	1184
19.16	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5	1185
19.17	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18	1186
19.18	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing	1187
19.19	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5	1188
19.20	base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1189
19.21	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18	1190
19.22	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	1191
19.23	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5	1192
19.24	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1193
19.25	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18	1194
19.26	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing	1195
19.27	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5	1196
19.28	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1197
19.29	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18	1198
19.30	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing	1199
19.31	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5	1200
19.32	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5	1201
19.33	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18	1202
19.34	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1203
19.35	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1204
19.36	base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1205
19.37	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18	1206
19.38	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1207
19.39	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1208
19.40	base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1209
19.41	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18	1210
19.42	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1211
19.43	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1212
19.44	base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1213
19.45	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18	1214
19.46	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing	1215
19.47	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5	1216
19.48	base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5	1217
20	yhe	1218
20.1	base_yhe_plikHM_TT_lowl_lowE	1218
20.2	base_yhe_plikHM_TT_lowl_lowE_post_BAO	1219
20.3	base_yhe_plikHM_TT_lowl_lowE_post_lensing	1220
20.4	base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing	1221
20.5	base_yhe_plikHM_TT_lowl_lowE_post_Riess18	1222
20.6	base_yhe_plikHM_TT_lowl_lowE_post_zre6p5	1223
20.7	base_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5	1224
20.8	base_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5	1225
20.9	base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5	1226
20.10	base_yhe_plikHM_TT_lowl_lowE_post_Riess18_zre6p5	1227
20.11	base_yhe_plikHM_TTTEEE_lowl_lowE	1228
20.12	base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO	1229
20.13	base_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing	1230
20.14	base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing	1231
20.15	base_yhe_plikHM_TTTEEE_lowl_lowE_post_Riess18	1232
20.16	base_yhe_plikHM_TTTEEE_lowl_lowE_post_zre6p5	1233
20.17	base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5	1234

20.18	base_yhe.plikHM.TTTEEE_lowl_lowE_post_lensing_zre6p5	1235
20.19	base_yhe.plikHM.TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	1236
20.20	base_yhe.plikHM.TTTEEE_lowl_lowE_post_Riess18_zre6p5	1237
20.21	base_yhe.CamSpecHM.TT_lowl_lowE	1238
20.22	base_yhe.CamSpecHM.TT_lowl_lowE_post_BAO	1239
20.23	base_yhe.CamSpecHM.TT_lowl_lowE_post_lensing	1240
20.24	base_yhe.CamSpecHM.TT_lowl_lowE_post_BAO_lensing	1241
20.25	base_yhe.CamSpecHM.TT_lowl_lowE_post_zre6p5	1242
20.26	base_yhe.CamSpecHM.TT_lowl_lowE_post_BAO_zre6p5	1243
20.27	base_yhe.CamSpecHM.TT_lowl_lowE_post_lensing_zre6p5	1244
20.28	base_yhe.CamSpecHM.TT_lowl_lowE_post_BAO_lensing_zre6p5	1245
20.29	base_yhe.CamSpecHM.TTTEEE_lowl_lowE	1246
20.30	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_BAO	1247
20.31	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_lensing	1248
20.32	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_BAO_lensing	1249
20.33	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_Riess18	1250
20.34	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_zre6p5	1251
20.35	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_BAO_zre6p5	1252
20.36	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_lensing_zre6p5	1253
20.37	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5	1254
20.38	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_post_Riess18_zre6p5	1255
20.39	base_yhe.plikHM.TE_lowE	1256
20.40	base_yhe.plikHM.TE_lowE_post_BAO	1257
20.41	base_yhe.plikHM.TE_lowE_post_zre6p5	1258
20.42	base_yhe.plikHM.TE_lowE_post_BAO_zre6p5	1259
20.43	base_yhe.plikHM.EE_lowE	1260
20.44	base_yhe.plikHM.EE_lowE_post_BAO	1261
20.45	base_yhe.plikHM.EE_lowE_post_zre6p5	1262
20.46	base_yhe.plikHM.EE_lowE_post_BAO_zre6p5	1263
20.47	base_yhe.plikHM.TT_lowl_lowE_Aver15	1264
20.48	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_BAO	1265
20.49	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_lensing	1266
20.50	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_BAO_lensing	1267
20.51	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_zre6p5	1268
20.52	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_BAO_zre6p5	1269
20.53	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_lensing_zre6p5	1270
20.54	base_yhe.plikHM.TT_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	1271
20.55	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15	1272
20.56	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_BAO	1273
20.57	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_lensing	1274
20.58	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_BAO_lensing	1275
20.59	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_zre6p5	1276
20.60	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5	1277
20.61	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5	1278
20.62	base_yhe.plikHM.TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	1279
20.63	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15	1280
20.64	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_BAO	1281
20.65	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_lensing	1282
20.66	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_BAO_lensing	1283
20.67	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_zre6p5	1284
20.68	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5	1285
20.69	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5	1286
20.70	base_yhe.CamSpecHM.TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5	1287
20.71	base_yhe.CleanedCamSpecHM.TT_lowl_lowE	1288

2 Baseline model

2.1 base_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022126	0.02212 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6116	0.611 ± 0.012	$H(0.15)$	72.23	72.25 ± 0.78
$\Omega_c h^2$	0.12068	0.1206 ± 0.0021	$\sigma_8/h^{0.5}$	0.9938	0.993 ± 0.016	$D_M(0.15)$	647.8	647.7 ± 7.9
$100\theta_{MC}$	1.040748	1.04077 ± 0.00047	$r_{drag}h$	98.40	98.5 ± 1.6	$H(0.38)$	82.50	82.52 ± 0.56
τ	0.0523	0.0522 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4537	2.454 ± 0.038	$D_M(0.38)$	1542.6	1542 ± 16
$\ln(10^{10} A_s)$	3.0413	3.040 ± 0.016	z_{re}	7.54	7.50 ± 0.82	$H(0.51)$	89.310	89.32 ± 0.44
n_s	0.9635	0.9626 ± 0.0057	$10^9 A_s$	2.0933	2.092 ± 0.034	$D_M(0.51)$	1996.8	1997 ± 18
y_{cal}	1.00046	1.0004 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8853	1.884 ± 0.014	$H(0.61)$	94.998	95.01 ± 0.35
A_{217}^{CIB}	48.5	48 ± 7	D_{40}	1231.7	1234 ± 15	$D_M(0.61)$	2322.3	2322 ± 20
$\xi^{tSZ \times CIB}$	0.32	—	D_{220}	5710.4	5713 ± 42	$H(2.33)$	236.75	236.7 ± 1.3
A_{143}^{tSZ}	7.03	5.1 ± 2.0	D_{810}	2538.2	2536 ± 14	$D_M(2.33)$	5777.8	5778 ± 16
A_{100}^{PS}	254.9	263 ± 28	D_{1420}	815.5	814.4 ± 5.1	$f\sigma_8(0.15)$	0.4642	0.464 ± 0.012
A_{143}^{PS}	49.8	49 ± 8	D_{2000}	229.94	229.5 ± 1.8	$\sigma_8(0.15)$	0.7500	0.7492 ± 0.0075
$A_{143 \times 217}^{PS}$	47.3	44 ± 9	$n_{s,0.002}$	0.9635	0.9626 ± 0.0057	$f\sigma_8(0.38)$	0.4804	0.4798 ± 0.0095
A_{217}^{PS}	119.9	115 ± 10	Y_P	0.245295	$0.24529^{+0.00011}_{-0.000088}$	$\sigma_8(0.38)$	0.6638	0.6631 ± 0.0060
A^{kSZ}	0.00	< 4.84	Y_P^{BBN}	0.246621	$0.24661^{+0.00011}_{-0.000089}$	$f\sigma_8(0.51)$	0.4779	0.4773 ± 0.0082
A_{100}^{dustTT}	8.86	8.9 ± 1.8	$10^5 D/H$	2.6321	2.634 ± 0.042	$\sigma_8(0.51)$	0.6208	0.6202 ± 0.0055
A_{143}^{dustTT}	10.80	10.7 ± 1.8	Age/Gyr	13.8300	13.830 ± 0.037	$f\sigma_8(0.61)$	0.4722	0.4716 ± 0.0072
$A_{143 \times 217}^{dustTT}$	19.43	18.3 ± 3.3	z_*	1090.292	1090.30 ± 0.41	$\sigma_8(0.61)$	0.5904	0.5899 ± 0.0051
A_{217}^{dustTT}	94.8	93.3 ± 7.4	r_*	144.442	144.46 ± 0.48	$f\sigma_8(2.33)$	0.29733	0.2971 ± 0.0025
c_{100}	0.99965	0.99961 ± 0.00061	$100\theta_*$	1.040956	1.04097 ± 0.00046	$\sigma_8(2.33)$	0.30613	0.3059 ± 0.0027
c_{217}	0.99825	0.99826 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.8759	13.878 ± 0.044	f_{2000}^{143}	30.49	31.2 ± 3.0
H_0	66.86	66.88 ± 0.92	z_{drag}	1059.437	1059.39 ± 0.46	$f_{2000}^{143 \times 217}$	33.34	33.6 ± 2.0
Ω_Λ	0.6791	0.679 ± 0.013	r_{drag}	147.182	147.21 ± 0.48	f_{2000}^{217}	107.77	108.2 ± 1.9
Ω_m	0.3209	0.321 ± 0.013	k_D	0.14058	0.14054 ± 0.00052	χ_{small}^2	395.88	397.0 ± 1.7
$\Omega_m h^2$	0.14345	0.1434 ± 0.0020	$100\theta_D$	0.161051	0.16107 ± 0.00027	χ_{lowl}^2	23.60	23.9 ± 1.3
$\Omega_m h^3$	0.095909	0.09589 ± 0.00046	z_{eq}	3412.7	3411 ± 48	χ_{plik}^2	758.7	771.4 ± 5.5
σ_8	0.8126	0.8118 ± 0.0089	k_{eq}	0.010416	0.01041 ± 0.00014	χ_{prior}^2	1.35	7.3 ± 3.7
S_8	0.8405	0.840 ± 0.024	$100\theta_{eq}$	0.8106	0.8109 ± 0.0089	χ_{CMB}^2	1178.2	1192.3 ± 5.5
$\sigma_8 \Omega_m^{0.5}$	0.4604	0.460 ± 0.013	$100\theta_{s,eq}$	0.44817	0.4483 ± 0.0046			

Best-fit $\chi_{eff}^2 = 1179.58$; $\bar{\chi}_{eff}^2 = 1199.58$; $R - 1 = 0.00927$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2_29: 23.60 plik_rd12_HM_v22_TT: 758.75

2.2 base_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022225	0.02222 ± 0.00020	$\sigma_8/h^{0.5}$	0.9814	0.982 ± 0.012	$H(0.38)$	82.969	82.96 ± 0.35
$\Omega_c h^2$	0.11898	0.1190 ± 0.0012	$r_{\text{drag}} h$	99.76	99.76 ± 0.94	$D_M(0.38)$	1529.5	1529.7 ± 9.4
$100\theta_{\text{MC}}$	1.041017	1.04098 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.4251	2.429 ± 0.028	$H(0.51)$	89.668	89.66 ± 0.29
τ	0.0532	$0.0539^{+0.0075}_{-0.0085}$	z_{re}	7.59	7.64 ± 0.83	$D_M(0.51)$	1981.5	1982 ± 11
$\ln(10^{10} A_s)$	3.0390	3.040 ± 0.017	$10^9 A_s$	2.0885	$2.091^{+0.033}_{-0.037}$	$H(0.61)$	95.272	95.26 ± 0.25
n_s	0.96734	0.9664 ± 0.0043	$10^9 A_s e^{-2\tau}$	1.8777	1.877 ± 0.012	$D_M(0.61)$	2305.9	2306 ± 12
y_{cal}	1.00044	1.0005 ± 0.0025	D_{40}	1223.2	1226 ± 13	$H(2.33)$	235.75	235.73 ± 0.79
A_{217}^{CIB}	49.2	48 ± 7	D_{220}	5716.9	5721 ± 41	$D_M(2.33)$	5766.2	5767 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	0.26	—	D_{810}	2536.8	2536 ± 14	$f\sigma_8(0.15)$	0.4542	0.4543 ± 0.0077
A_{143}^{tSZ}	7.06	$5.1^{+2.2}_{-2.0}$	D_{1420}	816.26	815.4 ± 5.0	$\sigma_8(0.15)$	0.7459	0.7461 ± 0.0070
A_{100}^{PS}	254.6	264 ± 29	D_{2000}	230.24	229.9 ± 1.8	$f\sigma_8(0.38)$	0.4727	0.4729 ± 0.0065
A_{143}^{PS}	48.1	48 ± 8	$n_{s,0.002}$	0.96734	0.9664 ± 0.0043	$\sigma_8(0.38)$	0.6613	0.6615 ± 0.0060
$A_{143 \times 217}^{\text{PS}}$	44.9	43 ± 9	Y_{P}	0.245336	$0.245329^{+0.000090}_{-0.000075}$	$f\sigma_8(0.51)$	0.4715	0.4716 ± 0.0058
A_{217}^{PS}	118.4	114 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246663	$0.246655^{+0.000090}_{-0.000075}$	$\sigma_8(0.51)$	0.6190	$0.6191^{+0.0051}_{-0.0057}$
A^{kSZ}	0.01	< 4.84	$10^5 \text{D}/\text{H}$	2.6131	2.615 ± 0.038	$f\sigma_8(0.61)$	0.4666	0.4667 ± 0.0054
A_{100}^{dustTT}	8.85	9.0 ± 1.8	Age/Gyr	13.8050	13.807 ± 0.028	$\sigma_8(0.61)$	0.5890	$0.5891^{+0.0049}_{-0.0054}$
A_{143}^{dustTT}	10.85	10.8 ± 1.8	z_*	1090.014	1090.03 ± 0.30	$f\sigma_8(2.33)$	0.29703	$0.2971^{+0.0024}_{-0.0027}$
$A_{143 \times 217}^{\text{dustTT}}$	19.36	18.3 ± 3.4	r_*	144.806	144.82 ± 0.32	$\sigma_8(2.33)$	0.30628	$0.3063^{+0.0025}_{-0.0028}$
A_{217}^{dustTT}	94.4	93.3 ± 7.5	$100\theta_*$	1.041213	1.04118 ± 0.00041	f_{2000}^{143}	30.25	30.9 ± 2.9
c_{100}	0.99963	0.99961 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.9074	13.909 ± 0.031	$f_{2000}^{143 \times 217}$	33.11	33.3 ± 2.0
c_{217}	0.99826	0.99827 ± 0.00062	z_{drag}	1059.513	1059.50 ± 0.45	f_{2000}^{217}	107.61	107.9 ± 1.9
H_0	67.62	67.61 ± 0.55	r_{drag}	147.524	147.54 ± 0.35	χ_{small}^2	395.89	397.1 ± 1.9
Ω_Λ	0.6898	0.6897 ± 0.0073	k_{D}	0.140301	0.14027 ± 0.00045	χ_{lowl}^2	22.83	23.09 ± 0.93
Ω_{m}	0.3102	0.3103 ± 0.0073	$100\theta_{\text{D}}$	0.161006	0.16102 ± 0.00026	χ_{plik}^2	760.1	772.2 ± 5.5
$\Omega_{\text{m}} h^2$	0.14185	0.1418 ± 0.0012	z_{eq}	3374.4	3374 ± 29	$\chi_{6\text{DF}}^2$	0.0217	0.059 ± 0.077
$\Omega_{\text{m}} h^3$	0.095926	0.09589 ± 0.00046	k_{eq}	0.010299	0.010297 ± 0.000087	χ_{MGS}^2	1.28	1.35 ± 0.52
σ_8	0.8071	0.8073 ± 0.0078	$100\theta_{\text{eq}}$	0.8180	0.8181 ± 0.0053	χ_{DR12BAO}^2	4.18	4.8 ± 1.6
S_8	0.8207	0.821 ± 0.015	$100\theta_{s,\text{eq}}$	0.45193	0.4520 ± 0.0027	χ_{prior}^2	1.44	7.4 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4495	0.4497 ± 0.0081	$H(0.15)$	72.887	72.88 ± 0.47	χ_{BAO}^2	5.49	6.2 ± 1.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6023	0.6025 ± 0.0080	$D_M(0.15)$	641.18	641.3 ± 4.7	χ_{CMB}^2	1178.8	1192.4 ± 5.5

Best-fit $\chi_{\text{eff}}^2 = 1185.74$; $\bar{\chi}_{\text{eff}}^2 = 1206.02$; $R - 1 = 0.01940$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.18 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.89 commander_dx12_v3.2.29: 22.83 plik_rd12_HM_v22.TT: 760.10

2.3 base_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022379	0.02237 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.5933	0.593 ± 0.011	$H(0.15)$	73.62	73.65 ± 0.73
$\Omega_c h^2$	0.11720	0.1171 ± 0.0019	$\sigma_8/h^{0.5}$	0.9695	0.969 ± 0.016	$D_M(0.15)$	634.0	633.8 ± 7.1
$100\theta_{MC}$	1.041273	1.04127 ± 0.00047	$r_{drag}h$	101.22	101.3 ± 1.5	$H(0.38)$	83.50	83.52 ± 0.54
τ	0.0554	0.0562 ± 0.0083	$\langle d^2 \rangle^{1/2}$	2.3979	2.400 ± 0.037	$D_M(0.38)$	1515.0	1515 ± 14
$\ln(10^{10} A_s)$	3.0399	3.041 ± 0.018	z_{re}	7.74	7.80 ± 0.82	$H(0.51)$	90.089	90.10 ± 0.43
n_s	0.9719	0.9710 ± 0.0053	$10^9 A_s$	2.0903	2.093 ± 0.037	$D_M(0.51)$	1964.6	1964 ± 17
y_{cal}	1.00067	1.0006 ± 0.0026	$10^9 A_s e^{-2\tau}$	1.8711	1.870 ± 0.013	$H(0.61)$	95.607	95.62 ± 0.35
A_{217}^{CIB}	48.4	48 ± 7	D_{40}	1214.7	1217 ± 15	$D_M(0.61)$	2287.7	2287 ± 18
$\xi^{tSZ \times CIB}$	0.35	—	D_{220}	5729.5	5732 ± 42	$H(2.33)$	234.75	234.7 ± 1.2
A_{143}^{tSZ}	7.07	$5.2^{+2.3}_{-2.0}$	D_{810}	2537.4	2535 ± 14	$D_M(2.33)$	5751.9	5752 ± 16
A_{100}^{PS}	252.8	262 ± 28	D_{1420}	818.14	816.9 ± 4.9	$f\sigma_8(0.15)$	0.4442	0.444 ± 0.011
A_{143}^{PS}	48.0	47^{+9}_{-8}	D_{2000}	231.01	230.6 ± 1.7	$\sigma_8(0.15)$	0.7426	0.7424 ± 0.0080
$A_{143 \times 217}^{PS}$	46.4	43 ± 10	$n_{s,0.002}$	0.9719	0.9710 ± 0.0053	$f\sigma_8(0.38)$	0.4652	$0.4648^{+0.0097}_{-0.0088}$
A_{217}^{PS}	118.6	114 ± 10	Y_P	0.245399	0.245393 ± 0.000086	$\sigma_8(0.38)$	0.6596	0.6595 ± 0.0065
A^{kSZ}	0.01	< 4.76	Y_P^{BBN}	0.246725	0.246720 ± 0.000086	$f\sigma_8(0.51)$	0.4652	$0.4649^{+0.0085}_{-0.0076}$
A_{100}^{dustTT}	8.96	9.1 ± 1.8	$10^5 D/H$	2.5839	2.586 ± 0.040	$\sigma_8(0.51)$	0.6178	0.6177 ± 0.0059
A_{143}^{dustTT}	10.84	10.7 ± 1.8	Age/Gyr	13.7739	13.774 ± 0.035	$f\sigma_8(0.61)$	0.4613	$0.4610^{+0.0076}_{-0.0069}$
$A_{143 \times 217}^{dustTT}$	19.43	18.1 ± 3.2	z_*	1089.662	1089.67 ± 0.37	$\sigma_8(0.61)$	0.5882	0.5881 ± 0.0055
A_{217}^{dustTT}	94.7	93.1 ± 7.3	r_*	145.154	145.18 ± 0.45	$f\sigma_8(2.33)$	0.29710	0.2971 ± 0.0027
c_{100}	0.99967	0.99962 ± 0.00063	$100\theta_*$	1.041458	1.04146 ± 0.00046	$\sigma_8(2.33)$	0.30686	0.3069 ± 0.0028
c_{217}	0.99826	0.99826 ± 0.00059	$D_M(z_*)/\text{Gpc}$	13.9375	13.940 ± 0.042	f_{2000}^{143}	29.50	30.2 ± 2.9
H_0	68.47	68.50 ± 0.85	z_{drag}	1059.742	1059.73 ± 0.46	$f_{2000}^{143 \times 217}$	32.53	32.8 ± 2.0
Ω_Λ	0.7009	0.701 ± 0.011	r_{drag}	147.829	147.86 ± 0.47	f_{2000}^{217}	107.06	107.4 ± 1.9
Ω_m	0.2991	0.299 ± 0.011	k_D	0.14010	0.14006 ± 0.00053	χ_{small}^2	396.07	397.3 ± 2.1
$\Omega_m h^2$	0.14022	0.1401 ± 0.0018	$100\theta_D$	0.160892	0.16091 ± 0.00026	χ_{lowl}^2	22.09	22.35 ± 0.98
$\Omega_m h^3$	0.096015	0.09599 ± 0.00047	z_{eq}	3335.4	3333 ± 43	χ_{plik}^2	763.0	775.9 ± 6.9
σ_8	0.8023	0.8020 ± 0.0094	k_{eq}	0.010180	0.01017 ± 0.00013	$\chi_{H073p45}^2$	8.99	9.1 ± 3.1
S_8	0.8010	0.800 ± 0.022	$100\theta_{eq}$	0.8257	0.8262 ± 0.0084	χ_{prior}^2	1.41	7.4 ± 3.8
$\sigma_8 \Omega_m^{0.5}$	0.4387	0.438 ± 0.012	$100\theta_{s,eq}$	0.45587	0.4561 ± 0.0043	χ_{CMB}^2	1181.2	1195.6 ± 6.5

Best-fit $\chi_{eff}^2 = 1191.57$; $\bar{\chi}_{eff}^2 = 1212.08$; $R - 1 = 0.09494$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 396.07 commander_dx12_v3.2_29: 22.09 plik_rd12_HM_v22_TT: 763.02 Hubble - H073p45: 8.98

2.4 base_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02212 ± 0.00022	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.612 ± 0.012	$H(0.15)$	72.28 ± 0.78
$\Omega_{\text{c}}h^2$	0.1206 ± 0.0021	$\sigma_8/h^{0.5}$	0.994 ± 0.016	$D_{\text{M}}(0.15)$	647.4 ± 7.9
$100\theta_{\text{MC}}$	1.04077 ± 0.00047	$r_{\text{drag}}h$	98.5 ± 1.6	$H(0.38)$	82.54 ± 0.56
τ	$0.0538^{+0.0047}_{-0.0084}$	$\langle d^2 \rangle^{1/2}$	2.457 ± 0.037	$D_{\text{M}}(0.38)$	1542 ± 16
$\ln(10^{10}A_{\text{s}})$	$3.044^{+0.012}_{-0.016}$	z_{re}	$7.68^{+0.53}_{-0.84}$	$H(0.51)$	89.34 ± 0.44
n_{s}	0.9629 ± 0.0057	$10^9 A_{\text{s}}$	$2.098^{+0.025}_{-0.034}$	$D_{\text{M}}(0.51)$	1996 ± 18
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.884 ± 0.014	$H(0.61)$	95.02 ± 0.35
A_{217}^{CIB}	48 ± 7	D_{40}	1234 ± 15	$D_{\text{M}}(0.61)$	2321 ± 20
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5713 ± 42	$H(2.33)$	236.7 ± 1.3
A_{143}^{tSZ}	$5.1^{+2.2}_{-2.0}$	D_{810}	2536 ± 14	$D_{\text{M}}(2.33)$	5777 ± 16
A_{100}^{PS}	263 ± 28	D_{1420}	814.4 ± 5.1	$f\sigma_8(0.15)$	0.464 ± 0.012
A_{143}^{PS}	49 ± 8	D_{2000}	229.6 ± 1.8	$\sigma_8(0.15)$	0.7502 ± 0.0070
$A_{143 \times 217}^{\text{PS}}$	44 ± 9	$n_{\text{s},0.002}$	0.9629 ± 0.0057	$f\sigma_8(0.38)$	0.4803 ± 0.0095
A_{217}^{PS}	115 ± 10	Y_{P}	$0.24529^{+0.00010}_{-0.000088}$	$\sigma_8(0.38)$	$0.6641^{+0.0051}_{-0.0059}$
A^{kSZ}	< 4.79	$Y_{\text{P}}^{\text{BBN}}$	$0.24661^{+0.00011}_{-0.000088}$	$f\sigma_8(0.51)$	0.4778 ± 0.0081
A_{100}^{dustTT}	8.9 ± 1.8	10^5D/H	2.633 ± 0.042	$\sigma_8(0.51)$	$0.6211^{+0.0044}_{-0.0054}$
A_{143}^{dustTT}	10.7 ± 1.8	Age/Gyr	13.829 ± 0.037	$f\sigma_8(0.61)$	0.4721 ± 0.0071
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	z_*	1090.29 ± 0.41	$\sigma_8(0.61)$	$0.5907^{+0.0040}_{-0.0050}$
A_{217}^{dustTT}	93.3 ± 7.4	r_*	144.48 ± 0.48	$f\sigma_8(2.33)$	$0.2975^{+0.0018}_{-0.0025}$
c_{100}	0.99961 ± 0.00062	$100\theta_*$	1.04098 ± 0.00046	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0027}$
c_{217}	0.99826 ± 0.00063	$D_{\text{M}}(z_*)/\text{Gpc}$	13.879 ± 0.044	f_{2000}^{143}	31.1 ± 2.9
H_0	66.91 ± 0.92	z_{drag}	1059.40 ± 0.46	$f_{2000}^{143 \times 217}$	33.5 ± 2.0
Ω_{Λ}	0.680 ± 0.013	r_{drag}	147.22 ± 0.48	f_{2000}^{217}	108.1 ± 1.9
Ω_{m}	0.320 ± 0.013	k_{D}	0.14054 ± 0.00052	χ_{simall}^2	396.9 ± 1.7
$\Omega_{\text{m}}h^2$	0.1433 ± 0.0020	$100\theta_{\text{D}}$	0.16107 ± 0.00027	χ_{lowl}^2	23.9 ± 1.3
$\Omega_{\text{m}}h^3$	0.09589 ± 0.00046	z_{eq}	3410 ± 47	χ_{plik}^2	771.3 ± 5.4
σ_8	0.8128 ± 0.0085	k_{eq}	0.01041 ± 0.00014	χ_{prior}^2	7.3 ± 3.7
S_8	0.840 ± 0.024	$100\theta_{\text{eq}}$	0.8113 ± 0.0088	χ_{CMB}^2	1192.0 ± 5.4
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.460 ± 0.013	$100\theta_{\text{s,eq}}$	0.4485 ± 0.0046		

$\bar{\chi}_{\text{eff}}^2 = 1199.32$; $R - 1 = 0.00921$

2.5 base_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02222 ± 0.00020	$\sigma_8/h^{0.5}$	0.983 ± 0.011	$H(0.38)$	82.97 ± 0.35
$\Omega_c h^2$	0.1189 ± 0.0012	$r_{\text{drag}} h$	99.78 ± 0.94	$D_M(0.38)$	1529.5 ± 9.4
$100\theta_{\text{MC}}$	1.04099 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.431 ± 0.027	$H(0.51)$	89.66 ± 0.29
τ	$0.0552^{+0.0053}_{-0.0087}$	z_{re}	$7.77^{+0.58}_{-0.89}$	$D_M(0.51)$	1982 ± 11
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.017}$	$10^9 A_s$	$2.097^{+0.026}_{-0.037}$	$H(0.61)$	95.27 ± 0.25
n_s	0.9665 ± 0.0043	$10^9 A_s e^{-2\tau}$	1.877 ± 0.012	$D_M(0.61)$	2306 ± 12
y_{cal}	1.0005 ± 0.0025	D_{40}	1226 ± 13	$H(2.33)$	235.72 ± 0.79
A_{217}^{CIB}	48 ± 7	D_{220}	5721 ± 41	$D_M(2.33)$	5767 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2536 ± 14	$f\sigma_8(0.15)$	0.4548 ± 0.0076
A_{143}^{tSZ}	$5.1^{+2.2}_{-2.0}$	D_{1420}	815.4 ± 5.0	$\sigma_8(0.15)$	$0.7469^{+0.0057}_{-0.0070}$
A_{100}^{PS}	263 ± 29	D_{2000}	230.0 ± 1.8	$f\sigma_8(0.38)$	0.4733 ± 0.0063
A_{143}^{PS}	48 ± 8	$n_{s,0.002}$	0.9665 ± 0.0043	$\sigma_8(0.38)$	$0.6623^{+0.0047}_{-0.0061}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	Y_{P}	$0.245331^{+0.000090}_{-0.000075}$	$f\sigma_8(0.51)$	0.4721 ± 0.0056
A_{217}^{PS}	114 ± 10	$Y_{\text{P}}^{\text{BBN}}$	$0.246657^{+0.000091}_{-0.000075}$	$\sigma_8(0.51)$	$0.6198^{+0.0043}_{-0.0056}$
A^{kSZ}	< 4.77	$10^5 \text{D}/\text{H}$	2.615 ± 0.038	$f\sigma_8(0.61)$	0.4673 ± 0.0052
A_{100}^{dustTT}	8.9 ± 1.8	Age/Gyr	13.806 ± 0.028	$\sigma_8(0.61)$	$0.5898^{+0.0040}_{-0.0053}$
A_{143}^{dustTT}	10.8 ± 1.8	z_*	1090.02 ± 0.30	$f\sigma_8(2.33)$	$0.2974^{+0.0020}_{-0.0027}$
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	r_*	144.82 ± 0.32	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0028}$
A_{217}^{dustTT}	93.3 ± 7.5	$100\theta_*$	1.04119 ± 0.00041	f_{2000}^{143}	30.8 ± 2.9
c_{100}	0.99961 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.031	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
c_{217}	0.99827 ± 0.00062	z_{drag}	1059.51 ± 0.45	f_{2000}^{217}	107.9 ± 1.9
H_0	67.63 ± 0.55	r_{drag}	147.54 ± 0.35	χ_{simall}^2	397.1 ± 2.0
Ω_Λ	0.6898 ± 0.0073	k_{D}	0.14028 ± 0.00045	χ_{lowl}^2	23.11 ± 0.93
Ω_{m}	0.3102 ± 0.0073	$100\theta_{\text{D}}$	0.16101 ± 0.00026	χ_{plik}^2	772.0 ± 5.4
$\Omega_{\text{m}} h^2$	0.1418 ± 0.0012	z_{eq}	3373 ± 29	$\chi_{6\text{DF}}^2$	0.058 ± 0.075
$\Omega_{\text{m}} h^3$	0.09589 ± 0.00046	k_{eq}	0.010296 ± 0.000087	χ_{MGS}^2	1.36 ± 0.53
σ_8	$0.8082^{+0.0066}_{-0.0079}$	$100\theta_{\text{eq}}$	0.8182 ± 0.0053	χ_{DR12BAO}^2	4.8 ± 1.6
S_8	0.822 ± 0.015	$100\theta_{\text{s,eq}}$	0.4520 ± 0.0027	χ_{prior}^2	7.4 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4501 ± 0.0081	$H(0.15)$	72.89 ± 0.47	χ_{BAO}^2	6.2 ± 1.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6031 ± 0.0078	$D_M(0.15)$	641.2 ± 4.7	χ_{CMB}^2	1192.2 ± 5.5
$\bar{\chi}_{\text{eff}}^2 = 1205.76; R - 1 = 0.02069$					

2.6 base_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00021	$\sigma_8 \Omega_m^{0.25}$	0.594 ± 0.011	$H(0.15)$	73.64 ± 0.72
$\Omega_c h^2$	0.1171 ± 0.0019	$\sigma_8 / h^{0.5}$	0.970 ± 0.015	$D_M(0.15)$	633.8 ± 6.9
$100\theta_{MC}$	1.04127 ± 0.00046	$r_{drag} h$	101.3 ± 1.5	$H(0.38)$	83.52 ± 0.53
τ	$0.0573^{+0.0067}_{-0.0082}$	$\langle d^2 \rangle^{1/2}$	2.403 ± 0.035	$D_M(0.38)$	1515 ± 14
$\ln(10^{10} A_s)$	$3.043^{+0.014}_{-0.017}$	z_{re}	$7.92^{+0.69}_{-0.82}$	$H(0.51)$	90.10 ± 0.42
n_s	0.9710 ± 0.0053	$10^9 A_s$	$2.097^{+0.029}_{-0.036}$	$D_M(0.51)$	1964 ± 16
y_{cal}	1.0006 ± 0.0026	$10^9 A_s e^{-2\tau}$	1.870 ± 0.013	$H(0.61)$	95.62 ± 0.34
A_{217}^{CIB}	48 ± 7	D_{40}	1217 ± 15	$D_M(0.61)$	2287 ± 18
$\xi^{tSZ \times CIB}$	—	D_{220}	5732 ± 43	$H(2.33)$	234.7 ± 1.1
A_{143}^{tSZ}	$5.2^{+2.3}_{-2.0}$	D_{810}	2535 ± 14	$D_M(2.33)$	5752 ± 15
A_{100}^{PS}	262 ± 28	D_{1420}	816.9 ± 4.9	$f\sigma_8(0.15)$	0.444 ± 0.011
A_{143}^{PS}	47^{+9}_{-8}	D_{2000}	230.6 ± 1.7	$\sigma_8(0.15)$	0.7432 ± 0.0075
$A_{143 \times 217}^{PS}$	42 ± 9	$n_{s,0.002}$	0.9710 ± 0.0053	$f\sigma_8(0.38)$	0.4654 ± 0.0090
A_{217}^{PS}	114 ± 10	Y_P	0.245394 ± 0.000085	$\sigma_8(0.38)$	$0.6602^{+0.0054}_{-0.0063}$
A^{kSZ}	< 4.76	Y_P^{BBN}	0.246720 ± 0.000086	$f\sigma_8(0.51)$	0.4655 ± 0.0078
A_{100}^{dustTT}	9.1 ± 1.8	$10^5 D/H$	2.586 ± 0.040	$\sigma_8(0.51)$	$0.6184^{+0.0048}_{-0.0057}$
A_{143}^{dustTT}	10.6 ± 1.8	Age/Gyr	13.774 ± 0.034	$f\sigma_8(0.61)$	0.4616 ± 0.0070
$A_{143 \times 217}^{dustTT}$	18.1 ± 3.2	z_*	1089.66 ± 0.36	$\sigma_8(0.61)$	$0.5888^{+0.0045}_{-0.0054}$
A_{217}^{dustTT}	93.1 ± 7.3	r_*	145.18 ± 0.45	$f\sigma_8(2.33)$	$0.2974^{+0.0022}_{-0.0026}$
c_{100}	0.99962 ± 0.00064	$100\theta_*$	1.04145 ± 0.00045	$\sigma_8(2.33)$	$0.3072^{+0.0023}_{-0.0027}$
c_{217}	0.99827 ± 0.00059	$D_M(z_*)/\text{Gpc}$	13.940 ± 0.042	f_{2000}^{143}	30.2 ± 2.9
H_0	68.50 ± 0.83	z_{drag}	1059.74 ± 0.46	$f_{2000}^{143 \times 217}$	32.7 ± 2.0
Ω_Λ	0.701 ± 0.011	r_{drag}	147.85 ± 0.46	f_{2000}^{217}	107.4 ± 1.9
Ω_m	0.299 ± 0.011	k_D	0.14007 ± 0.00053	χ_{simall}^2	397.3 ± 2.1
$\Omega_m h^2$	0.1401 ± 0.0018	$100\theta_D$	0.16090 ± 0.00026	χ_{lowl}^2	22.37 ± 0.98
$\Omega_m h^3$	0.09599 ± 0.00048	z_{eq}	3334 ± 43	χ_{plik}^2	775.6 ± 6.7
σ_8	0.8029 ± 0.0088	k_{eq}	0.01017 ± 0.00013	$\chi_{H073p45}^2$	9.1 ± 3.0
S_8	0.801 ± 0.021	$100\theta_{eq}$	0.8261 ± 0.0083	χ_{prior}^2	7.4 ± 3.7
$\sigma_8 \Omega_m^{0.5}$	0.439 ± 0.012	$100\theta_{s,eq}$	0.4561 ± 0.0042	χ_{CMB}^2	1195.3 ± 6.3

$\bar{\chi}_{eff}^2 = 1211.81$; $R - 1 = 0.08503$

2.7 base_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022377	0.02236 ± 0.00015	$\Omega_m h^3$	0.096355	0.09633 ± 0.00029	$100\theta_{\text{eq}}$	0.8128	0.8125 ± 0.0058
$\Omega_c h^2$	0.12010	0.1202 ± 0.0014	σ_8	0.8120	0.8120 ± 0.0073	$100\theta_{\text{s,eq}}$	0.44914	0.4490 ± 0.0030
$100\theta_{\text{MC}}$	1.040920	1.04090 ± 0.00031	S_8	0.8331	0.834 ± 0.016	$H(0.15)$	72.65	72.61 ± 0.52
τ	0.0543	$0.0544^{+0.0070}_{-0.0081}$	$\sigma_8 \Omega_m^{0.5}$	0.4563	0.4568 ± 0.0087	$D_{\text{M}}(0.15)$	643.7	644.1 ± 5.2
$\ln(10^{10} A_s)$	3.0447	3.045 ± 0.016	$\sigma_8 \Omega_m^{0.25}$	0.6087	0.6090 ± 0.0081	$H(0.38)$	82.848	82.82 ± 0.37
n_s	0.96589	0.9649 ± 0.0044	$\sigma_8/h^{0.5}$	0.9896	0.990 ± 0.012	$D_{\text{M}}(0.38)$	1534.0	1535 ± 10
y_{cal}	1.00061	1.0005 ± 0.0025	$r_{\text{drag}} h$	99.00	98.9 ± 1.0	$H(0.51)$	89.614	89.59 ± 0.29
A_{217}^{CIB}	47.2	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.4451	2.448 ± 0.028	$D_{\text{M}}(0.51)$	1986.5	1988 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	0.42	—	z_{re}	7.68	7.68 ± 0.79	$H(0.61)$	95.270	95.25 ± 0.24
A_{143}^{tSZ}	7.23	$5.5^{+2.2}_{-1.9}$	$10^9 A_s$	2.1004	$2.101^{+0.031}_{-0.034}$	$D_{\text{M}}(0.61)$	2311.1	2312 ± 13
A_{100}^{PS}	250.5	258 ± 28	$10^9 A_s e^{-2\tau}$	1.8843	1.884 ± 0.012	$H(2.33)$	236.64	236.68 ± 0.82
A_{143}^{PS}	47.4	46 ± 8	D_{40}	1229.3	1232 ± 13	$D_{\text{M}}(2.33)$	5763.6	5765 ± 11
$A_{143 \times 217}^{\text{PS}}$	47.3	42 ± 9	D_{220}	5730.4	5731 ± 39	$f\sigma_8(0.15)$	0.4605	0.4610 ± 0.0081
A_{217}^{PS}	119.8	115 ± 10	D_{810}	2541.1	2539 ± 14	$\sigma_8(0.15)$	0.7499	0.7498 ± 0.0065
A^{kSZ}	0.01	< 4.22	D_{1420}	818.28	817.2 ± 4.9	$f\sigma_8(0.38)$	0.4779	0.4782 ± 0.0066
A_{100}^{dustTT}	8.86	8.9 ± 1.8	D_{2000}	231.26	230.9 ± 1.6	$\sigma_8(0.38)$	0.6642	0.6641 ± 0.0055
A_{143}^{dustTT}	11.10	10.9 ± 1.8	$n_{\text{s},0.002}$	0.96589	0.9649 ± 0.0044	$f\sigma_8(0.51)$	0.4760	0.4762 ± 0.0058
$A_{143 \times 217}^{\text{dustTT}}$	19.83	18.6 ± 3.3	Y_{P}	0.245398	$0.245389^{+0.000062}_{-0.000055}$	$\sigma_8(0.51)$	0.6214	0.6213 ± 0.0051
A_{217}^{dustTT}	95.1	93.8 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246725	$0.246716^{+0.000062}_{-0.000055}$	$f\sigma_8(0.61)$	0.4707	0.4708 ± 0.0053
A_{100}^{dustTE}	0.1142	0.114 ± 0.038	$10^5 \text{D}/\text{H}$	2.5841	2.588 ± 0.028	$\sigma_8(0.61)$	0.59117	0.5910 ± 0.0048
$A_{100 \times 143}^{\text{dustTE}}$	0.1345	0.135 ± 0.030	Age/Gyr	13.7973	13.800 ± 0.024	$f\sigma_8(2.33)$	0.29790	0.2978 ± 0.0024
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085	z_*	1089.920	1089.95 ± 0.27	$\sigma_8(2.33)$	0.30694	$0.3068^{+0.0024}_{-0.0026}$
A_{143}^{dustTE}	0.224	0.226 ± 0.053	r_*	144.399	144.39 ± 0.30	f_{2000}^{143}	28.90	29.5 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.666 ± 0.080	$100\theta_*$	1.041097	1.04109 ± 0.00030	$f_{2000}^{143 \times 217}$	32.04	32.2 ± 1.9
A_{217}^{dustTE}	2.081	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8699	13.869 ± 0.028	f_{2000}^{217}	106.69	107.0 ± 1.8
c_{100}	0.99969	0.99966 ± 0.00062	z_{drag}	1059.971	1059.93 ± 0.30	χ_{small}^2	396.05	397.1 ± 2.0
c_{217}	0.99816	0.99819 ± 0.00062	r_{drag}	147.055	147.05 ± 0.30	χ_{lowl}^2	23.26	23.55 ± 0.97
H_0	67.32	67.27 ± 0.60	k_{D}	0.140910	0.14090 ± 0.00032	χ_{plik}^2	2344.6	2359.5 ± 5.8
Ω_{Λ}	0.6842	0.6834 ± 0.0084	$100\theta_{\text{D}}$	0.160744	0.16077 ± 0.00017	χ_{prior}^2	1.82	11.6 ± 4.5
Ω_{m}	0.3158	0.3166 ± 0.0084	z_{eq}	3404.9	3407 ± 31	χ_{CMB}^2	2764.0	2780.2 ± 5.8
$\Omega_{\text{m}} h^2$	0.14313	0.1432 ± 0.0013	k_{eq}	0.010392	0.010398 ± 0.000094			

Best-fit $\chi_{\text{eff}}^2 = 2765.77$; $\bar{\chi}_{\text{eff}}^2 = 2791.77$; $R - 1 = 0.01231$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 commander_dx12_v3.2_29: 23.26 plik_rd12_HM_v22b_TTTEEE: 2344.65

2.8 base_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022432	0.02242 ± 0.00013	σ_8	0.8098	0.8099 ± 0.0071	$H(0.15)$	72.968	72.94 ± 0.39
$\Omega_c h^2$	0.11926	0.1193 ± 0.0010	S_8	0.8240	0.825 ± 0.012	$D_M(0.15)$	640.50	640.8 ± 3.8
$100\theta_{MC}$	1.041000	1.04101 ± 0.00029	$\sigma_8 \Omega_m^{0.5}$	0.4513	0.4517 ± 0.0068	$H(0.38)$	83.072	83.05 ± 0.28
τ	0.0553	$0.0559^{+0.0068}_{-0.0084}$	$\sigma_8 \Omega_m^{0.25}$	0.6046	0.6048 ± 0.0068	$D_M(0.38)$	1527.8	1528.3 ± 7.7
$\ln(10^{10} A_s)$	3.0452	$3.046^{+0.015}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9843	0.985 ± 0.010	$H(0.51)$	89.785	89.77 ± 0.23
n_s	0.96801	0.9670 ± 0.0038	$r_{drag} h$	99.66	99.62 ± 0.78	$D_M(0.51)$	1979.2	1979.8 ± 9.0
y_{cal}	1.00071	1.0006 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4326	2.436 ± 0.024	$H(0.61)$	95.401	95.39 ± 0.19
A_{217}^{CIB}	46.7	47 ± 7	z_{re}	7.76	$7.80^{+0.72}_{-0.81}$	$D_M(0.61)$	2303.2	2303.8 ± 9.7
$\xi^{tSZ \times CIB}$	0.54	—	$10^9 A_s$	2.1014	$2.103^{+0.030}_{-0.036}$	$H(2.33)$	236.14	236.17 ± 0.62
A_{143}^{tSZ}	7.12	$5.5^{+2.1}_{-1.8}$	$10^9 A_s e^{-2\tau}$	1.8813	1.880 ± 0.011	$D_M(2.33)$	5758.2	5758.8 ± 8.9
A_{100}^{PS}	248.9	258 ± 28	D_{40}	1225.2	1227 ± 12	$f\sigma_8(0.15)$	0.4560	0.4563 ± 0.0064
A_{143}^{PS}	48.6	45 ± 8	D_{220}	5735.3	5735 ± 38	$\sigma_8(0.15)$	0.7484	0.7485 ± 0.0064
$A_{143 \times 217}^{PS}$	49.8	42 ± 9	D_{810}	2541.5	2539 ± 13	$f\sigma_8(0.38)$	0.4745	0.4747 ± 0.0055
A_{217}^{PS}	120.4	115.0 ± 9.9	D_{1420}	819.11	817.8 ± 4.8	$\sigma_8(0.38)$	0.6635	$0.6635^{+0.0051}_{-0.0058}$
A^{kSZ}	0.00	< 4.18	D_{2000}	231.58	231.1 ± 1.6	$f\sigma_8(0.51)$	0.47322	0.4734 ± 0.0050
A_{100}^{dustTT}	8.89	8.9 ± 1.8	$n_{s,0.002}$	0.96801	0.9670 ± 0.0038	$\sigma_8(0.51)$	0.6210	$0.6210^{+0.0047}_{-0.0054}$
A_{143}^{dustTT}	11.01	10.9 ± 1.8	Y_P	0.245420	$0.245413^{+0.000055}_{-0.000048}$	$f\sigma_8(0.61)$	0.46832	0.4685 ± 0.0047
$A_{143 \times 217}^{dustTT}$	19.94	18.6 ± 3.3	Y_P^{BBN}	0.246746	$0.246739^{+0.000055}_{-0.000048}$	$\sigma_8(0.61)$	0.59088	$0.5909^{+0.0045}_{-0.0051}$
A_{217}^{dustTT}	95.2	93.8 ± 7.2	$10^5 D/H$	2.5740	2.577 ± 0.025	$f\sigma_8(2.33)$	0.29796	$0.2979^{+0.0022}_{-0.0026}$
A_{100}^{dustTE}	0.1145	0.113 ± 0.038	Age/Gyr	13.7857	13.787 ± 0.020	$\sigma_8(2.33)$	0.30722	$0.3072^{+0.0023}_{-0.0027}$
$A_{100 \times 143}^{dustTE}$	0.1349	0.135 ± 0.030	z_*	1089.776	1089.80 ± 0.22	f_{2000}^{143}	28.52	29.3 ± 2.7
$A_{100 \times 217}^{dustTE}$	0.481	0.479 ± 0.086	r_*	144.576	144.57 ± 0.24	$f_{2000}^{143 \times 217}$	31.78	32.0 ± 1.9
A_{143}^{dustTE}	0.225	0.225 ± 0.054	$100\theta_*$	1.041178	1.04119 ± 0.00028	f_{2000}^{217}	106.39	106.8 ± 1.7
$A_{143 \times 217}^{dustTE}$	0.666	0.665 ± 0.080	$D_M(z_*)/\text{Gpc}$	13.8858	13.885 ± 0.023	χ_{small}^2	396.20	397.3 ± 2.2
A_{217}^{dustTE}	2.081	2.09 ± 0.26	z_{drag}	1060.009	1060.00 ± 0.29	χ_{lowl}^2	22.87	23.13 ± 0.82
c_{100}	0.99971	0.99966 ± 0.00063	r_{drag}	147.221	147.22 ± 0.24	χ_{plik}^2	2345.5	2359.6 ± 5.8
c_{217}	0.99817	0.99817 ± 0.00061	k_D	0.140779	0.14077 ± 0.00029	χ_{6DF}^2	0.0288	0.057 ± 0.066
H_0	67.693	67.67 ± 0.45	$100\theta_D$	0.160709	0.16073 ± 0.00017	χ_{MGS}^2	1.217	1.25 ± 0.42
Ω_Λ	0.6894	0.6890 ± 0.0061	z_{eq}	3385.9	3387 ± 23	$\chi_{DR12BAO}^2$	4.41	4.9 ± 1.4
Ω_m	0.3106	0.3110 ± 0.0061	k_{eq}	0.010334	0.010338 ± 0.000070	χ_{prior}^2	1.68	11.6 ± 4.6
$\Omega_m h^2$	0.14233	0.14238 ± 0.00096	$100\theta_{eq}$	0.81645	0.8162 ± 0.0043	χ_{BAO}^2	5.66	6.2 ± 1.2
$\Omega_m h^3$	0.096350	0.09634 ± 0.00028	$100\theta_{s,eq}$	0.45098	0.4509 ± 0.0022	χ_{CMB}^2	2764.6	2780.1 ± 5.7

Best-fit $\chi_{\text{eff}}^2 = 2771.92$; $\bar{\chi}_{\text{eff}}^2 = 2797.91$; $R - 1 = 0.01929$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.41 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.20 commander_dx12_v3_2_29: 22.87 plik_rd12_HM_v22b_TTTEEE: 2345.51

2.9 base_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022507	$0.02249^{+0.00015}_{-0.00013}$	$\Omega_m h^3$	0.096417	0.09638 ± 0.00027	$100\theta_{\text{eq}}$	0.8195	0.8192 ± 0.0055
$\Omega_c h^2$	0.11853	0.1186 ± 0.0013	σ_8	0.8085	0.8084 ± 0.0077	$100\theta_{\text{s,eq}}$	0.45255	0.4524 ± 0.0028
$100\theta_{\text{MC}}$	1.041114	1.04109 ± 0.00030	S_8	0.8165	0.817 ± 0.015	$H(0.15)$	73.276	73.23 ± 0.48
τ	0.0570	$0.0573^{+0.0073}_{-0.0090}$	$\sigma_8 \Omega_m^{0.5}$	0.4472	0.4477 ± 0.0082	$D_{\text{M}}(0.15)$	637.47	638.0 ± 4.8
$\ln(10^{10} A_s)$	3.0469	$3.047^{+0.015}_{-0.018}$	$\sigma_8 \Omega_m^{0.25}$	0.6013	0.6016 ± 0.0079	$H(0.38)$	83.299	83.26 ± 0.35
n_s	0.97011	0.9687 ± 0.0042	$\sigma_8/h^{0.5}$	0.9801	0.980 ± 0.011	$D_{\text{M}}(0.38)$	1521.7	1522.6 ± 9.6
y_{cal}	1.00063	1.0006 ± 0.0025	$r_{\text{drag}} h$	100.25	100.18 ± 0.99	$H(0.51)$	89.966	89.94 ± 0.28
A_{217}^{CIB}	45.8	46 ± 7	$\langle d^2 \rangle^{1/2}$	2.4226	2.427 ± 0.027	$D_{\text{M}}(0.51)$	1972.0	1973 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	0.68	—	z_{re}	7.90	$7.91^{+0.76}_{-0.85}$	$H(0.61)$	95.547	95.52 ± 0.22
A_{143}^{tSZ}	7.08	$5.6^{+2.2}_{-1.8}$	$10^9 A_s$	2.1051	$2.105^{+0.031}_{-0.038}$	$D_{\text{M}}(0.61)$	2295.5	2297 ± 12
A_{100}^{PS}	246.6	257 ± 28	$10^9 A_s e^{-2\tau}$	1.8782	1.877 ± 0.012	$H(2.33)$	235.75	235.78 ± 0.76
A_{143}^{PS}	49.4	45 ± 8	D_{40}	1221.2	1224 ± 12	$D_{\text{M}}(2.33)$	5751.8	5753 ± 10
$A_{143 \times 217}^{\text{PS}}$	52.7	42 ± 9	D_{220}	5738.8	5740 ± 37	$f\sigma_8(0.15)$	0.4522	0.4526 ± 0.0077
A_{217}^{PS}	121.3	115 ± 10	D_{810}	2541.3	2539 ± 14	$\sigma_8(0.15)$	0.7476	0.7475 ± 0.0068
A^{kSZ}	0.01	< 4.12	D_{1420}	819.91	818.4 ± 4.8	$f\sigma_8(0.38)$	0.4718	0.4720 ± 0.0065
A_{100}^{dustTT}	8.83	8.8 ± 1.9	D_{2000}	231.96	231.4 ± 1.6	$\sigma_8(0.38)$	0.6633	$0.6631^{+0.0054}_{-0.0061}$
A_{143}^{dustTT}	11.00	10.9 ± 1.8	$n_{\text{s},0.002}$	0.97011	0.9687 ± 0.0042	$f\sigma_8(0.51)$	0.4710	0.4712 ± 0.0058
$A_{143 \times 217}^{\text{dustTT}}$	20.02	18.5 ± 3.3	Y_{P}	0.245447	$0.245438^{+0.000057}_{-0.000046}$	$\sigma_8(0.51)$	0.6210	$0.6208^{+0.0050}_{-0.0057}$
A_{217}^{dustTT}	95.3	93.6 ± 7.2	$Y_{\text{P}}^{\text{BBN}}$	0.246774	$0.246765^{+0.000057}_{-0.000046}$	$f\sigma_8(0.61)$	0.4665	0.4666 ± 0.0053
A_{100}^{dustTE}	0.1131	0.113 ± 0.039	$10^5 \text{D}/\text{H}$	2.5606	$2.565^{+0.023}_{-0.027}$	$\sigma_8(0.61)$	0.5911	$0.5908^{+0.0047}_{-0.0054}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.134 ± 0.029	Age/Gyr	13.7716	13.775 ± 0.022	$f\sigma_8(2.33)$	0.29824	$0.2981^{+0.0023}_{-0.0027}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.478 ± 0.087	z_*	1089.620	1089.66 ± 0.25	$\sigma_8(2.33)$	0.30772	$0.3076^{+0.0024}_{-0.0029}$
A_{143}^{dustTE}	0.224	0.224 ± 0.055	r_*	144.706	144.70 ± 0.29	f_{2000}^{143}	27.88	28.9 ± 2.8
$A_{143 \times 217}^{\text{dustTE}}$	0.663	0.664 ± 0.080	$100\theta_*$	1.041286	1.04127 ± 0.00029	$f_{2000}^{143 \times 217}$	31.41	31.7 ± 1.9
A_{217}^{dustTE}	2.075	2.07 ± 0.26	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8968	13.897 ± 0.027	f_{2000}^{217}	105.97	106.6 ± 1.8
c_{100}	0.99975	0.99966 ± 0.00062	z_{drag}	1060.162	$1060.10^{+0.30}_{-0.26}$	χ_{small}^2	396.47	397.6 ± 2.5
c_{217}	0.99817	0.99817 ± 0.00061	r_{drag}	147.326	147.33 ± 0.28	χ_{lowl}^2	22.54	22.86 ± 0.85
H_0	68.05	68.00 ± 0.56	k_{D}	0.140722	$0.14070^{+0.00028}_{-0.00033}$	χ_{plik}^2	2346.8	2361.0 ± 6.5
Ω_{Λ}	0.6940	0.6933 ± 0.0076	$100\theta_{\text{D}}$	0.160647	$0.16067^{+0.00015}_{-0.00017}$	χ_{H073p45}^2	10.58	10.9 ± 2.2
Ω_{m}	0.3060	0.3067 ± 0.0076	z_{eq}	3370.4	3372 ± 29	χ_{prior}^2	1.58	11.7 ± 4.8
$\Omega_{\text{m}} h^2$	0.14169	0.1418 ± 0.0012	k_{eq}	0.010287	0.010292 ± 0.000088	χ_{CMB}^2	2765.8	2781.5 ± 6.4

Best-fit $\chi_{\text{eff}}^2 = 2777.94$; $\bar{\chi}_{\text{eff}}^2 = 2804.16$; $R - 1 = 0.03140$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.47 commander_dx12_v3.2_29: 22.54 plik_rd12_HM_v22b_TTTEEE: 2346.76 Hubble - H073p45: 10.59

2.10 base_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02236 ± 0.00015	$\Omega_{\text{m}}h^3$	0.09633 ± 0.00029	$100\theta_{\text{eq}}$	0.8126 ± 0.0058
$\Omega_{\text{c}}h^2$	0.1202 ± 0.0014	σ_8	$0.8127^{+0.0063}_{-0.0073}$	$100\theta_{\text{s,eq}}$	0.4490 ± 0.0029
$100\theta_{\text{MC}}$	1.04091 ± 0.00031	S_8	0.834 ± 0.016	$H(0.15)$	72.62 ± 0.51
τ	$0.0555^{+0.0051}_{-0.0084}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4571 ± 0.0087	$D_{\text{M}}(0.15)$	644.0 ± 5.2
$\ln(10^{10}A_{\text{s}})$	$3.047^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6094 ± 0.0080	$H(0.38)$	82.83 ± 0.37
n_{s}	0.9650 ± 0.0044	$\sigma_8/h^{0.5}$	0.991 ± 0.011	$D_{\text{M}}(0.38)$	1535 ± 10
y_{cal}	1.0005 ± 0.0025	$r_{\text{drag}}h$	99.0 ± 1.0	$H(0.51)$	89.60 ± 0.29
A_{217}^{CIB}	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.450 ± 0.027	$D_{\text{M}}(0.51)$	1987 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.79^{+0.56}_{-0.83}$	$H(0.61)$	95.26 ± 0.23
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	$10^9 A_{\text{s}}$	$2.105^{+0.025}_{-0.034}$	$D_{\text{M}}(0.61)$	2312 ± 13
A_{100}^{PS}	258 ± 28	$10^9 A_{\text{s}}e^{-2\tau}$	1.884 ± 0.012	$H(2.33)$	236.66 ± 0.81
A_{143}^{PS}	46 ± 8	D_{40}	1232 ± 13	$D_{\text{M}}(2.33)$	5764 ± 11
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{220}	5731 ± 38	$f\sigma_8(0.15)$	0.4612 ± 0.0080
A_{217}^{PS}	115 ± 10	D_{810}	2539 ± 14	$\sigma_8(0.15)$	$0.7505^{+0.0054}_{-0.0065}$
A^{kSZ}	< 4.21	D_{1420}	817.2 ± 4.9	$f\sigma_8(0.38)$	0.4785 ± 0.0065
A_{100}^{dustTT}	8.9 ± 1.8	D_{2000}	230.9 ± 1.6	$\sigma_8(0.38)$	$0.6647^{+0.0044}_{-0.0056}$
A_{143}^{dustTT}	10.9 ± 1.8	$n_{\text{s},0.002}$	0.9650 ± 0.0044	$f\sigma_8(0.51)$	0.4766 ± 0.0057
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	Y_{P}	$0.245391^{+0.000061}_{-0.000055}$	$\sigma_8(0.51)$	$0.6219^{+0.0040}_{-0.0052}$
A_{217}^{dustTT}	93.8 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	$0.246717^{+0.000062}_{-0.000055}$	$f\sigma_8(0.61)$	0.4712 ± 0.0051
A_{100}^{dustTE}	0.114 ± 0.038	10^5D/H	2.587 ± 0.027	$\sigma_8(0.61)$	$0.5916^{+0.0038}_{-0.0049}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.029	Age/Gyr	13.799 ± 0.024	$f\sigma_8(2.33)$	$0.2981^{+0.0018}_{-0.0025}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.085	z_*	1089.94 ± 0.27	$\sigma_8(2.33)$	$0.3071^{+0.0019}_{-0.0026}$
A_{143}^{dustTE}	0.226 ± 0.053	r_*	144.40 ± 0.30	f_{2000}^{143}	29.4 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.666 ± 0.080	$100\theta_*$	1.04109 ± 0.00030	$f_{2000}^{143 \times 217}$	32.1 ± 1.9
A_{217}^{dustTE}	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.870 ± 0.028	f_{2000}^{217}	106.9 ± 1.8
c_{100}	0.99966 ± 0.00062	z_{drag}	1059.93 ± 0.30	χ_{small}^2	397.1 ± 2.0
c_{217}	0.99819 ± 0.00062	r_{drag}	147.06 ± 0.30	χ_{lowl}^2	23.56 ± 0.97
H_0	67.29 ± 0.60	k_{D}	0.14090 ± 0.00032	χ_{plik}^2	2359.3 ± 5.7
Ω_{Λ}	0.6837 ± 0.0084	$100\theta_{\text{D}}$	0.16076 ± 0.00017	χ_{prior}^2	11.6 ± 4.5
Ω_{m}	0.3163 ± 0.0084	z_{eq}	3406 ± 31	χ_{CMB}^2	2779.9 ± 5.7
$\Omega_{\text{m}}h^2$	0.1432 ± 0.0013	k_{eq}	0.010395 ± 0.000094		

$$\bar{\chi}_{\text{eff}}^2 = 2791.53; R - 1 = 0.01241$$

2.11 base_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02242 ± 0.00013	σ_8	$0.8105^{+0.0060}_{-0.0072}$	$H(0.15)$	72.95 ± 0.39
$\Omega_c h^2$	0.1193 ± 0.0010	S_8	0.825 ± 0.012	$D_M(0.15)$	640.7 ± 3.8
$100\theta_{MC}$	1.04101 ± 0.00029	$\sigma_8 \Omega_m^{0.5}$	0.4519 ± 0.0067	$H(0.38)$	83.06 ± 0.28
τ	$0.0566^{+0.0053}_{-0.0086}$	$\sigma_8 \Omega_m^{0.25}$	0.6052 ± 0.0067	$D_M(0.38)$	1528.1 ± 7.7
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.017}$	$\sigma_8/h^{0.5}$	$0.9852^{+0.0091}_{-0.010}$	$H(0.51)$	89.78 ± 0.23
n_s	0.9670 ± 0.0037	$r_{\text{drag}} h$	99.63 ± 0.78	$D_M(0.51)$	1979.6 ± 9.0
y_{cal}	1.0006 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.023	$H(0.61)$	95.39 ± 0.19
A_{217}^{CIB}	47 ± 7	z_{re}	$7.88^{+0.58}_{-0.85}$	$D_M(0.61)$	2303.6 ± 9.7
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.106^{+0.025}_{-0.036}$	$H(2.33)$	236.16 ± 0.62
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.8}$	$10^9 A_s e^{-2\tau}$	1.880 ± 0.011	$D_M(2.33)$	5758.7 ± 8.8
A_{100}^{PS}	258 ± 28	D_{40}	1227 ± 11	$f\sigma_8(0.15)$	0.4565 ± 0.0063
A_{143}^{PS}	45 ± 8	D_{220}	5735 ± 37	$\sigma_8(0.15)$	$0.7490^{+0.0053}_{-0.0066}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{810}	2539 ± 13	$f\sigma_8(0.38)$	0.4750 ± 0.0054
A_{217}^{PS}	115.0 ± 9.9	D_{1420}	817.8 ± 4.8	$\sigma_8(0.38)$	$0.6640^{+0.0044}_{-0.0058}$
A^{kSZ}	< 4.17	D_{2000}	231.1 ± 1.6	$f\sigma_8(0.51)$	0.4737 ± 0.0049
A_{100}^{dustTT}	8.9 ± 1.8	$n_{s,0.002}$	0.9670 ± 0.0037	$\sigma_8(0.51)$	$0.6214^{+0.0041}_{-0.0054}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P	$0.245414^{+0.000055}_{-0.000048}$	$f\sigma_8(0.61)$	$0.4687^{+0.0042}_{-0.0047}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.2	Y_P^{BBN}	$0.246740^{+0.000055}_{-0.000048}$	$\sigma_8(0.61)$	$0.5913^{+0.0038}_{-0.0052}$
A_{217}^{dustTT}	93.7 ± 7.2	$10^5 D/H$	2.577 ± 0.025	$f\sigma_8(2.33)$	$0.2982^{+0.0019}_{-0.0026}$
A_{100}^{dustTE}	0.114 ± 0.038	Age/Gyr	13.787 ± 0.020	$\sigma_8(2.33)$	$0.3074^{+0.0020}_{-0.0027}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	z_*	1089.80 ± 0.22	f_{2000}^{143}	29.2 ± 2.7
$A_{100 \times 217}^{\text{dustTE}}$	0.478 ± 0.086	r_*	144.57 ± 0.23	$f_{2000}^{143 \times 217}$	31.9 ± 1.9
A_{143}^{dustTE}	0.225 ± 0.054	$100\theta_*$	1.04119 ± 0.00028	f_{2000}^{217}	106.8 ± 1.7
$A_{143 \times 217}^{\text{dustTE}}$	0.665 ± 0.080	$D_M(z_*)/\text{Gpc}$	13.886 ± 0.023	χ_{simall}^2	397.3 ± 2.2
A_{217}^{dustTE}	2.09 ± 0.27	z_{drag}	1060.00 ± 0.29	χ_{lowl}^2	23.14 ± 0.81
c_{100}	0.99966 ± 0.00063	r_{drag}	147.22 ± 0.24	χ_{plik}^2	2359.5 ± 5.7
c_{217}	0.99817 ± 0.00061	k_D	0.14077 ± 0.00029	$\chi_{6\text{DF}}^2$	0.056 ± 0.065
H_0	67.67 ± 0.45	$100\theta_D$	0.16072 ± 0.00017	χ_{MGS}^2	1.26 ± 0.42
Ω_Λ	0.6891 ± 0.0061	z_{eq}	3387 ± 23	χ_{DR12BAO}^2	4.9 ± 1.4
Ω_m	0.3109 ± 0.0061	k_{eq}	0.010336 ± 0.000070	χ_{prior}^2	11.6 ± 4.6
$\Omega_m h^2$	0.14237 ± 0.00096	$100\theta_{\text{eq}}$	0.8163 ± 0.0043	χ_{BAO}^2	6.2 ± 1.1
$\Omega_m h^3$	0.09634 ± 0.00028	$100\theta_{s,\text{eq}}$	0.4509 ± 0.0022	χ_{CMB}^2	2779.9 ± 5.6

$$\bar{\chi}_{\text{eff}}^2 = 2797.72; R - 1 = 0.02064$$

2.12 base_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02249^{+0.00015}_{-0.00013}$	$\Omega_{\text{m}}h^3$	0.09638 ± 0.00027	$100\theta_{\text{eq}}$	0.8193 ± 0.0054
$\Omega_{\text{c}}h^2$	0.1186 ± 0.0013	σ_8	0.8089 ± 0.0072	$100\theta_{\text{s,eq}}$	0.4524 ± 0.0028
$100\theta_{\text{MC}}$	1.04110 ± 0.00030	S_8	0.818 ± 0.015	$H(0.15)$	73.24 ± 0.48
τ	$0.0579^{+0.0060}_{-0.0091}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4479 ± 0.0080	$D_{\text{M}}(0.15)$	637.9 ± 4.7
$\ln(10^{10}A_{\text{s}})$	$3.048^{+0.013}_{-0.018}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6019 ± 0.0077	$H(0.38)$	83.27 ± 0.35
n_{s}	0.9687 ± 0.0042	$\sigma_8/h^{0.5}$	0.981 ± 0.011	$D_{\text{M}}(0.38)$	1522.5 ± 9.5
y_{cal}	1.0006 ± 0.0024	$r_{\text{drag}}h$	100.19 ± 0.98	$H(0.51)$	89.94 ± 0.28
A_{217}^{CIB}	46 ± 7	$\langle d^2 \rangle^{1/2}$	2.428 ± 0.026	$D_{\text{M}}(0.51)$	1973 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.98^{+0.63}_{-0.90}$	$H(0.61)$	95.52 ± 0.22
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8}$	$10^9 A_{\text{s}}$	$2.108^{+0.027}_{-0.038}$	$D_{\text{M}}(0.61)$	2297 ± 12
A_{100}^{PS}	257 ± 28	$10^9 A_{\text{s}}e^{-2\tau}$	1.877 ± 0.011	$H(2.33)$	235.78 ± 0.76
A_{143}^{PS}	45 ± 8	D_{40}	1224 ± 12	$D_{\text{M}}(2.33)$	5753 ± 10
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{220}	5741 ± 37	$f\sigma_8(0.15)$	0.4528 ± 0.0075
A_{217}^{PS}	115 ± 10	D_{810}	2539 ± 13	$\sigma_8(0.15)$	$0.7480^{+0.0059}_{-0.0069}$
A^{kSZ}	< 4.10	D_{1420}	818.4 ± 4.7	$f\sigma_8(0.38)$	0.4722 ± 0.0063
A_{100}^{dustTT}	8.8 ± 1.8	D_{2000}	231.4 ± 1.6	$\sigma_8(0.38)$	$0.6635^{+0.0048}_{-0.0061}$
A_{143}^{dustTT}	10.9 ± 1.8	$n_{\text{s},0.002}$	0.9687 ± 0.0042	$f\sigma_8(0.51)$	0.4714 ± 0.0056
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.3	Y_{P}	$0.245438^{+0.000057}_{-0.000046}$	$\sigma_8(0.51)$	$0.6212^{+0.0044}_{-0.0057}$
A_{217}^{dustTT}	93.6 ± 7.2	$Y_{\text{P}}^{\text{BBN}}$	$0.246765^{+0.000057}_{-0.000046}$	$f\sigma_8(0.61)$	0.4669 ± 0.0051
A_{100}^{dustTE}	0.113 ± 0.039	10^5D/H	$2.565^{+0.023}_{-0.027}$	$\sigma_8(0.61)$	$0.5912^{+0.0041}_{-0.0054}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134 ± 0.029	Age/Gyr	13.774 ± 0.022	$f\sigma_8(2.33)$	$0.2983^{+0.0020}_{-0.0028}$
$A_{100 \times 217}^{\text{dustTE}}$	0.478 ± 0.087	z_*	$1089.65^{+0.24}_{-0.27}$	$\sigma_8(2.33)$	$0.3078^{+0.0020}_{-0.0029}$
A_{143}^{dustTE}	0.223 ± 0.055	r_*	144.70 ± 0.28	f_{2000}^{143}	28.9 ± 2.8
$A_{143 \times 217}^{\text{dustTE}}$	0.663 ± 0.080	$100\theta_*$	1.04127 ± 0.00029	$f_{2000}^{143 \times 217}$	31.7 ± 1.9
A_{217}^{dustTE}	2.07 ± 0.26	$D_{\text{M}}(z_*)/\text{Gpc}$	13.897 ± 0.027	f_{2000}^{217}	106.5 ± 1.8
c_{100}	0.99966 ± 0.00062	z_{drag}	$1060.11^{+0.29}_{-0.26}$	χ_{simall}^2	397.6 ± 2.6
c_{217}	0.99817 ± 0.00061	r_{drag}	147.33 ± 0.28	χ_{lowl}^2	22.87 ± 0.85
H_0	68.00 ± 0.56	k_{D}	$0.14070^{+0.00028}_{-0.00033}$	χ_{plik}^2	2360.9 ± 6.4
Ω_{Λ}	0.6934 ± 0.0075	$100\theta_{\text{D}}$	$0.16067^{+0.00015}_{-0.00017}$	χ_{H073p45}^2	10.9 ± 2.2
Ω_{m}	0.3066 ± 0.0075	z_{eq}	3372 ± 29	χ_{prior}^2	11.6 ± 4.6
$\Omega_{\text{m}}h^2$	0.1417 ± 0.0012	k_{eq}	0.010291 ± 0.000087	χ_{CMB}^2	2781.4 ± 6.3

$\bar{\chi}_{\text{eff}}^2 = 2803.89$; $R - 1 = 0.03660$

2.13 base_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022132	0.02214 ± 0.00022	$\sigma_8 \Omega_m^{0.5}$	0.4585	0.458 ± 0.013	$100\theta_{s,eq}$	0.44861	0.4487 ± 0.0046
$\Omega_c h^2$	0.12049	0.1205 ± 0.0021	$\sigma_8 \Omega_m^{0.25}$	0.6098	0.610 ± 0.012	$H(0.15)$	72.32	72.34 ± 0.79
$100\theta_{MC}$	1.040846	1.04084 ± 0.00048	$\sigma_8/h^{0.5}$	0.9911	0.991 ± 0.016	$D_M(0.15)$	646.9	646.8 ± 8.0
τ	0.0519	0.0521 ± 0.0080	$r_{drag}h$	98.58	98.6 ± 1.6	$H(0.38)$	82.57	82.59 ± 0.57
$\ln(10^{10} A_s)$	3.0384	3.039 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.4473	2.448 ± 0.038	$D_M(0.38)$	1540.8	1541 ± 16
n_s	0.9639	0.9638 ± 0.0058	z_{re}	7.50	$7.49^{+0.83}_{-0.75}$	$H(0.51)$	89.362	89.38 ± 0.44
y_{cal}	1.00037	1.0005 ± 0.0025	$10^9 A_s$	2.0872	2.089 ± 0.034	$D_M(0.51)$	1994.7	1994 ± 19
A_{100}^{PS}	238.8	242 ± 25	$10^9 A_s e^{-2\tau}$	1.8813	1.882 ± 0.014	$H(0.61)$	95.040	95.05 ± 0.35
A_{143}^{PS}	41.3	41 ± 8	D_{40}	1228.7	1230 ± 15	$D_M(0.61)$	2320.0	2320 ± 20
A_{217}^{PS}	100.6	101 ± 10	D_{220}	5701.7	5704 ± 43	$H(2.33)$	236.64	236.6 ± 1.3
A_{217}^{CIB}	45.0	41^{+7}_{-8}	D_{810}	2534.0	2534 ± 14	$D_M(2.33)$	5775.9	5775 ± 16
A_{143}^{tSZ}	5.89	$3.7^{+1.8}_{-2.6}$	D_{1420}	814.3	814.3 ± 5.2	$f\sigma_8(0.15)$	0.4624	0.462 ± 0.012
$r_{143 \times 217}^{PS}$	0.582	0.65 ± 0.13	D_{2000}	229.56	229.6 ± 1.8	$\sigma_8(0.15)$	0.7486	0.7486 ± 0.0075
$r_{143 \times 217}^{CIB}$	0.791	> 0.456	$n_{s,0.002}$	0.9639	0.9638 ± 0.0058	$f\sigma_8(0.38)$	0.4789	0.4788 ± 0.0096
$\xi^{tSZ \times CIB}$	0.12	—	Y_P	0.245298	$0.24529^{+0.00010}_{-0.000082}$	$\sigma_8(0.38)$	0.6627	0.6627 ± 0.0060
A^{kSZ}	1.2	—	Y_P^{BBN}	0.246624	$0.24662^{+0.00010}_{-0.000082}$	$f\sigma_8(0.51)$	0.4766	0.4765 ± 0.0082
A_{100}^{dust}	1.011	1.01 ± 0.19	$10^5 D/H$	2.6309	2.630 ± 0.042	$\sigma_8(0.51)$	0.6199	0.6198 ± 0.0054
A_{143}^{dust}	0.991	0.98 ± 0.18	Age/Gyr	13.8257	13.825 ± 0.037	$f\sigma_8(0.61)$	0.4710	0.4708 ± 0.0073
A_{217}^{dust}	0.966	0.97 ± 0.10	z_*	1090.266	1090.26 ± 0.41	$\sigma_8(0.61)$	0.5896	0.5896 ± 0.0051
$A_{143 \times 217}^{dust}$	0.995	1.03 ± 0.16	r_*	144.485	144.49 ± 0.48	$f\sigma_8(2.33)$	0.29696	0.2970 ± 0.0025
c_{100}	0.99755	0.9975 ± 0.0011	$100\theta_*$	1.041053	1.04105 ± 0.00047	$\sigma_8(2.33)$	0.30581	0.3058 ± 0.0027
c_{217}	1.00139	1.0012 ± 0.0016	$D_M(z_*)/Gpc$	13.8788	13.879 ± 0.044	f_{2000}^{143}	31.12	30.8 ± 3.0
H_0	66.96	66.98 ± 0.92	z_{drag}	1059.437	1059.43 ± 0.45	f_{2000}^{217}	107.60	107.6 ± 2.0
Ω_Λ	0.6805	0.680 ± 0.013	r_{drag}	147.225	147.23 ± 0.48	$f_{2000}^{143 \times 217}$	32.96	33.0 ± 2.1
Ω_m	0.3195	0.320 ± 0.013	k_D	0.14054	0.14054 ± 0.00052	χ_{small}^2	395.83	396.9 ± 1.6
$\Omega_m h^2$	0.14327	0.1432 ± 0.0020	$100\theta_D$	0.161064	0.16106 ± 0.00026	χ_{lowl}^2	23.40	23.5 ± 1.3
$\Omega_m h^3$	0.095935	0.09593 ± 0.00045	z_{eq}	3408.3	3408 ± 48	$\chi_{CamSpec}^2$	7050.3	7063.4 ± 5.4
σ_8	0.8110	0.8110 ± 0.0089	k_{eq}	0.010403	0.01040 ± 0.00015	χ_{prior}^2	2.17	7.7 ± 3.6
S_8	0.8370	0.837 ± 0.024	$100\theta_{eq}$	0.8115	0.8117 ± 0.0089	χ_{CMB}^2	7469.6	7483.8 ± 5.5

Best-fit $\chi_{eff}^2 = 7471.74$; $\bar{\chi}_{eff}^2 = 7491.54$; $R - 1 = 0.00710$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 commander_dx12_v3.2_29: 23.40 CamSpec like_10.7HM: 7050.34

2.14 base_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00019	$\sigma_8/h^{0.5}$	0.981 ± 0.012	$D_{\mathrm{M}}(0.38)$	1528.8 ± 9.3
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0012	$r_{\mathrm{drag}}h$	99.84 ± 0.94	$H(0.51)$	89.69 ± 0.29
$100\theta_{\mathrm{MC}}$	1.04105 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.028	$D_{\mathrm{M}}(0.51)$	1981 ± 11
τ	0.0537 ± 0.0079	z_{re}	7.61 ± 0.81	$H(0.61)$	95.29 ± 0.24
$\ln(10^{10}A_{\mathrm{s}})$	3.039 ± 0.017	$10^9 A_{\mathrm{s}}$	2.088 ± 0.035	$D_{\mathrm{M}}(0.61)$	2305 ± 12
n_{s}	0.9674 ± 0.0042	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.875 ± 0.012	$H(2.33)$	235.71 ± 0.78
y_{cal}	1.0006 ± 0.0025	D_{40}	1222 ± 13	$D_{\mathrm{M}}(2.33)$	5765 ± 12
A_{100}^{PS}	241 ± 25	D_{220}	5711 ± 42	$f\sigma_8(0.15)$	0.4537 ± 0.0077
A_{143}^{PS}	40 ± 8	D_{810}	2534 ± 14	$\sigma_8(0.15)$	0.7456 ± 0.0069
A_{217}^{PS}	101 ± 10	D_{1420}	815.3 ± 5.1	$f\sigma_8(0.38)$	0.4723 ± 0.0065
A_{217}^{CIB}	41_{-8}^{+7}	D_{2000}	229.9 ± 1.8	$\sigma_8(0.38)$	0.6611 ± 0.0059
A_{143}^{tSZ}	$3.9_{-2.5}^{+1.9}$	$n_{\mathrm{s},0.002}$	0.9674 ± 0.0042	$f\sigma_8(0.51)$	0.4711 ± 0.0059
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245334_{-0.000072}^{+0.000085}$	$\sigma_8(0.51)$	0.6188 ± 0.0055
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.458	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246660_{-0.000073}^{+0.000085}$	$f\sigma_8(0.61)$	0.4663 ± 0.0054
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.613 ± 0.037	$\sigma_8(0.61)$	0.5888 ± 0.0052
A^{kSZ}	—	Age/Gyr	13.803 ± 0.027	$f\sigma_8(2.33)$	0.2970 ± 0.0026
A_{100}^{dust}	1.01 ± 0.19	z_*	1090.01 ± 0.29	$\sigma_8(2.33)$	0.3062 ± 0.0027
A_{143}^{dust}	0.97 ± 0.17	r_*	144.82 ± 0.32	f_{2000}^{143}	30.4 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04125 ± 0.00041	f_{2000}^{217}	107.4 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.17	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.909 ± 0.031	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
c_{100}	0.9975 ± 0.0010	z_{drag}	1059.52 ± 0.44	χ_{small}^2	397.0 ± 1.7
c_{217}	1.0012 ± 0.0016	r_{drag}	147.54 ± 0.34	χ_{lowl}^2	22.81 ± 0.89
H_0	67.67 ± 0.54	k_{D}	0.14028 ± 0.00044	$\chi_{\mathrm{CamSpec}}^2$	7063.9 ± 5.3
Ω_{Λ}	0.6902 ± 0.0073	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00026	$\chi_{6\mathrm{DF}}^2$	0.054 ± 0.072
Ω_{m}	0.3098 ± 0.0073	z_{eq}	3373 ± 28	χ_{MGS}^2	1.39 ± 0.53
$\Omega_{\mathrm{m}}h^2$	0.1418 ± 0.0012	k_{eq}	0.010294 ± 0.000087	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.6
$\Omega_{\mathrm{m}}h^3$	0.09593 ± 0.00045	$100\theta_{\mathrm{eq}}$	0.8183 ± 0.0053	χ_{prior}^2	7.7 ± 3.5
σ_8	0.8067 ± 0.0078	$100\theta_{\mathrm{s,eq}}$	0.4521 ± 0.0027	χ_{BAO}^2	6.1 ± 1.3
S_8	0.820 ± 0.015	$H(0.15)$	72.92 ± 0.47	χ_{CMB}^2	7483.8 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4490 ± 0.0082	$D_{\mathrm{M}}(0.15)$	640.9 ± 4.6		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6018 ± 0.0080	$H(0.38)$	83.00 ± 0.35		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7497.55; R - 1 = 0.01113$$

2.15 base_CamSpecHM_TT_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02239 ± 0.00022	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.592 ± 0.011	$D_{\mathrm{M}}(0.15)$	633.5 ± 7.0
$\Omega_{\mathrm{c}} h^2$	0.1171 ± 0.0018	$\sigma_8 / h^{0.5}$	0.968 ± 0.015	$H(0.38)$	$83.55^{+0.50}_{-0.55}$
$100\theta_{\mathrm{MC}}$	1.04132 ± 0.00046	$r_{\mathrm{drag}} h$	101.3 ± 1.5	$D_{\mathrm{M}}(0.38)$	1514 ± 14
τ	0.0558 ± 0.0082	$\langle d^2 \rangle^{1/2}$	2.396 ± 0.034	$H(0.51)$	$90.13^{+0.40}_{-0.45}$
$\ln(10^{10} A_{\mathrm{s}})$	3.039 ± 0.016	z_{re}	7.76 ± 0.81	$D_{\mathrm{M}}(0.51)$	1963 ± 17
n_{s}	0.9718 ± 0.0053	$10^9 A_{\mathrm{s}}$	2.089 ± 0.034	$H(0.61)$	$95.64^{+0.32}_{-0.37}$
y_{cal}	1.0008 ± 0.0026	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.868 ± 0.013	$D_{\mathrm{M}}(0.61)$	2286 ± 18
A_{100}^{PS}	240 ± 25	D_{40}	1214 ± 14	$H(2.33)$	234.7 ± 1.1
A_{143}^{PS}	39 ± 8	D_{220}	5724 ± 43	$D_{\mathrm{M}}(2.33)$	5750^{+17}_{-15}
A_{217}^{PS}	101^{+10}_{-10}	D_{810}	2534 ± 14	$f\sigma_8(0.15)$	0.443 ± 0.011
A_{217}^{CIB}	40 ± 7	D_{1420}	$816.9^{+5.3}_{-4.8}$	$\sigma_8(0.15)$	0.7419 ± 0.0074
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.4}$	D_{2000}	230.6 ± 1.8	$f\sigma_8(0.38)$	0.4644 ± 0.0088
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9718 ± 0.0053	$\sigma_8(0.38)$	0.6591 ± 0.0060
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.417	Y_{P}	0.245400 ± 0.000086	$f\sigma_8(0.51)$	0.4646 ± 0.0077
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246726 ± 0.000086	$\sigma_8(0.51)$	0.6174 ± 0.0054
A^{kSZ}	4.9 ± 2.7	$10^5 \mathrm{D}/\mathrm{H}$	2.583 ± 0.040	$f\sigma_8(0.61)$	0.4607 ± 0.0069
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.771 ± 0.035	$\sigma_8(0.61)$	0.5878 ± 0.0051
A_{143}^{dust}	0.97 ± 0.17	z_*	1089.65 ± 0.38	$f\sigma_8(2.33)$	0.2969 ± 0.0025
A_{217}^{dust}	0.97 ± 0.10	r_*	145.17 ± 0.43	$\sigma_8(2.33)$	0.3067 ± 0.0026
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04151 ± 0.00045	f_{2000}^{143}	$29.9^{+2.8}_{-3.1}$
c_{100}	0.9975 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.938 ± 0.040	f_{2000}^{217}	106.9 ± 2.0
c_{217}	1.0012 ± 0.0015	z_{drag}	1059.77 ± 0.45	$f_{2000}^{143 \times 217}$	32.2 ± 2.1
H_0	68.54 ± 0.84	r_{drag}	147.84 ± 0.43	χ_{small}^2	397.2 ± 1.9
Ω_{Λ}	0.701 ± 0.011	k_{D}	0.14009 ± 0.00049	χ_{lowl}^2	22.13 ± 0.92
Ω_{m}	0.299 ± 0.011	$100\theta_{\mathrm{D}}$	0.16089 ± 0.00026	$\chi_{\mathrm{CamSpec}}^2$	7067.0 ± 6.0
$\Omega_{\mathrm{m}} h^2$	0.1401 ± 0.0017	z_{eq}	3334 ± 42	$\chi_{\mathrm{H073p45}}^2$	9.0 ± 3.0
$\Omega_{\mathrm{m}} h^3$	0.09604 ± 0.00045	k_{eq}	0.01017 ± 0.00013	χ_{prior}^2	7.6 ± 3.4
σ_8	0.8015 ± 0.0086	$100\theta_{\mathrm{eq}}$	0.8262 ± 0.0081	χ_{CMB}^2	7486.3 ± 5.9
S_8	0.800 ± 0.021	$100\theta_{\mathrm{s,eq}}$	0.4561 ± 0.0042		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.438 ± 0.011	$H(0.15)$	73.68 ± 0.73		
$\bar{\chi}_{\mathrm{eff}}^2 = 7502.88; R - 1 = 0.07941$					

2.16 base_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02214 ± 0.00022	$\sigma_8 \Omega_m^{0.5}$	0.459 ± 0.013	$100\theta_{s,eq}$	0.4489 ± 0.0046
$\Omega_c h^2$	0.1204 ± 0.0021	$\sigma_8 \Omega_m^{0.25}$	0.610 ± 0.012	$H(0.15)$	72.38 ± 0.78
$100\theta_{MC}$	1.04086 ± 0.00047	$\sigma_8/h^{0.5}$	0.992 ± 0.016	$D_M(0.15)$	646.4 ± 7.9
τ	$0.0538^{+0.0048}_{-0.0082}$	$r_{drag}h$	98.7 ± 1.6	$H(0.38)$	82.61 ± 0.56
$\ln(10^{10} A_s)$	$3.042^{+0.012}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	2.450 ± 0.037	$D_M(0.38)$	1540 ± 16
n_s	0.9641 ± 0.0058	z_{re}	$7.67^{+0.54}_{-0.81}$	$H(0.51)$	89.40 ± 0.44
y_{cal}	1.0005 ± 0.0025	$10^9 A_s$	$2.095^{+0.025}_{-0.033}$	$D_M(0.51)$	1994 ± 18
A_{100}^{PS}	242 ± 25	$10^9 A_s e^{-2\tau}$	1.881 ± 0.014	$H(0.61)$	95.07 ± 0.35
A_{143}^{PS}	41 ± 8	D_{40}	1229 ± 15	$D_M(0.61)$	2319 ± 20
A_{217}^{PS}	101 ± 10	D_{220}	5704 ± 42	$H(2.33)$	236.6 ± 1.3
A_{217}^{CIB}	41 ± 7	D_{810}	2534 ± 14	$D_M(2.33)$	5775 ± 16
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{1420}	814.4 ± 5.2	$f\sigma_8(0.15)$	0.463 ± 0.012
$r_{143 \times 217}^{PS}$	0.65 ± 0.13	D_{2000}	229.6 ± 1.8	$\sigma_8(0.15)$	0.7496 ± 0.0069
$r_{143 \times 217}^{CIB}$	> 0.455	$n_{s,0.002}$	0.9641 ± 0.0058	$f\sigma_8(0.38)$	0.4792 ± 0.0095
$\xi^{tSZ \times CIB}$	—	Y_P	$0.24530^{+0.00010}_{-0.000082}$	$\sigma_8(0.38)$	$0.6637^{+0.0051}_{-0.0057}$
A^{kSZ}	—	Y_P^{BBN}	$0.24662^{+0.00010}_{-0.000082}$	$f\sigma_8(0.51)$	0.4769 ± 0.0081
A_{100}^{dust}	1.01 ± 0.20	$10^5 D/H$	2.629 ± 0.041	$\sigma_8(0.51)$	$0.6208^{+0.0044}_{-0.0052}$
A_{143}^{dust}	0.98 ± 0.18	Age/Gyr	13.824 ± 0.036	$f\sigma_8(0.61)$	0.4713 ± 0.0071
A_{217}^{dust}	0.97 ± 0.10	z_*	1090.24 ± 0.41	$\sigma_8(0.61)$	$0.5905^{+0.0040}_{-0.0049}$
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	r_*	144.51 ± 0.48	$f\sigma_8(2.33)$	$0.2974^{+0.0019}_{-0.0024}$
c_{100}	0.9975 ± 0.0011	$100\theta_*$	1.04106 ± 0.00046	$\sigma_8(2.33)$	$0.3063^{+0.0020}_{-0.0026}$
c_{217}	1.0012 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.881 ± 0.044	f_{2000}^{143}	30.7 ± 3.0
H_0	67.02 ± 0.92	z_{drag}	1059.44 ± 0.45	f_{2000}^{217}	107.5 ± 2.0
Ω_Λ	0.681 ± 0.013	r_{drag}	147.25 ± 0.48	$f_{2000}^{143 \times 217}$	32.9 ± 2.1
Ω_m	0.319 ± 0.013	k_D	0.14053 ± 0.00051	χ_{simall}^2	396.8 ± 1.6
$\Omega_m h^2$	0.1432 ± 0.0020	$100\theta_D$	0.16106 ± 0.00026	χ_{lowl}^2	23.5 ± 1.3
$\Omega_m h^3$	0.09594 ± 0.00045	z_{eq}	3406 ± 48	$\chi_{CamSpec}^2$	7063.2 ± 5.4
σ_8	0.8120 ± 0.0084	k_{eq}	0.01040 ± 0.00014	χ_{prior}^2	7.7 ± 3.5
S_8	0.837 ± 0.024	$100\theta_{eq}$	0.8121 ± 0.0089	χ_{CMB}^2	7483.6 ± 5.4

$\bar{\chi}_{eff}^2 = 7491.26$; $R - 1 = 0.00680$

2.17 base_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02223 ± 0.00019	$\sigma_8/h^{0.5}$	0.982 ± 0.011	$D_M(0.38)$	1528.7 ± 9.3
$\Omega_c h^2$	0.1189 ± 0.0012	$r_{\text{drag}} h$	99.85 ± 0.94	$H(0.51)$	89.70 ± 0.29
$100\theta_{\text{MC}}$	1.04105 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.026	$D_M(0.51)$	1981 ± 11
τ	$0.0550^{+0.0055}_{-0.0080}$	z_{re}	$7.75^{+0.60}_{-0.81}$	$H(0.61)$	95.30 ± 0.24
$\ln(10^{10} A_s)$	$3.041^{+0.013}_{-0.016}$	$10^9 A_s$	$2.093^{+0.026}_{-0.034}$	$D_M(0.61)$	2305 ± 12
n_s	0.9675 ± 0.0042	$10^9 A_s e^{-2\tau}$	1.875 ± 0.012	$H(2.33)$	235.71 ± 0.78
y_{cal}	1.0006 ± 0.0025	D_{40}	1222^{+12}_{-14}	$D_M(2.33)$	5765 ± 12
A_{100}^{PS}	241 ± 25	D_{220}	5711 ± 41	$f\sigma_8(0.15)$	0.4542 ± 0.0075
A_{143}^{PS}	40 ± 8	D_{810}	2534 ± 14	$\sigma_8(0.15)$	$0.7466^{+0.0057}_{-0.0066}$
A_{217}^{PS}	101 ± 10	D_{1420}	815.3 ± 5.0	$f\sigma_8(0.38)$	0.4729 ± 0.0063
A_{217}^{CIB}	41^{+7}_{-8}	D_{2000}	230.0 ± 1.7	$\sigma_8(0.38)$	$0.6620^{+0.0047}_{-0.0056}$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	$n_{s,0.002}$	0.9675 ± 0.0042	$f\sigma_8(0.51)$	0.4717 ± 0.0056
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	Y_{P}	$0.245335^{+0.000084}_{-0.000073}$	$\sigma_8(0.51)$	$0.6196^{+0.0043}_{-0.0052}$
$r_{143 \times 217}^{\text{CIB}}$	> 0.457	$Y_{\text{P}}^{\text{BBN}}$	$0.246662^{+0.000084}_{-0.000073}$	$f\sigma_8(0.61)$	0.4669 ± 0.0051
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 \text{D}/\text{H}$	2.613 ± 0.036	$\sigma_8(0.61)$	$0.5896^{+0.0041}_{-0.0049}$
A^{kSZ}	—	Age/Gyr	13.803 ± 0.027	$f\sigma_8(2.33)$	$0.2974^{+0.0020}_{-0.0025}$
A_{100}^{dust}	1.01 ± 0.19	z_*	1090.00 ± 0.29	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0026}$
A_{143}^{dust}	0.97 ± 0.18	r_*	144.83 ± 0.31	f_{2000}^{143}	30.4 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04125 ± 0.00041	f_{2000}^{217}	107.3 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.17	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.031	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.53 ± 0.44	χ_{small}^2	396.9 ± 1.7
c_{217}	1.0011 ± 0.0016	r_{drag}	147.54 ± 0.34	χ_{lowl}^2	22.83 ± 0.89
H_0	67.67 ± 0.54	k_{D}	0.14028 ± 0.00044	χ_{CamSpec}^2	7063.8 ± 5.3
Ω_{Λ}	0.6904 ± 0.0073	$100\theta_{\text{D}}$	0.16101 ± 0.00025	$\chi_{6\text{DF}}^2$	0.054 ± 0.071
Ω_{m}	0.3096 ± 0.0073	z_{eq}	3372 ± 28	χ_{MGS}^2	1.40 ± 0.53
$\Omega_{\text{m}} h^2$	0.1418 ± 0.0012	k_{eq}	0.010293 ± 0.000087	χ_{DR12BAO}^2	4.6 ± 1.5
$\Omega_{\text{m}} h^3$	0.09594 ± 0.00045	$100\theta_{\text{eq}}$	0.8184 ± 0.0053	χ_{prior}^2	7.7 ± 3.5
σ_8	$0.8078^{+0.0066}_{-0.0075}$	$100\theta_{s,\text{eq}}$	0.4522 ± 0.0027	χ_{BAO}^2	6.1 ± 1.2
S_8	0.821 ± 0.015	$H(0.15)$	72.93 ± 0.47	χ_{CMB}^2	7483.5 ± 5.3
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4495 ± 0.0080	$D_M(0.15)$	640.8 ± 4.6		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6025 ± 0.0077	$H(0.38)$	83.00 ± 0.35		

$\bar{\chi}_{\text{eff}}^2 = 7497.31$; $R - 1 = 0.01176$

2.18 base_CamSpecHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00022	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.593 ± 0.011	$D_{\mathrm{M}}(0.15)$	633.4 ± 7.0
$\Omega_{\mathrm{c}}h^2$	0.1171 ± 0.0018	$\sigma_8/h^{0.5}$	0.969 ± 0.015	$H(0.38)$	$83.57^{+0.50}_{-0.56}$
$100\theta_{\mathrm{MC}}$	1.04133 ± 0.00046	$r_{\mathrm{drag}}h$	101.4 ± 1.5	$D_{\mathrm{M}}(0.38)$	1514 ± 14
τ	$0.0568^{+0.0063}_{-0.0081}$	$\langle d^2 \rangle^{1/2}$	2.398 ± 0.034	$H(0.51)$	$90.14^{+0.40}_{-0.45}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.013}_{-0.016}$	z_{re}	$7.86^{+0.64}_{-0.83}$	$D_{\mathrm{M}}(0.51)$	1963 ± 17
n_{s}	0.9719 ± 0.0052	$10^9 A_{\mathrm{s}}$	$2.093^{+0.028}_{-0.033}$	$H(0.61)$	$95.65^{+0.33}_{-0.37}$
y_{cal}	1.0008 ± 0.0026	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.868 ± 0.012	$D_{\mathrm{M}}(0.61)$	2286 ± 18
A_{100}^{PS}	240 ± 25	D_{40}	1214 ± 14	$H(2.33)$	234.7 ± 1.1
A_{143}^{PS}	39 ± 8	D_{220}	5725 ± 43	$D_{\mathrm{M}}(2.33)$	5750^{+17}_{-15}
A_{217}^{PS}	101^{+10}_{-10}	D_{810}	2534^{+14}_{-13}	$f\sigma_8(0.15)$	0.444 ± 0.011
A_{217}^{CIB}	40^{+7}_{-8}	D_{1420}	$816.9^{+5.3}_{-4.8}$	$\sigma_8(0.15)$	$0.7425^{+0.0064}_{-0.0076}$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.4}$	D_{2000}	230.7 ± 1.7	$f\sigma_8(0.38)$	0.4647 ± 0.0088
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9719 ± 0.0052	$\sigma_8(0.38)$	$0.6597^{+0.0049}_{-0.0061}$
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.417	Y_{P}	0.245402 ± 0.000086	$f\sigma_8(0.51)$	0.4648 ± 0.0076
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246728 ± 0.000086	$\sigma_8(0.51)$	$0.6180^{+0.0044}_{-0.0055}$
A^{kSZ}	4.9 ± 2.7	$10^5 D/H$	2.582 ± 0.040	$f\sigma_8(0.61)$	0.4610 ± 0.0068
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.770 ± 0.035	$\sigma_8(0.61)$	$0.5884^{+0.0040}_{-0.0051}$
A_{143}^{dust}	0.97 ± 0.17	z_*	1089.63 ± 0.38	$f\sigma_8(2.33)$	$0.2972^{+0.0019}_{-0.0025}$
A_{217}^{dust}	0.97 ± 0.10	r_*	145.18 ± 0.43	$\sigma_8(2.33)$	$0.3070^{+0.0021}_{-0.0025}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04151 ± 0.00045	f_{2000}^{143}	$29.8^{+2.7}_{-3.1}$
c_{100}	0.9975 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.939 ± 0.040	f_{2000}^{217}	106.9 ± 2.0
c_{217}	1.0012 ± 0.0015	z_{drag}	1059.78 ± 0.45	$f_{2000}^{143 \times 217}$	32.2 ± 2.1
H_0	68.56 ± 0.84	r_{drag}	147.85 ± 0.43	χ_{small}^2	397.2 ± 2.0
Ω_{Λ}	0.702 ± 0.011	k_{D}	0.14009 ± 0.00048	χ_{lowl}^2	22.13 ± 0.92
Ω_{m}	0.298 ± 0.011	$100\theta_{\mathrm{D}}$	0.16089 ± 0.00026	$\chi_{\mathrm{CamSpec}}^2$	7066.9 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.1401 ± 0.0017	z_{eq}	3333 ± 42	$\chi_{\mathrm{H073p45}}^2$	8.9 ± 3.0
$\Omega_{\mathrm{m}}h^3$	0.09605 ± 0.00045	k_{eq}	0.01017 ± 0.00013	χ_{prior}^2	7.5 ± 3.4
σ_8	$0.8021^{+0.0079}_{-0.0088}$	$100\theta_{\mathrm{eq}}$	0.8264 ± 0.0081	χ_{CMB}^2	7486.2 ± 5.8
S_8	0.800 ± 0.021	$100\theta_{\mathrm{s,eq}}$	0.4562 ± 0.0042		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.438 ± 0.012	$H(0.15)$	73.70 ± 0.73		
$\bar{\chi}_{\mathrm{eff}}^2 = 7502.64; R - 1 = 0.09766$					

2.19 base_CamSpecHM_TTTEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022297	0.02229 ± 0.00016	S_8	0.8261	0.827 ± 0.016	$100\theta_{\mathrm{s,eq}}$	0.45045	0.4503 ± 0.0030
$\Omega_{\mathrm{c}}h^2$	0.11956	0.1196 ± 0.0014	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4525	0.4529 ± 0.0089	$H(0.15)$	72.73	72.71 ± 0.53
$100\theta_{\mathrm{MC}}$	1.040870	1.04088 ± 0.00032	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6047	0.6050 ± 0.0083	$D_{\mathrm{M}}(0.15)$	642.8	643.0 ± 5.3
τ	0.0531	0.0528 ± 0.0080	$\sigma_8/h^{0.5}$	0.9843	0.985 ± 0.012	$H(0.38)$	82.874	82.86 ± 0.38
$\ln(10^{10}A_{\mathrm{s}})$	3.0390	3.039 ± 0.016	$r_{\mathrm{drag}}h$	99.32	99.3 ± 1.1	$D_{\mathrm{M}}(0.38)$	1532.6	1533 ± 11
n_{s}	0.96623	0.9658 ± 0.0045	$\langle d^2 \rangle^{1/2}$	2.4329	2.434 ± 0.028	$H(0.51)$	89.610	89.60 ± 0.30
y_{cal}	1.00034	1.0005 ± 0.0025	z_{re}	7.56	$7.52^{+0.83}_{-0.75}$	$D_{\mathrm{M}}(0.51)$	1985.0	1985 ± 12
A_{100}^{PS}	234.8	240 ± 25	$10^9 A_{\mathrm{s}}$	2.0884	2.088 ± 0.034	$H(0.61)$	95.243	95.24 ± 0.24
A_{143}^{PS}	41.1	40 ± 8	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8780	1.879 ± 0.011	$D_{\mathrm{M}}(0.61)$	2309.6	2310 ± 13
A_{217}^{PS}	101.9	102 ± 10	D_{40}	1225.0	1226 ± 13	$H(2.33)$	236.19	236.24 ± 0.83
A_{217}^{CIB}	44.3	40 ± 7	D_{220}	5716.0	5718 ± 39	$D_{\mathrm{M}}(2.33)$	5766.4	5767 ± 11
A_{143}^{tSZ}	6.43	$3.9^{+1.8}_{-2.5}$	D_{810}	2534.7	2535 ± 13	$f\sigma_8(0.15)$	0.4569	0.4572 ± 0.0083
$r_{143 \times 217}^{\mathrm{PS}}$	0.629	0.66 ± 0.13	D_{1420}	815.77	815.6 ± 4.8	$\sigma_8(0.15)$	0.7467	0.7467 ± 0.0067
$r_{143 \times 217}^{\mathrm{CIB}}$	0.764	$0.56^{+0.40}_{-0.17}$	D_{2000}	230.27	230.2 ± 1.6	$f\sigma_8(0.38)$	0.4748	0.4750 ± 0.0068
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.20	—	$n_{\mathrm{s},0.002}$	0.96623	0.9658 ± 0.0045	$\sigma_8(0.38)$	0.6616	0.6616 ± 0.0057
A^{kSZ}	0.26	$4.7^{+2.2}_{-4.0}$	Y_{P}	0.245366	$0.245362^{+0.000068}_{-0.000059}$	$f\sigma_8(0.51)$	0.4731	0.4733 ± 0.0060
A_{100}^{dust}	1.003	1.01 ± 0.20	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246692	$0.246689^{+0.000068}_{-0.000059}$	$\sigma_8(0.51)$	0.6191	0.6190 ± 0.0053
A_{143}^{dust}	0.980	0.96 ± 0.18	$10^5 \mathrm{D}/\mathrm{H}$	2.5994	2.601 ± 0.030	$f\sigma_8(0.61)$	0.4680	0.4681 ± 0.0055
A_{217}^{dust}	0.966	0.97 ± 0.10	$\mathrm{Age}/\mathrm{Gyr}$	13.8046	13.805 ± 0.025	$\sigma_8(0.61)$	0.58903	0.5890 ± 0.0050
$A_{143 \times 217}^{\mathrm{dust}}$	1.012	1.03 ± 0.16	z_*	1089.976	1089.99 ± 0.28	$f\sigma_8(2.33)$	0.29692	0.2969 ± 0.0025
c_{100}	0.99760	0.9975 ± 0.0010	r_*	144.600	144.58 ± 0.31	$\sigma_8(2.33)$	0.30603	0.3060 ± 0.0026
c_{217}	1.00127	1.0011 ± 0.0016	$100\theta_*$	1.041058	1.04107 ± 0.00031	f_{2000}^{143}	30.03	29.8 ± 2.8
c_{TE}	0.99645	0.9968 ± 0.0049	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8897	13.888 ± 0.029	f_{2000}^{217}	106.72	106.9 ± 1.9
c_{EE}	0.99197	0.9921 ± 0.0049	z_{drag}	1059.742	1059.73 ± 0.33	$f_{2000}^{143 \times 217}$	32.23	32.2 ± 2.0
H_0	67.43	67.41 ± 0.62	r_{drag}	147.288	147.27 ± 0.31	χ_{small}^2	395.90	396.9 ± 1.7
Ω_{Λ}	0.6866	0.6861 ± 0.0085	k_{D}	0.140603	0.14061 ± 0.00034	χ_{lowl}^2	23.00	23.16 ± 0.94
Ω_{m}	0.3134	0.3139 ± 0.0085	$100\theta_{\mathrm{D}}$	0.160865	0.16087 ± 0.00019	$\chi_{\mathrm{CamSpec}}^2$	11499.6	11514.5 ± 5.6
$\Omega_{\mathrm{m}}h^2$	0.14250	0.1426 ± 0.0013	z_{eq}	3390.0	3392 ± 31	χ_{prior}^2	2.22	7.8 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.096089	0.09610 ± 0.00031	k_{eq}	0.010347	0.010352 ± 0.000095	χ_{CMB}^2	11918.5	11934.6 ± 5.7
σ_8	0.8082	0.8083 ± 0.0076	$100\theta_{\mathrm{eq}}$	0.8152	0.8150 ± 0.0059			

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.76$; $\bar{\chi}_{\mathrm{eff}}^2 = 11942.46$; $R - 1 = 0.01233$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 commander_dx12_v3.2.29: 23.00 CamSpec like_10.7HM_1400_unified: 11499.65

2.20 base_CamSpecHM_TTTEEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02234 ± 0.00015	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4488 ± 0.0070	$D_{\mathrm{M}}(0.15)$	640.4 ± 3.9
$\Omega_{\mathrm{c}} h^2$	0.1190 ± 0.0010	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6017 ± 0.0070	$H(0.38)$	83.05 ± 0.29
$100\theta_{\mathrm{MC}}$	1.04097 ± 0.00030	$\sigma_8/h^{0.5}$	0.980 ± 0.010	$D_{\mathrm{M}}(0.38)$	1527.8 ± 7.8
τ	0.0538 ± 0.0079	$r_{\mathrm{drag}} h$	99.81 ± 0.79	$H(0.51)$	89.75 ± 0.24
$\ln(10^{10} A_{\mathrm{s}})$	3.039 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.025	$D_{\mathrm{M}}(0.51)$	1979.4 ± 9.2
n_{s}	0.9674 ± 0.0039	z_{re}	$7.60^{+0.83}_{-0.73}$	$H(0.61)$	95.35 ± 0.20
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.089 ± 0.034	$D_{\mathrm{M}}(0.61)$	2303.5 ± 9.9
A_{100}^{PS}	240 ± 25	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.876 ± 0.011	$H(2.33)$	235.84 ± 0.64
A_{143}^{PS}	39 ± 8	D_{40}	1223 ± 12	$D_{\mathrm{M}}(2.33)$	5761.9 ± 9.3
A_{217}^{PS}	102 ± 10	D_{220}	5722 ± 39	$f\sigma_8(0.15)$	0.4535 ± 0.0066
A_{217}^{CIB}	40 ± 7	D_{810}	2535 ± 13	$\sigma_8(0.15)$	0.7455 ± 0.0065
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	D_{1420}	816.1 ± 4.7	$f\sigma_8(0.38)$	0.4722 ± 0.0057
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.4 ± 1.6	$\sigma_8(0.38)$	0.6611 ± 0.0057
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.37}_{-0.20}$	$n_{\mathrm{s},0.002}$	0.9674 ± 0.0039	$f\sigma_8(0.51)$	0.4710 ± 0.0052
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245381^{+0.000061}_{-0.000053}$	$\sigma_8(0.51)$	0.6187 ± 0.0053
A^{kSZ}	$4.7^{+2.1}_{-4.0}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707^{+0.000062}_{-0.000054}$	$f\sigma_8(0.61)$	0.4662 ± 0.0048
A_{100}^{dust}	1.01 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	2.592 ± 0.027	$\sigma_8(0.61)$	0.5888 ± 0.0050
A_{143}^{dust}	0.96 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.795 ± 0.021	$f\sigma_8(2.33)$	0.2969 ± 0.0025
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.87 ± 0.23	$\sigma_8(2.33)$	0.3062 ± 0.0026
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	144.73 ± 0.25	f_{2000}^{143}	29.6 ± 2.8
c_{100}	0.9975 ± 0.0010	$100\theta_*$	1.04116 ± 0.00030	f_{2000}^{217}	106.8 ± 1.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.901 ± 0.024	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{TE}	0.9969 ± 0.0049	z_{drag}	1059.79 ± 0.32	χ_{small}^2	397.0 ± 1.7
c_{EE}	0.9924 ± 0.0049	r_{drag}	147.40 ± 0.26	χ_{lowl}^2	22.87 ± 0.82
H_0	67.71 ± 0.46	k_{D}	0.14051 ± 0.00032	$\chi_{\mathrm{CamSpec}}^2$	11514.6 ± 5.7
Ω_{Λ}	0.6904 ± 0.0062	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.045 ± 0.057
Ω_{m}	0.3096 ± 0.0062	z_{eq}	3377 ± 24	χ_{MGS}^2	1.36 ± 0.45
$\Omega_{\mathrm{m}} h^2$	0.14194 ± 0.00098	k_{eq}	0.010305 ± 0.000072	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
$\Omega_{\mathrm{m}} h^3$	0.09611 ± 0.00031	$100\theta_{\mathrm{eq}}$	0.8179 ± 0.0044	χ_{prior}^2	7.8 ± 3.4
σ_8	0.8066 ± 0.0073	$100\theta_{\mathrm{s,eq}}$	0.4518 ± 0.0023	χ_{BAO}^2	6.0 ± 1.0
S_8	0.819 ± 0.013	$H(0.15)$	72.97 ± 0.39	χ_{CMB}^2	11934.5 ± 5.7

$$\bar{\chi}_{\mathrm{eff}}^2 = 11948.28; R - 1 = 0.01864$$

2.21 base_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02242 ± 0.00015	S_8	0.810 ± 0.015	$100\theta_{s,eq}$	0.4538 ± 0.0029
$\Omega_c h^2$	0.1181 ± 0.0013	$\sigma_8 \Omega_m^{0.5}$	0.4435 ± 0.0083	$H(0.15)$	73.34 ± 0.50
$100\theta_{MC}$	$1.04108^{+0.00032}_{-0.00028}$	$\sigma_8 \Omega_m^{0.25}$	0.5973 ± 0.0080	$D_M(0.15)$	636.8 ± 4.9
τ	0.0553 ± 0.0079	$\sigma_8/h^{0.5}$	0.974 ± 0.011	$H(0.38)$	83.32 ± 0.36
$\ln(10^{10} A_s)$	3.041 ± 0.016	$r_{drag} h$	100.5 ± 1.0	$D_M(0.38)$	1520.5 ± 9.7
n_s	0.9696 ± 0.0043	$\langle d^2 \rangle^{1/2}$	2.412 ± 0.027	$H(0.51)$	89.96 ± 0.29
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.72^{+0.83}_{-0.71}$	$D_M(0.51)$	1971 ± 11
A_{100}^{PS}	240 ± 25	$10^9 A_s$	2.092 ± 0.034	$H(0.61)$	95.52 ± 0.23
A_{143}^{PS}	38 ± 8	$10^9 A_s e^{-2\tau}$	1.873 ± 0.011	$D_M(0.61)$	2294 ± 12
A_{217}^{PS}	102 ± 10	D_{40}	1219 ± 13	$H(2.33)$	235.34 ± 0.79
A_{217}^{CIB}	39 ± 7	D_{220}	5729 ± 39	$D_M(2.33)$	5755 ± 11
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.7}$	D_{810}	2535 ± 13	$f\sigma_8(0.15)$	0.4487 ± 0.0078
$r_{143 \times 217}^{PS}$	0.66 ± 0.13	D_{1420}	817.0 ± 4.8	$\sigma_8(0.15)$	0.7440 ± 0.0066
$r_{143 \times 217}^{CIB}$	$0.55^{+0.35}_{-0.22}$	D_{2000}	230.8 ± 1.6	$f\sigma_8(0.38)$	0.4685 ± 0.0065
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	0.9696 ± 0.0043	$\sigma_8(0.38)$	0.6604 ± 0.0057
A^{kSZ}	$4.6^{+1.8}_{-4.2}$	Y_P	$0.245413^{+0.000063}_{-0.000053}$	$f\sigma_8(0.51)$	0.4680 ± 0.0058
A_{100}^{dust}	1.02 ± 0.20	Y_P^{BBN}	$0.246739^{+0.000063}_{-0.000054}$	$\sigma_8(0.51)$	0.6183 ± 0.0052
A_{143}^{dust}	0.96 ± 0.18	$10^5 D/H$	$2.577^{+0.026}_{-0.029}$	$f\sigma_8(0.61)$	0.4637 ± 0.0054
A_{217}^{dust}	0.98 ± 0.10	Age/Gyr	13.779 ± 0.023	$\sigma_8(0.61)$	0.5886 ± 0.0049
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	z_*	1089.69 ± 0.26	$f\sigma_8(2.33)$	0.2971 ± 0.0025
c_{100}	0.9976 ± 0.0010	r_*	144.90 ± 0.30	$\sigma_8(2.33)$	0.3066 ± 0.0026
c_{217}	1.0011 ± 0.0016	$100\theta_*$	$1.04126^{+0.00031}_{-0.00028}$	f_{2000}^{143}	29.2 ± 2.8
c_{TE}	0.9969 ± 0.0049	$D_M(z_*)/Gpc$	13.916 ± 0.028	f_{2000}^{217}	106.5 ± 1.9
c_{EE}	0.9925 ± 0.0049	z_{drag}	1059.91 ± 0.32	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
H_0	68.14 ± 0.58	r_{drag}	147.55 ± 0.31	χ_{small}^2	397.1 ± 1.8
Ω_Λ	0.6960 ± 0.0077	k_D	0.14042 ± 0.00034	χ_{lowl}^2	22.52 ± 0.83
Ω_m	0.3040 ± 0.0077	$100\theta_D$	0.16078 ± 0.00018	$\chi_{CamSpec}^2$	11516.4 ± 6.4
$\Omega_m h^2$	0.1411 ± 0.0012	z_{eq}	3357 ± 30	$\chi_{H073p45}^2$	10.3 ± 2.2
$\Omega_m h^3$	0.09615 ± 0.00031	k_{eq}	0.010245 ± 0.000090	χ_{prior}^2	7.8 ± 3.5
σ_8	0.8044 ± 0.0075	$100\theta_{eq}$	0.8218 ± 0.0057	χ_{CMB}^2	11936.1 ± 6.3
$\bar{\chi}_{eff}^2 = 11954.26; R - 1 = 0.03390$					

2.22 base_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00016	S_8	0.828 ± 0.016	$100\theta_{s,eq}$	0.4504 ± 0.0030
$\Omega_c h^2$	0.1196 ± 0.0014	$\sigma_8 \Omega_m^{0.5}$	0.4533 ± 0.0088	$H(0.15)$	72.73 ± 0.53
$100\theta_{MC}$	1.04089 ± 0.00031	$\sigma_8 \Omega_m^{0.25}$	0.6057 ± 0.0081	$D_M(0.15)$	642.8 ± 5.3
τ	$0.0545^{+0.0049}_{-0.0082}$	$\sigma_8/h^{0.5}$	0.986 ± 0.011	$H(0.38)$	82.88 ± 0.38
$\ln(10^{10} A_s)$	$3.042^{+0.011}_{-0.016}$	$r_{drag} h$	99.3 ± 1.1	$D_M(0.38)$	1533 ± 11
n_s	0.9660 ± 0.0044	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.027	$H(0.51)$	89.62 ± 0.30
y_{cal}	1.0005 ± 0.0025	z_{re}	$7.69^{+0.55}_{-0.81}$	$D_M(0.51)$	1985 ± 12
A_{100}^{PS}	240 ± 25	$10^9 A_s$	$2.095^{+0.023}_{-0.034}$	$H(0.61)$	95.25 ± 0.24
A_{143}^{PS}	39 ± 8	$10^9 A_s e^{-2\tau}$	1.878 ± 0.011	$D_M(0.61)$	2310 ± 13
A_{217}^{PS}	102 ± 10	D_{40}	1226 ± 13	$H(2.33)$	236.22 ± 0.83
A_{217}^{CIB}	40 ± 7	D_{220}	5718 ± 39	$D_M(2.33)$	5766 ± 11
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{810}	2535 ± 13	$f\sigma_8(0.15)$	0.4577 ± 0.0082
$r_{143 \times 217}^{PS}$	0.66 ± 0.13	D_{1420}	815.7 ± 4.9	$\sigma_8(0.15)$	$0.7477^{+0.0054}_{-0.0064}$
$r_{143 \times 217}^{CIB}$	$0.56^{+0.40}_{-0.17}$	D_{2000}	230.3 ± 1.6	$f\sigma_8(0.38)$	0.4755 ± 0.0066
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	0.9660 ± 0.0044	$\sigma_8(0.38)$	$0.6626^{+0.0043}_{-0.0055}$
A^{kSZ}	$4.7^{+2.1}_{-4.1}$	Y_P	$0.245364^{+0.000068}_{-0.000059}$	$f\sigma_8(0.51)$	0.4738 ± 0.0058
A_{100}^{dust}	1.01 ± 0.20	Y_P^{BBN}	$0.246691^{+0.000068}_{-0.000059}$	$\sigma_8(0.51)$	$0.6200^{+0.0039}_{-0.0051}$
A_{143}^{dust}	0.96 ± 0.18	$10^5 D/H$	2.600 ± 0.030	$f\sigma_8(0.61)$	0.4687 ± 0.0052
A_{217}^{dust}	0.97 ± 0.10	Age/Gyr	13.804 ± 0.025	$\sigma_8(0.61)$	$0.5899^{+0.0036}_{-0.0048}$
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	z_*	1089.98 ± 0.28	$f\sigma_8(2.33)$	$0.2973^{+0.0018}_{-0.0024}$
c_{100}	0.9975 ± 0.0010	r_*	144.59 ± 0.31	$\sigma_8(2.33)$	$0.3065^{+0.0018}_{-0.0026}$
c_{217}	1.0011 ± 0.0016	$100\theta_*$	1.04108 ± 0.00031	f_{2000}^{143}	29.7 ± 2.8
c_{TE}	0.9966 ± 0.0049	$D_M(z_*)/\text{Gpc}$	13.889 ± 0.029	f_{2000}^{217}	106.9 ± 1.9
c_{EE}	0.9921 ± 0.0049	z_{drag}	1059.74 ± 0.33	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
H_0	67.43 ± 0.61	r_{drag}	147.28 ± 0.31	χ_{small}^2	396.8 ± 1.7
Ω_Λ	0.6864 ± 0.0085	k_D	0.14061 ± 0.00035	χ_{lowl}^2	23.17 ± 0.94
Ω_m	0.3136 ± 0.0085	$100\theta_D$	0.16087 ± 0.00019	$\chi_{CamSpec}^2$	11514.3 ± 5.6
$\Omega_m h^2$	0.1425 ± 0.0013	z_{eq}	3391 ± 31	χ_{prior}^2	7.8 ± 3.5
$\Omega_m h^3$	0.09610 ± 0.00031	k_{eq}	0.010349 ± 0.000095	χ_{CMB}^2	11934.4 ± 5.7
σ_8	$0.8094^{+0.0065}_{-0.0073}$	$100\theta_{eq}$	0.8152 ± 0.0059		

$$\bar{\chi}_{\text{eff}}^2 = 11942.19; R - 1 = 0.01099$$

2.23 base_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4493 ± 0.0068	$D_{\mathrm{M}}(0.15)$	640.3 ± 3.9
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0010	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6024 ± 0.0067	$H(0.38)$	83.06 ± 0.29
$100\theta_{\mathrm{MC}}$	1.04097 ± 0.00030	$\sigma_8/h^{0.5}$	0.9814 ± 0.0097	$D_{\mathrm{M}}(0.38)$	1527.5 ± 7.8
τ	$0.0552^{+0.0054}_{-0.0079}$	$r_{\mathrm{drag}}h$	99.83 ± 0.79	$H(0.51)$	89.75 ± 0.23
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.023	$D_{\mathrm{M}}(0.51)$	1979.1 ± 9.2
n_{s}	0.9675 ± 0.0039	z_{re}	$7.75^{+0.59}_{-0.79}$	$H(0.61)$	95.36 ± 0.20
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.095^{+0.025}_{-0.034}$	$D_{\mathrm{M}}(0.61)$	2303.2 ± 9.9
A_{100}^{PS}	240 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.011	$H(2.33)$	235.83 ± 0.64
A_{143}^{PS}	39 ± 8	D_{40}	1223 ± 12	$D_{\mathrm{M}}(2.33)$	5761.6 ± 9.3
A_{217}^{PS}	102 ± 10	D_{220}	5722 ± 39	$f\sigma_8(0.15)$	0.4540 ± 0.0065
A_{217}^{CIB}	40 ± 7	D_{810}	2535 ± 13	$\sigma_8(0.15)$	$0.7465^{+0.0052}_{-0.0063}$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.5}$	D_{1420}	816.1 ± 4.8	$f\sigma_8(0.38)$	0.4727 ± 0.0055
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.4 ± 1.6	$\sigma_8(0.38)$	$0.6620^{+0.0044}_{-0.0055}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.37}_{-0.20}$	$n_{\mathrm{s},0.002}$	0.9675 ± 0.0039	$f\sigma_8(0.51)$	0.4716 ± 0.0049
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245382^{+0.000061}_{-0.000053}$	$\sigma_8(0.51)$	$0.6196^{+0.0041}_{-0.0051}$
A^{kSZ}	$4.7^{+2.1}_{-4.0}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246709^{+0.000061}_{-0.000053}$	$f\sigma_8(0.61)$	0.4668 ± 0.0045
A_{100}^{dust}	1.01 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	2.591 ± 0.027	$\sigma_8(0.61)$	$0.5896^{+0.0038}_{-0.0049}$
A_{143}^{dust}	0.96 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.794 ± 0.021	$f\sigma_8(2.33)$	$0.2974^{+0.0019}_{-0.0025}$
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.86 ± 0.23	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0026}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	144.73 ± 0.25	f_{2000}^{143}	29.5 ± 2.8
c_{100}	0.9975 ± 0.0010	$100\theta_*$	1.04116 ± 0.00029	f_{2000}^{217}	106.7 ± 1.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.901 ± 0.024	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{TE}	0.9968 ± 0.0048	z_{drag}	1059.79 ± 0.32	χ_{small}^2	396.9 ± 1.7
c_{EE}	0.9923 ± 0.0049	r_{drag}	147.41 ± 0.26	χ_{lowl}^2	22.88 ± 0.82
H_0	67.73 ± 0.46	k_{D}	0.14051 ± 0.00032	$\chi_{\mathrm{CamSpec}}^2$	11514.4 ± 5.6
Ω_{Λ}	0.6905 ± 0.0061	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.044 ± 0.056
Ω_{m}	0.3095 ± 0.0061	z_{eq}	3376 ± 23	χ_{MGS}^2	1.37 ± 0.45
$\Omega_{\mathrm{m}}h^2$	0.14192 ± 0.00098	k_{eq}	0.010304 ± 0.000072	$\chi_{\mathrm{DR12BAO}}^2$	4.5 ± 1.3
$\Omega_{\mathrm{m}}h^3$	0.09611 ± 0.00032	$100\theta_{\mathrm{eq}}$	0.8180 ± 0.0044	χ_{prior}^2	7.8 ± 3.4
σ_8	$0.8076^{+0.0060}_{-0.0071}$	$100\theta_{\mathrm{s,eq}}$	0.4519 ± 0.0023	χ_{BAO}^2	5.96 ± 0.97
S_8	0.820 ± 0.013	$H(0.15)$	72.98 ± 0.39	χ_{CMB}^2	11934.2 ± 5.7

$$\bar{\chi}_{\mathrm{eff}}^2 = 11947.99; R - 1 = 0.01741$$

2.24 base_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02242 ± 0.00015	S_8	0.810 ± 0.015	$100\theta_{s,eq}$	0.4539 ± 0.0029
$\Omega_c h^2$	0.1180 ± 0.0013	$\sigma_8 \Omega_m^{0.5}$	0.4438 ± 0.0083	$H(0.15)$	73.36 ± 0.49
$100\theta_{MC}$	$1.04108^{+0.00032}_{-0.00028}$	$\sigma_8 \Omega_m^{0.25}$	0.5977 ± 0.0078	$D_M(0.15)$	636.6 ± 4.8
τ	$0.0564^{+0.0062}_{-0.0076}$	$\sigma_8/h^{0.5}$	0.975 ± 0.011	$H(0.38)$	83.33 ± 0.36
$\ln(10^{10} A_s)$	$3.043^{+0.013}_{-0.016}$	$r_{drag} h$	100.6 ± 1.0	$D_M(0.38)$	1520.2 ± 9.7
n_s	0.9697 ± 0.0043	$\langle d^2 \rangle^{1/2}$	2.414 ± 0.026	$H(0.51)$	89.97 ± 0.29
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.84^{+0.65}_{-0.75}$	$D_M(0.51)$	1971 ± 11
A_{100}^{PS}	239 ± 25	$10^9 A_s$	$2.096^{+0.027}_{-0.033}$	$H(0.61)$	95.53 ± 0.23
A_{143}^{PS}	38 ± 8	$10^9 A_s e^{-2\tau}$	1.873 ± 0.011	$D_M(0.61)$	2294 ± 12
A_{217}^{PS}	102 ± 10	D_{40}	1219 ± 13	$H(2.33)$	235.32 ± 0.79
A_{217}^{CIB}	39 ± 7	D_{220}	5729 ± 39	$D_M(2.33)$	5754 ± 10
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.7}$	D_{810}	2535 ± 13	$f\sigma_8(0.15)$	0.4489 ± 0.0078
$r_{143 \times 217}^{PS}$	0.66 ± 0.13	D_{1420}	817.0 ± 4.8	$\sigma_8(0.15)$	$0.7448^{+0.0057}_{-0.0064}$
$r_{143 \times 217}^{CIB}$	$0.55^{+0.35}_{-0.22}$	D_{2000}	230.8 ± 1.6	$f\sigma_8(0.38)$	0.4689 ± 0.0064
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	0.9697 ± 0.0043	$\sigma_8(0.38)$	$0.6610^{+0.0047}_{-0.0055}$
A^{kSZ}	$4.6^{+1.8}_{-4.2}$	Y_P	$0.245414^{+0.000062}_{-0.000053}$	$f\sigma_8(0.51)$	0.4684 ± 0.0057
A_{100}^{dust}	1.02 ± 0.20	Y_P^{BBN}	$0.246741^{+0.000062}_{-0.000054}$	$\sigma_8(0.51)$	$0.6190^{+0.0043}_{-0.0050}$
A_{143}^{dust}	0.96 ± 0.18	$10^5 D/H$	$2.576^{+0.026}_{-0.029}$	$f\sigma_8(0.61)$	0.4641 ± 0.0052
A_{217}^{dust}	0.98 ± 0.10	Age/Gyr	13.778 ± 0.023	$\sigma_8(0.61)$	$0.5892^{+0.0041}_{-0.0048}$
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	z_*	1089.68 ± 0.26	$f\sigma_8(2.33)$	$0.2974^{+0.0020}_{-0.0024}$
c_{100}	0.9976 ± 0.0010	r_*	144.91 ± 0.30	$\sigma_8(2.33)$	$0.3069^{+0.0021}_{-0.0025}$
c_{217}	1.0011 ± 0.0016	$100\theta_*$	$1.04126^{+0.00031}_{-0.00027}$	f_{2000}^{143}	29.1 ± 2.8
c_{TE}	0.9968 ± 0.0049	$D_M(z_*)/Gpc$	13.916 ± 0.028	f_{2000}^{217}	106.5 ± 1.9
c_{EE}	0.9925 ± 0.0049	z_{drag}	1059.92 ± 0.32	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
H_0	68.16 ± 0.57	r_{drag}	147.56 ± 0.31	χ_{small}^2	397.1 ± 1.8
Ω_Λ	0.6962 ± 0.0077	k_D	0.14041 ± 0.00034	χ_{lowl}^2	22.52 ± 0.83
Ω_m	0.3038 ± 0.0077	$100\theta_D$	0.16077 ± 0.00018	$\chi_{CamSpec}^2$	11516.3 ± 6.5
$\Omega_m h^2$	0.1411 ± 0.0012	z_{eq}	3356 ± 30	$\chi_{H073p45}^2$	10.3 ± 2.2
$\Omega_m h^3$	0.09615 ± 0.00031	k_{eq}	0.010243 ± 0.000090	χ_{prior}^2	7.8 ± 3.5
σ_8	$0.8052^{+0.0066}_{-0.0073}$	$100\theta_{eq}$	0.8220 ± 0.0056	χ_{CMB}^2	11935.9 ± 6.3
$\bar{\chi}_{eff}^2 = 11954.01; R - 1 = 0.03572$					

2.25 base_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022460	0.02249 ± 0.00025	$\langle d^2 \rangle^{1/2}$	2.3883	2.384 ± 0.043	$H(0.15)$	73.51	73.61 ± 0.78
$\Omega_c h^2$	0.11788	0.1177 ± 0.0020	z_{re}	7.09	$7.11^{+0.91}_{-0.75}$	$D_{\text{M}}(0.15)$	635.2	634.3 ± 7.6
$100\theta_{\text{MC}}$	1.041369	1.04139 ± 0.00049	$10^9 A_{\text{s}}$	2.0440	2.045 ± 0.041	$H(0.38)$	83.46	83.54 ± 0.57
τ	0.0491	0.0496 ± 0.0085	$10^9 A_{\text{s}} e^{-2\tau}$	1.8528	1.851 ± 0.018	$D_{\text{M}}(0.38)$	1517.1	1515 ± 15
$\ln(10^{10} A_{\text{s}})$	3.0175	$3.018^{+0.020}_{-0.018}$	D_{40}	1214.8	1212 ± 26	$H(0.51)$	90.081	$90.15^{+0.43}_{-0.48}$
n_{s}	0.9660	0.967 ± 0.011	D_{220}	5695	5693 ± 57	$D_{\text{M}}(0.51)$	1966.8	1965 ± 18
A_{100}^{dustTE}	0.1132	0.114 ± 0.038	D_{810}	2507.0	2507 ± 25	$H(0.61)$	95.628	$95.68^{+0.35}_{-0.40}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1362	0.136 ± 0.030	D_{1420}	806.8	807 ± 12	$D_{\text{M}}(0.61)$	2289.8	2287 ± 19
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.478 ± 0.085	D_{2000}	227.46	227.6 ± 4.3	$H(2.33)$	235.29	235.2 ± 1.2
A_{143}^{dustTE}	0.222	0.221 ± 0.055	$n_{\text{s},0.002}$	0.9660	0.967 ± 0.011	$D_{\text{M}}(2.33)$	5749.0	5747 ± 17
$A_{143 \times 217}^{\text{dustTE}}$	0.657	0.657 ± 0.081	Y_{P}	0.245430	0.24544 ± 0.00010	$f\sigma_8(0.15)$	0.4413	0.440 ± 0.012
A_{217}^{dustTE}	2.038	2.04 ± 0.27	$Y_{\text{P}}^{\text{BBN}}$	0.246756	0.24676 ± 0.00010	$\sigma_8(0.15)$	0.7343	0.7339 ± 0.0096
c_{100}	1.00017	1.00017 ± 0.00070	$10^5 \text{D}/\text{H}$	2.5691	2.565 ± 0.046	$f\sigma_8(0.38)$	0.4614	0.460 ± 0.010
c_{217}	0.99799	0.99799 ± 0.00065	Age/Gyr	13.7661	13.761 ± 0.038	$\sigma_8(0.38)$	0.6519	0.6517 ± 0.0080
y_{cal}	1.00005	0.99999 ± 0.0025	z_*	1089.621	1089.57 ± 0.42	$f\sigma_8(0.51)$	0.4611	0.4604 ± 0.0090
H_0	68.33	68.44 ± 0.91	r_*	144.914	144.95 ± 0.48	$\sigma_8(0.51)$	0.6105	0.6104 ± 0.0073
Ω_{Λ}	0.6980	0.699 ± 0.012	$100\theta_*$	1.041540	1.04156 ± 0.00049	$f\sigma_8(0.61)$	0.4570	0.4563 ± 0.0082
Ω_{m}	0.3020	0.301 ± 0.012	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9134	13.917 ± 0.045	$\sigma_8(0.61)$	0.5812	0.5811 ± 0.0069
$\Omega_{\text{m}} h^2$	0.14098	0.1408 ± 0.0019	z_{drag}	1060.01	1060.03 ± 0.54	$f\sigma_8(2.33)$	0.29342	0.2934 ± 0.0034
$\Omega_{\text{m}} h^3$	0.09633	0.09635 ± 0.00051	r_{drag}	147.554	147.59 ± 0.49	$\sigma_8(2.33)$	0.30292	0.3030 ± 0.0035
σ_8	0.7936	0.793 ± 0.011	k_{D}	0.14044	0.14043 ± 0.00057	χ_{small}^2	395.69	396.8 ± 1.5
S_8	0.7962	0.794 ± 0.024	$100\theta_{\text{D}}$	0.160772	0.16075 ± 0.00031	χ_{plikTE}^2	852.85	859.8 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4361	0.435 ± 0.013	z_{eq}	3353.6	3349 ± 46	χ_{prior}^2	0.44	7.4 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5883	0.587 ± 0.012	k_{eq}	0.010235	0.01022 ± 0.00014	χ_{CMB}^2	1248.54	1256.6 ± 4.0
$\sigma_8/h^{0.5}$	0.9601	0.959 ± 0.017	$100\theta_{\text{eq}}$	0.8227	0.8237 ± 0.0088			
$r_{\text{drag}} h$	100.82	101.0 ± 1.6	$100\theta_{\text{s,eq}}$	0.45423	0.4547 ± 0.0045			

Best-fit $\chi_{\text{eff}}^2 = 1248.98$; $\bar{\chi}_{\text{eff}}^2 = 1264.01$; $R - 1 = 0.00711$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.69 plik_rd12_HM_v22_TE: 852.85

2.26 base_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02250 ± 0.00025	$\langle d^2 \rangle^{1/2}$	2.390 ± 0.041	$H(0.15)$	73.65 ± 0.77
$\Omega_{\text{c}}h^2$	0.1176 ± 0.0020	z_{re}	$7.45^{+0.33}_{-0.86}$	$D_{\text{M}}(0.15)$	633.9 ± 7.5
$100\theta_{\text{MC}}$	1.04139 ± 0.00049	$10^9 A_{\text{s}}$	$2.058^{+0.027}_{-0.036}$	$H(0.38)$	83.56 ± 0.57
τ	$0.0528^{+0.0036}_{-0.0079}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.852 ± 0.018	$D_{\text{M}}(0.38)$	1515 ± 15
$\ln(10^{10} A_{\text{s}})$	$3.024^{+0.013}_{-0.017}$	D_{40}	1212 ± 26	$H(0.51)$	90.17 ± 0.46
n_{s}	0.968 ± 0.011	D_{220}	5693 ± 57	$D_{\text{M}}(0.51)$	1964 ± 18
A_{100}^{dustTE}	0.114 ± 0.038	D_{810}	2508 ± 25	$H(0.61)$	$95.70^{+0.35}_{-0.39}$
$A_{100 \times 143}^{\text{dustTE}}$	0.136 ± 0.030	D_{1420}	808 ± 12	$D_{\text{M}}(0.61)$	2287 ± 19
$A_{100 \times 217}^{\text{dustTE}}$	0.478 ± 0.085	D_{2000}	227.9 ± 4.2	$H(2.33)$	235.1 ± 1.2
A_{143}^{dustTE}	0.220 ± 0.055	$n_{\text{s},0.002}$	0.968 ± 0.011	$D_{\text{M}}(2.33)$	5746 ± 17
$A_{143 \times 217}^{\text{dustTE}}$	0.657 ± 0.081	Y_{P}	0.24544 ± 0.00010	$f\sigma_8(0.15)$	0.441 ± 0.012
A_{217}^{dustTE}	2.03 ± 0.27	$Y_{\text{P}}^{\text{BBN}}$	0.24677 ± 0.00010	$\sigma_8(0.15)$	0.7363 ± 0.0085
c_{100}	1.00018 ± 0.00070	$10^5 \text{D}/\text{H}$	2.563 ± 0.046	$f\sigma_8(0.38)$	0.4618 ± 0.0098
c_{217}	0.99800 ± 0.00065	Age/Gyr	13.760 ± 0.038	$\sigma_8(0.38)$	$0.6539^{+0.0064}_{-0.0073}$
y_{cal}	1.0000 ± 0.0025	z_*	1089.55 ± 0.42	$f\sigma_8(0.51)$	0.4617 ± 0.0086
H_0	68.48 ± 0.90	r_*	144.96 ± 0.48	$\sigma_8(0.51)$	$0.6125^{+0.0057}_{-0.0067}$
Ω_{Λ}	0.700 ± 0.012	$100\theta_*$	1.04157 ± 0.00048	$f\sigma_8(0.61)$	0.4577 ± 0.0078
Ω_{m}	0.300 ± 0.012	$D_{\text{M}}(z_*)/\text{Gpc}$	13.918 ± 0.045	$\sigma_8(0.61)$	$0.5831^{+0.0053}_{-0.0063}$
$\Omega_{\text{m}}h^2$	0.1407 ± 0.0019	z_{drag}	1060.05 ± 0.54	$f\sigma_8(2.33)$	$0.2945^{+0.0025}_{-0.0031}$
$\Omega_{\text{m}}h^3$	0.09636 ± 0.00052	r_{drag}	147.60 ± 0.49	$\sigma_8(2.33)$	$0.3041^{+0.0026}_{-0.0032}$
σ_8	0.796 ± 0.010	k_{D}	0.14043 ± 0.00057	χ_{simall}^2	396.4 ± 1.1
S_8	0.796 ± 0.023	$100\theta_{\text{D}}$	0.16074 ± 0.00031	χ_{plikTE}^2	859.8 ± 3.7
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.436 ± 0.013	z_{eq}	3347 ± 46	χ_{prior}^2	7.4 ± 3.7
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.589 ± 0.012	k_{eq}	0.01022 ± 0.00014	χ_{CMB}^2	1256.2 ± 3.9
$\sigma_8/h^{0.5}$	0.962 ± 0.017	$100\theta_{\text{eq}}$	0.8241 ± 0.0088		
$r_{\text{drag}}h$	101.1 ± 1.6	$100\theta_{\text{s,eq}}$	0.4549 ± 0.0045		

$\bar{\chi}_{\text{eff}}^2 = 1263.64$; $R - 1 = 0.00713$

2.27 base_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02372	0.0240 ± 0.0012	D_{220}	5924	5959 ± 190	$H(0.38)$	84.36	$84.7^{+1.8}_{-2.0}$
$\Omega_{\text{c}}h^2$	0.11641	0.1158 ± 0.0046	D_{810}	2585.1	2590 ± 38	$D_{\text{M}}(0.38)$	1496.6	1489 ± 46
$100\theta_{\text{MC}}$	1.04002	1.03999 ± 0.00089	D_{1420}	841.3	844 ± 19	$H(0.51)$	90.91	$91.3^{+1.5}_{-1.8}$
τ	0.0526	0.0527 ± 0.0090	D_{2000}	240.2	241.2 ± 7.2	$D_{\text{M}}(0.51)$	1942	1933 ± 55
$\ln(10^{10}A_{\text{s}})$	3.0504	3.052 ± 0.022	$n_{\text{s},0.002}$	0.9781	0.980 ± 0.015	$H(0.61)$	96.40	$96.7^{+1.3}_{-1.6}$
n_{s}	0.9781	0.980 ± 0.015	Y_{P}	0.245954	$0.24603^{+0.00043}_{-0.00053}$	$D_{\text{M}}(0.61)$	2262	2252 ± 60
y_{cal}	1.00009	0.9999 ± 0.0025	$Y_{\text{P}}^{\text{BBN}}$	0.247283	$0.24736^{+0.00043}_{-0.00053}$	$H(2.33)$	235.47	$235.3^{+1.9}_{-2.2}$
H_0	69.46	69.9 ± 2.7	$10^5 D/\text{H}$	2.352	$2.32^{+0.18}_{-0.20}$	$D_{\text{M}}(2.33)$	5709	5695^{+71}_{-62}
Ω_{Λ}	0.7082	$0.711^{+0.033}_{-0.026}$	Age/Gyr	13.672	$13.64^{+0.16}_{-0.14}$	$f\sigma_8(0.15)$	0.4374	0.433 ± 0.029
Ω_{m}	0.2918	$0.289^{+0.026}_{-0.033}$	z_*	1088.01	$1087.8^{+1.6}_{-1.7}$	$\sigma_8(0.15)$	0.7399	0.737 ± 0.014
$\Omega_{\text{m}}h^2$	0.14078	$0.1404^{+0.0034}_{-0.0039}$	r_*	144.33	144.29 ± 0.64	$f\sigma_8(0.38)$	0.4598	0.456 ± 0.023
$\Omega_{\text{m}}h^3$	0.09778	$0.0981^{+0.0016}_{-0.0018}$	$100\theta_*$	1.04007	1.04001 ± 0.00086	$\sigma_8(0.38)$	0.6581	$0.656^{+0.011}_{-0.0095}$
σ_8	0.7986	0.796 ± 0.018	$D_{\text{M}}(z_*)/\text{Gpc}$	13.877	13.874 ± 0.060	$f\sigma_8(0.51)$	0.4608	0.457 ± 0.020
S_8	0.788	$0.781^{+0.052}_{-0.060}$	z_{drag}	1062.76	1063.2 ± 2.4	$\sigma_8(0.51)$	0.6168	$0.6152^{+0.0091}_{-0.0081}$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4314	$0.427^{+0.028}_{-0.033}$	r_{drag}	146.55	146.46 ± 0.70	$f\sigma_8(0.61)$	0.4575	0.454 ± 0.017
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5870	0.583 ± 0.027	k_{D}	0.14239	0.1426 ± 0.0012	$\sigma_8(0.61)$	0.5874	$0.5861^{+0.0081}_{-0.0073}$
$\sigma_8/h^{0.5}$	0.9583	0.952 ± 0.039	$100\theta_{\text{D}}$	0.15899	$0.1588^{+0.0011}_{-0.0013}$	$f\sigma_8(2.33)$	0.29698	0.2965 ± 0.0035
$r_{\text{drag}}h$	101.79	102.4 ± 4.0	z_{eq}	3349	3340^{+81}_{-92}	$\sigma_8(2.33)$	0.30709	0.3069 ± 0.0037
$\langle d^2 \rangle^{1/2}$	2.384	2.375 ± 0.075	k_{eq}	0.010221	$0.01019^{+0.00025}_{-0.00028}$	χ_{small}^2	395.59	396.7 ± 1.6
z_{re}	7.17	$7.10^{+0.87}_{-0.73}$	$100\theta_{\text{eq}}$	0.8261	0.829 ± 0.019	χ_{plikEE}^2	738.96	743.9 ± 3.1
$10^9 A_{\text{s}}$	2.1123	2.116 ± 0.047	$100\theta_{\text{s,eq}}$	0.4550	0.4562 ± 0.0092	χ_{prior}^2	0.001	0.98 ± 1.4
$10^9 A_{\text{s}}e^{-2\tau}$	1.9014	1.904 ± 0.024	$H(0.15)$	74.55	75.0 ± 2.4	χ_{CMB}^2	1134.55	1140.6 ± 3.4
D_{40}	1229.3	1230 ± 30	$D_{\text{M}}(0.15)$	625.6	622 ± 22			

Best-fit $\chi_{\text{eff}}^2 = 1134.55$; $\bar{\chi}_{\text{eff}}^2 = 1141.61$; $R - 1 = 0.00482$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.59 plik_rd12_HM_v22_EE: 738.96

2.28 base_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.0240 ± 0.0012	D_{220}	5954 ± 190	$H(0.38)$	$84.7^{+1.8}_{-2.0}$
$\Omega_{\mathrm{c}}h^2$	$0.1158^{+0.0044}_{-0.0049}$	D_{810}	2589 ± 39	$D_{\mathrm{M}}(0.38)$	1489 ± 46
$100\theta_{\mathrm{MC}}$	1.04000 ± 0.00089	D_{1420}	844 ± 19	$H(0.51)$	$91.3^{+1.5}_{-1.8}$
τ	$0.0559^{+0.0049}_{-0.0080}$	D_{2000}	241.2 ± 7.3	$D_{\mathrm{M}}(0.51)$	1933 ± 56
$\ln(10^{10}A_{\mathrm{s}})$	$3.058^{+0.017}_{-0.020}$	$n_{\mathrm{s},0.002}$	0.981 ± 0.015	$H(0.61)$	$96.7^{+1.3}_{-1.6}$
n_{s}	0.981 ± 0.015	Y_{P}	$0.24602^{+0.00043}_{-0.00053}$	$D_{\mathrm{M}}(0.61)$	2252 ± 61
y_{cal}	0.99996 ± 0.0025	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24735^{+0.00044}_{-0.00053}$	$H(2.33)$	$235.3^{+1.9}_{-2.2}$
H_0	69.9 ± 2.8	$10^5 D/\mathrm{H}$	$2.33^{+0.18}_{-0.20}$	$D_{\mathrm{M}}(2.33)$	5696^{+71}_{-63}
Ω_{Λ}	$0.711^{+0.033}_{-0.026}$	Age/Gyr	13.65 ± 0.15	$f\sigma_8(0.15)$	$0.435^{+0.027}_{-0.030}$
Ω_{m}	$0.289^{+0.026}_{-0.033}$	z_*	$1087.8^{+1.6}_{-1.8}$	$\sigma_8(0.15)$	0.740 ± 0.014
$\Omega_{\mathrm{m}}h^2$	$0.1404^{+0.0034}_{-0.0039}$	r_*	144.32 ± 0.64	$f\sigma_8(0.38)$	0.458 ± 0.023
$\Omega_{\mathrm{m}}h^3$	$0.0981^{+0.0016}_{-0.0019}$	$100\theta_*$	1.04002 ± 0.00086	$\sigma_8(0.38)$	0.6583 ± 0.0095
σ_8	0.798 ± 0.018	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.061	$f\sigma_8(0.51)$	0.459 ± 0.020
S_8	$0.783^{+0.051}_{-0.060}$	z_{drag}	1063.2 ± 2.4	$\sigma_8(0.51)$	0.6172 ± 0.0079
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.429^{+0.028}_{-0.033}$	r_{drag}	146.49 ± 0.70	$f\sigma_8(0.61)$	0.456 ± 0.017
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.585 ± 0.027	k_{D}	0.1426 ± 0.0013	$\sigma_8(0.61)$	0.5880 ± 0.0070
$\sigma_8/h^{0.5}$	0.955 ± 0.039	$100\theta_{\mathrm{D}}$	$0.1588^{+0.0012}_{-0.0014}$	$f\sigma_8(2.33)$	$0.2974^{+0.0028}_{-0.0032}$
$r_{\mathrm{drag}}h$	102.5 ± 4.0	z_{eq}	3339^{+81}_{-93}	$\sigma_8(2.33)$	$0.3079^{+0.0029}_{-0.0034}$
$\langle d^2 \rangle^{1/2}$	2.381 ± 0.075	k_{eq}	$0.01019^{+0.00025}_{-0.00028}$	χ_{simall}^2	396.4 ± 1.3
z_{re}	$7.43^{+0.33}_{-0.82}$	$100\theta_{\mathrm{eq}}$	0.829 ± 0.019	χ_{plikEE}^2	743.9 ± 3.2
$10^9 A_{\mathrm{s}}$	$2.128^{+0.036}_{-0.043}$	$100\theta_{\mathrm{s,eq}}$	0.4563 ± 0.0093	χ_{prior}^2	1.0 ± 1.4
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.903 ± 0.024	$H(0.15)$	75.0 ± 2.4	χ_{CMB}^2	1140.3 ± 3.4
D_{40}	1229 ± 30	$D_{\mathrm{M}}(0.15)$	622 ± 22		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1141.31; R - 1 = 0.00558$$

2.29 base_CamSpecHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022470	0.02248 ± 0.00026	D_{220}	5719	5716 ± 61	$H(0.38)$	83.66	83.69 ± 0.59
$\Omega_c h^2$	0.11696	0.1169 ± 0.0021	D_{810}	2547.9	2546 ± 26	$D_M(0.38)$	1511.4	1511 ± 16
$100\theta_{MC}$	1.04140	1.04141 ± 0.00051	D_{1420}	824.6	824 ± 12	$H(0.51)$	90.225	90.26 ± 0.47
τ	0.0518	0.0504 ± 0.0088	D_{2000}	233.38	233.3 ± 4.4	$D_M(0.51)$	1960.2	1959 ± 18
$\ln(10^{10} A_s)$	3.0345	3.031 ± 0.021	$n_{s,0.002}$	0.9781	0.978 ± 0.011	$H(0.61)$	95.730	95.76 ± 0.39
n_s	0.9781	0.978 ± 0.011	Y_P	0.245433	0.24544 ± 0.00010	$D_M(0.61)$	2282.8	2282 ± 20
y_{cal}	1.00007	0.99999 ± 0.0025	Y_P^{BBN}	0.246760	0.24676 ± 0.00010	$H(2.33)$	234.70	234.7 ± 1.3
H_0	68.68	68.72 ± 0.93	$10^5 D/H$	2.5673	2.566 ± 0.047	$D_M(2.33)$	5745.7	5745 ± 17
Ω_Λ	0.7030	0.703 ± 0.012	Age/Gyr	13.7598	13.757 ± 0.039	$f\sigma_8(0.15)$	0.4421	0.441 ± 0.013
Ω_m	0.2970	0.297 ± 0.012	z_*	1089.531	1089.51 ± 0.42	$\sigma_8(0.15)$	0.7415	0.740 ± 0.010
$\Omega_m h^2$	0.14007	0.1400 ± 0.0020	r_*	145.146	145.15 ± 0.50	$f\sigma_8(0.38)$	0.4634	0.462 ± 0.011
$\Omega_m h^3$	0.09620	0.09622 ± 0.00054	$100\theta_*$	1.04158	1.04158 ± 0.00050	$\sigma_8(0.38)$	0.6589	0.6576 ± 0.0084
σ_8	0.8009	0.799 ± 0.012	$D_M(z_*)/\text{Gpc}$	13.9352	13.936 ± 0.047	$f\sigma_8(0.51)$	0.4638	0.4626 ± 0.0095
S_8	0.7968	0.795 ± 0.025	z_{drag}	1059.93	1059.98 ± 0.55	$\sigma_8(0.51)$	0.6173	0.6161 ± 0.0077
$\sigma_8 \Omega_m^{0.5}$	0.4364	0.435 ± 0.013	r_{drag}	147.79	147.79 ± 0.52	$f\sigma_8(0.61)$	0.4600	0.4589 ± 0.0086
$\sigma_8 \Omega_m^{0.25}$	0.5912	0.590 ± 0.013	k_D	0.14021	0.14021 ± 0.00060	$\sigma_8(0.61)$	0.5878	0.5866 ± 0.0072
$\sigma_8/h^{0.5}$	0.9664	0.964 ± 0.018	$100\theta_D$	0.160793	0.16078 ± 0.00032	$f\sigma_8(2.33)$	0.29696	0.2964 ± 0.0036
$r_{drag} h$	101.50	101.6 ± 1.6	z_{eq}	3331.9	3331 ± 48	$\sigma_8(2.33)$	0.30681	0.3063 ± 0.0037
$\langle d^2 \rangle^{1/2}$	2.3760	2.370 ± 0.043	k_{eq}	0.010169	0.01017 ± 0.00014	χ_{small}^2	395.67	396.9 ± 1.6
z_{re}	7.36	$7.18_{-0.75}^{+0.93}$	$100\theta_{eq}$	0.8267	0.8271 ± 0.0092	$\chi_{CamSpec}^2$	2575.95	2581.0 ± 3.2
$10^9 A_s$	2.0790	2.072 ± 0.042	$100\theta_{s,eq}$	0.45633	0.4565 ± 0.0047	χ_{prior}^2	10.03	11.0 ± 1.4
$10^9 A_s e^{-2\tau}$	1.8744	1.873 ± 0.019	$H(0.15)$	73.80	73.85 ± 0.80	χ_{CMB}^2	2971.61	2977.9 ± 3.6
D_{40}	1201.3	1200 ± 26	$D_M(0.15)$	632.3	632.0 ± 7.7			

Best-fit $\chi_{eff}^2 = 2981.64$; $\bar{\chi}_{eff}^2 = 2988.91$; $R - 1 = 0.00640$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.67 CamSpec like_10.7HM_1400_unified: 2575.95

2.30 base_CamSpecHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02249 ± 0.00026	D_{220}	5716 ± 61	$H(0.38)$	83.72 ± 0.59
$\Omega_{\text{c}}h^2$	0.1168 ± 0.0021	D_{810}	2547 ± 26	$D_{\text{M}}(0.38)$	1510 ± 16
$100\theta_{\text{MC}}$	1.04141 ± 0.00051	D_{1420}	825 ± 12	$H(0.51)$	90.28 ± 0.47
τ	$0.0535^{+0.0039}_{-0.0081}$	D_{2000}	233.6 ± 4.4	$D_{\text{M}}(0.51)$	1959 ± 18
$\ln(10^{10}A_{\text{s}})$	$3.037^{+0.015}_{-0.018}$	$n_{\text{s},0.002}$	0.979 ± 0.011	$H(0.61)$	95.77 ± 0.39
n_{s}	0.979 ± 0.011	Y_{P}	0.24544 ± 0.00010	$D_{\text{M}}(0.61)$	2281 ± 20
y_{cal}	0.99997 ± 0.0025	$Y_{\text{P}}^{\text{BBN}}$	0.24677 ± 0.00010	$H(2.33)$	234.6 ± 1.3
H_0	68.76 ± 0.93	$10^5 D/\text{H}$	2.564 ± 0.047	$D_{\text{M}}(2.33)$	5744 ± 17
Ω_{Λ}	0.704 ± 0.012	Age/Gyr	13.756 ± 0.039	$f\sigma_8(0.15)$	0.442 ± 0.013
Ω_{m}	0.296 ± 0.012	z_*	1089.49 ± 0.42	$\sigma_8(0.15)$	0.7423 ± 0.0091
$\Omega_{\text{m}}h^2$	0.1400 ± 0.0020	r_*	145.17 ± 0.50	$f\sigma_8(0.38)$	0.464 ± 0.010
$\Omega_{\text{m}}h^3$	0.09622 ± 0.00053	$100\theta_*$	1.04159 ± 0.00050	$\sigma_8(0.38)$	0.6597 ± 0.0074
σ_8	0.802 ± 0.011	$D_{\text{M}}(z_*)/\text{Gpc}$	13.937 ± 0.047	$f\sigma_8(0.51)$	0.4639 ± 0.0091
S_8	0.797 ± 0.024	z_{drag}	1059.99 ± 0.55	$\sigma_8(0.51)$	0.6181 ± 0.0067
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.436 ± 0.013	r_{drag}	147.80 ± 0.52	$f\sigma_8(0.61)$	0.4602 ± 0.0083
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.591 ± 0.013	k_{D}	0.14021 ± 0.00060	$\sigma_8(0.61)$	$0.5885^{+0.0058}_{-0.0065}$
$\sigma_8/h^{0.5}$	0.967 ± 0.017	$100\theta_{\text{D}}$	0.16077 ± 0.00032	$f\sigma_8(2.33)$	$0.2974^{+0.0027}_{-0.0032}$
$r_{\text{drag}}h$	101.6 ± 1.6	z_{eq}	3329 ± 47	$\sigma_8(2.33)$	$0.3073^{+0.0027}_{-0.0033}$
$\langle d^2 \rangle^{1/2}$	2.376 ± 0.042	k_{eq}	0.01016 ± 0.00014	χ_{simall}^2	396.4 ± 1.2
z_{re}	$7.51^{+0.40}_{-0.84}$	$100\theta_{\text{eq}}$	0.8274 ± 0.0092	χ_{CamSpec}^2	2581.0 ± 3.2
$10^9 A_{\text{s}}$	$2.085^{+0.030}_{-0.037}$	$100\theta_{\text{s,eq}}$	0.4567 ± 0.0047	χ_{prior}^2	11.0 ± 1.4
$10^9 A_{\text{s}}e^{-2\tau}$	1.873 ± 0.019	$H(0.15)$	73.88 ± 0.80	χ_{CMB}^2	2977.5 ± 3.4
D_{40}	1199 ± 26	$D_{\text{M}}(0.15)$	631.7 ± 7.7		

$\bar{\chi}_{\text{eff}}^2 = 2988.52; R - 1 = 0.00517$

2.31 base_CamSpecHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02320	0.0233 ± 0.0012	D_{220}	5947	5950 ± 190	$H(0.38)$	83.13	$83.3^{+1.7}_{-1.9}$
$\Omega_{\text{c}}h^2$	0.11965	0.1192 ± 0.0047	D_{810}	2597.7	2597 ± 39	$D_{\text{M}}(0.38)$	1527.9	1525 ± 46
$100\theta_{\text{MC}}$	1.03933	1.03928 ± 0.00087	D_{1420}	839.2	840 ± 19	$H(0.51)$	89.90	$90.1^{+1.4}_{-1.6}$
τ	0.0500	0.0504 ± 0.0088	D_{2000}	238.6	238.8 ± 7.1	$D_{\text{M}}(0.51)$	1979	1975 ± 54
$\ln(10^{10}A_{\text{s}})$	3.0583	3.058 ± 0.022	$n_{\text{s},0.002}$	0.9650	0.967 ± 0.014	$H(0.61)$	95.55	$95.7^{+1.1}_{-1.4}$
n_{s}	0.9650	0.967 ± 0.014	Y_{P}	0.245745	0.24575 ± 0.00047	$D_{\text{M}}(0.61)$	2302	2298 ± 59
y_{cal}	0.99999	1.0000 ± 0.0025	$Y_{\text{P}}^{\text{BBN}}$	0.247073	0.24708 ± 0.00047	$H(2.33)$	237.00	236.8 ± 2.2
H_0	67.63	67.9 ± 2.6	$10^5 D/H$	2.439	$2.44^{+0.18}_{-0.21}$	$D_{\text{M}}(2.33)$	5748	5743^{+66}_{-59}
Ω_{Λ}	0.6863	$0.687^{+0.035}_{-0.028}$	Age/Gyr	13.760	13.75 ± 0.14	$f\sigma_8(0.15)$	0.4585	0.456 ± 0.029
Ω_{m}	0.3137	$0.313^{+0.028}_{-0.035}$	z_*	1088.88	$1088.8^{+1.6}_{-1.8}$	$\sigma_8(0.15)$	0.7490	$0.747^{+0.015}_{-0.013}$
$\Omega_{\text{m}}h^2$	0.14350	0.1431 ± 0.0038	r_*	143.89	143.94 ± 0.66	$f\sigma_8(0.38)$	0.4764	0.474 ± 0.023
$\Omega_{\text{m}}h^3$	0.09705	$0.0971^{+0.0015}_{-0.0017}$	$100\theta_*$	1.03943	1.03937 ± 0.00084	$\sigma_8(0.38)$	0.6637	$0.662^{+0.010}_{-0.0089}$
σ_8	0.8108	$0.809^{+0.019}_{-0.017}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.843	13.849 ± 0.062	$f\sigma_8(0.51)$	0.4747	0.473 ± 0.019
S_8	0.829	0.825 ± 0.058	z_{drag}	1061.80	1061.9 ± 2.3	$\sigma_8(0.51)$	0.6210	$0.6198^{+0.0087}_{-0.0077}$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4541	0.452 ± 0.032	r_{drag}	146.27	146.31 ± 0.69	$f\sigma_8(0.61)$	0.4696	$0.468^{+0.017}_{-0.016}$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6068	0.604 ± 0.028	k_{D}	0.14235	0.1423 ± 0.0012	$\sigma_8(0.61)$	0.5908	0.5898 ± 0.0076
$\sigma_8/h^{0.5}$	0.9859	0.982 ± 0.039	$100\theta_{\text{D}}$	0.15943	$0.1594^{+0.0012}_{-0.0014}$	$f\sigma_8(2.33)$	0.29780	0.2974 ± 0.0035
$r_{\text{drag}}h$	98.92	99.3 ± 3.9	z_{eq}	3414	3405 ± 90	$\sigma_8(2.33)$	0.30692	0.3067 ± 0.0037
$\langle d^2 \rangle^{1/2}$	2.457	2.449 ± 0.075	k_{eq}	0.010419	0.01039 ± 0.00027	χ_{small}^2	395.62	396.8 ± 1.6
z_{re}	7.06	$7.06^{+0.90}_{-0.76}$	$100\theta_{\text{eq}}$	0.8123	0.814 ± 0.019	χ_{CamSpec}^2	1886.52	1891.5 ± 3.1
$10^9 A_{\text{s}}$	2.1292	2.130 ± 0.046	$100\theta_{\text{s,eq}}$	0.4482	0.4492 ± 0.0091	χ_{prior}^2	10.03	11.0 ± 1.4
$10^9 A_{\text{s}}e^{-2\tau}$	1.9264	1.925 ± 0.024	$H(0.15)$	72.95	73.2 ± 2.3	χ_{CMB}^2	2282.13	2288.3 ± 3.5
D_{40}	1264.6	1260 ± 31	$D_{\text{M}}(0.15)$	640.9	639 ± 22			

Best-fit $\chi_{\text{eff}}^2 = 2292.16$; $\bar{\chi}_{\text{eff}}^2 = 2299.35$; $R - 1 = 0.00959$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.62 CamSpec like_10.7HM_1400_unified: 1886.52

2.32 base_CamSpecHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.0233 ± 0.0011	D_{220}	5943 ± 190	$H(0.38)$	$83.3^{+1.7}_{-1.9}$
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0047	D_{810}	2596 ± 39	$D_{\mathrm{M}}(0.38)$	1525 ± 46
$100\theta_{\mathrm{MC}}$	1.03928 ± 0.00087	D_{1420}	839 ± 19	$H(0.51)$	$90.0^{+1.4}_{-1.6}$
τ	$0.0539^{+0.0046}_{-0.0079}$	D_{2000}	238.8 ± 7.0	$D_{\mathrm{M}}(0.51)$	1976 ± 55
$\ln(10^{10}A_{\mathrm{s}})$	$3.065^{+0.017}_{-0.019}$	$n_{\mathrm{s},0.002}$	$0.968^{+0.013}_{-0.014}$	$H(0.61)$	$95.7^{+1.1}_{-1.4}$
n_{s}	$0.968^{+0.013}_{-0.014}$	Y_{P}	0.24574 ± 0.00046	$D_{\mathrm{M}}(0.61)$	2299 ± 59
y_{cal}	1.0000 ± 0.0025	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24707 ± 0.00047	$H(2.33)$	236.8 ± 2.2
H_0	67.9 ± 2.6	$10^5\mathrm{D}/\mathrm{H}$	$2.44^{+0.18}_{-0.20}$	$D_{\mathrm{M}}(2.33)$	5744^{+66}_{-58}
Ω_{Λ}	$0.687^{+0.035}_{-0.028}$	Age/Gyr	13.75 ± 0.14	$f\sigma_8(0.15)$	0.458 ± 0.029
Ω_{m}	$0.313^{+0.028}_{-0.035}$	z_*	$1088.9^{+1.6}_{-1.8}$	$\sigma_8(0.15)$	$0.750^{+0.014}_{-0.012}$
$\Omega_{\mathrm{m}}h^2$	0.1431 ± 0.0038	r_*	143.96 ± 0.66	$f\sigma_8(0.38)$	0.476 ± 0.023
$\Omega_{\mathrm{m}}h^3$	$0.0970^{+0.0015}_{-0.0017}$	$100\theta_*$	1.03938 ± 0.00084	$\sigma_8(0.38)$	$0.6647^{+0.0092}_{-0.0083}$
σ_8	$0.812^{+0.018}_{-0.016}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.851 ± 0.062	$f\sigma_8(0.51)$	0.474 ± 0.019
S_8	0.829 ± 0.058	z_{drag}	1061.8 ± 2.3	$\sigma_8(0.51)$	0.6220 ± 0.0075
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.454 ± 0.032	r_{drag}	146.34 ± 0.68	$f\sigma_8(0.61)$	$0.469^{+0.017}_{-0.015}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.607 ± 0.027	k_{D}	0.1423 ± 0.0012	$\sigma_8(0.61)$	0.5919 ± 0.0067
$\sigma_8/h^{0.5}$	0.986 ± 0.038	$100\theta_{\mathrm{D}}$	$0.1595^{+0.0012}_{-0.0014}$	$f\sigma_8(2.33)$	$0.2984^{+0.0028}_{-0.0031}$
$r_{\mathrm{drag}}h$	99.3 ± 3.9	z_{eq}	3405 ± 90	$\sigma_8(2.33)$	0.3078 ± 0.0033
$\langle d^2 \rangle^{1/2}$	2.456 ± 0.074	k_{eq}	0.01039 ± 0.00027	χ_{simall}^2	396.5 ± 1.4
z_{re}	$7.43^{+0.30}_{-0.85}$	$100\theta_{\mathrm{eq}}$	0.814 ± 0.019	$\chi_{\mathrm{CamSpec}}^2$	1891.4 ± 3.1
10^9A_{s}	$2.144^{+0.035}_{-0.042}$	$100\theta_{\mathrm{s,eq}}$	0.4492 ± 0.0091	χ_{prior}^2	11.0 ± 1.4
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.924 ± 0.024	$H(0.15)$	73.2 ± 2.3	χ_{CMB}^2	2287.9 ± 3.4
D_{40}	1260 ± 31	$D_{\mathrm{M}}(0.15)$	640 ± 22		

$\bar{\chi}_{\mathrm{eff}}^2 = 2298.97$; $R - 1 = 0.00869$

2.33 base_plikHM_TE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022421	0.02245 ± 0.00024	z_{re}	7.08	$7.04^{+0.93}_{-0.74}$	$H(0.38)$	83.350	83.40 ± 0.36
$\Omega_c h^2$	0.11820	0.1181 ± 0.0012	$10^9 A_s$	2.0421	2.044 ± 0.041	$D_M(0.38)$	1519.9	1518.9 ± 9.3
$100\theta_{\text{MC}}$	1.041301	1.04133 ± 0.00046	$10^9 A_s e^{-2\tau}$	1.8520	1.854 ± 0.017	$H(0.51)$	89.994	90.04 ± 0.30
τ	0.0488	$0.0488^{+0.0085}_{-0.0076}$	D_{40}	1217.9	1217 ± 24	$D_M(0.51)$	1970.1	1969 ± 11
$\ln(10^{10} A_s)$	3.0166	3.017 ± 0.020	D_{220}	5692	5695 ± 56	$H(0.61)$	95.557	95.60 ± 0.26
n_s	0.9641	0.965 ± 0.010	D_{810}	2503.5	2507 ± 25	$D_M(0.61)$	2293.5	2292 ± 12
y_{cal}	0.99984	1.0000 ± 0.0025	D_{1420}	804.8	806 ± 12	$H(2.33)$	235.46	235.45 ± 0.80
A_{100}^{dustTE}	0.1139	0.114 ± 0.038	D_{2000}	226.76	227.4 ± 4.2	$D_M(2.33)$	5752.2	5750 ± 13
$A_{100 \times 143}^{\text{dustTE}}$	0.1364	0.136 ± 0.030	$n_{s,0.002}$	0.9641	0.965 ± 0.010	$f\sigma_8(0.15)$	0.4428	0.4427 ± 0.0083
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.477 ± 0.085	Y_P	0.245416	0.245424 ± 0.000093	$\sigma_8(0.15)$	0.7343	0.7347 ± 0.0091
A_{143}^{dustTE}	0.222	0.221 ± 0.055	Y_P^{BBN}	0.246742	0.246751 ± 0.000093	$f\sigma_8(0.38)$	0.4624	0.4624 ± 0.0074
$A_{143 \times 217}^{\text{dustTE}}$	0.658	0.659 ± 0.081	$10^5 D/H$	2.5760	2.571 ± 0.043	$\sigma_8(0.38)$	0.6517	0.6521 ± 0.0079
A_{217}^{dustTE}	2.036	2.04 ± 0.27	Age/Gyr	13.7732	13.769 ± 0.031	$f\sigma_8(0.51)$	0.4619	0.4619 ± 0.0069
c_{100}	1.00016	1.00017 ± 0.00070	z_*	1089.698	1089.66 ± 0.33	$\sigma_8(0.51)$	0.6102	0.6106 ± 0.0073
c_{217}	0.99800	0.99799 ± 0.00065	r_*	144.860	144.85 ± 0.34	$f\sigma_8(0.61)$	0.4576	0.4577 ± 0.0065
H_0	68.16	68.22 ± 0.55	$100\theta_*$	1.041484	1.04151 ± 0.00046	$\sigma_8(0.61)$	0.5809	0.5812 ± 0.0070
Ω_Λ	0.6959	0.6965 ± 0.0071	$D_M(z_*)/\text{Gpc}$	13.9090	13.908 ± 0.033	$f\sigma_8(2.33)$	0.29316	0.2934 ± 0.0035
Ω_m	0.3041	0.3035 ± 0.0071	z_{drag}	1059.93	1059.99 ± 0.53	$\sigma_8(2.33)$	0.30257	0.3028 ± 0.0036
$\Omega_m h^2$	0.14126	0.1412 ± 0.0012	r_{drag}	147.512	147.50 ± 0.38	χ_{small}^2	395.66	396.9 ± 1.7
$\Omega_m h^3$	0.09629	0.09634 ± 0.00053	k_D	0.14046	0.14050 ± 0.00051	χ_{plikTE}^2	852.94	859.3 ± 3.5
σ_8	0.7939	0.794 ± 0.010	$100\theta_D$	0.160805	0.16077 ± 0.00031	$\chi_{6\text{DF}}^2$	0.0002	0.037 ± 0.052
S_8	0.7992	0.799 ± 0.016	z_{eq}	3360.3	3360 ± 29	χ_{MGS}^2	1.75	1.85 ± 0.58
$\sigma_8 \Omega_m^{0.5}$	0.4377	0.4376 ± 0.0087	k_{eq}	0.010256	0.010254 ± 0.000088	χ_{DR12BAO}^2	3.440	3.98 ± 0.86
$\sigma_8 \Omega_m^{0.25}$	0.5895	0.5895 ± 0.0092	$100\theta_{\text{eq}}$	0.8213	0.8216 ± 0.0053	χ_{prior}^2	0.45	7.4 ± 3.7
$\sigma_8/h^{0.5}$	0.9616	0.962 ± 0.014	$100\theta_{s,\text{eq}}$	0.45353	0.4537 ± 0.0027	χ_{BAO}^2	5.19	5.87 ± 0.94
$r_{\text{drag}} h$	100.55	100.62 ± 0.93	$H(0.15)$	73.365	73.42 ± 0.47	χ_{CMB}^2	1248.60	1256.1 ± 3.8
$\langle d^2 \rangle^{1/2}$	2.3945	2.393 ± 0.032	$D_M(0.15)$	636.56	636.1 ± 4.6			

Best-fit $\chi_{\text{eff}}^2 = 1254.23$; $\bar{\chi}_{\text{eff}}^2 = 1269.42$; $R - 1 = 0.00891$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.44 CMB - small_100x143.offlike5_EE_Aplanck_B: 395.66 plik_rd12_HM_v22_TE: 852.93

2.34 base_plikHM_TE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02251 ± 0.00023	z_{re}	7.66 ± 0.74	$H(0.38)$	83.28 ± 0.35
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0011	$10^9 A_{\mathrm{s}}$	2.087 ± 0.031	$D_{\mathrm{M}}(0.38)$	1522.7 ± 9.1
$100\theta_{\mathrm{MC}}$	1.04129 ± 0.00045	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.013	$H(0.51)$	89.97 ± 0.30
τ	0.0547 ± 0.0074	D_{40}	1222 ± 24	$D_{\mathrm{M}}(0.51)$	1973 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	3.038 ± 0.015	D_{220}	5721 ± 54	$H(0.61)$	95.56 ± 0.26
n_{s}	0.9676 ± 0.0098	D_{810}	2529 ± 20	$D_{\mathrm{M}}(0.61)$	2297 ± 12
y_{cal}	1.0005 ± 0.0025	D_{1420}	815.0 ± 9.8	$H(2.33)$	236.01 ± 0.70
$A_{100}^{\mathrm{dustTE}}$	0.113 ± 0.038	D_{2000}	230.4 ± 3.6	$D_{\mathrm{M}}(2.33)$	5750 ± 13
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.136 ± 0.029	$n_{\mathrm{s},0.002}$	0.9676 ± 0.0098	$f\sigma_8(0.15)$	0.4516 ± 0.0064
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.479 ± 0.083	Y_{P}	0.245446 ± 0.000092	$\sigma_8(0.15)$	0.7449 ± 0.0063
$A_{143}^{\mathrm{dustTE}}$	0.221 ± 0.055	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246773 ± 0.000092	$f\sigma_8(0.38)$	0.4707 ± 0.0054
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.663 ± 0.082	$10^5 \mathrm{D}/\mathrm{H}$	2.561 ± 0.042	$\sigma_8(0.38)$	0.6607 ± 0.0056
$A_{217}^{\mathrm{dustTE}}$	2.06 ± 0.28	$\mathrm{Age}/\mathrm{Gyr}$	13.768 ± 0.031	$f\sigma_8(0.51)$	0.4698 ± 0.0049
c_{100}	1.00018 ± 0.00069	z_{*}	1089.65 ± 0.33	$\sigma_8(0.51)$	0.6185 ± 0.0052
c_{217}	0.99800 ± 0.00064	r_{*}	144.61 ± 0.29	$f\sigma_8(0.61)$	0.4652 ± 0.0046
H_0	67.98 ± 0.52	$100\theta_{*}$	1.04146 ± 0.00044	$\sigma_8(0.61)$	0.5887 ± 0.0050
Ω_{Λ}	0.6925 ± 0.0067	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.885 ± 0.029	$f\sigma_8(2.33)$	0.2970 ± 0.0026
Ω_{m}	0.3075 ± 0.0067	z_{drag}	1060.18 ± 0.52	$\sigma_8(2.33)$	0.3063 ± 0.0027
$\Omega_{\mathrm{m}}h^2$	0.1421 ± 0.0011	r_{drag}	147.23 ± 0.33	$\chi_{\mathrm{lensing}}^2$	10.5 ± 1.8
$\Omega_{\mathrm{m}}h^3$	0.09657 ± 0.00050	k_{D}	0.14083 ± 0.00047	χ_{simall}^2	397.0 ± 1.7
σ_8	0.8057 ± 0.0070	$100\theta_{\mathrm{D}}$	0.16066 ± 0.00031	χ_{plikTE}^2	860.0 ± 3.5
S_8	0.816 ± 0.012	z_{eq}	3379 ± 26	$\chi_{6\mathrm{DF}}^2$	0.038 ± 0.052
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4468 ± 0.0068	k_{eq}	0.010314 ± 0.000078	χ_{MGS}^2	1.52 ± 0.50
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5999 ± 0.0067	$100\theta_{\mathrm{eq}}$	0.8181 ± 0.0047	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.2
$\sigma_8/h^{0.5}$	0.9772 ± 0.0097	$100\theta_{\mathrm{s,eq}}$	0.4518 ± 0.0024	χ_{prior}^2	7.4 ± 3.6
$r_{\mathrm{drag}}h$	100.09 ± 0.86	$H(0.15)$	73.23 ± 0.46	χ_{CMB}^2	1267.4 ± 3.8
$\langle d^2 \rangle^{1/2}$	2.421 ± 0.029	$D_{\mathrm{M}}(0.15)$	638.1 ± 4.5	χ_{BAO}^2	5.87 ± 0.91

$\bar{\chi}_{\mathrm{eff}}^2 = 1280.69$; $R - 1 = 0.02724$

2.35 base_plikHM_TE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02246 ± 0.00024	z_{re}	$7.43^{+0.27}_{-0.89}$	$H(0.38)$	83.41 ± 0.36
$\Omega_c h^2$	0.1181 ± 0.0012	$10^9 A_s$	$2.059^{+0.027}_{-0.036}$	$D_M(0.38)$	1518.6 ± 9.4
$100\theta_{\text{MC}}$	1.04133 ± 0.00046	$10^9 A_s e^{-2\tau}$	1.854 ± 0.017	$H(0.51)$	90.05 ± 0.30
τ	$0.0524^{+0.0034}_{-0.0077}$	D_{40}	1216 ± 23	$D_M(0.51)$	1968 ± 11
$\ln(10^{10} A_s)$	$3.025^{+0.014}_{-0.017}$	D_{220}	5694 ± 56	$H(0.61)$	95.61 ± 0.26
n_s	0.966 ± 0.010	D_{810}	2508 ± 25	$D_M(0.61)$	2292 ± 12
y_{cal}	1.0000 ± 0.0025	D_{1420}	807 ± 12	$H(2.33)$	235.44 ± 0.81
A_{100}^{dustTE}	0.114 ± 0.038	D_{2000}	227.7 ± 4.2	$D_M(2.33)$	5750 ± 13
$A_{100 \times 143}^{\text{dustTE}}$	0.136 ± 0.030	$n_{s,0.002}$	0.966 ± 0.010	$f\sigma_8(0.15)$	0.4442 ± 0.0080
$A_{100 \times 217}^{\text{dustTE}}$	0.477 ± 0.085	Y_{P}	0.245428 ± 0.000093	$\sigma_8(0.15)$	$0.7375^{+0.0071}_{-0.0081}$
A_{143}^{dustTE}	0.221 ± 0.054	$Y_{\text{P}}^{\text{BBN}}$	0.246754 ± 0.000093	$f\sigma_8(0.38)$	0.4641 ± 0.0069
$A_{143 \times 217}^{\text{dustTE}}$	0.659 ± 0.081	10^5D/H	2.570 ± 0.043	$\sigma_8(0.38)$	$0.6546^{+0.0060}_{-0.0070}$
A_{217}^{dustTE}	2.04 ± 0.27	Age/Gyr	13.768 ± 0.031	$f\sigma_8(0.51)$	0.4636 ± 0.0063
c_{100}	1.00017 ± 0.00070	z_*	1089.64 ± 0.33	$\sigma_8(0.51)$	$0.6130^{+0.0056}_{-0.0065}$
c_{217}	0.99799 ± 0.00065	r_*	144.85 ± 0.34	$f\sigma_8(0.61)$	0.4594 ± 0.0059
H_0	68.24 ± 0.55	$100\theta_*$	1.04151 ± 0.00045	$\sigma_8(0.61)$	$0.5835^{+0.0053}_{-0.0061}$
Ω_Λ	0.6967 ± 0.0071	$D_M(z_*)/\text{Gpc}$	13.908 ± 0.033	$f\sigma_8(2.33)$	$0.2945^{+0.0026}_{-0.0031}$
Ω_{m}	0.3033 ± 0.0071	z_{drag}	1060.01 ± 0.53	$\sigma_8(2.33)$	$0.3040^{+0.0027}_{-0.0032}$
$\Omega_{\text{m}} h^2$	0.1412 ± 0.0012	r_{drag}	147.49 ± 0.38	χ_{small}^2	396.4 ± 1.2
$\Omega_{\text{m}} h^3$	0.09636 ± 0.00053	k_{D}	0.14051 ± 0.00052	χ_{plikTE}^2	859.3 ± 3.5
σ_8	$0.7972^{+0.0080}_{-0.0090}$	$100\theta_{\text{D}}$	0.16076 ± 0.00031	$\chi_{6\text{DF}}^2$	0.038 ± 0.053
S_8	0.802 ± 0.015	z_{eq}	3359 ± 29	χ_{MGS}^2	1.87 ± 0.59
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4391 ± 0.0084	k_{eq}	0.010252 ± 0.000088	χ_{DR12BAO}^2	3.98 ± 0.86
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5916 ± 0.0085	$100\theta_{\text{eq}}$	0.8217 ± 0.0053	χ_{prior}^2	7.4 ± 3.7
$\sigma_8/h^{0.5}$	0.965 ± 0.012	$100\theta_{\text{s,eq}}$	0.4537 ± 0.0028	χ_{BAO}^2	5.89 ± 0.95
$r_{\text{drag}} h$	100.65 ± 0.94	$H(0.15)$	73.44 ± 0.48	χ_{CMB}^2	1255.7 ± 3.7
$\langle d^2 \rangle^{1/2}$	2.399 ± 0.030	$D_M(0.15)$	635.9 ± 4.6		

$\bar{\chi}_{\text{eff}}^2 = 1269.00$; $R - 1 = 0.00969$

2.36 base_plikHM_TE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02251 ± 0.00023	z_{re}	$7.75^{+0.57}_{-0.78}$	$H(0.38)$	83.29 ± 0.36
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0011	$10^9 A_{\mathrm{s}}$	$2.091^{+0.024}_{-0.032}$	$D_{\mathrm{M}}(0.38)$	1522.5 ± 9.1
$100\theta_{\mathrm{MC}}$	1.04129 ± 0.00045	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.013	$H(0.51)$	89.97 ± 0.30
τ	$0.0556^{+0.0053}_{-0.0078}$	D_{40}	1222 ± 24	$D_{\mathrm{M}}(0.51)$	1973 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.012}_{-0.015}$	D_{220}	5720 ± 54	$H(0.61)$	95.56 ± 0.26
n_{s}	0.9677 ± 0.0097	D_{810}	2528 ± 20	$D_{\mathrm{M}}(0.61)$	2296 ± 12
y_{cal}	1.0005 ± 0.0025	D_{1420}	814.9 ± 9.8	$H(2.33)$	236.00 ± 0.70
$A_{100}^{\mathrm{dustTE}}$	0.113 ± 0.038	D_{2000}	230.4 ± 3.6	$D_{\mathrm{M}}(2.33)$	5750 ± 13
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.135 ± 0.030	$n_{\mathrm{s},0.002}$	0.9677 ± 0.0097	$f\sigma_8(0.15)$	0.4518 ± 0.0064
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.479 ± 0.083	Y_{P}	0.245447 ± 0.000092	$\sigma_8(0.15)$	$0.7454^{+0.0055}_{-0.0064}$
$A_{143}^{\mathrm{dustTE}}$	0.221 ± 0.055	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246773 ± 0.000093	$f\sigma_8(0.38)$	0.4710 ± 0.0053
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.662 ± 0.082	$10^5 \mathrm{D}/\mathrm{H}$	2.561 ± 0.042	$\sigma_8(0.38)$	$0.6612^{+0.0048}_{-0.0056}$
$A_{217}^{\mathrm{dustTE}}$	2.05 ± 0.28	$\mathrm{Age}/\mathrm{Gyr}$	13.768 ± 0.031	$f\sigma_8(0.51)$	0.4701 ± 0.0048
c_{100}	1.00018 ± 0.00070	z_{*}	1089.65 ± 0.33	$\sigma_8(0.51)$	$0.6190^{+0.0045}_{-0.0053}$
c_{217}	0.99800 ± 0.00064	r_{*}	144.62 ± 0.29	$f\sigma_8(0.61)$	$0.4655^{+0.0042}_{-0.0047}$
H_0	67.99 ± 0.53	$100\theta_{*}$	1.04146 ± 0.00044	$\sigma_8(0.61)$	$0.5891^{+0.0043}_{-0.0050}$
Ω_{Λ}	0.6927 ± 0.0067	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.886 ± 0.029	$f\sigma_8(2.33)$	$0.2972^{+0.0022}_{-0.0026}$
Ω_{m}	0.3073 ± 0.0067	z_{drag}	1060.18 ± 0.52	$\sigma_8(2.33)$	$0.3066^{+0.0024}_{-0.0027}$
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0011	r_{drag}	147.23 ± 0.33	$\chi_{\mathrm{lensing}}^2$	10.4 ± 1.8
$\Omega_{\mathrm{m}}h^3$	0.09657 ± 0.00050	k_{D}	0.14082 ± 0.00047	χ_{simall}^2	396.9 ± 1.7
σ_8	$0.8063^{+0.0060}_{-0.0071}$	$100\theta_{\mathrm{D}}$	0.16066 ± 0.00031	χ_{plikTE}^2	859.9 ± 3.5
S_8	0.816 ± 0.012	z_{eq}	3379 ± 26	$\chi_{6\mathrm{DF}}^2$	0.037 ± 0.052
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4470 ± 0.0068	k_{eq}	0.010312 ± 0.000078	χ_{MGS}^2	1.54 ± 0.51
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6003 ± 0.0066	$100\theta_{\mathrm{eq}}$	0.8182 ± 0.0047	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.1
$\sigma_8/h^{0.5}$	$0.9778^{+0.0088}_{-0.010}$	$100\theta_{\mathrm{s,eq}}$	0.4519 ± 0.0024	χ_{prior}^2	7.4 ± 3.6
$r_{\mathrm{drag}}h$	100.11 ± 0.86	$H(0.15)$	73.23 ± 0.46	χ_{CMB}^2	1267.2 ± 3.7
$\langle d^2 \rangle^{1/2}$	2.422 ± 0.029	$D_{\mathrm{M}}(0.15)$	638.0 ± 4.5	χ_{BAO}^2	5.86 ± 0.91

$$\bar{\chi}_{\mathrm{eff}}^2 = 1280.53; R - 1 = 0.02893$$

2.37 base_plikHM_EE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02355	0.02347 ± 0.00066	D_{810}	2581.1	2580 ± 34	$H(0.51)$	90.59	90.51 ± 0.60
$\Omega_{\text{c}}h^2$	0.11753	0.1176 ± 0.0014	D_{1420}	838.8	838 ± 15	$D_{\text{M}}(0.51)$	1953.7	1956 ± 18
$100\theta_{\text{MC}}$	1.03988	1.03987 ± 0.00081	D_{2000}	239.2	238.8 ± 5.5	$H(0.61)$	96.13	96.06 ± 0.56
τ	0.0521	0.0517 ± 0.0084	$n_{\text{s},0.002}$	0.9755	0.9752 ± 0.0098	$D_{\text{M}}(0.61)$	2275.0	2278 ± 20
$\ln(10^{10}A_{\text{s}})$	3.0498	3.049 ± 0.021	Y_{P}	0.245885	$0.24584^{+0.00028}_{-0.00023}$	$H(2.33)$	236.02	235.99 ± 0.99
n_{s}	0.9755	0.9752 ± 0.0098	$Y_{\text{P}}^{\text{BBN}}$	0.247214	$0.24716^{+0.00028}_{-0.00023}$	$D_{\text{M}}(2.33)$	5720.6	5724 ± 30
y_{cal}	0.99972	1.0000 ± 0.0025	$10^5\text{D}/\text{H}$	2.380	$2.40^{+0.10}_{-0.12}$	$f\sigma_8(0.15)$	0.4441	0.4449 ± 0.0098
H_0	68.86	68.76 ± 0.85	Age/Gyr	13.699	13.708 ± 0.069	$\sigma_8(0.15)$	0.7426	0.7427 ± 0.0091
Ω_{Λ}	0.7011	0.7000 ± 0.0090	z_*	1088.30	1088.42 ± 0.80	$f\sigma_8(0.38)$	0.4651	0.4656 ± 0.0084
Ω_{m}	0.2989	0.3000 ± 0.0090	r_*	144.17	144.21 ± 0.52	$\sigma_8(0.38)$	0.6597	0.6596 ± 0.0078
$\Omega_{\text{m}}h^2$	0.14173	0.1417 ± 0.0014	$100\theta_*$	1.03995	1.03994 ± 0.00082	$f\sigma_8(0.51)$	0.4652	0.4656 ± 0.0076
$\Omega_{\text{m}}h^3$	0.09759	0.0975 ± 0.0012	$D_{\text{M}}(z_*)/\text{Gpc}$	13.863	13.867 ± 0.051	$\sigma_8(0.51)$	0.6179	0.6178 ± 0.0072
σ_8	0.8023	0.802 ± 0.010	z_{drag}	1062.45	1062.2 ± 1.4	$f\sigma_8(0.61)$	0.4613	0.4616 ± 0.0070
S_8	0.8008	0.802 ± 0.019	r_{drag}	146.44	146.52 ± 0.70	$\sigma_8(0.61)$	0.5883	0.5882 ± 0.0069
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4386	0.439 ± 0.010	k_{D}	0.14240	0.1423 ± 0.0012	$f\sigma_8(2.33)$	0.29713	0.2970 ± 0.0034
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5932	0.594 ± 0.010	$100\theta_{\text{D}}$	0.15914	$0.15926^{+0.00076}_{-0.00087}$	$\sigma_8(2.33)$	0.30690	0.3068 ± 0.0036
$\sigma_8/h^{0.5}$	0.9668	0.968 ± 0.015	z_{eq}	3371.4	3372 ± 33	χ_{small}^2	395.61	396.8 ± 1.5
$r_{\text{drag}}h$	100.84	100.7 ± 1.1	k_{eq}	0.010290	0.01029 ± 0.00010	χ_{plikEE}^2	739.04	743.2 ± 2.9
$\langle d^2 \rangle^{1/2}$	2.4015	2.403 ± 0.035	$100\theta_{\text{eq}}$	0.8213	0.8211 ± 0.0060	$\chi_{6\text{DF}}^2$	0.0044	0.056 ± 0.078
z_{re}	7.17	$7.13^{+0.86}_{-0.76}$	$100\theta_{\text{s,eq}}$	0.45266	0.4526 ± 0.0031	χ_{MGS}^2	1.89	1.91 ± 0.71
10^9A_{s}	2.1112	2.110 ± 0.045	$H(0.15)$	74.03	73.94 ± 0.77	χ_{DR12BAO}^2	3.60	4.4 ± 1.2
$10^9A_{\text{s}}e^{-2\tau}$	1.9024	1.902 ± 0.025	$D_{\text{M}}(0.15)$	630.5	631.4 ± 7.2	χ_{prior}^2	0.012	1.0 ± 1.5
D_{40}	1231.6	1232 ± 30	$H(0.38)$	83.97	83.89 ± 0.66	χ_{BAO}^2	5.49	6.4 ± 1.3
D_{220}	5898	5891 ± 130	$D_{\text{M}}(0.38)$	1506.6	1509 ± 15	χ_{CMB}^2	1134.66	1139.9 ± 3.3

Best-fit $\chi_{\text{eff}}^2 = 1140.16$; $\bar{\chi}_{\text{eff}}^2 = 1147.36$; $R - 1 = 0.00786$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.89 DR12BAO: 3.60 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.61 plik_rd12_HM_v22_EE: 739.04

2.38 base_plikHM_EE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02342 ± 0.00055	D_{1420}	835 ± 12	$H(0.61)$	96.05 ± 0.52
$\Omega_{\mathrm{c}}h^2$	0.1174 ± 0.0014	D_{2000}	237.9 ± 4.4	$D_{\mathrm{M}}(0.61)$	2277 ± 19
$100\theta_{\mathrm{MC}}$	1.03986 ± 0.00080	$n_{\mathrm{s},0.002}$	0.9744 ± 0.0097	$H(2.33)$	235.79 ± 0.79
τ	0.0509 ± 0.0079	Y_{P}	$0.24582^{+0.00025}_{-0.00019}$	$D_{\mathrm{M}}(2.33)$	5726 ± 27
$\ln(10^{10}A_{\mathrm{s}})$	3.045 ± 0.016	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24715^{+0.00025}_{-0.00019}$	$f\sigma_8(0.15)$	0.4429 ± 0.0086
n_{s}	0.9744 ± 0.0097	$10^5\mathrm{D}/\mathrm{H}$	2.404 ± 0.092	$\sigma_8(0.15)$	0.7405 ± 0.0070
y_{cal}	0.99996 ± 0.0024	Age/Gyr	13.712 ± 0.062	$f\sigma_8(0.38)$	0.4638 ± 0.0071
H_0	68.80 ± 0.82	z_*	1088.45 ± 0.70	$\sigma_8(0.38)$	0.6578 ± 0.0060
Ω_{Λ}	0.7010 ± 0.0087	r_*	144.30 ± 0.38	$f\sigma_8(0.51)$	0.4639 ± 0.0063
Ω_{m}	0.2990 ± 0.0087	$100\theta_*$	1.03994 ± 0.00081	$\sigma_8(0.51)$	0.6161 ± 0.0055
$\Omega_{\mathrm{m}}h^2$	0.1415 ± 0.0012	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.040	$f\sigma_8(0.61)$	0.4599 ± 0.0057
$\Omega_{\mathrm{m}}h^3$	0.0973 ± 0.0010	z_{drag}	1062.1 ± 1.2	$\sigma_8(0.61)$	0.5866 ± 0.0053
σ_8	0.8000 ± 0.0079	r_{drag}	146.63 ± 0.52	$f\sigma_8(2.33)$	0.2963 ± 0.0027
S_8	0.799 ± 0.017	k_{D}	0.14211 ± 0.00088	$\sigma_8(2.33)$	0.3060 ± 0.0028
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4374 ± 0.0091	$100\theta_{\mathrm{D}}$	0.15932 ± 0.00068	$\chi_{\mathrm{lensing}}^2$	9.1 ± 1.1
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5916 ± 0.0086	z_{eq}	3365 ± 28	χ_{simall}^2	396.6 ± 1.4
$\sigma_8/h^{0.5}$	0.965 ± 0.013	k_{eq}	0.010270 ± 0.000085	χ_{plikEE}^2	742.6 ± 2.6
$r_{\mathrm{drag}}h$	100.9 ± 1.1	$100\theta_{\mathrm{eq}}$	0.8222 ± 0.0054	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.078
$\langle d^2 \rangle^{1/2}$	2.398 ± 0.030	$100\theta_{\mathrm{s,eq}}$	0.4532 ± 0.0027	χ_{MGS}^2	1.99 ± 0.69
z_{re}	$7.06^{+0.82}_{-0.74}$	$H(0.15)$	73.97 ± 0.75	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.1
10^9A_{s}	2.101 ± 0.033	$D_{\mathrm{M}}(0.15)$	631.1 ± 7.0	χ_{prior}^2	0.9 ± 1.4
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.898 ± 0.017	$H(0.38)$	83.89 ± 0.62	χ_{CMB}^2	1148.4 ± 3.3
D_{40}	1231 ± 28	$D_{\mathrm{M}}(0.38)$	1508 ± 15	χ_{BAO}^2	6.4 ± 1.3
D_{220}	5883 ± 110	$H(0.51)$	90.51 ± 0.56		
D_{810}	2574 ± 26	$D_{\mathrm{M}}(0.51)$	1956 ± 18		

$\bar{\chi}_{\mathrm{eff}}^2 = 1155.69$; $R - 1 = 0.01010$

2.39 base_plikHM_EE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02344 ± 0.00065	D_{810}	2579 ± 34	$H(0.51)$	90.49 ± 0.60
$\Omega_{\mathrm{c}}h^2$	0.1176 ± 0.0014	D_{1420}	838 ± 15	$D_{\mathrm{M}}(0.51)$	1957 ± 18
$100\theta_{\mathrm{MC}}$	1.03987 ± 0.00081	D_{2000}	238.8 ± 5.5	$H(0.61)$	96.05 ± 0.56
τ	$0.0548^{+0.0041}_{-0.0078}$	$n_{\mathrm{s},0.002}$	0.9755 ± 0.0099	$D_{\mathrm{M}}(0.61)$	2278 ± 20
$\ln(10^{10}A_{\mathrm{s}})$	3.055 ± 0.019	Y_{P}	$0.24583^{+0.00028}_{-0.00023}$	$H(2.33)$	235.97 ± 0.98
n_{s}	0.9755 ± 0.0099	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24715^{+0.00028}_{-0.00023}$	$D_{\mathrm{M}}(2.33)$	5726 ± 30
y_{cal}	1.0000 ± 0.0025	$10^5\mathrm{D}/\mathrm{H}$	$2.40^{+0.10}_{-0.11}$	$f\sigma_8(0.15)$	0.4464 ± 0.0094
H_0	68.74 ± 0.85	Age/Gyr	13.711 ± 0.069	$\sigma_8(0.15)$	$0.7450^{+0.0076}_{-0.0084}$
Ω_{Λ}	0.6999 ± 0.0090	z_*	1088.45 ± 0.80	$f\sigma_8(0.38)$	0.4671 ± 0.0079
Ω_{m}	0.3001 ± 0.0090	r_*	144.23 ± 0.52	$\sigma_8(0.38)$	$0.6616^{+0.0064}_{-0.0072}$
$\Omega_{\mathrm{m}}h^2$	0.1417 ± 0.0014	$100\theta_*$	1.03995 ± 0.00082	$f\sigma_8(0.51)$	0.4671 ± 0.0071
$\Omega_{\mathrm{m}}h^3$	0.0974 ± 0.0012	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.869 ± 0.051	$\sigma_8(0.51)$	$0.6197^{+0.0059}_{-0.0067}$
σ_8	0.8050 ± 0.0091	z_{drag}	1062.2 ± 1.4	$f\sigma_8(0.61)$	0.4631 ± 0.0065
S_8	0.805 ± 0.018	r_{drag}	146.55 ± 0.70	$\sigma_8(0.61)$	$0.5900^{+0.0056}_{-0.0064}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4410 ± 0.0099	k_{D}	0.1422 ± 0.0012	$f\sigma_8(2.33)$	$0.2979^{+0.0028}_{-0.0032}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5958 ± 0.0096	$100\theta_{\mathrm{D}}$	$0.15930^{+0.00076}_{-0.00087}$	$\sigma_8(2.33)$	0.3077 ± 0.0032
$\sigma_8/h^{0.5}$	0.971 ± 0.014	z_{eq}	3371 ± 33	χ_{simall}^2	396.5 ± 1.4
$r_{\mathrm{drag}}h$	100.7 ± 1.1	k_{eq}	0.01029 ± 0.00010	χ_{plikEE}^2	743.2 ± 2.9
$\langle d^2 \rangle^{1/2}$	2.409 ± 0.034	$100\theta_{\mathrm{eq}}$	0.8211 ± 0.0059	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.079
z_{re}	$7.45^{+0.32}_{-0.87}$	$100\theta_{\mathrm{s,eq}}$	0.4526 ± 0.0031	χ_{MGS}^2	1.90 ± 0.71
10^9A_{s}	2.122 ± 0.040	$H(0.15)$	73.92 ± 0.77	$\chi_{\mathrm{DR12BAO}}^2$	4.4 ± 1.2
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.901 ± 0.024	$D_{\mathrm{M}}(0.15)$	631.6 ± 7.2	χ_{prior}^2	1.0 ± 1.5
D_{40}	1231 ± 31	$H(0.38)$	83.87 ± 0.66	χ_{BAO}^2	6.4 ± 1.3
D_{220}	5885 ± 130	$D_{\mathrm{M}}(0.38)$	1509 ± 15	χ_{CMB}^2	1139.7 ± 3.2

$\bar{\chi}_{\mathrm{eff}}^2 = 1147.07$; $R - 1 = 0.01186$

2.40 base_plikHM_EE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02337 ± 0.00055	D_{1420}	834 ± 12	$H(0.61)$	96.02 ± 0.51
$\Omega_c h^2$	0.1173 ± 0.0014	D_{2000}	237.6 ± 4.4	$D_M(0.61)$	2278 ± 19
$100\theta_{MC}$	1.03988 ± 0.00081	$n_{s,0.002}$	0.9747 ± 0.0099	$H(2.33)$	235.71 ± 0.78
τ	$0.0540^{+0.0036}_{-0.0071}$	Y_P	$0.24580^{+0.00025}_{-0.00019}$	$D_M(2.33)$	5728 ± 27
$\ln(10^{10} A_s)$	3.050 ± 0.013	Y_P^{BBN}	$0.24713^{+0.00025}_{-0.00019}$	$f\sigma_8(0.15)$	0.4440 ± 0.0083
n_s	0.9747 ± 0.0099	$10^5 D/H$	2.413 ± 0.092	$\sigma_8(0.15)$	$0.7425^{+0.0057}_{-0.0064}$
y_{cal}	0.9999 ± 0.0024	Age/Gyr	13.717 ± 0.062	$f\sigma_8(0.38)$	0.4650 ± 0.0068
H_0	68.78 ± 0.83	z_*	1088.51 ± 0.70	$\sigma_8(0.38)$	$0.6595^{+0.0048}_{-0.0054}$
Ω_Λ	0.7010 ± 0.0087	r_*	144.36 ± 0.37	$f\sigma_8(0.51)$	0.4651 ± 0.0059
Ω_m	0.2990 ± 0.0087	$100\theta_*$	1.03996 ± 0.00081	$\sigma_8(0.51)$	$0.6178^{+0.0045}_{-0.0050}$
$\Omega_m h^2$	0.1414 ± 0.0012	$D_M(z_*)/\text{Gpc}$	13.881 ± 0.039	$f\sigma_8(0.61)$	0.4611 ± 0.0053
$\Omega_m h^3$	0.0972 ± 0.0010	z_{drag}	1062.0 ± 1.2	$\sigma_8(0.61)$	$0.5882^{+0.0042}_{-0.0047}$
σ_8	0.8021 ± 0.0070	r_{drag}	146.70 ± 0.50	$f\sigma_8(2.33)$	0.2971 ± 0.0023
S_8	0.801 ± 0.016	k_D	0.14199 ± 0.00087	$\sigma_8(2.33)$	0.3069 ± 0.0025
$\sigma_8 \Omega_m^{0.5}$	0.4386 ± 0.0089	$100\theta_D$	0.15939 ± 0.00068	$\chi^2_{lensing}$	9.1 ± 1.1
$\sigma_8 \Omega_m^{0.25}$	0.5931 ± 0.0082	z_{eq}	3362 ± 28	χ^2_{small}	396.3 ± 1.1
$\sigma_8/h^{0.5}$	0.967 ± 0.012	k_{eq}	0.010262 ± 0.000084	χ^2_{plikEE}	742.6 ± 2.7
$r_{drag} h$	100.9 ± 1.1	$100\theta_{eq}$	0.8225 ± 0.0054	χ^2_{6DF}	0.056 ± 0.078
$\langle d^2 \rangle^{1/2}$	2.403 ± 0.029	$100\theta_{s,eq}$	0.4534 ± 0.0026	χ^2_{MGS}	2.01 ± 0.69
z_{re}	$7.39^{+0.24}_{-0.87}$	$H(0.15)$	73.94 ± 0.75	$\chi^2_{DR12BAO}$	4.3 ± 1.0
$10^9 A_s$	$2.112^{+0.026}_{-0.030}$	$D_M(0.15)$	631.3 ± 7.0	χ^2_{prior}	0.9 ± 1.4
$10^9 A_s e^{-2\tau}$	1.895 ± 0.017	$H(0.38)$	83.87 ± 0.62	χ^2_{CMB}	1148.1 ± 3.3
D_{40}	1229 ± 28	$D_M(0.38)$	1509 ± 15	χ^2_{BAO}	6.4 ± 1.3
D_{220}	5870 ± 110	$H(0.51)$	90.48 ± 0.56		
D_{810}	2571 ± 25	$D_M(0.51)$	1956 ± 18		

$\bar{\chi}^2_{eff} = 1155.39$; $R - 1 = 0.01205$

2.41 base_CamSpecHM_TE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022423	0.02242 ± 0.00023	D_{810}	2547.3	2547 ± 25	$H(0.51)$	90.035	90.04 ± 0.30
$\Omega_c h^2$	0.11784	0.1179 ± 0.0012	D_{1420}	824.1	824 ± 12	$D_M(0.51)$	1968.0	1968 ± 11
$100\theta_{MC}$	1.041276	1.04131 ± 0.00047	D_{2000}	233.21	233.0 ± 4.2	$H(0.61)$	95.582	95.59 ± 0.26
τ	0.0511	0.0496 ± 0.0084	$n_{s,0.002}$	0.9766	0.976 ± 0.010	$D_M(0.61)$	2291.2	2291 ± 12
$\ln(10^{10} A_s)$	3.0345	$3.032^{+0.021}_{-0.018}$	Y_P	0.245416	0.245412 ± 0.000092	$H(2.33)$	235.22	235.23 ± 0.80
n_s	0.9766	0.976 ± 0.010	Y_P^{BBN}	0.246743	0.246738 ± 0.000092	$D_M(2.33)$	5751.7	5751 ± 13
y_{cal}	0.99984	0.99996 ± 0.0025	$10^5 D/H$	2.5756	2.577 ± 0.043	$f\sigma_8(0.15)$	0.4471	0.4464 ± 0.0083
H_0	68.28	68.29 ± 0.54	Age/Gyr	13.7724	13.771 ± 0.030	$\sigma_8(0.15)$	0.7435	0.7423 ± 0.0090
Ω_Λ	0.6977	0.6977 ± 0.0069	z_*	1089.664	1089.67 ± 0.32	$f\sigma_8(0.38)$	0.4673	0.4665 ± 0.0074
Ω_m	0.3023	0.3023 ± 0.0069	r_*	144.951	144.95 ± 0.34	$\sigma_8(0.38)$	0.6601	0.6590 ± 0.0078
$\Omega_m h^2$	0.14091	0.1409 ± 0.0012	$100\theta_*$	1.041451	1.04149 ± 0.00047	$f\sigma_8(0.51)$	0.4670	0.4662 ± 0.0068
$\Omega_m h^3$	0.09621	0.09623 ± 0.00052	$D_M(z_*)/\text{Gpc}$	13.9182	13.918 ± 0.033	$\sigma_8(0.51)$	0.6181	0.6171 ± 0.0073
σ_8	0.8036	0.802 ± 0.010	z_{drag}	1059.89	1059.90 ± 0.53	$f\sigma_8(0.61)$	0.4628	0.4621 ± 0.0065
S_8	0.8066	0.805 ± 0.016	r_{drag}	147.606	147.61 ± 0.38	$\sigma_8(0.61)$	0.5884	0.5875 ± 0.0069
$\sigma_8 \Omega_m^{0.5}$	0.4418	0.4411 ± 0.0086	k_D	0.14036	0.14036 ± 0.00051	$f\sigma_8(2.33)$	0.29706	0.2966 ± 0.0035
$\sigma_8 \Omega_m^{0.25}$	0.5958	0.5949 ± 0.0091	$100\theta_D$	0.160809	0.16082 ± 0.00031	$\sigma_8(2.33)$	0.30667	0.3062 ± 0.0036
$\sigma_8/h^{0.5}$	0.9725	0.971 ± 0.013	z_{eq}	3351.9	3352 ± 29	χ_{small}^2	395.71	396.8 ± 1.5
$r_{drag} h$	100.78	100.80 ± 0.92	k_{eq}	0.010230	0.010231 ± 0.000087	$\chi_{CamSpec}^2$	2576.15	2580.4 ± 2.9
$\langle d^2 \rangle^{1/2}$	2.3882	2.387 ± 0.032	$100\theta_{eq}$	0.8228	0.8228 ± 0.0053	χ_{6DF}^2	0.0038	0.040 ± 0.054
z_{re}	7.31	$7.13^{+0.91}_{-0.73}$	$100\theta_{s,eq}$	0.45432	0.4543 ± 0.0027	χ_{MGS}^2	1.89	1.96 ± 0.58
$10^9 A_s$	2.0791	2.074 ± 0.041	$H(0.15)$	73.461	73.47 ± 0.47	$\chi_{DR12BAO}^2$	3.370	3.93 ± 0.78
$10^9 A_s e^{-2\tau}$	1.8770	1.877 ± 0.017	$D_M(0.15)$	635.59	635.5 ± 4.5	χ_{prior}^2	10.03	11.0 ± 1.4
D_{40}	1203.3	1206 ± 24	$H(0.38)$	83.411	83.42 ± 0.36	χ_{BAO}^2	5.266	5.93 ± 0.98
D_{220}	5710	5715 ± 59	$D_M(0.38)$	1518.1	1517.9 ± 9.2	χ_{CMB}^2	2971.85	2977.2 ± 3.3

Best-fit $\chi_{eff}^2 = 2987.15$; $\bar{\chi}_{eff}^2 = 2994.10$; $R - 1 = 0.00951$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.89 DR12BAO: 3.37 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.71 CamSpec like_10.7HM_1400_unified: 2576.15

2.42 base_CamSpecHM_TE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02245 ± 0.00023	D_{1420}	827 ± 10	$H(0.61)$	95.58 ± 0.26
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0011	D_{2000}	234.1 ± 3.7	$D_{\mathrm{M}}(0.61)$	2292 ± 12
$100\theta_{\mathrm{MC}}$	1.04128 ± 0.00046	$n_{\mathrm{s},0.002}$	0.9761 ± 0.0099	$H(2.33)$	235.42 ± 0.72
τ	0.0522 ± 0.0073	Y_{P}	$0.245422^{+0.000092}_{-0.000082}$	$D_{\mathrm{M}}(2.33)$	5751 ± 13
$\ln(10^{10}A_{\mathrm{s}})$	3.041 ± 0.015	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246749^{+0.000092}_{-0.000083}$	$f\sigma_8(0.15)$	0.4496 ± 0.0062
n_{s}	0.9761 ± 0.0099	$10^5\mathrm{D}/\mathrm{H}$	2.572 ± 0.041	$\sigma_8(0.15)$	0.7462 ± 0.0063
y_{cal}	1.0002 ± 0.0025	$\mathrm{Age}/\mathrm{Gyr}$	13.771 ± 0.030	$f\sigma_8(0.38)$	0.4696 ± 0.0052
H_0	68.21 ± 0.52	z_*	1089.66 ± 0.32	$\sigma_8(0.38)$	0.6623 ± 0.0056
Ω_{Λ}	0.6965 ± 0.0066	r_*	144.87 ± 0.30	$f\sigma_8(0.51)$	0.4692 ± 0.0047
Ω_{m}	0.3035 ± 0.0066	$100\theta_*$	1.04146 ± 0.00046	$\sigma_8(0.51)$	0.6202 ± 0.0053
$\Omega_{\mathrm{m}}h^2$	0.1412 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.030	$f\sigma_8(0.61)$	0.4649 ± 0.0044
$\Omega_{\mathrm{m}}h^3$	0.09631 ± 0.00049	z_{drag}	1059.98 ± 0.51	$\sigma_8(0.61)$	0.5904 ± 0.0050
σ_8	0.8067 ± 0.0068	r_{drag}	147.51 ± 0.33	$f\sigma_8(2.33)$	0.2980 ± 0.0026
S_8	0.811 ± 0.012	k_{D}	0.14048 ± 0.00046	$\sigma_8(2.33)$	0.3076 ± 0.0028
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4444 ± 0.0065	$100\theta_{\mathrm{D}}$	0.16077 ± 0.00030	$\chi_{\mathrm{lensing}}^2$	9.6 ± 1.1
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5987 ± 0.0064	z_{eq}	3359 ± 26	χ_{small}^2	396.6 ± 1.2
$\sigma_8/h^{0.5}$	0.9767 ± 0.0093	k_{eq}	0.010251 ± 0.000079	$\chi_{\mathrm{CamSpec}}^2$	2580.2 ± 2.7
$r_{\mathrm{drag}}h$	100.62 ± 0.87	$100\theta_{\mathrm{eq}}$	0.8217 ± 0.0048	$\chi_{6\mathrm{DF}}^2$	0.032 ± 0.044
$\langle d^2 \rangle^{1/2}$	2.399 ± 0.028	$100\theta_{\mathrm{s,eq}}$	0.4537 ± 0.0025	χ_{MGS}^2	1.85 ± 0.54
z_{re}	7.40 ± 0.74	$H(0.15)$	73.41 ± 0.45	$\chi_{\mathrm{DR12BAO}}^2$	3.91 ± 0.76
10^9A_{s}	2.092 ± 0.031	$D_{\mathrm{M}}(0.15)$	636.1 ± 4.4	χ_{prior}^2	11.0 ± 1.4
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.013	$H(0.38)$	83.39 ± 0.35	χ_{CMB}^2	2986.4 ± 3.3
D_{40}	1210 ± 24	$D_{\mathrm{M}}(0.38)$	1519.1 ± 8.9	χ_{BAO}^2	5.79 ± 0.79
D_{220}	5731 ± 57	$H(0.51)$	90.02 ± 0.29		
D_{810}	2556 ± 20	$D_{\mathrm{M}}(0.51)$	1969 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 3003.21$; $R - 1 = 0.01219$

2.43 base_CamSpecHM_TE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02243 ± 0.00023	D_{810}	2549 ± 25	$H(0.51)$	90.06 ± 0.30
$\Omega_{\text{c}}h^2$	0.1178 ± 0.0012	D_{1420}	824 ± 11	$D_{\text{M}}(0.51)$	1967 ± 11
$100\theta_{\text{MC}}$	1.04131 ± 0.00047	D_{2000}	233.4 ± 4.2	$H(0.61)$	95.60 ± 0.26
τ	$0.0528^{+0.0036}_{-0.0079}$	$n_{\text{s},0.002}$	0.976 ± 0.010	$D_{\text{M}}(0.61)$	2291 ± 12
$\ln(10^{10}A_{\text{s}})$	$3.038^{+0.014}_{-0.017}$	Y_{P}	0.245416 ± 0.000092	$H(2.33)$	235.23 ± 0.80
n_{s}	0.976 ± 0.010	$Y_{\text{P}}^{\text{BBN}}$	0.246742 ± 0.000092	$D_{\text{M}}(2.33)$	5751 ± 13
y_{cal}	0.99998 ± 0.0025	$10^5\text{D}/\text{H}$	2.575 ± 0.043	$f\sigma_8(0.15)$	0.4478 ± 0.0079
H_0	68.31 ± 0.54	Age/Gyr	13.770 ± 0.030	$\sigma_8(0.15)$	0.7449 ± 0.0076
Ω_{Λ}	$0.6979^{+0.0074}_{-0.0066}$	z_*	1089.66 ± 0.32	$f\sigma_8(0.38)$	0.4681 ± 0.0068
Ω_{m}	$0.3021^{+0.0066}_{-0.0074}$	r_*	144.95 ± 0.34	$\sigma_8(0.38)$	$0.6613^{+0.0061}_{-0.0070}$
$\Omega_{\text{m}}h^2$	0.1409 ± 0.0012	$100\theta_*$	1.04149 ± 0.00047	$f\sigma_8(0.51)$	0.4678 ± 0.0062
$\Omega_{\text{m}}h^3$	0.09624 ± 0.00053	$D_{\text{M}}(z_*)/\text{Gpc}$	13.918 ± 0.033	$\sigma_8(0.51)$	$0.6193^{+0.0056}_{-0.0065}$
σ_8	0.8051 ± 0.0085	z_{drag}	1059.92 ± 0.53	$f\sigma_8(0.61)$	0.4636 ± 0.0058
S_8	0.808 ± 0.015	r_{drag}	147.60 ± 0.38	$\sigma_8(0.61)$	$0.5895^{+0.0053}_{-0.0061}$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4425 ± 0.0083	k_{D}	0.14037 ± 0.00052	$f\sigma_8(2.33)$	$0.2976^{+0.0026}_{-0.0031}$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5968 ± 0.0084	$100\theta_{\text{D}}$	0.16081 ± 0.00031	$\sigma_8(2.33)$	$0.3073^{+0.0027}_{-0.0032}$
$\sigma_8/h^{0.5}$	0.974 ± 0.012	z_{eq}	3352 ± 29	χ_{small}^2	396.4 ± 1.0
$r_{\text{drag}}h$	100.82 ± 0.92	k_{eq}	0.010230 ± 0.000087	χ_{CamSpec}^2	2580.4 ± 2.9
$\langle d^2 \rangle^{1/2}$	2.393 ± 0.030	$100\theta_{\text{eq}}$	0.8229 ± 0.0053	$\chi_{6\text{DF}}^2$	0.040 ± 0.055
z_{re}	$7.46^{+0.35}_{-0.85}$	$100\theta_{\text{s,eq}}$	0.4544 ± 0.0027	χ_{MGS}^2	1.98 ± 0.59
10^9A_{s}	$2.087^{+0.028}_{-0.036}$	$H(0.15)$	73.49 ± 0.47	χ_{DR12BAO}^2	3.92 ± 0.78
$10^9A_{\text{s}}e^{-2\tau}$	1.878 ± 0.017	$D_{\text{M}}(0.15)$	635.4 ± 4.5	χ_{prior}^2	11.0 ± 1.4
D_{40}	1206 ± 24	$H(0.38)$	83.43 ± 0.36	χ_{BAO}^2	5.94 ± 0.99
D_{220}	5716 ± 59	$D_{\text{M}}(0.38)$	1517.6 ± 9.2	χ_{CMB}^2	2976.8 ± 3.1
$\bar{\chi}_{\text{eff}}^2 = 2993.70; R - 1 = 0.01568$					

2.44 base_CamSpecHM_TE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02245 ± 0.00022	D_{1420}	827 ± 10	$H(0.61)$	95.59 ± 0.26
$\Omega_c h^2$	0.1180 ± 0.0011	D_{2000}	234.1 ± 3.7	$D_M(0.61)$	2292 ± 11
$100\theta_{MC}$	1.04128 ± 0.00046	$n_{s,0.002}$	0.9763 ± 0.0099	$H(2.33)$	235.38 ± 0.71
τ	$0.0538^{+0.0047}_{-0.0074}$	Y_P	$0.245423^{+0.000091}_{-0.000082}$	$D_M(2.33)$	5751 ± 13
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.014}$	Y_P^{BBN}	$0.246749^{+0.000091}_{-0.000083}$	$f\sigma_8(0.15)$	0.4499 ± 0.0061
n_s	0.9763 ± 0.0099	$10^5 D/H$	2.572 ± 0.041	$\sigma_8(0.15)$	0.7471 ± 0.0057
y_{cal}	1.0002 ± 0.0024	Age/Gyr	13.770 ± 0.030	$f\sigma_8(0.38)$	0.4700 ± 0.0051
H_0	68.24 ± 0.51	z_*	1089.65 ± 0.32	$\sigma_8(0.38)$	$0.6632^{+0.0048}_{-0.0054}$
Ω_Λ	0.6968 ± 0.0065	r_*	144.88 ± 0.29	$f\sigma_8(0.51)$	0.4696 ± 0.0046
Ω_m	0.3032 ± 0.0065	$100\theta_*$	1.04146 ± 0.00046	$\sigma_8(0.51)$	$0.6210^{+0.0045}_{-0.0051}$
$\Omega_m h^2$	0.1411 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.911 ± 0.029	$f\sigma_8(0.61)$	0.4653 ± 0.0042
$\Omega_m h^3$	0.09630 ± 0.00049	z_{drag}	1059.97 ± 0.50	$\sigma_8(0.61)$	$0.5912^{+0.0043}_{-0.0049}$
σ_8	0.8076 ± 0.0063	r_{drag}	147.53 ± 0.33	$f\sigma_8(2.33)$	$0.2984^{+0.0022}_{-0.0025}$
S_8	0.812 ± 0.012	k_D	0.14047 ± 0.00046	$\sigma_8(2.33)$	$0.3080^{+0.0023}_{-0.0027}$
$\sigma_8 \Omega_m^{0.5}$	0.4447 ± 0.0065	$100\theta_D$	0.16077 ± 0.00030	$\chi^2_{lensing}$	9.5 ± 1.0
$\sigma_8 \Omega_m^{0.25}$	0.5993 ± 0.0062	z_{eq}	3357 ± 26	χ^2_{small}	396.5 ± 1.1
$\sigma_8/h^{0.5}$	0.9777 ± 0.0089	k_{eq}	0.010246 ± 0.000078	$\chi^2_{CamSpec}$	2580.1 ± 2.7
$r_{drag} h$	100.67 ± 0.86	$100\theta_{eq}$	0.8220 ± 0.0048	χ^2_{6DF}	0.032 ± 0.044
$\langle d^2 \rangle^{1/2}$	2.401 ± 0.027	$100\theta_{s,eq}$	0.4539 ± 0.0025	χ^2_{MGS}	1.88 ± 0.54
z_{re}	$7.57^{+0.51}_{-0.74}$	$H(0.15)$	73.43 ± 0.45	$\chi^2_{DR12BAO}$	3.88 ± 0.72
$10^9 A_s$	$2.098^{+0.024}_{-0.030}$	$D_M(0.15)$	635.9 ± 4.3	χ^2_{prior}	11.0 ± 1.4
$10^9 A_s e^{-2\tau}$	1.884 ± 0.013	$H(0.38)$	83.40 ± 0.35	χ^2_{CMB}	2986.1 ± 3.1
D_{40}	1209 ± 24	$D_M(0.38)$	1518.7 ± 8.9	χ^2_{BAO}	5.79 ± 0.80
D_{220}	5730 ± 57	$H(0.51)$	90.03 ± 0.29		
D_{810}	2555 ± 20	$D_M(0.51)$	1969 ± 11		

$\bar{\chi}^2_{eff} = 3002.87$; $R - 1 = 0.01685$

2.45 base_CamSpecHM_EE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02359	$0.02355^{+0.00060}_{-0.00067}$	D_{810}	2607.3	2605 ± 33	$H(0.51)$	90.47	90.45 ± 0.58
$\Omega_{\text{c}}h^2$	0.11770	0.1178 ± 0.0014	D_{1420}	845.0	844 ± 14	$D_{\text{M}}(0.51)$	1957.7	1958 ± 18
$100\theta_{\text{MC}}$	1.03937	1.03946 ± 0.00079	D_{2000}	240.8	240.4 ± 5.3	$H(0.61)$	96.03	$96.01^{+0.51}_{-0.57}$
τ	0.0511	0.0511 ± 0.0081	$n_{\text{s},0.002}$	0.9701	0.9702 ± 0.0094	$D_{\text{M}}(0.61)$	2279.5	2280 ± 20
$\ln(10^{10}A_{\text{s}})$	3.0603	3.059 ± 0.021	Y_{P}	0.245904	$0.24587^{+0.00026}_{-0.00023}$	$H(2.33)$	236.12	236.12 ± 0.99
n_{s}	0.9701	0.9702 ± 0.0094	$Y_{\text{P}}^{\text{BBN}}$	0.247232	$0.24720^{+0.00026}_{-0.00023}$	$D_{\text{M}}(2.33)$	5725.6	5727 ± 29
y_{cal}	1.00012	1.0001 ± 0.0025	$10^5\text{D}/\text{H}$	2.373	2.38 ± 0.10	$f\sigma_8(0.15)$	0.4469	0.4472 ± 0.0096
H_0	68.66	68.64 ± 0.83	Age/Gyr	13.710	13.713 ± 0.067	$\sigma_8(0.15)$	0.7447	0.7447 ± 0.0088
Ω_{Λ}	0.6989	0.6986 ± 0.0089	z_*	1088.26	1088.34 ± 0.77	$f\sigma_8(0.38)$	0.4675	0.4676 ± 0.0082
Ω_{m}	0.3011	0.3014 ± 0.0089	r_*	144.09	144.11 ± 0.52	$\sigma_8(0.38)$	0.6613	0.6612 ± 0.0075
$\Omega_{\text{m}}h^2$	0.14194	0.1419 ± 0.0014	$100\theta_*$	1.03943	1.03952 ± 0.00080	$f\sigma_8(0.51)$	0.4673	0.4674 ± 0.0074
$\Omega_{\text{m}}h^3$	0.09746	0.0974 ± 0.0012	$D_{\text{M}}(z_*)/\text{Gpc}$	13.862	13.863 ± 0.051	$\sigma_8(0.51)$	0.6193	0.6193 ± 0.0069
σ_8	0.8048	0.8048 ± 0.0098	z_{drag}	1062.57	1062.4 ± 1.4	$f\sigma_8(0.61)$	0.4632	0.4633 ± 0.0068
S_8	0.8062	0.807 ± 0.018	r_{drag}	146.35	146.39 ± 0.69	$\sigma_8(0.61)$	0.5896	0.5895 ± 0.0066
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4416	0.442 ± 0.010	k_{D}	0.14253	0.1424 ± 0.0011	$f\sigma_8(2.33)$	0.29769	0.2977 ± 0.0033
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5961	0.596 ± 0.010	$100\theta_{\text{D}}$	0.15901	0.15910 ± 0.00079	$\sigma_8(2.33)$	0.30738	0.3073 ± 0.0034
$\sigma_8/h^{0.5}$	0.9712	0.972 ± 0.015	z_{eq}	3376.6	3377 ± 33	χ_{small}^2	395.59	396.7 ± 1.4
$r_{\text{drag}}h$	100.49	100.5 ± 1.1	k_{eq}	0.010306	0.01031 ± 0.00010	χ_{CamSpec}^2	1886.67	1890.8 ± 2.8
$\langle d^2 \rangle^{1/2}$	2.4275	2.427 ± 0.035	$100\theta_{\text{eq}}$	0.8201	0.8201 ± 0.0060	$\chi_{6\text{DF}}^2$	0.0000	0.053 ± 0.073
z_{re}	7.07	$7.06^{+0.84}_{-0.73}$	$100\theta_{\text{s,eq}}$	0.45198	0.4520 ± 0.0031	χ_{MGS}^2	1.68	1.75 ± 0.68
10^9A_{s}	2.1333	2.132 ± 0.044	$H(0.15)$	73.86	73.84 ± 0.75	χ_{DR12BAO}^2	3.85	4.6 ± 1.4
$10^9A_{\text{s}}e^{-2\tau}$	1.9260	1.924 ± 0.024	$D_{\text{M}}(0.15)$	632.1	632.4 ± 7.1	χ_{prior}^2	10.03	11.0 ± 1.4
D_{40}	1260.4	1259 ± 30	$H(0.38)$	83.83	83.81 ± 0.64	χ_{BAO}^2	5.52	6.4 ± 1.3
D_{220}	6001	5991 ± 130	$D_{\text{M}}(0.38)$	1510.0	1511 ± 15	χ_{CMB}^2	2282.26	2287.4 ± 3.2

Best-fit $\chi_{\text{eff}}^2 = 2297.82$; $\bar{\chi}_{\text{eff}}^2 = 2304.89$; $R - 1 = 0.00669$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.85 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.59 CamSpec like_10.7HM_1400_unified: 1886.67

2.46 base_CamSpecHM_EE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02326 ± 0.00054	D_{1420}	835 ± 11	$H(0.61)$	95.86 ± 0.50
$\Omega_{\mathrm{c}}h^2$	0.1172 ± 0.0014	D_{2000}	237.0 ± 4.2	$D_{\mathrm{M}}(0.61)$	2282 ± 19
$100\theta_{\mathrm{MC}}$	1.03953 ± 0.00079	$n_{\mathrm{s},0.002}$	0.9690 ± 0.0093	$H(2.33)$	235.46 ± 0.80
τ	$0.0485^{+0.0079}_{-0.0069}$	Y_{P}	0.24576 ± 0.00022	$D_{\mathrm{M}}(2.33)$	5737 ± 26
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.016}_{-0.014}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24708 ± 0.00022	$f\sigma_8(0.15)$	0.4423 ± 0.0085
n_{s}	0.9690 ± 0.0093	$10^5D/H$	2.432 ± 0.092	$\sigma_8(0.15)$	0.7385 ± 0.0068
y_{cal}	0.9998 ± 0.0025	Age/Gyr	13.737 ± 0.061	$f\sigma_8(0.38)$	0.4629 ± 0.0070
H_0	68.62 ± 0.81	z_*	1088.62 ± 0.69	$\sigma_8(0.38)$	0.6559 ± 0.0058
Ω_{Λ}	0.7002 ± 0.0087	r_*	144.48 ± 0.38	$f\sigma_8(0.51)$	0.4629 ± 0.0062
Ω_{m}	0.2998 ± 0.0087	$100\theta_*$	1.03963 ± 0.00080	$\sigma_8(0.51)$	0.6144 ± 0.0054
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0012	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.897 ± 0.040	$f\sigma_8(0.61)$	0.4589 ± 0.0056
$\Omega_{\mathrm{m}}h^3$	0.09682 ± 0.00098	z_{drag}	1061.7 ± 1.2	$\sigma_8(0.61)$	0.5849 ± 0.0051
σ_8	0.7979 ± 0.0077	r_{drag}	146.86 ± 0.51	$f\sigma_8(2.33)$	0.2954 ± 0.0026
S_8	0.798 ± 0.016	k_{D}	0.14175 ± 0.00087	$\sigma_8(2.33)$	0.3051 ± 0.0027
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4369 ± 0.0090	$100\theta_{\mathrm{D}}$	0.15948 ± 0.00068	$\chi_{\mathrm{lensing}}^2$	9.3 ± 1.4
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5904 ± 0.0085	z_{eq}	3356 ± 28	χ_{small}^2	396.7 ± 1.4
$\sigma_8/h^{0.5}$	0.963 ± 0.013	k_{eq}	0.010244 ± 0.000086	$\chi_{\mathrm{CamSpec}}^2$	1890.9 ± 2.7
$r_{\mathrm{drag}}h$	100.8 ± 1.1	$100\theta_{\mathrm{eq}}$	0.8230 ± 0.0054	$\chi_{6\mathrm{DF}}^2$	0.052 ± 0.072
$\langle d^2 \rangle^{1/2}$	2.408 ± 0.029	$100\theta_{\mathrm{s,eq}}$	0.4538 ± 0.0027	χ_{MGS}^2	1.93 ± 0.68
z_{re}	$6.85^{+0.86}_{-0.70}$	$H(0.15)$	73.79 ± 0.73	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.1
10^9A_{s}	$2.101^{+0.033}_{-0.029}$	$D_{\mathrm{M}}(0.15)$	632.7 ± 6.9	χ_{prior}^2	11.0 ± 1.4
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.906 ± 0.017	$H(0.38)$	83.71 ± 0.61	χ_{CMB}^2	2296.9 ± 3.2
D_{40}	1249 ± 27	$D_{\mathrm{M}}(0.38)$	1512 ± 14	χ_{BAO}^2	6.3 ± 1.2
D_{220}	5930 ± 110	$H(0.51)$	90.32 ± 0.55		
D_{810}	2582 ± 25	$D_{\mathrm{M}}(0.51)$	1960 ± 17		

$\bar{\chi}_{\mathrm{eff}}^2 = 2314.19$; $R - 1 = 0.00959$

2.47 base_CamSpecHM_EE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02353^{+0.00060}_{-0.00067}$	D_{810}	2603 ± 33	$H(0.51)$	90.44 ± 0.58
$\Omega_{\text{c}}h^2$	0.1177 ± 0.0014	D_{1420}	843 ± 14	$D_{\text{M}}(0.51)$	1959 ± 18
$100\theta_{\text{MC}}$	1.03946 ± 0.00079	D_{2000}	240.3 ± 5.2	$H(0.61)$	96.00 ± 0.54
τ	$0.0543^{+0.0037}_{-0.0072}$	$n_{\text{s},0.002}$	0.9704 ± 0.0093	$D_{\text{M}}(0.61)$	2281 ± 20
$\ln(10^{10}A_{\text{s}})$	$3.065^{+0.017}_{-0.018}$	Y_{P}	$0.24586^{+0.00026}_{-0.00023}$	$H(2.33)$	236.09 ± 0.98
n_{s}	0.9704 ± 0.0093	$Y_{\text{P}}^{\text{BBN}}$	$0.24719^{+0.00026}_{-0.00023}$	$D_{\text{M}}(2.33)$	5727 ± 29
y_{cal}	1.0001 ± 0.0024	$10^5 D/\text{H}$	2.39 ± 0.11	$f\sigma_8(0.15)$	0.4486 ± 0.0093
H_0	68.63 ± 0.83	Age/Gyr	13.715 ± 0.067	$\sigma_8(0.15)$	0.7470 ± 0.0078
Ω_{Λ}	0.6985 ± 0.0089	z_*	1088.36 ± 0.77	$f\sigma_8(0.38)$	0.4691 ± 0.0078
Ω_{m}	0.3015 ± 0.0089	r_*	144.13 ± 0.52	$\sigma_8(0.38)$	0.6633 ± 0.0066
$\Omega_{\text{m}}h^2$	0.1419 ± 0.0014	$100\theta_*$	1.03952 ± 0.00080	$f\sigma_8(0.51)$	0.4689 ± 0.0070
$\Omega_{\text{m}}h^3$	0.0974 ± 0.0012	$D_{\text{M}}(z_*)/\text{Gpc}$	13.865 ± 0.051	$\sigma_8(0.51)$	0.6212 ± 0.0061
σ_8	0.8073 ± 0.0089	z_{drag}	1062.4 ± 1.4	$f\sigma_8(0.61)$	0.4647 ± 0.0064
S_8	0.809 ± 0.018	r_{drag}	146.42 ± 0.69	$\sigma_8(0.61)$	0.5914 ± 0.0058
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4432 ± 0.0098	k_{D}	0.1424 ± 0.0011	$f\sigma_8(2.33)$	$0.2986^{+0.0027}_{-0.0030}$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5982 ± 0.0095	$100\theta_{\text{D}}$	0.15912 ± 0.00080	$\sigma_8(2.33)$	$0.3083^{+0.0028}_{-0.0031}$
$\sigma_8/h^{0.5}$	0.975 ± 0.014	z_{eq}	3376 ± 33	χ_{simall}^2	396.4 ± 1.3
$r_{\text{drag}}h$	100.5 ± 1.1	k_{eq}	0.01030 ± 0.00010	χ_{CamSpec}^2	1890.7 ± 2.8
$\langle d^2 \rangle^{1/2}$	2.434 ± 0.033	$100\theta_{\text{eq}}$	0.8202 ± 0.0059	$\chi_{6\text{DF}}^2$	0.052 ± 0.071
z_{re}	$7.39^{+0.30}_{-0.81}$	$100\theta_{\text{s,eq}}$	0.4521 ± 0.0030	χ_{MGS}^2	1.75 ± 0.67
$10^9 A_{\text{s}}$	$2.144^{+0.035}_{-0.040}$	$H(0.15)$	73.82 ± 0.75	χ_{DR12BAO}^2	4.6 ± 1.4
$10^9 A_{\text{s}}e^{-2\tau}$	1.923 ± 0.024	$D_{\text{M}}(0.15)$	632.5 ± 7.0	χ_{prior}^2	11.0 ± 1.3
D_{40}	1259 ± 30	$H(0.38)$	83.80 ± 0.63	χ_{BAO}^2	6.4 ± 1.2
D_{220}	5986 ± 130	$D_{\text{M}}(0.38)$	1511 ± 15	χ_{CMB}^2	2287.1 ± 3.1
$\bar{\chi}_{\text{eff}}^2 = 2304.51; R - 1 = 0.01190$					

2.48 base_CamSpecHM_EE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02319 ± 0.00053	D_{1420}	833 ± 11	$H(0.61)$	95.82 ± 0.49
$\Omega_c h^2$	0.1171 ± 0.0014	D_{2000}	236.5 ± 4.1	$D_M(0.61)$	2283 ± 19
$100\theta_{MC}$	1.03953 ± 0.00077	$n_{s,0.002}$	0.9695 ± 0.0092	$H(2.33)$	235.33 ± 0.77
τ	$0.0526^{+0.0034}_{-0.0061}$	Y_P	0.24573 ± 0.00022	$D_M(2.33)$	5739 ± 25
$\ln(10^{10} A_s)$	$3.051^{+0.011}_{-0.013}$	Y_P^{BBN}	0.24706 ± 0.00022	$f\sigma_8(0.15)$	0.4435 ± 0.0083
n_s	0.9695 ± 0.0092	$10^5 D/H$	2.443 ± 0.091	$\sigma_8(0.15)$	0.7409 ± 0.0059
y_{cal}	0.9997 ± 0.0024	Age/Gyr	13.744 ± 0.059	$f\sigma_8(0.38)$	0.4643 ± 0.0068
H_0	68.61 ± 0.80	z_*	1088.69 ± 0.69	$\sigma_8(0.38)$	0.6580 ± 0.0049
Ω_Λ	0.7005 ± 0.0086	r_*	144.56 ± 0.37	$f\sigma_8(0.51)$	0.4643 ± 0.0059
Ω_m	0.2995 ± 0.0086	$100\theta_*$	1.03963 ± 0.00078	$\sigma_8(0.51)$	0.6164 ± 0.0045
$\Omega_m h^2$	0.1409 ± 0.0012	$D_M(z_*)/\text{Gpc}$	13.905 ± 0.038	$f\sigma_8(0.61)$	0.4603 ± 0.0053
$\Omega_m h^3$	0.09667 ± 0.00094	z_{drag}	1061.6 ± 1.2	$\sigma_8(0.61)$	$0.5868^{+0.0039}_{-0.0044}$
σ_8	0.8005 ± 0.0068	r_{drag}	146.96 ± 0.49	$f\sigma_8(2.33)$	$0.2964^{+0.0019}_{-0.0022}$
S_8	0.800 ± 0.016	k_D	0.14159 ± 0.00085	$\sigma_8(2.33)$	$0.3061^{+0.0021}_{-0.0024}$
$\sigma_8 \Omega_m^{0.5}$	0.4381 ± 0.0089	$100\theta_D$	0.15957 ± 0.00067	$\chi^2_{lensing}$	9.4 ± 1.5
$\sigma_8 \Omega_m^{0.25}$	0.5922 ± 0.0082	z_{eq}	3352 ± 28	χ^2_{small}	396.15 ± 0.81
$\sigma_8/h^{0.5}$	0.966 ± 0.012	k_{eq}	0.010231 ± 0.000084	$\chi^2_{CamSpec}$	1890.9 ± 2.8
$r_{drag} h$	100.8 ± 1.1	$100\theta_{eq}$	0.8236 ± 0.0054	χ^2_{6DF}	0.052 ± 0.071
$\langle d^2 \rangle^{1/2}$	2.414 ± 0.028	$100\theta_{s,eq}$	0.4541 ± 0.0026	χ^2_{MGS}	1.96 ± 0.67
z_{re}	< 7.49	$H(0.15)$	73.77 ± 0.72	$\chi^2_{DR12BAO}$	4.3 ± 1.0
$10^9 A_s$	$2.114^{+0.023}_{-0.027}$	$D_M(0.15)$	632.8 ± 6.8	χ^2_{prior}	11.0 ± 1.3
$10^9 A_s e^{-2\tau}$	1.903 ± 0.016	$H(0.38)$	83.68 ± 0.60	χ^2_{CMB}	2296.5 ± 3.2
D_{40}	1246 ± 27	$D_M(0.38)$	1512 ± 14	χ^2_{BAO}	6.3 ± 1.2
D_{220}	5914 ± 110	$H(0.51)$	90.29 ± 0.53		
D_{810}	2577 ± 24	$D_M(0.51)$	1961 ± 17		

$\bar{\chi}^2_{eff} = 2313.75$; $R - 1 = 0.00861$

2.49 base_plikHM_TE_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022450	0.02246 ± 0.00025	$\langle d^2 \rangle^{1/2}$	2.4302	2.427 ± 0.034	$H(0.15)$	72.97	73.00 ± 0.67
$\Omega_c h^2$	0.11952	0.1195 ± 0.0017	z_{re}	7.53	$7.53^{+0.79}_{-0.71}$	$D_{\text{M}}(0.15)$	640.6	640.3 ± 6.6
$100\theta_{\text{MC}}$	1.041199	1.04120 ± 0.00049	$10^9 A_{\text{s}}$	2.0822	2.083 ± 0.032	$H(0.38)$	83.089	83.12 ± 0.50
τ	0.0531	0.0533 ± 0.0077	$10^9 A_{\text{s}} e^{-2\tau}$	1.8725	1.872 ± 0.014	$D_{\text{M}}(0.38)$	1527.7	1527 ± 13
$\ln(10^{10} A_{\text{s}})$	3.0360	3.036 ± 0.015	D_{40}	1227.4	1224 ± 25	$H(0.51)$	89.814	89.84 ± 0.41
n_{s}	0.9645	0.966 ± 0.011	D_{220}	5722	5716 ± 56	$D_{\text{M}}(0.51)$	1979.1	1978 ± 16
y_{cal}	1.00049	1.0004 ± 0.0025	D_{810}	2526.5	2527 ± 22	$H(0.61)$	95.440	$95.46^{+0.32}_{-0.35}$
A_{100}^{dustTE}	0.1138	0.114 ± 0.038	D_{1420}	813.1	814 ± 11	$D_{\text{M}}(0.61)$	2302.9	2302 ± 17
$A_{100 \times 143}^{\text{dustTE}}$	0.1364	0.136 ± 0.029	D_{2000}	229.62	229.9 ± 4.0	$H(2.33)$	236.35	236.3 ± 1.0
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.478 ± 0.085	$n_{\text{s},0.002}$	0.9645	0.966 ± 0.011	$D_{\text{M}}(2.33)$	5755.5	5755 ± 16
A_{143}^{dustTE}	0.224	0.223 ± 0.054	Y_{P}	0.245426	0.24543 ± 0.00010	$f\sigma_8(0.15)$	0.4543	0.4542 ± 0.0085
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.662 ± 0.080	$Y_{\text{P}}^{\text{BBN}}$	0.246753	0.24675 ± 0.00010	$\sigma_8(0.15)$	0.7448	0.7450 ± 0.0063
A_{217}^{dustTE}	2.064	2.06 ± 0.27	$10^5 \text{D}/\text{H}$	2.5707	2.570 ± 0.046	$f\sigma_8(0.38)$	0.4726	0.4725 ± 0.0066
c_{100}	1.00017	1.00017 ± 0.00070	Age/Gyr	13.7791	13.777 ± 0.037	$\sigma_8(0.38)$	0.6603	0.6604 ± 0.0056
c_{217}	0.99800	0.99800 ± 0.00065	z_*	1089.778	1089.76 ± 0.40	$f\sigma_8(0.51)$	0.4712	0.4712 ± 0.0057
H_0	67.68	67.71 ± 0.78	r_*	144.493	144.50 ± 0.38	$\sigma_8(0.51)$	0.6179	0.6181 ± 0.0053
Ω_{Λ}	0.6886	0.689 ± 0.010	$100\theta_*$	1.041375	1.04138 ± 0.00048	$f\sigma_8(0.61)$	0.4663	0.4663 ± 0.0051
Ω_{m}	0.3114	0.311 ± 0.010	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8752	13.876 ± 0.037	$\sigma_8(0.61)$	0.5879	0.5881 ± 0.0051
$\Omega_{\text{m}} h^2$	0.14262	0.1426 ± 0.0016	z_{drag}	1060.09	1060.11 ± 0.53	$f\sigma_8(2.33)$	0.29645	0.2966 ± 0.0027
$\Omega_{\text{m}} h^3$	0.09653	0.09654 ± 0.00051	r_{drag}	147.128	147.13 ± 0.40	$\sigma_8(2.33)$	0.30563	0.3058 ± 0.0030
σ_8	0.8060	0.8062 ± 0.0070	k_{D}	0.140890	0.14089 ± 0.00049	χ_{lensing}^2	9.54	10.4 ± 1.8
S_8	0.8212	0.821 ± 0.017	$100\theta_{\text{D}}$	0.160706	0.16070 ± 0.00031	χ_{simall}^2	395.85	396.8 ± 1.5
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4498	0.4496 ± 0.0092	z_{eq}	3392.8	3392 ± 38	χ_{plikTE}^2	854.38	860.7 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6021	0.6020 ± 0.0081	k_{eq}	0.010355	0.01035 ± 0.00012	χ_{prior}^2	0.46	7.4 ± 3.7
$\sigma_8/h^{0.5}$	0.9798	0.980 ± 0.011	$100\theta_{\text{eq}}$	0.8154	0.8157 ± 0.0072	χ_{CMB}^2	1259.78	1268.0 ± 4.1
$r_{\text{drag}} h$	99.58	99.6 ± 1.3	$100\theta_{\text{s,eq}}$	0.45044	0.4506 ± 0.0037			

Best-fit $\chi_{\text{eff}}^2 = 1260.24$; $\bar{\chi}_{\text{eff}}^2 = 1275.40$; $R - 1 = 0.00470$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 9.54 simall_100x143_offlike5_EE_Aplanck_B: 395.85 plik_rd12_HM_v22_TE: 854.38

2.50 base_plikHM_TE_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02247 ± 0.00025	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.033	$H(0.15)$	73.03 ± 0.66
$\Omega_{\text{c}}h^2$	0.1194 ± 0.0017	z_{re}	$7.68^{+0.55}_{-0.76}$	$D_{\text{M}}(0.15)$	640.0 ± 6.5
$100\theta_{\text{MC}}$	1.04121 ± 0.00049	$10^9 A_{\text{s}}$	$2.088^{+0.025}_{-0.032}$	$H(0.38)$	83.14 ± 0.50
τ	$0.0547^{+0.0052}_{-0.0077}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.871 ± 0.014	$D_{\text{M}}(0.38)$	1527 ± 13
$\ln(10^{10} A_{\text{s}})$	$3.039^{+0.012}_{-0.015}$	D_{40}	1223 ± 25	$H(0.51)$	$89.86^{+0.37}_{-0.42}$
n_{s}	0.966 ± 0.011	D_{220}	5715 ± 56	$D_{\text{M}}(0.51)$	1978 ± 15
y_{cal}	1.0004 ± 0.0025	D_{810}	2526 ± 22	$H(0.61)$	$95.47^{+0.31}_{-0.35}$
A_{100}^{dustTE}	0.114 ± 0.038	D_{1420}	814 ± 11	$D_{\text{M}}(0.61)$	2301 ± 17
$A_{100 \times 143}^{\text{dustTE}}$	0.136 ± 0.030	D_{2000}	229.9 ± 4.0	$H(2.33)$	236.26 ± 0.99
$A_{100 \times 217}^{\text{dustTE}}$	0.478 ± 0.085	$n_{\text{s},0.002}$	0.966 ± 0.011	$D_{\text{M}}(2.33)$	5754 ± 16
A_{143}^{dustTE}	0.222 ± 0.055	Y_{P}	0.24543 ± 0.00010	$f\sigma_8(0.15)$	0.4542 ± 0.0085
$A_{143 \times 217}^{\text{dustTE}}$	0.662 ± 0.080	$Y_{\text{P}}^{\text{BBN}}$	0.24676 ± 0.00010	$\sigma_8(0.15)$	$0.7457^{+0.0056}_{-0.0062}$
A_{217}^{dustTE}	2.06 ± 0.27	10^5D/H	2.569 ± 0.046	$f\sigma_8(0.38)$	0.4727 ± 0.0066
c_{100}	1.00017 ± 0.00070	Age/Gyr	13.776 ± 0.036	$\sigma_8(0.38)$	$0.6612^{+0.0048}_{-0.0055}$
c_{217}	0.99800 ± 0.00065	z_*	1089.75 ± 0.40	$f\sigma_8(0.51)$	0.4714 ± 0.0057
H_0	67.76 ± 0.77	r_*	144.52 ± 0.38	$\sigma_8(0.51)$	$0.6188^{+0.0045}_{-0.0053}$
Ω_{Λ}	0.689 ± 0.010	$100\theta_*$	1.04138 ± 0.00048	$f\sigma_8(0.61)$	0.4665 ± 0.0050
Ω_{m}	0.311 ± 0.010	$D_{\text{M}}(z_*)/\text{Gpc}$	13.878 ± 0.036	$\sigma_8(0.61)$	$0.5888^{+0.0043}_{-0.0051}$
$\Omega_{\text{m}}h^2$	0.1425 ± 0.0015	z_{drag}	1060.11 ± 0.53	$f\sigma_8(2.33)$	$0.2969^{+0.0022}_{-0.0027}$
$\Omega_{\text{m}}h^3$	0.09653 ± 0.00050	r_{drag}	147.16 ± 0.39	$\sigma_8(2.33)$	$0.3062^{+0.0025}_{-0.0030}$
σ_8	0.8069 ± 0.0067	k_{D}	0.14087 ± 0.00048	χ_{lensing}^2	10.3 ± 1.8
S_8	0.821 ± 0.017	$100\theta_{\text{D}}$	0.16070 ± 0.00031	χ_{simall}^2	396.8 ± 1.5
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4496 ± 0.0092	z_{eq}	3389 ± 37	χ_{plikTE}^2	860.6 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6023 ± 0.0080	k_{eq}	0.01034 ± 0.00011	χ_{prior}^2	7.5 ± 3.7
$\sigma_8/h^{0.5}$	0.980 ± 0.011	$100\theta_{\text{eq}}$	0.8162 ± 0.0070	χ_{CMB}^2	1267.7 ± 4.0
$r_{\text{drag}}h$	99.7 ± 1.3	$100\theta_{\text{s,eq}}$	0.4508 ± 0.0036		

$\bar{\chi}_{\text{eff}}^2 = 1275.15$; $R - 1 = 0.00477$

2.51 base_plikHM_EE_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02393	0.0240 ± 0.0010	D_{220}	5958	5969 ± 170	$H(0.38)$	84.66	$84.8^{+1.4}_{-1.6}$
$\Omega_c h^2$	0.11566	0.1155 ± 0.0031	D_{810}	2588.4	2590 ± 35	$D_M(0.38)$	1489.4	1487 ± 34
$100\theta_{MC}$	1.03995	1.03998 ± 0.00082	D_{1420}	843.0	844 ± 17	$H(0.51)$	91.16	$91.3^{+1.2}_{-1.4}$
τ	0.0529	$0.0528^{+0.0086}_{-0.0077}$	D_{2000}	240.9	241.3 ± 6.6	$D_M(0.51)$	1933.3	1930 ± 41
$\ln(10^{10} A_s)$	3.0513	3.052 ± 0.019	$n_{s,0.002}$	0.9790	0.980 ± 0.013	$H(0.61)$	96.62	$96.7^{+1.0}_{-1.2}$
n_s	0.9790	0.980 ± 0.013	Y_P	0.246021	0.24605 ± 0.00039	$D_M(0.61)$	2252.8	2250 ± 45
y_{cal}	0.99998	0.99996 ± 0.0026	Y_P^{BBN}	0.247349	0.24738 ± 0.00040	$H(2.33)$	235.17	235.2 ± 1.2
H_0	69.88	70.0 ± 2.0	$10^5 D/H$	2.319	2.31 ± 0.16	$D_M(2.33)$	5699	5693 ± 54
Ω_Λ	0.7128	$0.713^{+0.022}_{-0.019}$	Age/Gyr	13.650	13.64 ± 0.12	$f\sigma_8(0.15)$	0.4327	0.432 ± 0.018
Ω_m	0.2872	$0.287^{+0.019}_{-0.022}$	z_*	1087.72	1087.7 ± 1.3	$\sigma_8(0.15)$	0.7376	$0.7368^{+0.0086}_{-0.0077}$
$\Omega_m h^2$	0.14023	0.1402 ± 0.0023	r_*	144.364	144.33 ± 0.40	$f\sigma_8(0.38)$	0.4560	0.455 ± 0.014
$\Omega_m h^3$	0.09799	$0.0982^{+0.0015}_{-0.0016}$	$100\theta_*$	1.03998	1.04000 ± 0.00081	$\sigma_8(0.38)$	0.6565	0.6560 ± 0.0062
σ_8	0.7956	$0.795^{+0.011}_{-0.0097}$	$D_M(z_*)/\text{Gpc}$	13.8814	13.878 ± 0.040	$f\sigma_8(0.51)$	0.4575	$0.456^{+0.013}_{-0.011}$
S_8	0.7784	0.777 ± 0.036	z_{drag}	1063.14	1063.3 ± 2.0	$\sigma_8(0.51)$	0.6155	0.6151 ± 0.0055
$\sigma_8 \Omega_m^{0.5}$	0.4263	0.425 ± 0.020	r_{drag}	146.53	146.47 ± 0.55	$f\sigma_8(0.61)$	0.4545	$0.454^{+0.011}_{-0.0098}$
$\sigma_8 \Omega_m^{0.25}$	0.5824	0.581 ± 0.017	k_D	0.14255	0.1426 ± 0.0011	$\sigma_8(0.61)$	0.5864	0.5860 ± 0.0052
$\sigma_8/h^{0.5}$	0.9517	0.950 ± 0.024	$100\theta_D$	0.15876	$0.1587^{+0.0010}_{-0.0011}$	$f\sigma_8(2.33)$	0.29665	0.2965 ± 0.0027
$r_{drag} h$	102.39	102.6 ± 2.8	z_{eq}	3336	3335 ± 54	$\sigma_8(2.33)$	0.30698	0.3069 ± 0.0032
$\langle d^2 \rangle^{1/2}$	2.3752	2.372 ± 0.048	k_{eq}	0.010181	0.01018 ± 0.00017	$\chi^2_{lensing}$	8.16	9.2 ± 1.1
z_{re}	7.15	$7.10^{+0.83}_{-0.68}$	$100\theta_{eq}$	0.8290	0.830 ± 0.013	χ^2_{small}	395.58	396.6 ± 1.3
$10^9 A_s$	2.1142	2.115 ± 0.040	$100\theta_{s,eq}$	0.4564	0.4566 ± 0.0059	χ^2_{plikEE}	738.95	742.9 ± 2.6
$10^9 A_s e^{-2\tau}$	1.9019	1.903 ± 0.019	$H(0.15)$	74.93	75.1 ± 1.8	χ^2_{prior}	0.00	1.0 ± 1.5
D_{40}	1231.3	1231 ± 27	$D_M(0.15)$	622.1	621 ± 16	χ^2_{CMB}	1142.69	1148.7 ± 3.4

Best-fit $\chi^2_{eff} = 1142.70$; $\bar{\chi}^2_{eff} = 1149.74$; $R - 1 = 0.00580$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.16 small_100x143_offlike5_EE_Aplanck_B: 395.58 plik_rd12_HM_v22_EE: 738.95

2.52 base_plikHM_EE_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.0240 ± 0.0010	D_{220}	5967 ± 170	$H(0.38)$	84.9 ± 1.5
$\Omega_{\text{c}}h^2$	0.1152 ± 0.0030	D_{810}	2589 ± 35	$D_{\text{M}}(0.38)$	1485 ± 34
$100\theta_{\text{MC}}$	1.04001 ± 0.00082	D_{1420}	844 ± 17	$H(0.51)$	91.4 ± 1.3
τ	$0.0558^{+0.0047}_{-0.0074}$	D_{2000}	241.3 ± 6.6	$D_{\text{M}}(0.51)$	1928 ± 41
$\ln(10^{10}A_{\text{s}})$	3.057 ± 0.016	$n_{\text{s},0.002}$	0.981 ± 0.013	$H(0.61)$	$96.8^{+1.1}_{-1.2}$
n_{s}	0.981 ± 0.013	Y_{P}	0.24605 ± 0.00040	$D_{\text{M}}(0.61)$	2247 ± 45
y_{cal}	0.9999 ± 0.0026	$Y_{\text{P}}^{\text{BBN}}$	0.24738 ± 0.00040	$H(2.33)$	235.0 ± 1.2
H_0	70.2 ± 2.0	$10^5\text{D}/\text{H}$	$2.31^{+0.15}_{-0.17}$	$D_{\text{M}}(2.33)$	5692 ± 54
Ω_{Λ}	$0.715^{+0.022}_{-0.019}$	Age/Gyr	13.64 ± 0.12	$f\sigma_8(0.15)$	0.431 ± 0.018
Ω_{m}	$0.285^{+0.019}_{-0.022}$	z_*	$1087.6^{+1.3}_{-1.4}$	$\sigma_8(0.15)$	$0.7381^{+0.0083}_{-0.0074}$
$\Omega_{\text{m}}h^2$	0.1399 ± 0.0022	r_*	144.39 ± 0.38	$f\sigma_8(0.38)$	0.455 ± 0.014
$\Omega_{\text{m}}h^3$	0.0981 ± 0.0016	$100\theta_*$	1.04002 ± 0.00080	$\sigma_8(0.38)$	0.6573 ± 0.0057
σ_8	$0.796^{+0.011}_{-0.0095}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.883 ± 0.039	$f\sigma_8(0.51)$	0.457 ± 0.012
S_8	0.776 ± 0.036	z_{drag}	1063.3 ± 2.0	$\sigma_8(0.51)$	0.6164 ± 0.0050
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.425 ± 0.020	r_{drag}	146.53 ± 0.54	$f\sigma_8(0.61)$	$0.454^{+0.011}_{-0.010}$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.581 ± 0.017	k_{D}	0.1426 ± 0.0011	$\sigma_8(0.61)$	0.5873 ± 0.0046
$\sigma_8/h^{0.5}$	0.951 ± 0.024	$100\theta_{\text{D}}$	$0.15872^{+0.00099}_{-0.0011}$	$f\sigma_8(2.33)$	$0.2972^{+0.0022}_{-0.0025}$
$r_{\text{drag}}h$	102.8 ± 2.7	z_{eq}	3328 ± 53	$\sigma_8(2.33)$	0.3078 ± 0.0029
$\langle d^2 \rangle^{1/2}$	2.373 ± 0.048	k_{eq}	0.01016 ± 0.00016	χ_{lensing}^2	9.2 ± 1.1
z_{re}	$7.40^{+0.35}_{-0.76}$	$100\theta_{\text{eq}}$	0.831 ± 0.012	χ_{simall}^2	396.3 ± 1.1
10^9A_{s}	$2.126^{+0.033}_{-0.036}$	$100\theta_{\text{s,eq}}$	0.4573 ± 0.0057	χ_{plikEE}^2	742.9 ± 2.6
$10^9A_{\text{s}}e^{-2\tau}$	1.901 ± 0.019	$H(0.15)$	75.2 ± 1.8	χ_{prior}^2	1.0 ± 1.5
D_{40}	1229 ± 27	$D_{\text{M}}(0.15)$	620 ± 16	χ_{CMB}^2	1148.3 ± 3.2

$\bar{\chi}_{\text{eff}}^2 = 1149.40$; $R - 1 = 0.00683$

2.53 base_CamSpecHM_TE_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022467	0.02248 ± 0.00026	D_{220}	5733	5734 ± 57	$H(0.38)$	83.45	83.46 ± 0.51
$\Omega_c h^2$	0.11787	0.1179 ± 0.0017	D_{810}	2557.1	2557 ± 22	$D_M(0.38)$	1517.4	1517 ± 13
$100\theta_{MC}$	1.041288	1.04130 ± 0.00049	D_{1420}	827.6	827 ± 11	$H(0.51)$	90.070	90.08 ± 0.41
τ	0.0528	0.0527 ± 0.0078	D_{2000}	234.38	234.3 ± 4.0	$D_M(0.51)$	1967.1	1967 ± 16
$\ln(10^{10} A_s)$	3.0418	3.041 ± 0.015	$n_{s,0.002}$	0.9770	0.977 ± 0.011	$H(0.61)$	95.618	95.63 ± 0.35
n_s	0.9770	0.977 ± 0.011	Y_P	0.245433	0.24543 ± 0.00010	$D_M(0.61)$	2290.2	2290 ± 17
y_{cal}	1.00021	1.0001 ± 0.0025	Y_P^{BBN}	0.246759	0.24676 ± 0.00010	$H(2.33)$	235.28	235.3 ± 1.0
H_0	68.31	68.33 ± 0.78	$10^5 D/H$	2.5677	2.567 ± 0.047	$D_M(2.33)$	5749.6	5749 ± 16
Ω_Λ	0.6979	0.698 ± 0.010	Age/Gyr	13.7675	13.766 ± 0.037	$f\sigma_8(0.15)$	0.4486	0.4484 ± 0.0085
Ω_m	0.3021	0.302 ± 0.010	z_*	1089.611	1089.61 ± 0.40	$\sigma_8(0.15)$	0.7463	0.7459 ± 0.0064
$\Omega_m h^2$	0.14098	0.1410 ± 0.0016	r_*	144.911	144.91 ± 0.39	$f\sigma_8(0.38)$	0.4690	0.4687 ± 0.0067
$\Omega_m h^3$	0.09631	0.09632 ± 0.00052	$100\theta_*$	1.041468	1.04147 ± 0.00049	$\sigma_8(0.38)$	0.6625	0.6622 ± 0.0057
σ_8	0.8066	0.8062 ± 0.0071	$D_M(z_*)/\text{Gpc}$	13.9141	13.914 ± 0.037	$f\sigma_8(0.51)$	0.4687	0.4684 ± 0.0058
S_8	0.8094	0.809 ± 0.017	z_{drag}	1060.01	1060.02 ± 0.55	$\sigma_8(0.51)$	0.6205	0.6202 ± 0.0054
$\sigma_8 \Omega_m^{0.5}$	0.4433	0.4431 ± 0.0092	r_{drag}	147.550	147.54 ± 0.40	$f\sigma_8(0.61)$	0.4645	0.4642 ± 0.0052
$\sigma_8 \Omega_m^{0.25}$	0.5980	0.5977 ± 0.0081	k_D	0.14046	0.14047 ± 0.00050	$\sigma_8(0.61)$	0.5906	0.5904 ± 0.0051
$\sigma_8/h^{0.5}$	0.9759	0.975 ± 0.011	$100\theta_D$	0.160751	0.16075 ± 0.00032	$f\sigma_8(2.33)$	0.29819	0.2981 ± 0.0027
$r_{drag} h$	100.80	100.8 ± 1.3	z_{eq}	3353.5	3354 ± 37	$\sigma_8(2.33)$	0.30784	0.3077 ± 0.0030
$\langle d^2 \rangle^{1/2}$	2.3961	2.396 ± 0.034	k_{eq}	0.010235	0.01024 ± 0.00011	$\chi_{lensing}^2$	8.95	9.7 ± 1.3
z_{re}	7.48	$7.44_{-0.71}^{+0.82}$	$100\theta_{eq}$	0.8227	0.8227 ± 0.0072	χ_{small}^2	395.77	396.7 ± 1.3
$10^9 A_s$	2.0943	2.093 ± 0.032	$100\theta_{s,eq}$	0.45421	0.4542 ± 0.0037	$\chi_{CamSpec}^2$	2576.31	2580.7 ± 2.9
$10^9 A_s e^{-2\tau}$	1.8842	1.884 ± 0.014	$H(0.15)$	73.50	73.51 ± 0.67	χ_{prior}^2	10.04	11.0 ± 1.5
D_{40}	1207.8	1208 ± 25	$D_M(0.15)$	635.3	635.2 ± 6.5	χ_{CMB}^2	2981.03	2987.1 ± 3.4

Best-fit $\chi_{eff}^2 = 2991.07$; $\bar{\chi}_{eff}^2 = 2998.15$; $R - 1 = 0.00781$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.95 small_100x143_offlike5_EE_Aplanck_B: 395.77 CamSpec like_10.7HM_1400_unified: 2576.31

2.54 base_CamSpecHM_TE_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02248 ± 0.00026	D_{220}	5732 ± 57	$H(0.38)$	83.49 ± 0.50
$\Omega_{\mathrm{c}}h^2$	0.1177 ± 0.0016	D_{810}	2556 ± 22	$D_{\mathrm{M}}(0.38)$	1516 ± 13
$100\theta_{\mathrm{MC}}$	1.04131 ± 0.00049	D_{1420}	827 ± 11	$H(0.51)$	90.11 ± 0.41
τ	$0.0544^{+0.0048}_{-0.0080}$	D_{2000}	234.4 ± 4.0	$D_{\mathrm{M}}(0.51)$	1966 ± 15
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	$n_{\mathrm{s},0.002}$	0.977 ± 0.011	$H(0.61)$	95.65 ± 0.35
n_{s}	0.977 ± 0.011	Y_{P}	0.24544 ± 0.00010	$D_{\mathrm{M}}(0.61)$	2289 ± 17
y_{cal}	1.0001 ± 0.0025	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24676 ± 0.00010	$H(2.33)$	235.22 ± 0.98
H_0	68.38 ± 0.77	$10^5 D/\mathrm{H}$	2.566 ± 0.047	$D_{\mathrm{M}}(2.33)$	5748 ± 16
Ω_{Λ}	0.6986 ± 0.0098	Age/Gyr	13.765 ± 0.037	$f\sigma_8(0.15)$	0.4485 ± 0.0085
Ω_{m}	0.3014 ± 0.0098	z_{*}	1089.59 ± 0.40	$\sigma_8(0.15)$	0.7468 ± 0.0059
$\Omega_{\mathrm{m}}h^2$	0.1409 ± 0.0015	r_{*}	144.93 ± 0.38	$f\sigma_8(0.38)$	0.4689 ± 0.0067
$\Omega_{\mathrm{m}}h^3$	0.09632 ± 0.00052	$100\theta_{*}$	1.04148 ± 0.00049	$\sigma_8(0.38)$	$0.6631^{+0.0049}_{-0.0054}$
σ_8	0.8071 ± 0.0067	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.916 ± 0.036	$f\sigma_8(0.51)$	0.4687 ± 0.0058
S_8	0.809 ± 0.017	z_{drag}	1060.03 ± 0.55	$\sigma_8(0.51)$	$0.6211^{+0.0046}_{-0.0052}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4431 ± 0.0092	r_{drag}	147.57 ± 0.40	$f\sigma_8(0.61)$	0.4646 ± 0.0052
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5980 ± 0.0081	k_{D}	0.14045 ± 0.00050	$\sigma_8(0.61)$	$0.5912^{+0.0044}_{-0.0050}$
$\sigma_8/h^{0.5}$	0.976 ± 0.011	$100\theta_{\mathrm{D}}$	0.16074 ± 0.00032	$f\sigma_8(2.33)$	$0.2985^{+0.0023}_{-0.0026}$
$r_{\mathrm{drag}}h$	100.9 ± 1.3	z_{eq}	3351 ± 37	$\sigma_8(2.33)$	$0.3082^{+0.0025}_{-0.0029}$
$\langle d^2 \rangle^{1/2}$	2.397 ± 0.033	k_{eq}	0.01023 ± 0.00011	$\chi^2_{\mathrm{lensing}}$	9.7 ± 1.2
z_{re}	$7.62^{+0.52}_{-0.78}$	$100\theta_{\mathrm{eq}}$	0.8233 ± 0.0071	χ^2_{simall}	396.6 ± 1.3
$10^9 A_{\mathrm{s}}$	$2.100^{+0.025}_{-0.032}$	$100\theta_{\mathrm{s,eq}}$	0.4545 ± 0.0036	$\chi^2_{\mathrm{CamSpec}}$	2580.6 ± 2.9
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.014	$H(0.15)$	73.56 ± 0.67	χ^2_{prior}	11.0 ± 1.5
D_{40}	1207 ± 25	$D_{\mathrm{M}}(0.15)$	634.8 ± 6.5	χ^2_{CMB}	2986.8 ± 3.3

$\bar{\chi}^2_{\mathrm{eff}} = 2997.86$; $R - 1 = 0.00847$

2.55 base_CamSpecHM_EE_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02359	0.02359 ± 0.00095	D_{220}	5980	5980 ± 160	$H(0.38)$	84.21	84.2 ± 1.4
$\Omega_c h^2$	0.11600	0.1162 ± 0.0030	D_{810}	2590.4	2591 ± 34	$D_M(0.38)$	1499.4	1501 ± 33
$100\theta_{MC}$	1.03953	1.03954 ± 0.00084	D_{1420}	839.4	839 ± 17	$H(0.51)$	90.74	$90.7^{+1.1}_{-1.3}$
τ	0.0500	$0.0487^{+0.0090}_{-0.0079}$	D_{2000}	238.9	238.8 ± 6.3	$D_M(0.51)$	1945.4	1947 ± 39
$\ln(10^{10} A_s)$	3.0489	3.047 ± 0.019	$n_{s,0.002}$	0.9718	0.972 ± 0.012	$H(0.61)$	96.22	$96.24^{+0.99}_{-1.1}$
n_s	0.9718	0.972 ± 0.012	Y_P	0.245904	0.24588 ± 0.00038	$D_M(0.61)$	2266.3	2268 ± 43
y_{cal}	0.99978	0.9999 ± 0.0024	Y_P^{BBN}	0.247232	0.24721 ± 0.00038	$H(2.33)$	235.02	235.1 ± 1.2
H_0	69.33	69.3 ± 1.9	$10^5 D/H$	2.373	$2.38^{+0.15}_{-0.17}$	$D_M(2.33)$	5719	5719 ± 51
Ω_Λ	0.7082	$0.707^{+0.022}_{-0.019}$	Age/Gyr	13.698	13.70 ± 0.12	$f\sigma_8(0.15)$	0.4353	0.436 ± 0.018
Ω_m	0.2918	$0.293^{+0.019}_{-0.022}$	z_*	1088.12	1088.2 ± 1.3	$\sigma_8(0.15)$	0.7364	$0.7357^{+0.0087}_{-0.0077}$
$\Omega_m h^2$	0.14024	0.1404 ± 0.0022	r_*	144.530	144.49 ± 0.41	$f\sigma_8(0.38)$	0.4576	0.458 ± 0.014
$\Omega_m h^3$	0.09723	0.0973 ± 0.0015	$100\theta_*$	1.03959	1.03960 ± 0.00082	$\sigma_8(0.38)$	0.6549	$0.6542^{+0.0066}_{-0.0059}$
σ_8	0.7948	$0.794^{+0.011}_{-0.0097}$	$D_M(z_*)/\text{Gpc}$	13.9026	13.899 ± 0.041	$f\sigma_8(0.51)$	0.4585	0.458 ± 0.012
S_8	0.7838	0.785 ± 0.035	z_{drag}	1062.45	1062.4 ± 1.9	$\sigma_8(0.51)$	0.6138	0.6131 ± 0.0057
$\sigma_8 \Omega_m^{0.5}$	0.4293	0.430 ± 0.019	r_{drag}	146.80	146.77 ± 0.54	$f\sigma_8(0.61)$	0.4552	0.455 ± 0.010
$\sigma_8 \Omega_m^{0.25}$	0.5841	0.584 ± 0.016	k_D	0.14204	0.1420 ± 0.0011	$\sigma_8(0.61)$	0.5846	0.5839 ± 0.0054
$\sigma_8/h^{0.5}$	0.9545	0.954 ± 0.024	$100\theta_D$	0.15909	$0.15915^{+0.00099}_{-0.0011}$	$f\sigma_8(2.33)$	0.29556	0.2952 ± 0.0028
$r_{drag} h$	101.77	101.7 ± 2.7	z_{eq}	3336	3340 ± 54	$\sigma_8(2.33)$	0.30562	0.3052 ± 0.0033
$\langle d^2 \rangle^{1/2}$	2.3931	2.392 ± 0.046	k_{eq}	0.010182	0.01019 ± 0.00016	$\chi^2_{lensing}$	8.34	9.4 ± 1.4
z_{re}	6.93	$6.77^{+0.92}_{-0.70}$	$100\theta_{eq}$	0.8277	0.827 ± 0.012	χ^2_{small}	395.63	396.8 ± 1.7
$10^9 A_s$	2.1091	2.105 ± 0.040	$100\theta_{s,eq}$	0.4559	0.4556 ± 0.0057	$\chi^2_{CamSpec}$	1887.54	1891.5 ± 2.9
$10^9 A_s e^{-2\tau}$	1.9083	1.910 ± 0.018	$H(0.15)$	74.41	74.4 ± 1.7	χ^2_{prior}	10.04	11.0 ± 1.3
D_{40}	1249.5	1249 ± 27	$D_M(0.15)$	626.7	627 ± 16	χ^2_{CMB}	2291.51	2297.7 ± 3.6

Best-fit $\chi^2_{eff} = 2301.54$; $\bar{\chi}^2_{eff} = 2308.71$; $R - 1 = 0.00642$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.34 small_100x143_offlike5_EE_Aplanck_B: 395.63 CamSpec like_10.7HM_1400_unified: 1887.54

2.56 base_CamSpecHM_EE_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02360 ± 0.00095	D_{220}	5975 ± 160	$H(0.38)$	$84.3^{+1.3}_{-1.5}$
$\Omega_{\text{c}}h^2$	0.1158 ± 0.0029	D_{810}	2589 ± 34	$D_{\text{M}}(0.38)$	1498 ± 33
$100\theta_{\text{MC}}$	1.03956 ± 0.00083	D_{1420}	839 ± 17	$H(0.51)$	$90.8^{+1.1}_{-1.3}$
τ	$0.0535^{+0.0039}_{-0.0071}$	D_{2000}	238.8 ± 6.3	$D_{\text{M}}(0.51)$	1944 ± 39
$\ln(10^{10}A_{\text{s}})$	$3.055^{+0.014}_{-0.017}$	$n_{\text{s},0.002}$	0.973 ± 0.012	$H(0.61)$	$96.28^{+0.97}_{-1.1}$
n_{s}	0.973 ± 0.012	Y_{P}	0.24588 ± 0.00038	$D_{\text{M}}(0.61)$	2265 ± 43
y_{cal}	0.9998 ± 0.0024	$Y_{\text{P}}^{\text{BBN}}$	0.24721 ± 0.00038	$H(2.33)$	234.9 ± 1.2
H_0	$69.4^{+1.8}_{-2.0}$	$10^5\text{D}/\text{H}$	2.38 ± 0.16	$D_{\text{M}}(2.33)$	5718^{+54}_{-49}
Ω_{Λ}	0.709 ± 0.020	Age/Gyr	13.70 ± 0.12	$f\sigma_8(0.15)$	0.436 ± 0.018
Ω_{m}	0.291 ± 0.020	z_*	1088.1 ± 1.3	$\sigma_8(0.15)$	$0.7380^{+0.0079}_{-0.0071}$
$\Omega_{\text{m}}h^2$	0.1400 ± 0.0022	r_*	144.58 ± 0.39	$f\sigma_8(0.38)$	0.458 ± 0.014
$\Omega_{\text{m}}h^3$	$0.0972^{+0.0014}_{-0.0016}$	$100\theta_*$	1.03962 ± 0.00081	$\sigma_8(0.38)$	0.6565 ± 0.0054
σ_8	$0.796^{+0.010}_{-0.0092}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.907 ± 0.039	$f\sigma_8(0.51)$	$0.459^{+0.012}_{-0.011}$
S_8	0.785 ± 0.035	z_{drag}	1062.4 ± 1.9	$\sigma_8(0.51)$	0.6153 ± 0.0048
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.430 ± 0.019	r_{drag}	146.86 ± 0.53	$f\sigma_8(0.61)$	$0.456^{+0.011}_{-0.0093}$
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.585 ± 0.016	k_{D}	0.1419 ± 0.0011	$\sigma_8(0.61)$	0.5861 ± 0.0044
$\sigma_8/h^{0.5}$	0.956 ± 0.023	$100\theta_{\text{D}}$	0.1592 ± 0.0010	$f\sigma_8(2.33)$	$0.2964^{+0.0022}_{-0.0024}$
$r_{\text{drag}}h$	102.0 ± 2.6	z_{eq}	3331 ± 52	$\sigma_8(2.33)$	0.3065 ± 0.0028
$\langle d^2 \rangle^{1/2}$	2.396 ± 0.046	k_{eq}	0.01017 ± 0.00016	χ^2_{lensing}	9.4 ± 1.5
z_{re}	< 7.45	$100\theta_{\text{eq}}$	0.829 ± 0.012	χ^2_{simall}	396.18 ± 0.94
$10^9 A_{\text{s}}$	$2.122^{+0.029}_{-0.035}$	$100\theta_{\text{s,eq}}$	0.4565 ± 0.0056	χ^2_{CamSpec}	1891.6 ± 2.9
$10^9 A_{\text{s}}e^{-2\tau}$	1.907 ± 0.018	$H(0.15)$	$74.5^{+1.6}_{-1.8}$	χ^2_{prior}	11.0 ± 1.4
D_{40}	1247 ± 27	$D_{\text{M}}(0.15)$	626 ± 16	χ^2_{CMB}	2297.2 ± 3.3

$$\bar{\chi}^2_{\text{eff}} = 2308.23; R - 1 = 0.00344$$

2.57 base_plikHM_TE_lowE_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022450	0.02245 ± 0.00021	z_{re}	7.56	7.66 ± 0.74	$H(0.38)$	83.208	83.22 ± 0.34
$\Omega_c h^2$	0.11900	0.1190 ± 0.0011	$10^9 A_s$	2.0820	2.086 ± 0.031	$D_M(0.38)$	1524.3	1524.0 ± 8.8
$100\theta_{\text{MC}}$	1.041266	1.04128 ± 0.00047	$10^9 A_s e^{-2\tau}$	1.8709	1.870 ± 0.013	$H(0.51)$	89.900	89.91 ± 0.28
τ	0.0535	0.0546 ± 0.0073	D_{40}	1223.3	1224 ± 24	$D_M(0.51)$	1975.1	1975 ± 10
$\ln(10^{10} A_s)$	3.0359	3.038 ± 0.015	D_{220}	5720	5720 ± 56	$H(0.61)$	95.500	95.51 ± 0.25
n_s	0.9664	0.9664 ± 0.0099	D_{810}	2527.6	2527 ± 21	$D_M(0.61)$	2298.7	2298 ± 11
y_{cal}	1.00065	1.0005 ± 0.0025	D_{1420}	814.0	814 ± 10	$H(2.33)$	236.01	236.00 ± 0.72
A_{100}^{dustTE}	0.1138	0.114 ± 0.038	D_{2000}	229.89	229.8 ± 3.6	$D_M(2.33)$	5753.4	5753 ± 12
$A_{100 \times 143}^{\text{dustTE}}$	0.1366	0.136 ± 0.030	$n_{s,0.002}$	0.9664	0.9664 ± 0.0099	$f\sigma_8(0.15)$	0.4517	0.4520 ± 0.0062
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.477 ± 0.085	Y_P	0.245426	0.245425 ± 0.000082	$\sigma_8(0.15)$	0.7440	0.7447 ± 0.0063
A_{143}^{dustTE}	0.226	0.223 ± 0.054	Y_P^{BBN}	0.246753	0.246752 ± 0.000082	$f\sigma_8(0.38)$	0.4706	0.4710 ± 0.0053
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.662 ± 0.079	$10^5 D/H$	2.5707	2.571 ± 0.038	$\sigma_8(0.38)$	0.6599	0.6605 ± 0.0056
A_{217}^{dustTE}	2.056	2.06 ± 0.27	Age/Gyr	13.7749	13.774 ± 0.028	$f\sigma_8(0.51)$	0.46962	0.4700 ± 0.0048
c_{100}	1.00018	1.00018 ± 0.00069	z_*	1089.734	1089.73 ± 0.30	$\sigma_8(0.51)$	0.6177	0.6183 ± 0.0052
c_{217}	0.99800	0.99801 ± 0.00065	r_*	144.629	144.63 ± 0.29	$f\sigma_8(0.61)$	0.46493	0.4653 ± 0.0045
H_0	67.89	67.91 ± 0.51	$100\theta_*$	1.041440	1.04145 ± 0.00047	$\sigma_8(0.61)$	0.58783	0.5884 ± 0.0050
Ω_Λ	0.6917	0.6918 ± 0.0066	$D_M(z_*)/\text{Gpc}$	13.8874	13.888 ± 0.029	$f\sigma_8(2.33)$	0.29652	0.2968 ± 0.0026
Ω_m	0.3083	0.3082 ± 0.0066	z_{drag}	1060.047	1060.06 ± 0.47	$\sigma_8(2.33)$	0.30583	0.3061 ± 0.0028
$\Omega_m h^2$	0.14209	0.1421 ± 0.0011	r_{drag}	147.268	147.27 ± 0.33	χ^2_{lensing}	9.99	10.5 ± 1.8
$\Omega_m h^3$	0.096464	0.09647 ± 0.00048	k_D	0.140743	0.14074 ± 0.00044	χ^2_{small}	395.87	396.9 ± 1.7
σ_8	0.8049	0.8055 ± 0.0069	$100\theta_D$	0.160731	0.16073 ± 0.00028	χ^2_{plikTE}	854.02	860.0 ± 3.5
S_8	0.8159	0.816 ± 0.012	z_{eq}	3380.1	3380 ± 26	$\chi^2_{6\text{DF}}$	0.0108	0.041 ± 0.055
$\sigma_8 \Omega_m^{0.5}$	0.4469	0.4472 ± 0.0066	k_{eq}	0.010316	0.010315 ± 0.000080	χ^2_{MGS}	1.407	1.48 ± 0.50
$\sigma_8 \Omega_m^{0.25}$	0.5997	0.6002 ± 0.0065	$100\theta_{\text{eq}}$	0.81775	0.8179 ± 0.0048	χ^2_{DR12BAO}	3.93	4.4 ± 1.2
$\sigma_8/h^{0.5}$	0.9768	0.9776 ± 0.0094	$100\theta_{s,\text{eq}}$	0.45166	0.4517 ± 0.0025	χ^2_{prior}	0.76	7.8 ± 3.7
$r_{\text{drag}} h$	99.98	100.01 ± 0.86	$H(0.15)$	73.141	73.16 ± 0.44	χ^2_{CMB}	1259.87	1267.4 ± 3.8
$\langle d^2 \rangle^{1/2}$	2.4211	2.423 ± 0.028	$D_M(0.15)$	638.81	638.7 ± 4.3	χ^2_{BAO}	5.343	5.90 ± 0.95

Best-fit $\chi^2_{\text{eff}} = 1265.98$; $\bar{\chi}^2_{\text{eff}} = 1281.13$; $R - 1 = 0.00651$

χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.92 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.99 small_100x143_offlike5_EE_Aplanck_B: 395.87 plik_rd12_HM_v22_TE: 854.02

2.58 base_plikHM_EE_lowE_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022763	0.02275 ± 0.00036	D_{1420}	826.3	825.8 ± 9.9	$H(0.61)$	95.489	95.48 ± 0.36
$\Omega_c h^2$	0.11823	0.1183 ± 0.0013	D_{2000}	234.35	234.2 ± 3.6	$D_M(0.61)$	2297.3	2298 ± 14
$100\theta_{MC}$	1.03995	1.03995 ± 0.00079	$n_{s,0.002}$	0.9735	0.9732 ± 0.0097	$H(2.33)$	235.69	235.70 ± 0.80
τ	0.0522	0.0519 ± 0.0077	Y_P	0.245541	$0.24555^{+0.00014}_{-0.00016}$	$D_M(2.33)$	5755.0	5755 ± 19
$\ln(10^{10} A_s)$	3.0407	3.040 ± 0.015	Y_P^{BBN}	0.246868	$0.24687^{+0.00014}_{-0.00016}$	$f\sigma_8(0.15)$	0.4500	0.4500 ± 0.0073
n_s	0.9735	0.9732 ± 0.0097	$10^5 D/H$	2.516	2.518 ± 0.065	$\sigma_8(0.15)$	0.7433	0.7430 ± 0.0066
y_{cal}	1.00004	1.0000 ± 0.0025	Age/Gyr	13.7792	13.780 ± 0.043	$f\sigma_8(0.38)$	0.4693	0.4692 ± 0.0062
H_0	67.98	67.96 ± 0.62	z_*	1089.279	1089.30 ± 0.49	$\sigma_8(0.38)$	0.6594	0.6591 ± 0.0057
Ω_Λ	0.6935	0.6932 ± 0.0075	r_*	144.590	144.59 ± 0.34	$f\sigma_8(0.51)$	0.4685	0.4684 ± 0.0055
Ω_m	0.3065	0.3068 ± 0.0075	$100\theta_*$	1.04010	1.04010 ± 0.00080	$\sigma_8(0.51)$	0.6173	0.6170 ± 0.0054
$\Omega_m h^2$	0.14163	0.1417 ± 0.0012	$D_M(z_*)/\text{Gpc}$	13.9016	13.902 ± 0.036	$f\sigma_8(0.61)$	0.4639	0.4638 ± 0.0051
$\Omega_m h^3$	0.09628	0.09627 ± 0.00074	z_{drag}	1060.70	1060.69 ± 0.80	$\sigma_8(0.61)$	0.5875	0.5873 ± 0.0051
σ_8	0.8038	0.8035 ± 0.0074	r_{drag}	147.127	147.13 ± 0.42	$f\sigma_8(2.33)$	0.29644	0.2963 ± 0.0026
S_8	0.8125	0.813 ± 0.014	k_D	0.14112	0.14111 ± 0.00065	$\sigma_8(2.33)$	0.30584	0.3057 ± 0.0027
$\sigma_8 \Omega_m^{0.5}$	0.4450	0.4451 ± 0.0078	$100\theta_D$	0.160134	0.16015 ± 0.00049	$\chi^2_{lensing}$	8.54	9.3 ± 1.0
$\sigma_8 \Omega_m^{0.25}$	0.5981	0.5980 ± 0.0076	z_{eq}	3369.2	3370 ± 28	χ^2_{small}	395.71	396.7 ± 1.3
$\sigma_8/h^{0.5}$	0.9749	0.975 ± 0.011	k_{eq}	0.010283	0.010285 ± 0.000086	χ^2_{plikEE}	740.14	743.4 ± 2.6
$r_{drag} h$	100.02	99.99 ± 0.94	$100\theta_{eq}$	0.8196	0.8195 ± 0.0052	χ^2_{6DF}	0.0099	0.048 ± 0.066
$\langle d^2 \rangle^{1/2}$	2.4067	2.407 ± 0.030	$100\theta_{s,eq}$	0.45234	0.4523 ± 0.0026	χ^2_{MGS}	1.41	1.46 ± 0.54
z_{re}	7.35	$7.30^{+0.81}_{-0.73}$	$H(0.15)$	73.21	73.19 ± 0.55	$\chi^2_{DR12BAO}$	4.10	4.7 ± 1.5
$10^9 A_s$	2.0921	2.091 ± 0.031	$D_M(0.15)$	638.1	638.3 ± 5.3	χ^2_{prior}	1.27	2.7 ± 2.3
$10^9 A_s e^{-2\tau}$	1.8847	1.884 ± 0.015	$H(0.38)$	83.238	83.23 ± 0.44	χ^2_{CMB}	1144.39	1149.3 ± 3.4
D_{40}	1217.2	1218 ± 27	$D_M(0.38)$	1523.0	1523 ± 11	χ^2_{BAO}	5.52	6.2 ± 1.2
D_{220}	5770	5769 ± 86	$H(0.51)$	89.907	89.90 ± 0.39			
D_{810}	2553.4	2552 ± 21	$D_M(0.51)$	1973.7	1974 ± 13			

Best-fit $\chi^2_{eff} = 1151.17$; $\bar{\chi}^2_{eff} = 1158.27$; $R - 1 = 0.00909$
 χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 4.10 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.54 small_100x143_offlike5_EE_Aplanck_B: 395.71 plik_rd12_HM_v22_EE: 740.14

2.59 base_CamSpecHM_TE_lowE_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022416	0.02240 ± 0.00021	D_{1420}	825.5	825.3 ± 9.8	$H(0.61)$	95.551	95.54 ± 0.24
$\Omega_{\text{c}}h^2$	0.11819	0.1182 ± 0.0011	D_{2000}	233.56	233.5 ± 3.6	$D_{\text{M}}(0.61)$	2293.6	2294 ± 11
$100\theta_{\text{MC}}$	1.041295	1.04127 ± 0.00047	$n_{\text{s},0.002}$	0.9746	0.9749 ± 0.0098	$H(2.33)$	235.45	235.43 ± 0.71
τ	0.0520	0.0525 ± 0.0073	Y_{P}	0.245414	0.245405 ± 0.000082	$D_{\text{M}}(2.33)$	5752.6	5753 ± 12
$\ln(10^{10}A_{\text{s}})$	3.0401	3.041 ± 0.015	$Y_{\text{P}}^{\text{BBN}}$	0.246740	0.246732 ± 0.000082	$f\sigma_{\text{s}}(0.15)$	0.4499	0.4501 ± 0.0062
n_{s}	0.9746	0.9749 ± 0.0098	$10^5 D/\text{H}$	2.5769	2.580 ± 0.038	$\sigma_{\text{s}}(0.15)$	0.7460	0.7462 ± 0.0062
y_{cal}	1.00021	1.0001 ± 0.0024	Age/Gyr	13.7739	13.776 ± 0.028	$f\sigma_{\text{s}}(0.38)$	0.4698	0.4700 ± 0.0052
H_0	68.156	68.15 ± 0.50	z_*	1089.704	1089.72 ± 0.30	$\sigma_{\text{s}}(0.38)$	0.6621	0.6623 ± 0.0055
Ω_{Λ}	0.6959	0.6958 ± 0.0064	r_*	144.865	144.88 ± 0.29	$f\sigma_{\text{s}}(0.51)$	0.46926	0.4694 ± 0.0048
Ω_{m}	0.3041	0.3042 ± 0.0064	$100\theta_*$	1.041476	1.04145 ± 0.00047	$\sigma_{\text{s}}(0.51)$	0.6199	0.6201 ± 0.0052
$\Omega_{\text{m}}h^2$	0.14125	0.1412 ± 0.0011	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9096	13.911 ± 0.029	$f\sigma_{\text{s}}(0.61)$	0.46491	0.4651 ± 0.0044
$\Omega_{\text{m}}h^3$	0.096272	0.09624 ± 0.00048	z_{drag}	1059.895	1059.88 ± 0.47	$\sigma_{\text{s}}(0.61)$	0.59007	0.5903 ± 0.0049
σ_{s}	0.8065	0.8068 ± 0.0068	r_{drag}	147.522	147.54 ± 0.33	$f\sigma_{\text{s}}(2.33)$	0.29782	0.2979 ± 0.0025
S_{s}	0.8119	0.812 ± 0.012	k_{D}	0.140450	0.14042 ± 0.00044	$\sigma_{\text{s}}(2.33)$	0.30737	0.3075 ± 0.0027
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	0.4447	0.4449 ± 0.0065	$100\theta_{\text{D}}$	0.160811	0.16083 ± 0.00028	χ_{lensing}^2	8.95	9.6 ± 1.1
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	0.5989	0.5991 ± 0.0064	z_{eq}	3360.1	3359 ± 26	χ_{small}^2	395.71	396.7 ± 1.3
$\sigma_{\text{s}}/h^{0.5}$	0.9769	0.9773 ± 0.0094	k_{eq}	0.010255	0.010254 ± 0.000078	χ_{CamSpec}^2	2576.42	2580.2 ± 2.7
$r_{\text{drag}}h$	100.55	100.54 ± 0.85	$100\theta_{\text{eq}}$	0.82132	0.8214 ± 0.0048	$\chi_{6\text{DF}}^2$	0.0002	0.030 ± 0.043
$\langle d^2 \rangle^{1/2}$	2.4024	2.403 ± 0.028	$100\theta_{\text{s,eq}}$	0.45354	0.4536 ± 0.0025	χ_{MGS}^2	1.75	1.80 ± 0.52
z_{re}	7.41	7.44 ± 0.75	$H(0.15)$	73.360	73.35 ± 0.44	χ_{DR12BAO}^2	3.439	3.91 ± 0.79
$10^9 A_{\text{s}}$	2.0907	2.092 ± 0.031	$D_{\text{M}}(0.15)$	636.61	636.7 ± 4.2	χ_{prior}^2	10.22	11.3 ± 1.4
$10^9 A_{\text{s}}e^{-2\tau}$	1.8842	1.884 ± 0.013	$H(0.38)$	83.344	83.33 ± 0.33	χ_{CMB}^2	2981.08	2986.5 ± 3.2
D_{40}	1212.4	1212 ± 24	$D_{\text{M}}(0.38)$	1520.0	1520.3 ± 8.6	χ_{BAO}^2	5.187	5.74 ± 0.77
D_{220}	5733	5729 ± 56	$H(0.51)$	89.988	89.98 ± 0.28			
D_{810}	2554.2	2553 ± 20	$D_{\text{M}}(0.51)$	1970.3	1971 ± 10			

Best-fit $\chi_{\text{eff}}^2 = 2996.49$; $\bar{\chi}_{\text{eff}}^2 = 3003.53$; $R - 1 = 0.00799$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.44 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.95 small_100x143_offlike5_EE_Aplanck_B: 395.71 CamSpec like_10.7HM_1400_unified: 2576.42

2.60 base_CamSpecHM_EE_lowE_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022686	0.02268 ± 0.00037	D_{1420}	825.9	827 ± 10	$H(0.61)$	95.368	95.36 ± 0.36
$\Omega_c h^2$	0.11790	0.1179 ± 0.0013	D_{2000}	233.61	233.8 ± 3.6	$D_M(0.61)$	2300.1	2301 ± 15
$100\theta_{MC}$	1.03957	1.03953 ± 0.00077	$n_{s,0.002}$	0.9678	0.9683 ± 0.0096	$H(2.33)$	235.36	235.37 ± 0.80
τ	0.0499	0.0491 ± 0.0077	Y_P	0.245511	$0.24552^{+0.00014}_{-0.00016}$	$D_M(2.33)$	5762.5	5763 ± 19
$\ln(10^{10} A_s)$	3.0408	3.040 ± 0.015	Y_P^{BBN}	0.246838	$0.24684^{+0.00014}_{-0.00016}$	$f\sigma_8(0.15)$	0.4482	0.4484 ± 0.0074
n_s	0.9678	0.9683 ± 0.0096	$10^5 D/H$	2.529	2.531 ± 0.066	$\sigma_8(0.15)$	0.7407	0.7405 ± 0.0067
y_{cal}	0.99971	0.9999 ± 0.0025	Age/Gyr	13.7970	13.799 ± 0.044	$f\sigma_8(0.38)$	0.4675	0.4676 ± 0.0062
H_0	67.90	67.88 ± 0.63	z_*	1089.35	1089.36 ± 0.50	$\sigma_8(0.38)$	0.6571	0.6569 ± 0.0058
Ω_Λ	0.6937	0.6933 ± 0.0076	r_*	144.733	144.73 ± 0.34	$f\sigma_8(0.51)$	0.4668	0.4667 ± 0.0056
Ω_m	0.3063	0.3067 ± 0.0076	$100\theta_*$	1.03972	1.03968 ± 0.00077	$\sigma_8(0.51)$	0.6152	0.6150 ± 0.0054
$\Omega_m h^2$	0.14123	0.1413 ± 0.0012	$D_M(z_*)/\text{Gpc}$	13.9204	13.921 ± 0.036	$f\sigma_8(0.61)$	0.4622	0.4622 ± 0.0052
$\Omega_m h^3$	0.09590	0.09588 ± 0.00073	z_{drag}	1060.51	1060.50 ± 0.82	$\sigma_8(0.61)$	0.58550	0.5853 ± 0.0051
σ_8	0.8010	0.8008 ± 0.0074	r_{drag}	147.298	147.30 ± 0.42	$f\sigma_8(2.33)$	0.29542	0.2953 ± 0.0026
S_8	0.8093	0.810 ± 0.014	k_D	0.14089	0.14088 ± 0.00066	$\sigma_8(2.33)$	0.30479	0.3047 ± 0.0027
$\sigma_8 \Omega_m^{0.5}$	0.4433	0.4435 ± 0.0079	$100\theta_D$	0.160187	0.16020 ± 0.00050	$\chi^2_{lensing}$	8.37	9.1 ± 1.1
$\sigma_8 \Omega_m^{0.25}$	0.5959	0.5959 ± 0.0077	z_{eq}	3359.6	3360 ± 28	χ^2_{small}	395.66	396.7 ± 1.4
$\sigma_8/h^{0.5}$	0.9720	0.972 ± 0.011	k_{eq}	0.010254	0.010256 ± 0.000086	$\chi^2_{CamSpec}$	1888.53	1891.7 ± 2.8
$r_{drag} h$	100.02	99.98 ± 0.95	$100\theta_{eq}$	0.8208	0.8207 ± 0.0052	χ^2_{6DF}	0.0098	0.049 ± 0.066
$\langle d^2 \rangle^{1/2}$	2.4164	2.415 ± 0.030	$100\theta_{s,eq}$	0.45303	0.4530 ± 0.0027	χ^2_{MGS}	1.41	1.46 ± 0.54
z_{re}	7.12	$7.03^{+0.83}_{-0.70}$	$H(0.15)$	73.12	73.10 ± 0.56	$\chi^2_{DR12BAO}$	4.12	4.8 ± 1.5
$10^9 A_s$	2.0922	2.090 ± 0.031	$D_M(0.15)$	638.8	639.1 ± 5.4	χ^2_{prior}	10.99	12.5 ± 2.2
$10^9 A_s e^{-2\tau}$	1.8935	1.895 ± 0.015	$H(0.38)$	83.136	83.12 ± 0.45	χ^2_{CMB}	2292.56	2297.5 ± 3.4
D_{40}	1237.3	1237 ± 27	$D_M(0.38)$	1524.8	1525 ± 11	χ^2_{BAO}	5.53	6.3 ± 1.2
D_{220}	5829	5829 ± 87	$H(0.51)$	89.794	89.78 ± 0.39			
D_{810}	2561.5	2563 ± 22	$D_M(0.51)$	1976.0	1977 ± 13			

Best-fit $\chi^2_{eff} = 2309.08$; $\bar{\chi}^2_{eff} = 2316.30$; $R - 1 = 0.00893$
 χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 4.12 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.37 small_100x143_offlike5_EE_Aplanck_B: 395.66 CamSpec like_10.7HM_1400_unified: 1888.53

2.61 base_plikHM_TE_lowE_lensing_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022415	0.02242 ± 0.00022	$\langle d^2 \rangle^{1/2}$	2.4306	2.432 ± 0.032	$H(0.15)$	72.91	72.91 ± 0.62
$\Omega_c h^2$	0.11958	0.1196 ± 0.0016	z_{re}	7.53	7.54 ± 0.77	$D_{\text{M}}(0.15)$	641.1	641.2 ± 6.2
$100\theta_{\text{MC}}$	1.041174	1.04119 ± 0.00048	$10^9 A_{\text{s}}$	2.0810	2.082 ± 0.031	$H(0.38)$	83.044	83.05 ± 0.46
τ	0.0530	0.0533 ± 0.0077	$10^9 A_{\text{s}} e^{-2\tau}$	1.8717	1.871 ± 0.013	$D_{\text{M}}(0.38)$	1528.8	1529 ± 12
$\ln(10^{10} A_{\text{s}})$	3.0355	3.036 ± 0.015	D_{40}	1226.6	1227 ± 25	$H(0.51)$	89.773	89.78 ± 0.37
n_{s}	0.9645	0.964 ± 0.011	D_{220}	5716	5715 ± 55	$D_{\text{M}}(0.51)$	1980.4	1981 ± 15
y_{cal}	1.00049	1.0004 ± 0.0025	D_{810}	2525.2	2524 ± 21	$H(0.61)$	95.401	$95.41^{+0.29}_{-0.33}$
A_{100}^{dustTE}	0.1126	0.114 ± 0.038	D_{1420}	812.5	812 ± 10	$D_{\text{M}}(0.61)$	2304.4	2305 ± 16
$A_{100 \times 143}^{\text{dustTE}}$	0.1372	0.137 ± 0.030	D_{2000}	229.39	229.3 ± 3.7	$H(2.33)$	236.35	236.39 ± 0.97
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.478 ± 0.085	$n_{\text{s},0.002}$	0.9645	0.964 ± 0.011	$D_{\text{M}}(2.33)$	5757.6	5757 ± 15
A_{143}^{dustTE}	0.224	0.223 ± 0.054	Y_{P}	0.245413	0.245410 ± 0.000088	$f\sigma_8(0.15)$	0.4547	0.4550 ± 0.0080
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.663 ± 0.081	$Y_{\text{P}}^{\text{BBN}}$	0.246740	0.246736 ± 0.000088	$\sigma_8(0.15)$	0.7448	0.7450 ± 0.0061
A_{217}^{dustTE}	2.066	2.06 ± 0.27	$10^5 \text{D}/\text{H}$	2.5772	2.578 ± 0.041	$f\sigma_8(0.38)$	0.4729	0.4731 ± 0.0063
c_{100}	1.00023	1.00018 ± 0.00070	Age/Gyr	13.7838	13.783 ± 0.033	$\sigma_8(0.38)$	0.6602	0.6603 ± 0.0054
c_{217}	0.99800	0.99800 ± 0.00065	z_*	1089.826	1089.83 ± 0.36	$f\sigma_8(0.51)$	0.4714	0.4716 ± 0.0054
H_0	67.62	67.61 ± 0.72	r_*	144.506	144.49 ± 0.37	$\sigma_8(0.51)$	0.6178	0.6179 ± 0.0052
Ω_{Λ}	0.6881	0.6877 ± 0.0098	$100\theta_*$	1.041349	1.04136 ± 0.00048	$f\sigma_8(0.61)$	0.46646	0.4666 ± 0.0049
Ω_{m}	0.3119	0.3123 ± 0.0098	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8768	13.875 ± 0.036	$\sigma_8(0.61)$	0.58785	0.5880 ± 0.0050
$\Omega_{\text{m}} h^2$	0.14264	0.1427 ± 0.0015	z_{drag}	1060.009	1060.01 ± 0.48	$f\sigma_8(2.33)$	0.29638	0.2964 ± 0.0026
$\Omega_{\text{m}} h^3$	0.096454	0.09647 ± 0.00047	r_{drag}	147.153	147.14 ± 0.39	$\sigma_8(2.33)$	0.30553	0.3056 ± 0.0029
σ_8	0.8061	0.8063 ± 0.0068	k_{D}	0.140835	0.14085 ± 0.00047	χ^2_{lensing}	9.61	10.3 ± 1.7
S_8	0.8220	0.823 ± 0.016	$100\theta_{\text{D}}$	0.160749	0.16075 ± 0.00028	χ^2_{small}	395.85	396.9 ± 1.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4502	0.4506 ± 0.0087	z_{eq}	3393.2	3394 ± 36	χ^2_{plikTE}	854.31	860.6 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6024	0.6027 ± 0.0077	k_{eq}	0.010356	0.01036 ± 0.00011	χ^2_{prior}	0.69	7.9 ± 3.7
$\sigma_8/h^{0.5}$	0.9803	0.981 ± 0.011	$100\theta_{\text{eq}}$	0.8152	0.8151 ± 0.0068	χ^2_{CMB}	1259.77	1267.7 ± 3.9
$r_{\text{drag}} h$	99.51	99.5 ± 1.2	$100\theta_{\text{s,eq}}$	0.45036	0.4503 ± 0.0035			

Best-fit $\chi^2_{\text{eff}} = 1260.45$; $\bar{\chi}^2_{\text{eff}} = 1275.56$; $R - 1 = 0.00845$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.61 small_100x143_offlike5_EE_Aplanck_B: 395.85 plik_rd12_HM_v22_TE: 854.31

2.62 base_plikHM_EE_lowE_lensing_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022564	0.02255 ± 0.00043	D_{220}	5747	5745 ± 91	$H(0.38)$	82.80	82.77 ± 0.69
$\Omega_c h^2$	0.11950	0.1196 ± 0.0020	D_{810}	2546.2	2546 ± 23	$D_M(0.38)$	1534.6	1536 ± 18
$100\theta_{MC}$	1.03980	1.03975 ± 0.00080	D_{1420}	821.9	822 ± 11	$H(0.51)$	89.55	89.53 ± 0.58
τ	0.0504	0.0497 ± 0.0080	D_{2000}	232.65	232.6 ± 4.1	$D_M(0.51)$	1987.4	1989 ± 21
$\ln(10^{10} A_s)$	3.0373	3.036 ± 0.016	$n_{s,0.002}$	0.9689	0.969 ± 0.011	$H(0.61)$	95.195	95.18 ± 0.50
n_s	0.9689	0.969 ± 0.011	Y_P	0.245467	0.24547 ± 0.00018	$D_M(0.61)$	2312.1	2313 ± 23
y_{cal}	0.99990	0.9999 ± 0.0025	Y_P^{BBN}	0.246794	0.24679 ± 0.00018	$H(2.33)$	236.32	236.4 ± 1.1
H_0	67.31	67.3 ± 1.0	$10^5 D/H$	2.551	2.554 ± 0.079	$D_M(2.33)$	5768.6	5770 ± 25
Ω_Λ	0.6851	$0.684^{+0.014}_{-0.012}$	Age/Gyr	13.809	13.812 ± 0.057	$f\sigma_8(0.15)$	0.4566	0.457 ± 0.011
Ω_m	0.3149	0.316 ± 0.013	z_*	1089.63	1089.66 ± 0.66	$\sigma_8(0.15)$	0.7445	0.7440 ± 0.0066
$\Omega_m h^2$	0.14271	0.1428 ± 0.0018	r_*	144.412	144.40 ± 0.40	$f\sigma_8(0.38)$	0.4741	0.4742 ± 0.0084
$\Omega_m h^3$	0.09606	0.09604 ± 0.00077	$100\theta_*$	1.03996	1.03991 ± 0.00080	$\sigma_8(0.38)$	0.6596	0.6591 ± 0.0056
σ_8	0.8060	0.8056 ± 0.0077	$D_M(z_*)/\text{Gpc}$	13.8863	13.885 ± 0.040	$f\sigma_8(0.51)$	0.4723	0.4722 ± 0.0071
S_8	0.8259	0.827 ± 0.022	z_{drag}	1060.35	1060.33 ± 0.91	$\sigma_8(0.51)$	0.6171	0.6166 ± 0.0053
$\sigma_8 \Omega_m^{0.5}$	0.4524	0.453 ± 0.012	r_{drag}	147.008	147.00 ± 0.43	$f\sigma_8(0.61)$	0.4671	0.4670 ± 0.0062
$\sigma_8 \Omega_m^{0.25}$	0.6038	0.604 ± 0.010	k_D	0.14110	0.14110 ± 0.00064	$\sigma_8(0.61)$	0.58707	0.5866 ± 0.0050
$\sigma_8/h^{0.5}$	0.9824	0.982 ± 0.014	$100\theta_D$	0.16033	0.16035 ± 0.00055	$f\sigma_8(2.33)$	0.29587	0.2956 ± 0.0027
$r_{drag} h$	98.96	98.9 ± 1.6	z_{eq}	3394.9	3397 ± 42	$\sigma_8(2.33)$	0.30488	0.3046 ± 0.0030
$\langle d^2 \rangle^{1/2}$	2.4259	2.425 ± 0.036	k_{eq}	0.010361	0.01037 ± 0.00013	$\chi^2_{lensing}$	8.67	9.6 ± 1.3
z_{re}	7.23	$7.13^{+0.84}_{-0.73}$	$100\theta_{eq}$	0.8143	0.8139 ± 0.0082	χ^2_{small}	395.68	396.7 ± 1.4
$10^9 A_s$	2.0849	2.082 ± 0.032	$100\theta_{s,eq}$	0.44972	0.4495 ± 0.0041	χ^2_{plikEE}	740.29	743.7 ± 2.8
$10^9 A_s e^{-2\tau}$	1.8851	1.885 ± 0.015	$H(0.15)$	72.63	72.59 ± 0.90	χ^2_{prior}	0.53	2.3 ± 2.2
D_{40}	1223.2	1223 ± 27	$D_M(0.15)$	643.8	644.3 ± 8.9	χ^2_{CMB}	1144.64	1150.0 ± 3.6

Best-fit $\chi^2_{eff} = 1145.17$; $\bar{\chi}^2_{eff} = 1152.26$; $R - 1 = 0.00449$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.67 small_100x143_offlike5_EE_Aplanck_B: 395.68 plik_rd12_HM_v22_EE: 740.29

2.63 base_CamSpecHM_TE_lowE_lensing_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022406	0.02242 ± 0.00023	D_{220}	5730	5729 ± 60	$H(0.38)$	83.354	83.40 ± 0.47
$\Omega_{\text{c}}h^2$	0.11806	0.1180 ± 0.0016	D_{810}	2554.0	2554 ± 21	$D_{\text{M}}(0.38)$	1519.6	1519 ± 12
$100\theta_{\text{MC}}$	1.041261	1.04129 ± 0.00049	D_{1420}	825.6	826 ± 11	$H(0.51)$	89.991	90.03 ± 0.38
τ	0.0521	0.0527 ± 0.0080	D_{2000}	233.60	233.7 ± 3.9	$D_{\text{M}}(0.51)$	1969.8	1969 ± 15
$\ln(10^{10}A_{\text{s}})$	3.0398	3.041 ± 0.016	$n_{\text{s},0.002}$	0.9752	0.976 ± 0.011	$H(0.61)$	95.548	95.58 ± 0.32
n_{s}	0.9752	0.976 ± 0.011	Y_{P}	0.245410	$0.245410^{+0.000094}_{-0.000083}$	$D_{\text{M}}(0.61)$	2293.2	2292 ± 16
y_{cal}	1.00019	1.0002 ± 0.0025	$Y_{\text{P}}^{\text{BBN}}$	0.246736	$0.246737^{+0.000094}_{-0.000083}$	$H(2.33)$	235.35	235.30 ± 0.99
H_0	68.19	68.25 ± 0.74	$10^5 D/H$	2.5787	2.578 ± 0.042	$D_{\text{M}}(2.33)$	5753.0	5752 ± 15
Ω_{Λ}	0.6965	0.6971 ± 0.0096	Age/Gyr	13.7753	13.773 ± 0.034	$f\sigma_8(0.15)$	0.4493	0.4489 ± 0.0082
Ω_{m}	0.3035	0.3029 ± 0.0096	z_*	1089.704	1089.68 ± 0.37	$\sigma_8(0.15)$	0.7457	0.7459 ± 0.0064
$\Omega_{\text{m}}h^2$	0.14111	0.1410 ± 0.0015	r_*	144.907	144.93 ± 0.38	$f\sigma_8(0.38)$	0.4693	0.4691 ± 0.0065
$\Omega_{\text{m}}h^3$	0.096215	0.09623 ± 0.00048	$100\theta_*$	1.041445	1.04147 ± 0.00048	$\sigma_8(0.38)$	0.6619	0.6621 ± 0.0057
σ_8	0.8061	0.8062 ± 0.0071	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9141	13.916 ± 0.037	$f\sigma_8(0.51)$	0.4689	0.4687 ± 0.0057
S_8	0.8108	0.810 ± 0.016	z_{drag}	1059.895	1059.90 ± 0.49	$\sigma_8(0.51)$	0.6198	0.6200 ± 0.0054
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4441	0.4437 ± 0.0088	r_{drag}	147.565	147.58 ± 0.40	$f\sigma_8(0.61)$	0.4646	0.4644 ± 0.0051
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5983	0.5981 ± 0.0079	k_{D}	0.140393	0.14038 ± 0.00049	$\sigma_8(0.61)$	0.5899	0.5902 ± 0.0052
$\sigma_8/h^{0.5}$	0.9762	0.976 ± 0.011	$100\theta_{\text{D}}$	0.160824	0.16082 ± 0.00029	$f\sigma_8(2.33)$	0.29778	0.2979 ± 0.0027
$r_{\text{drag}}h$	100.62	100.7 ± 1.3	z_{eq}	3356.6	3354 ± 37	$\sigma_8(2.33)$	0.30735	0.3076 ± 0.0030
$\langle d^2 \rangle^{1/2}$	2.3996	2.399 ± 0.033	k_{eq}	0.010245	0.01024 ± 0.00011	χ_{lensing}^2	9.01	9.7 ± 1.3
z_{re}	7.41	7.45 ± 0.80	$100\theta_{\text{eq}}$	0.8219	0.8224 ± 0.0070	χ_{small}^2	395.72	396.8 ± 1.5
$10^9 A_{\text{s}}$	2.0901	2.092 ± 0.033	$100\theta_{\text{s,eq}}$	0.45385	0.4541 ± 0.0036	χ_{CamSpec}^2	2576.36	2580.6 ± 2.9
$10^9 A_{\text{s}}e^{-2\tau}$	1.8833	1.883 ± 0.014	$H(0.15)$	73.38	73.44 ± 0.64	χ_{prior}^2	10.20	11.4 ± 1.5
D_{40}	1210.5	1210 ± 26	$D_{\text{M}}(0.15)$	636.4	635.9 ± 6.2	χ_{CMB}^2	2981.09	2987.1 ± 3.5

Best-fit $\chi_{\text{eff}}^2 = 2991.29$; $\bar{\chi}_{\text{eff}}^2 = 2998.52$; $R - 1 = 0.00490$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.01 small_100x143_offlike5_EE_Aplanck_B: 395.72 CamSpec like_10.7HM_1400_unified: 2576.36

2.64 base_CamSpecHM_EE_lowE_lensing_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022495	0.02251 ± 0.00043	D_{220}	5810	5809 ± 91	$H(0.38)$	82.69	82.72 ± 0.70
$\Omega_{\mathrm{c}}h^2$	0.11913	0.1191 ± 0.0020	D_{810}	2556.5	2558 ± 23	$D_{\mathrm{M}}(0.38)$	1536.6	1536 ± 18
$100\theta_{\mathrm{MC}}$	1.03932	1.03936 ± 0.00079	D_{1420}	822.4	823 ± 11	$H(0.51)$	89.43	89.46 ± 0.58
τ	0.0479	$0.0469^{+0.0083}_{-0.0075}$	D_{2000}	232.23	232.5 ± 4.0	$D_{\mathrm{M}}(0.51)$	1990.0	1989 ± 22
$\ln(10^{10}A_{\mathrm{s}})$	3.0378	3.036 ± 0.016	$n_{\mathrm{s},0.002}$	0.9637	0.965 ± 0.011	$H(0.61)$	95.06	95.09 ± 0.50
n_{s}	0.9637	0.965 ± 0.011	Y_{P}	0.245443	0.24545 ± 0.00018	$D_{\mathrm{M}}(0.61)$	2315.2	2314 ± 23
y_{cal}	0.99982	0.9998 ± 0.0025	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246769	0.24677 ± 0.00018	$H(2.33)$	235.96	236.0 ± 1.1
H_0	67.23	67.3 ± 1.0	$10^5 D/H$	2.563	$2.563^{+0.074}_{-0.084}$	$D_{\mathrm{M}}(2.33)$	5776.8	5776 ± 25
Ω_{Λ}	0.6852	0.685 ± 0.013	Age/Gyr	13.829	13.826 ± 0.057	$f\sigma_8(0.15)$	0.4550	0.454 ± 0.011
Ω_{m}	0.3148	0.315 ± 0.013	z_*	1089.69	$1089.68^{+0.63}_{-0.70}$	$\sigma_8(0.15)$	0.7420	0.7413 ± 0.0067
$\Omega_{\mathrm{m}}h^2$	0.14227	0.1422 ± 0.0018	r_*	144.562	144.56 ± 0.41	$f\sigma_8(0.38)$	0.4724	0.4718 ± 0.0085
$\Omega_{\mathrm{m}}h^3$	0.09565	0.09568 ± 0.00077	$100\theta_*$	1.03950	1.03953 ± 0.00079	$\sigma_8(0.38)$	0.6573	0.6568 ± 0.0057
σ_8	0.8033	0.8025 ± 0.0078	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9069	13.907 ± 0.041	$f\sigma_8(0.51)$	0.4706	0.4700 ± 0.0072
S_8	0.8228	0.822 ± 0.022	z_{drag}	1060.16	1060.18 ± 0.91	$\sigma_8(0.51)$	0.6150	0.6145 ± 0.0054
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4507	0.450 ± 0.012	r_{drag}	147.184	147.18 ± 0.44	$f\sigma_8(0.61)$	0.4655	0.4649 ± 0.0063
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6017	0.601 ± 0.010	k_{D}	0.14086	0.14087 ± 0.00065	$\sigma_8(0.61)$	0.5851	0.5846 ± 0.0051
$\sigma_8/h^{0.5}$	0.9797	0.979 ± 0.014	$100\theta_{\mathrm{D}}$	0.16037	0.16037 ± 0.00055	$f\sigma_8(2.33)$	0.29489	0.2947 ± 0.0027
$r_{\mathrm{drag}}h$	98.95	99.0 ± 1.6	z_{eq}	3384.3	3384 ± 43	$\sigma_8(2.33)$	0.30388	0.3037 ± 0.0030
$\langle d^2 \rangle^{1/2}$	2.4349	2.430 ± 0.036	k_{eq}	0.010329	0.01033 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	8.77	9.6 ± 1.5
z_{re}	6.98	$6.84^{+0.91}_{-0.73}$	$100\theta_{\mathrm{eq}}$	0.8156	0.8159 ± 0.0084	χ_{small}^2	395.72	396.8 ± 1.5
$10^9 A_{\mathrm{s}}$	2.0859	2.082 ± 0.033	$100\theta_{\mathrm{s,eq}}$	0.45045	0.4506 ± 0.0042	$\chi_{\mathrm{CamSpec}}^2$	1888.23	1891.6 ± 2.7
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8953	1.896 ± 0.015	$H(0.15)$	72.54	72.58 ± 0.90	χ_{prior}^2	10.38	12.2 ± 2.0
D_{40}	1242.9	1241 ± 27	$D_{\mathrm{M}}(0.15)$	644.6	644.4 ± 9.0	χ_{CMB}^2	2292.73	2298.0 ± 3.3

Best-fit $\chi_{\mathrm{eff}}^2 = 2303.11$; $\bar{\chi}_{\mathrm{eff}}^2 = 2310.16$; $R - 1 = 0.00957$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 small_100x143_offlike5_EE_Aplanck_B: 395.72 CamSpec like_10.7HM_1400_unified: 1888.23

2.65 base_plikHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022496	0.02238 ± 0.00027	$\sigma_8 \Omega_m^{0.25}$	0.6370	0.630 ± 0.016	$H(0.15)$	73.68	73.3 ± 1.0
$\Omega_c h^2$	0.11728	0.1181 ± 0.0025	$\sigma_8/h^{0.5}$	1.0406	1.028 ± 0.026	$D_M(0.15)$	633.5	637.0 ± 9.8
$100\theta_{MC}$	1.04124	1.04112 ± 0.00052	$r_{drag}h$	101.20	100.6 ± 2.0	$H(0.38)$	83.57	83.31 ± 0.74
τ	0.1259	$0.108^{+0.034}_{-0.031}$	$\langle d^2 \rangle^{1/2}$	2.564	2.539 ± 0.061	$D_M(0.38)$	1513.9	1521 ± 20
$\ln(10^{10} A_s)$	3.180	$3.145^{+0.065}_{-0.058}$	z_{re}	13.82	$12.3^{+3.0}_{-2.1}$	$H(0.51)$	90.16	89.95 ± 0.59
n_s	0.9756	0.9713 ± 0.0077	$10^9 A_s$	2.405	2.33 ± 0.14	$D_M(0.51)$	1963.1	1971 ± 23
y_{cal}	1.00013	1.0003 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8693	1.872 ± 0.015	$H(0.61)$	95.679	$95.51^{+0.45}_{-0.50}$
A_{217}^{CIB}	42.8	46 ± 7	D_{40}	1238.9	1240 ± 16	$D_M(0.61)$	2285.9	2295 ± 25
$\xi^{tSZ \times CIB}$	0.986	> 0.390	D_{220}	5715.5	5718 ± 42	$H(2.33)$	234.92	235.3 ± 1.5
A_{143}^{tSZ}	6.86	$5.5^{+2.1}_{-1.9}$	D_{810}	2531.7	2531 ± 14	$D_M(2.33)$	5747.6	5755 ± 21
A_{100}^{PS}	239.7	254 ± 30	D_{1420}	817.1	815.2 ± 5.1	$f\sigma_8(0.15)$	0.4770	0.473 ± 0.013
A_{143}^{PS}	50.5	44 ± 9	D_{2000}	232.59	231.4 ± 2.1	$\sigma_8(0.15)$	0.7973	0.785 ± 0.022
$A_{143 \times 217}^{PS}$	58.0	42 ± 9	$n_{s,0.002}$	0.9756	0.9713 ± 0.0077	$f\sigma_8(0.38)$	0.4994	0.494 ± 0.013
A_{217}^{PS}	123.8	115 ± 10	Y_P	0.245443	0.24540 ± 0.00011	$\sigma_8(0.38)$	0.7082	0.697 ± 0.020
A^{kSZ}	0.00	< 3.71	Y_P^{BBN}	0.246770	0.24672 ± 0.00011	$f\sigma_8(0.51)$	0.4995	0.494 ± 0.012
A_{100}^{dustTT}	8.74	8.8 ± 1.8	$10^5 D/H$	2.5627	2.584 ± 0.050	$\sigma_8(0.51)$	0.6634	0.652 ± 0.019
A_{143}^{dustTT}	10.66	10.5 ± 1.8	Age/Gyr	13.7636	13.781 ± 0.046	$f\sigma_8(0.61)$	0.4953	0.489 ± 0.012
$A_{143 \times 217}^{dustTT}$	19.94	18.1 ± 3.3	z_*	1089.53	1089.74 ± 0.51	$\sigma_8(0.61)$	0.6316	0.621 ± 0.019
A_{217}^{dustTT}	96.2	93.7 ± 7.3	r_*	145.04	144.92 ± 0.54	$f\sigma_8(2.33)$	0.3190	0.3134 ± 0.0097
c_{100}	0.99968	0.99960 ± 0.00061	$100\theta_*$	1.04141	1.04131 ± 0.00050	$\sigma_8(2.33)$	0.3295	0.323 ± 0.011
c_{217}	0.99816	0.99820 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.9273	13.918 ± 0.049	f_{2000}^{143}	26.13	28 ± 3
H_0	68.53	68.1 ± 1.2	z_{drag}	1060.05	1059.83 ± 0.52	$f_{2000}^{143 \times 217}$	30.11	31.2 ± 2.5
Ω_Λ	0.7010	0.696 ± 0.015	r_{drag}	147.67	147.59 ± 0.52	f_{2000}^{217}	104.67	106.1 ± 2.2
Ω_m	0.2990	0.304 ± 0.015	k_D	0.14035	0.14035 ± 0.00053	χ_{lowl}^2	24.89	25.0 ± 1.7
$\Omega_m h^2$	0.14042	0.1411 ± 0.0023	$100\theta_D$	0.160722	0.16084 ± 0.00029	χ_{plik}^2	753.5	768.0 ± 5.7
$\Omega_m h^3$	0.096230	0.09610 ± 0.00048	z_{eq}	3340	3356 ± 56	χ_{prior}^2	1.05	7.2 ± 3.6
σ_8	0.8614	0.849 ± 0.023	k_{eq}	0.010195	0.01024 ± 0.00017	χ_{CMB}^2	778.4	793.0 ± 5.5
S_8	0.8600	0.854 ± 0.025	$100\theta_{eq}$	0.8251	0.822 ± 0.011			
$\sigma_8 \Omega_m^{0.5}$	0.4710	0.468 ± 0.014	$100\theta_{s,eq}$	0.4555	0.4539 ± 0.0056			

Best-fit $\chi_{eff}^2 = 779.48$; $\bar{\chi}_{eff}^2 = 800.20$; $R - 1 = 0.00744$

χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 24.89 plik_rd12_HM_v22_TT: 753.54

2.66 base_plikHM_TTTEEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022555	0.02251 ± 0.00016	$\Omega_m h^3$	0.096458	0.09641 ± 0.00030	$100\theta_{\text{eq}}$	0.8205	0.8197 ± 0.0066
$\Omega_c h^2$	0.11829	0.1185 ± 0.0015	σ_8	0.8551	0.848 ± 0.018	$100\theta_{\text{s,eq}}$	0.45301	0.4526 ± 0.0034
$100\theta_{\text{MC}}$	1.041103	1.04108 ± 0.00033	S_8	0.8614	0.857 ± 0.019	$H(0.15)$	73.38	73.28 ± 0.60
τ	0.1141	0.106 ± 0.024	$\sigma_8 \Omega_m^{0.5}$	0.4718	0.469 ± 0.010	$D_M(0.15)$	636.4	637.5 ± 5.9
$\ln(10^{10} A_s)$	3.1595	3.143 ± 0.047	$\sigma_8 \Omega_m^{0.25}$	0.6352	0.631 ± 0.013	$H(0.38)$	83.380	83.31 ± 0.44
n_s	0.9730	0.9707 ± 0.0052	$\sigma_8/h^{0.5}$	1.0356	1.028 ± 0.021	$D_M(0.38)$	1519.6	1522 ± 12
y_{cal}	1.00020	1.0003 ± 0.0025	$r_{\text{drag}} h$	100.44	100.3 ± 1.2	$H(0.51)$	90.032	89.97 ± 0.35
A_{217}^{CIB}	42.5	45 ± 7	$\langle d^2 \rangle^{1/2}$	2.5543	$2.541^{+0.051}_{-0.046}$	$D_M(0.51)$	1969.6	1972 ± 14
$\xi^{\text{tSZ} \times \text{CIB}}$	0.9996	> 0.420	z_{re}	12.90	$12.2^{+2.1}_{-1.7}$	$H(0.61)$	95.602	95.55 ± 0.28
A_{143}^{tSZ}	6.85	$5.7^{+2.1}_{-1.8}$	$10^9 A_s$	2.356	2.32 ± 0.11	$D_M(0.61)$	2292.8	2295 ± 15
A_{100}^{PS}	239.0	251 ± 28	$10^9 A_s e^{-2\tau}$	1.8754	1.875 ± 0.012	$H(2.33)$	235.64	235.74 ± 0.91
A_{143}^{PS}	49.7	43 ± 8	D_{40}	1239.7	1241 ± 14	$D_M(2.33)$	5749.3	5752 ± 12
$A_{143 \times 217}^{\text{PS}}$	57.7	42 ± 9	D_{220}	5727.6	5731 ± 38	$f\sigma_8(0.15)$	0.4773	0.474 ± 0.010
A_{217}^{PS}	124.3	116 ± 10	D_{810}	2535.6	2534 ± 14	$\sigma_8(0.15)$	0.7909	0.785 ± 0.017
A^{kSZ}	0.00	< 3.24	D_{1420}	818.26	816.7 ± 4.7	$f\sigma_8(0.38)$	0.4983	0.495 ± 0.010
$A_{100}^{\text{dust}TT}$	8.68	8.8 ± 1.9	D_{2000}	232.84	232.0 ± 1.7	$\sigma_8(0.38)$	0.7019	0.696 ± 0.016
$A_{143}^{\text{dust}TT}$	10.72	10.6 ± 1.8	$n_{\text{s},0.002}$	0.9730	0.9707 ± 0.0052	$f\sigma_8(0.51)$	0.4977	0.494 ± 0.010
$A_{143 \times 217}^{\text{dust}TT}$	19.79	18.2 ± 3.3	Y_{P}	0.245464	0.245448 ± 0.000062	$\sigma_8(0.51)$	0.6572	0.652 ± 0.015
$A_{217}^{\text{dust}TT}$	95.5	93.7 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246791	0.246775 ± 0.000062	$f\sigma_8(0.61)$	0.4930	0.489 ± 0.010
$A_{100}^{\text{dust}TE}$	0.1131	0.113 ± 0.038	$10^5 \text{D}/\text{H}$	2.5522	2.560 ± 0.029	$\sigma_8(0.61)$	0.6255	0.620 ± 0.014
$A_{100 \times 143}^{\text{dust}TE}$	0.1342	0.134 ± 0.029	Age/Gyr	13.7660	13.772 ± 0.027	$f\sigma_8(2.33)$	0.3157	0.3130 ± 0.0074
$A_{100 \times 217}^{\text{dust}TE}$	0.477	0.483 ± 0.085	z_*	1089.539	1089.61 ± 0.31	$\sigma_8(2.33)$	0.3258	0.3230 ± 0.0078
$A_{143}^{\text{dust}TE}$	0.221	0.222 ± 0.054	r_*	144.732	144.71 ± 0.33	f_{2000}^{143}	25.70	27.2 ± 2.9
$A_{143 \times 217}^{\text{dust}TE}$	0.662	0.663 ± 0.080	$100\theta_*$	1.041272	1.04125 ± 0.00032	$f_{2000}^{143 \times 217}$	29.78	30.4 ± 2.0
$A_{217}^{\text{dust}TE}$	2.057	2.07 ± 0.27	$D_M(z_*)/\text{Gpc}$	13.8995	13.897 ± 0.031	f_{2000}^{217}	104.53	105.4 ± 1.9
c_{100}	0.99975	0.99967 ± 0.00061	z_{drag}	1060.238	1060.16 ± 0.31	χ_{lowl}^2	24.77	25.0 ± 1.4
c_{217}	0.99812	0.99814 ± 0.00062	r_{drag}	147.338	147.33 ± 0.32	χ_{plik}^2	2337.6	2354.2 ± 5.9
H_0	68.17	68.06 ± 0.70	k_{D}	0.140745	0.14073 ± 0.00033	χ_{prior}^2	1.29	11.3 ± 4.5
Ω_Λ	0.6955	0.6940 ± 0.0093	$100\theta_{\text{D}}$	0.160589	0.16064 ± 0.00018	χ_{CMB}^2	2362.3	2379.2 ± 5.8
Ω_m	0.3045	0.3060 ± 0.0093	z_{eq}	3365.8	3370 ± 34			
$\Omega_m h^2$	0.14149	0.1417 ± 0.0014	k_{eq}	0.010273	0.01029 ± 0.00011			

Best-fit $\chi_{\text{eff}}^2 = 2363.64$; $\bar{\chi}_{\text{eff}}^2 = 2390.54$; $R - 1 = 0.00817$

χ_{eff}^2 : CMB - commander_dx12.v3.2.29: 24.77 plik_rd12_HM.v22b_TTTEEE: 2337.58

2.67 base_CamSpecHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022525	0.02242 ± 0.00028	$\sigma_8 \Omega_m^{0.5}$	0.4693	0.468 ± 0.014	$100\theta_{s,eq}$	0.4563	0.4547 ± 0.0058
$\Omega_c h^2$	0.11691	0.1177 ± 0.0026	$\sigma_8 \Omega_m^{0.25}$	0.6359	0.631 ± 0.016	$H(0.15)$	73.84	73.5 ± 1.0
$100\theta_{MC}$	1.04132	1.04122 ± 0.00053	$\sigma_8/h^{0.5}$	1.0394	1.030 ± 0.026	$D_M(0.15)$	631.9	635 ± 10
τ	0.1282	$0.113^{+0.036}_{-0.032}$	$r_{drag}h$	101.52	100.9 ± 2.1	$H(0.38)$	83.69	83.44 ± 0.77
$\ln(10^{10} A_s)$	3.183	$3.154^{+0.068}_{-0.060}$	$\langle d^2 \rangle^{1/2}$	2.560	2.542 ± 0.061	$D_M(0.38)$	1510.7	1518 ± 20
n_s	0.9775	0.9734 ± 0.0081	z_{re}	13.98	$12.7^{+3.0}_{-2.1}$	$H(0.51)$	90.26	90.05 ± 0.61
y_{cal}	1.00018	1.0003 ± 0.0025	$10^9 A_s$	2.411	2.35 ± 0.15	$D_M(0.51)$	1959.3	1967 ± 24
A_{100}^{PS}	219.3	233 ± 25	$10^9 A_s e^{-2\tau}$	1.8656	1.868 ± 0.015	$H(0.61)$	95.758	95.60 ± 0.49
A_{143}^{PS}	45.0	36 ± 9	D_{40}	1234.6	1237 ± 16	$D_M(0.61)$	2281.8	2291 ± 26
A_{217}^{PS}	109.7	104 ± 10	D_{220}	5706.2	5708 ± 41	$H(2.33)$	234.71	235.1 ± 1.5
A_{217}^{CIB}	37.6	38^{+7}_{-8}	D_{810}	2529.3	2528 ± 14	$D_M(2.33)$	5744.2	5752 ± 22
A_{143}^{tSZ}	6.20	$4.0^{+2.0}_{-2.4}$	D_{1420}	817.0	815.1 ± 5.2	$f\sigma_8(0.15)$	0.4754	0.473 ± 0.013
$r_{143 \times 217}^{PS}$	0.807	0.67 ± 0.13	D_{2000}	232.68	231.6 ± 2.2	$\sigma_8(0.15)$	0.7978	0.788 ± 0.022
$r_{143 \times 217}^{CIB}$	0.700	$0.52^{+0.35}_{-0.25}$	$n_{s,0.002}$	0.9775	0.9734 ± 0.0081	$f\sigma_8(0.38)$	0.4984	0.495 ± 0.013
$\xi^{tSZ \times CIB}$	0.96	—	Y_P	0.245453	0.24541 ± 0.00011	$\sigma_8(0.38)$	0.7089	0.700 ± 0.021
A^{kSZ}	0.06	< 5.56	Y_P^{BBN}	0.246780	0.24674 ± 0.00011	$f\sigma_8(0.51)$	0.4988	0.495 ± 0.013
A_{100}^{dust}	1.006	1.01 ± 0.20	$10^5 D/H$	2.557	2.577 ± 0.051	$\sigma_8(0.51)$	0.6642	0.655 ± 0.020
A_{143}^{dust}	0.962	0.96 ± 0.18	Age/Gyr	13.7563	13.773 ± 0.048	$f\sigma_8(0.61)$	0.4948	0.490 ± 0.013
A_{217}^{dust}	0.978	0.98 ± 0.10	z_*	1089.46	1089.66 ± 0.52	$\sigma_8(0.61)$	0.6324	0.624 ± 0.019
$A_{143 \times 217}^{dust}$	1.030	1.02 ± 0.16	r_*	145.12	144.99 ± 0.55	$f\sigma_8(2.33)$	0.3195	0.315 ± 0.010
c_{100}	0.99783	0.9975 ± 0.0011	$100\theta_*$	1.04150	1.04140 ± 0.00051	$\sigma_8(2.33)$	0.3302	0.325 ± 0.011
c_{217}	1.00070	1.0009 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.9335	13.922 ± 0.050	f_{2000}^{143}	25.95	27 ± 4
H_0	68.72	68.3 ± 1.2	z_{drag}	1060.09	1059.89 ± 0.53	f_{2000}^{217}	103.94	105.3 ± 2.4
Ω_Λ	0.7034	$0.698^{+0.016}_{-0.015}$	r_{drag}	147.74	147.65 ± 0.53	$f_{2000}^{143 \times 217}$	29.32	30.3 ± 2.6
Ω_m	0.2966	$0.302^{+0.015}_{-0.016}$	k_D	0.14030	0.14032 ± 0.00053	χ_{lowl}^2	24.50	24.8 ± 1.7
$\Omega_m h^2$	0.14008	0.1408 ± 0.0024	$100\theta_D$	0.160707	0.16081 ± 0.00029	$\chi_{CamSpec}^2$	7046.4	7060.1 ± 5.5
$\Omega_m h^3$	0.096258	0.09616 ± 0.00048	z_{eq}	3332	3349 ± 57	χ_{prior}^2	1.41	7.4 ± 3.3
σ_8	0.8616	0.851 ± 0.023	k_{eq}	0.010170	0.01022 ± 0.00018	χ_{CMB}^2	7070.9	7084.8 ± 5.4
S_8	0.8568	0.854 ± 0.025	$100\theta_{eq}$	0.8268	0.824 ± 0.011			

Best-fit $\chi_{eff}^2 = 7072.29$; $\bar{\chi}_{eff}^2 = 7092.24$; $R - 1 = 0.00797$

χ_{eff}^2 : CMB - commander_dx12.v3.2.29: 24.50 CamSpec like_10.7HM: 7046.38

2.68 base_CamSpecHM_TTTEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022467	0.02243 ± 0.00018	S_8	0.8498	0.846 ± 0.020	$100\theta_{s,eq}$	0.45334	0.4530 ± 0.0034
$\Omega_c h^2$	0.11820	0.1184 ± 0.0016	$\sigma_8 \Omega_m^{0.5}$	0.4655	0.463 ± 0.011	$H(0.15)$	73.32	73.23 ± 0.62
$100\theta_{MC}$	1.041045	1.04102 ± 0.00033	$\sigma_8 \Omega_m^{0.25}$	0.6265	0.623 ± 0.015	$D_M(0.15)$	637.0	637.9 ± 6.1
τ	0.1012	0.094 ± 0.028	$\sigma_8/h^{0.5}$	1.0219	1.015 ± 0.024	$H(0.38)$	83.314	83.25 ± 0.46
$\ln(10^{10} A_s)$	3.132	3.117 ± 0.054	$r_{drag} h$	100.44	100.3 ± 1.2	$D_M(0.38)$	1520.8	1523 ± 12
n_s	0.9723	0.9707 ± 0.0055	$\langle d^2 \rangle^{1/2}$	2.521	2.508 ± 0.056	$H(0.51)$	89.963	89.91 ± 0.37
y_{cal}	1.00023	1.0002 ± 0.0024	z_{re}	11.89	$11.2^{+2.6}_{-2.0}$	$D_M(0.51)$	1971.2	1973 ± 14
A_{100}^{PS}	221.6	234 ± 25	$10^9 A_s$	2.293	2.26 ± 0.12	$H(0.61)$	95.530	$95.48^{+0.28}_{-0.31}$
A_{143}^{PS}	48.3	37 ± 9	$10^9 A_s e^{-2\tau}$	1.8726	1.872 ± 0.012	$D_M(0.61)$	2294.6	2297 ± 16
A_{217}^{PS}	108.5	104 ± 10	D_{40}	1231.7	1233 ± 14	$H(2.33)$	235.48	235.56 ± 0.91
A_{217}^{CIB}	38.8	38 ± 7	D_{220}	5716.2	5716 ± 38	$D_M(2.33)$	5753.6	5756 ± 13
A_{143}^{tSZ}	6.38	$4.0^{+2.0}_{-2.4}$	D_{810}	2532.6	2531 ± 13	$f\sigma_8(0.15)$	0.4708	0.468 ± 0.011
$r_{143 \times 217}^{PS}$	0.768	0.67 ± 0.13	D_{1420}	816.86	815.5 ± 4.7	$\sigma_8(0.15)$	0.7800	0.774 ± 0.020
$r_{143 \times 217}^{CIB}$	0.842	$0.52^{+0.36}_{-0.24}$	D_{2000}	231.94	231.3 ± 1.8	$f\sigma_8(0.38)$	0.4915	0.489 ± 0.011
$\xi^{tSZ \times CIB}$	0.96	—	$n_{s,0.002}$	0.9723	0.9707 ± 0.0055	$\sigma_8(0.38)$	0.6922	0.687 ± 0.018
A^{kSZ}	0.01	< 5.50	Y_P	0.245433	0.245416 ± 0.000071	$f\sigma_8(0.51)$	0.4909	0.488 ± 0.011
A_{100}^{dust}	1.000	1.00 ± 0.20	Y_P^{BBN}	0.246759	0.246743 ± 0.000072	$\sigma_8(0.51)$	0.6481	0.643 ± 0.017
A_{143}^{dust}	0.960	0.95 ± 0.18	$10^5 D/H$	2.5677	2.575 ± 0.034	$f\sigma_8(0.61)$	0.4863	0.483 ± 0.011
A_{217}^{dust}	0.993	0.98 ± 0.10	Age/Gyr	13.7762	13.781 ± 0.029	$\sigma_8(0.61)$	0.6169	0.612 ± 0.016
$A_{143 \times 217}^{dust}$	1.008	1.01 ± 0.16	z_*	1089.641	1089.70 ± 0.33	$f\sigma_8(2.33)$	0.3114	0.3090 ± 0.0084
c_{100}	0.99782	0.9975 ± 0.0011	r_*	144.824	144.81 ± 0.33	$\sigma_8(2.33)$	0.3213	0.3188 ± 0.0089
c_{217}	1.00104	1.0009 ± 0.0016	$100\theta_*$	1.041222	1.04120 ± 0.00032	f_{2000}^{143}	27.38	28 ± 3
c_{TE}	0.9932	0.9938 ± 0.0053	$D_M(z_*)/\text{Gpc}$	13.9091	13.908 ± 0.031	f_{2000}^{217}	104.79	105.5 ± 2.1
c_{EE}	0.9906	0.9907 ± 0.0050	z_{drag}	1060.047	1059.96 ± 0.36	$f_{2000}^{143 \times 217}$	30.07	30.6 ± 2.3
H_0	68.11	68.01 ± 0.72	r_{drag}	147.460	147.46 ± 0.33	χ^2_{lowl}	23.92	24.1 ± 1.4
Ω_Λ	0.6954	0.6940 ± 0.0095	k_D	0.140550	0.14053 ± 0.00034	$\chi^2_{CamSpec}$	11496.2	11512.2 ± 5.7
Ω_m	0.3046	0.3060 ± 0.0095	$100\theta_D$	0.160702	0.16075 ± 0.00021	χ^2_{prior}	1.90	7.8 ± 3.4
$\Omega_m h^2$	0.14131	0.1415 ± 0.0015	z_{eq}	3361.4	3365 ± 35	χ^2_{CMB}	11520.1	11536.3 ± 5.6
$\Omega_m h^3$	0.096250	0.09620 ± 0.00032	k_{eq}	0.010259	0.01027 ± 0.00011			
σ_8	0.8434	0.837 ± 0.021	$100\theta_{eq}$	0.8210	0.8203 ± 0.0067			

Best-fit $\chi^2_{eff} = 11522.05$; $\bar{\chi}^2_{eff} = 11544.10$; $R - 1 = 0.00836$

χ^2_{eff} : CMB - commander_dx12_v3_2_29: 23.92 CamSpec like_10.7HM_1400_unified: 11496.23

2.69 base_plikHM_TT_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022403	0.02232 ± 0.00027	$\sigma_8 \Omega_m^{0.25}$	0.6118	0.6112 ± 0.0080	$H(0.15)$	73.60	73.4 ± 1.0
$\Omega_c h^2$	0.11722	0.1178 ± 0.0026	$\sigma_8/h^{0.5}$	0.9997	0.998 ± 0.012	$D_M(0.15)$	634.2	637 ± 10
$100\theta_{MC}$	1.04117	1.04111 ± 0.00051	$r_{drag}h$	101.17	100.7 ± 2.1	$H(0.38)$	83.49	83.31 ± 0.75
τ	0.0862	0.080 ± 0.025	$\langle d^2 \rangle^{1/2}$	2.4689	2.468 ± 0.030	$D_M(0.38)$	1515.4	1521 ± 20
$\ln(10^{10} A_s)$	3.1002	3.089 ± 0.044	z_{re}	10.61	$9.98^{+2.4}_{-1.9}$	$H(0.51)$	90.08	$89.94^{+0.56}_{-0.63}$
n_s	0.9733	0.9702 ± 0.0076	$10^9 A_s$	2.220	2.198 ± 0.097	$D_M(0.51)$	1965.0	1971 ± 24
y_{cal}	1.00008	1.0002 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8685	1.870 ± 0.015	$H(0.61)$	95.600	$95.49^{+0.45}_{-0.51}$
A_{217}^{CIB}	45.6	47 ± 7	D_{40}	1221.5	1227 ± 13	$D_M(0.61)$	2288.1	2295 ± 25
$\xi^{tSZ \times CIB}$	0.73	—	D_{220}	5716.3	5718 ± 42	$H(2.33)$	234.79	235.1 ± 1.5
A_{143}^{tSZ}	6.92	5.3 ± 2.0	D_{810}	2532.4	2531 ± 14	$D_M(2.33)$	5752.2	5758 ± 21
A_{100}^{PS}	246.5	260 ± 28	D_{1420}	816.7	814.9 ± 5.2	$f\sigma_8(0.15)$	0.4582	0.4588 ± 0.0084
A_{143}^{PS}	51.3	47 ± 8	D_{2000}	231.32	230.5 ± 2.0	$\sigma_8(0.15)$	0.7656	0.762 ± 0.013
$A_{143 \times 217}^{PS}$	54.7	42 ± 9	$n_{s,0.002}$	0.9733	0.9702 ± 0.0076	$f\sigma_8(0.38)$	0.4797	0.4793 ± 0.0065
A_{217}^{PS}	122.1	115 ± 10	Y_P	0.245408	$0.24537^{+0.00011}_{-0.000096}$	$\sigma_8(0.38)$	0.6800	0.677 ± 0.013
A^{kSZ}	0.01	< 4.40	Y_P^{BBN}	0.246735	$0.24670^{+0.00011}_{-0.000096}$	$f\sigma_8(0.51)$	0.4798	0.4789 ± 0.0060
A_{100}^{dustTT}	8.87	9.0 ± 1.8	$10^5 D/H$	2.5794	2.595 ± 0.050	$\sigma_8(0.51)$	0.6369	0.634 ± 0.012
A_{143}^{dustTT}	10.79	10.7 ± 1.8	Age/Gyr	13.7744	13.787 ± 0.047	$f\sigma_8(0.61)$	0.4757	0.4745 ± 0.0060
$A_{143 \times 217}^{dustTT}$	19.80	18.3 ± 3.3	z_*	1089.63	1089.79 ± 0.52	$\sigma_8(0.61)$	0.6064	0.603 ± 0.012
A_{217}^{dustTT}	95.4	93.6 ± 7.3	r_*	145.13	145.04 ± 0.55	$f\sigma_8(2.33)$	0.3063	0.3044 ± 0.0067
c_{100}	0.99965	0.99960 ± 0.00062	$100\theta_*$	1.04136	1.04130 ± 0.00050	$\sigma_8(2.33)$	0.3163	0.3143 ± 0.0075
c_{217}	0.99822	0.99823 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.9364	13.929 ± 0.050	f_{2000}^{143}	28.26	29.8 ± 3.2
H_0	68.45	68.2 ± 1.2	z_{drag}	1059.818	1059.67 ± 0.51	$f_{2000}^{143 \times 217}$	31.73	32.4 ± 2.3
Ω_Λ	0.7006	$0.697^{+0.016}_{-0.015}$	r_{drag}	147.79	147.73 ± 0.53	f_{2000}^{217}	106.10	107.1 ± 2.1
Ω_m	0.2994	0.303 ± 0.016	k_D	0.14015	0.14016 ± 0.00053	$\chi^2_{lensing}$	9.11	9.8 ± 1.6
$\Omega_m h^2$	0.14027	0.1408 ± 0.0024	$100\theta_D$	0.160844	0.16093 ± 0.00029	χ^2_{lowl}	22.92	23.5 ± 1.0
$\Omega_m h^3$	0.096020	0.09594 ± 0.00046	z_{eq}	3337	3349 ± 57	χ^2_{plik}	757.8	770.5 ± 5.5
σ_8	0.8271	0.824 ± 0.013	k_{eq}	0.010184	0.01022 ± 0.00017	χ^2_{prior}	1.21	7.4 ± 3.7
S_8	0.8262	0.828 ± 0.017	$100\theta_{eq}$	0.8255	0.823 ± 0.011	χ^2_{CMB}	789.8	803.7 ± 5.5
$\sigma_8 \Omega_m^{0.5}$	0.4526	0.4535 ± 0.0094	$100\theta_{s,eq}$	0.4557	0.4546 ± 0.0057			

Best-fit $\chi^2_{eff} = 791.01$; $\bar{\chi}^2_{eff} = 811.06$; $R - 1 = 0.00623$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.11 commander_dx12_v3_2_29: 22.92 plik_rd12_HM_v22_TT: 757.77

2.70 base_plikHM_TT_lowl_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022337	0.02230 ± 0.00020	$\sigma_8/h^{0.5}$	0.9986	0.998 ± 0.012	$H(0.38)$	83.271	83.23 ± 0.39
$\Omega_c h^2$	0.11798	0.1180 ± 0.0013	$r_{\text{drag}} h$	100.56	100.5 ± 1.0	$D_M(0.38)$	1521.3	1522 ± 10
$100\theta_{\text{MC}}$	1.041099	1.04108 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.4677	2.468 ± 0.030	$H(0.51)$	89.907	89.87 ± 0.32
τ	0.0794	0.078 ± 0.016	z_{re}	10.05	$9.9^{+1.6}_{-1.4}$	$D_M(0.51)$	1971.9	1973 ± 12
$\ln(10^{10} A_s)$	3.0879	3.085 ± 0.031	$10^9 A_s$	2.193	2.188 ± 0.067	$H(0.61)$	95.464	95.43 ± 0.27
n_s	0.97050	0.9694 ± 0.0047	$10^9 A_s e^{-2\tau}$	1.8710	1.872 ± 0.012	$D_M(0.61)$	2295.6	2297 ± 13
y_{cal}	0.99994	1.0002 ± 0.0026	D_{40}	1224.4	1227 ± 12	$H(2.33)$	235.21	235.22 ± 0.80
A_{217}^{CIB}	47.7	47 ± 7	D_{220}	5714.4	5718 ± 41	$D_M(2.33)$	5757.9	5760 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	0.39	—	D_{810}	2531.6	2531 ± 14	$f\sigma_8(0.15)$	0.4596	0.4594 ± 0.0065
A_{143}^{tSZ}	7.07	5.3 ± 2.0	D_{1420}	815.5	814.8 ± 5.1	$\sigma_8(0.15)$	0.7623	0.761 ± 0.011
A_{100}^{PS}	251.0	260 ± 28	D_{2000}	230.70	230.4 ± 1.8	$f\sigma_8(0.38)$	0.4800	0.4796 ± 0.0061
A_{143}^{PS}	48.0	47 ± 8	$n_{s,0.002}$	0.97050	0.9694 ± 0.0047	$\sigma_8(0.38)$	0.6766	0.6756 ± 0.0097
$A_{143 \times 217}^{\text{PS}}$	47.2	43 ± 9	Y_{P}	0.245382	$0.245365^{+0.000087}_{-0.000075}$	$f\sigma_8(0.51)$	0.4795	0.4790 ± 0.0060
A_{217}^{PS}	119.1	115 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246709	$0.246691^{+0.000087}_{-0.000075}$	$\sigma_8(0.51)$	0.6335	0.6326 ± 0.0093
A^{kSZ}	0.01	< 4.49	$10^5 D/H$	2.5916	2.599 ± 0.038	$f\sigma_8(0.61)$	0.4750	0.4746 ± 0.0060
A_{100}^{dustTT}	8.87	8.9 ± 1.8	Age/Gyr	13.7867	13.791 ± 0.030	$\sigma_8(0.61)$	0.6030	0.6021 ± 0.0090
A_{143}^{dustTT}	10.80	10.7 ± 1.8	z_*	1089.786	1089.84 ± 0.31	$f\sigma_8(2.33)$	0.30436	0.3039 ± 0.0047
$A_{143 \times 217}^{\text{dustTT}}$	19.42	18.2 ± 3.3	r_*	144.980	144.99 ± 0.32	$\sigma_8(2.33)$	0.3141	0.3136 ± 0.0051
A_{217}^{dustTT}	94.7	93.5 ± 7.4	$100\theta_*$	1.041289	1.04127 ± 0.00041	f_{2000}^{143}	29.17	30.0 ± 2.9
c_{100}	0.99964	0.99960 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.9232	13.924 ± 0.031	$f_{2000}^{143 \times 217}$	32.29	32.6 ± 2.0
c_{217}	0.99823	0.99822 ± 0.00062	z_{drag}	1059.704	1059.64 ± 0.45	f_{2000}^{217}	106.73	107.2 ± 1.9
H_0	68.10	68.04 ± 0.59	r_{drag}	147.665	147.69 ± 0.34	χ_{lensing}^2	9.05	9.8 ± 1.6
Ω_Λ	0.6961	0.6954 ± 0.0077	k_{D}	0.140239	0.14019 ± 0.00043	χ_{lowl}^2	23.17	23.42 ± 0.91
Ω_{m}	0.3039	0.3046 ± 0.0077	$100\theta_{\text{D}}$	0.160895	0.16094 ± 0.00026	χ_{plik}^2	757.5	769.8 ± 5.3
$\Omega_{\text{m}} h^2$	0.14096	0.1410 ± 0.0012	z_{eq}	3353.1	3354 ± 29	$\chi_{6\text{DF}}^2$	0.0003	0.043 ± 0.061
$\Omega_{\text{m}} h^3$	0.095997	0.09593 ± 0.00045	k_{eq}	0.010234	0.010237 ± 0.000090	χ_{MGS}^2	1.75	1.78 ± 0.62
σ_8	0.8241	0.823 ± 0.011	$100\theta_{\text{eq}}$	0.8222	0.8220 ± 0.0056	χ_{DR12BAO}^2	3.432	4.1 ± 1.1
S_8	0.8295	0.829 ± 0.012	$100\theta_{s,\text{eq}}$	0.45406	0.4540 ± 0.0029	χ_{prior}^2	1.35	7.4 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4543	0.4542 ± 0.0068	$H(0.15)$	73.30	73.25 ± 0.51	χ_{CMB}^2	789.7	803.0 ± 5.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6119	0.6114 ± 0.0078	$D_M(0.15)$	637.1	637.7 ± 5.0	χ_{BAO}^2	5.180	6.0 ± 1.1

Best-fit $\chi_{\text{eff}}^2 = 796.25$; $\bar{\chi}_{\text{eff}}^2 = 816.31$; $R - 1 = 0.00781$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.05 commander_dx12_v3.2_29: 23.17 plik_rd12_HM_v22_TT: 757.49

2.71 base_plikHM_TT_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02235 ± 0.00025	$\sigma_8 \Omega_m^{0.25}$	0.6115 ± 0.0079	$H(0.15)$	$73.47^{+0.86}_{-1.0}$
$\Omega_c h^2$	$0.1175^{+0.0025}_{-0.0022}$	$\sigma_8/h^{0.5}$	0.999 ± 0.012	$D_M(0.15)$	$635.6^{+9.8}_{-8.7}$
$100\theta_{MC}$	1.04114 ± 0.00050	$r_{drag}h$	$100.9^{+1.7}_{-2.1}$	$H(0.38)$	$83.39^{+0.62}_{-0.77}$
τ	$0.084^{+0.018}_{-0.026}$	$\langle d^2 \rangle^{1/2}$	2.471 ± 0.029	$D_M(0.38)$	1518^{+20}_{-17}
$\ln(10^{10} A_s)$	$3.095^{+0.034}_{-0.045}$	z_{re}	10.3 ± 1.8	$H(0.51)$	$90.00^{+0.49}_{-0.62}$
n_s	$0.9710^{+0.0065}_{-0.0078}$	$10^9 A_s$	$2.210^{+0.071}_{-0.10}$	$D_M(0.51)$	1968^{+24}_{-20}
y_{cal}	1.0002 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.869 ± 0.015	$H(0.61)$	$95.54^{+0.39}_{-0.50}$
A_{217}^{CIB}	47 ± 7	D_{40}	1226 ± 13	$D_M(0.61)$	2292^{+25}_{-22}
$\xi^{tSZ \times CIB}$	—	D_{220}	5718 ± 42	$H(2.33)$	$234.9^{+1.5}_{-1.3}$
A_{143}^{tSZ}	5.3 ± 2.0	D_{810}	2530 ± 14	$D_M(2.33)$	5755^{+21}_{-18}
A_{100}^{PS}	259 ± 28	D_{1420}	815.0 ± 5.2	$f\sigma_8(0.15)$	0.4585 ± 0.0084
A_{143}^{PS}	46 ± 8	D_{2000}	230.6 ± 1.9	$\sigma_8(0.15)$	$0.764^{+0.010}_{-0.013}$
$A_{143 \times 217}^{PS}$	42 ± 9	$n_{s,0.002}$	$0.9710^{+0.0065}_{-0.0078}$	$f\sigma_8(0.38)$	0.4795 ± 0.0065
A_{217}^{PS}	115 ± 10	Y_P	0.24538 ± 0.00010	$\sigma_8(0.38)$	$0.678^{+0.010}_{-0.013}$
A^{kSZ}	< 4.36	Y_P^{BBN}	0.24671 ± 0.00010	$f\sigma_8(0.51)$	0.4793 ± 0.0059
A_{100}^{dustTT}	9.0 ± 1.8	$10^5 D/H$	2.591 ± 0.047	$\sigma_8(0.51)$	$0.6352^{+0.0097}_{-0.013}$
A_{143}^{dustTT}	10.7 ± 1.8	Age/Gyr	$13.782^{+0.047}_{-0.040}$	$f\sigma_8(0.61)$	0.4751 ± 0.0057
$A_{143 \times 217}^{dustTT}$	18.3 ± 3.3	z_*	1089.74 ± 0.48	$\sigma_8(0.61)$	$0.6047^{+0.0095}_{-0.013}$
A_{217}^{dustTT}	93.6 ± 7.3	r_*	$145.10^{+0.49}_{-0.54}$	$f\sigma_8(2.33)$	$0.3053^{+0.0051}_{-0.0069}$
c_{100}	0.99960 ± 0.00062	$100\theta_*$	1.04133 ± 0.00049	$\sigma_8(2.33)$	$0.3153^{+0.0057}_{-0.0079}$
c_{217}	0.99823 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.934 ± 0.047	f_{2000}^{143}	29.6 ± 3.1
H_0	$68.3^{+1.0}_{-1.2}$	z_{drag}	1059.70 ± 0.50	$f_{2000}^{143 \times 217}$	32.3 ± 2.2
Ω_Λ	0.698 ± 0.014	r_{drag}	147.78 ± 0.50	f_{2000}^{217}	106.9 ± 2.1
Ω_m	0.302 ± 0.014	k_D	0.14012 ± 0.00051	$\chi_{lensing}^2$	9.8 ± 1.6
$\Omega_m h^2$	$0.1405^{+0.0023}_{-0.0021}$	$100\theta_D$	0.16091 ± 0.00028	χ_{lowl}^2	23.40 ± 0.99
$\Omega_m h^3$	0.09595 ± 0.00046	z_{eq}	3342^{+56}_{-50}	χ_{plik}^2	770.3 ± 5.5
σ_8	$0.825^{+0.011}_{-0.013}$	k_{eq}	$0.01020^{+0.00017}_{-0.00015}$	χ_{prior}^2	7.4 ± 3.7
S_8	0.827 ± 0.017	$100\theta_{eq}$	$0.8244^{+0.0095}_{-0.011}$	χ_{CMB}^2	803.5 ± 5.4
$\sigma_8 \Omega_m^{0.5}$	0.4531 ± 0.0092	$100\theta_{s,eq}$	$0.4552^{+0.0048}_{-0.0057}$		

$\bar{\chi}_{eff}^2 = 810.86; R - 1 = 0.00629$

2.72 base_plikHM_TT_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00020	$\sigma_8/h^{0.5}$	0.998 ± 0.012	$H(0.38)$	83.24 ± 0.38
$\Omega_c h^2$	0.1180 ± 0.0013	$r_{\text{drag}} h$	100.52 ± 0.99	$D_M(0.38)$	1522 ± 10
$100\theta_{\text{MC}}$	1.04108 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.469 ± 0.029	$H(0.51)$	89.88 ± 0.31
τ	0.079 ± 0.016	z_{re}	9.9 ± 1.4	$D_M(0.51)$	1973 ± 12
$\ln(10^{10} A_s)$	3.087 ± 0.029	$10^9 A_s$	$2.191^{+0.061}_{-0.069}$	$H(0.61)$	95.44 ± 0.27
n_s	0.9695 ± 0.0046	$10^9 A_s e^{-2\tau}$	1.871 ± 0.012	$D_M(0.61)$	2297 ± 13
y_{cal}	1.0002 ± 0.0026	D_{40}	1227 ± 12	$H(2.33)$	235.20 ± 0.79
A_{217}^{CIB}	47 ± 7	D_{220}	5718 ± 41	$D_M(2.33)$	5760 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2531 ± 14	$f\sigma_8(0.15)$	0.4595 ± 0.0065
A_{143}^{tSZ}	5.3 ± 2.0	D_{1420}	814.8 ± 5.1	$\sigma_8(0.15)$	0.762 ± 0.010
A_{100}^{PS}	260 ± 28	D_{2000}	230.4 ± 1.8	$f\sigma_8(0.38)$	0.4798 ± 0.0060
A_{143}^{PS}	47 ± 8	$n_{s,0.002}$	0.9695 ± 0.0046	$\sigma_8(0.38)$	0.6760 ± 0.0093
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	Y_{P}	$0.245366^{+0.000086}_{-0.000074}$	$f\sigma_8(0.51)$	0.4792 ± 0.0059
A_{217}^{PS}	115 ± 10	$Y_{\text{P}}^{\text{BBN}}$	$0.246692^{+0.000087}_{-0.000075}$	$\sigma_8(0.51)$	0.6329 ± 0.0089
A^{kSZ}	< 4.48	$10^5 \text{D}/\text{H}$	2.599 ± 0.038	$f\sigma_8(0.61)$	0.4748 ± 0.0058
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	Age/Gyr	13.791 ± 0.030	$\sigma_8(0.61)$	0.6025 ± 0.0086
$A_{143}^{\text{dust}TT}$	10.7 ± 1.8	z_*	1089.83 ± 0.31	$f\sigma_8(2.33)$	0.3041 ± 0.0045
$A_{143 \times 217}^{\text{dust}TT}$	18.2 ± 3.3	r_*	145.00 ± 0.31	$\sigma_8(2.33)$	0.3138 ± 0.0049
$A_{217}^{\text{dust}TT}$	93.5 ± 7.3	$100\theta_*$	1.04128 ± 0.00041	f_{2000}^{143}	29.9 ± 2.9
c_{100}	0.99960 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.925 ± 0.031	$f_{2000}^{143 \times 217}$	32.5 ± 2.0
c_{217}	0.99822 ± 0.00062	z_{drag}	1059.64 ± 0.45	f_{2000}^{217}	107.2 ± 1.9
H_0	68.06 ± 0.58	r_{drag}	147.69 ± 0.34	χ_{lensing}^2	9.8 ± 1.6
Ω_Λ	0.6956 ± 0.0075	k_{D}	0.14018 ± 0.00043	χ_{lowl}^2	23.43 ± 0.91
Ω_{m}	0.3044 ± 0.0075	$100\theta_{\text{D}}$	0.16094 ± 0.00026	χ_{plik}^2	769.7 ± 5.3
$\Omega_{\text{m}} h^2$	0.1410 ± 0.0012	z_{eq}	3353 ± 29	$\chi_{6\text{DF}}^2$	0.041 ± 0.059
$\Omega_{\text{m}} h^3$	0.09593 ± 0.00045	k_{eq}	0.010234 ± 0.000088	χ_{MGS}^2	1.79 ± 0.61
σ_8	0.823 ± 0.011	$100\theta_{\text{eq}}$	0.8221 ± 0.0055	χ_{DR12BAO}^2	4.1 ± 1.0
S_8	0.829 ± 0.012	$100\theta_{\text{s,eq}}$	0.4541 ± 0.0028	χ_{prior}^2	7.4 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4543 ± 0.0067	$H(0.15)$	73.26 ± 0.51	χ_{CMB}^2	802.9 ± 5.2
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6116 ± 0.0076	$D_M(0.15)$	637.5 ± 4.9	χ_{BAO}^2	5.9 ± 1.0
$\bar{\chi}_{\text{eff}}^2 = 816.23; R - 1 = 0.00814$					

2.73 base_plikHM_TTTEEE_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022525	0.02249 ± 0.00017	$\Omega_m h^3$	0.096392	0.09635 ± 0.00029	$100\theta_{\text{eq}}$	0.8208	0.8200 ± 0.0067
$\Omega_c h^2$	0.11824	0.1184 ± 0.0016	σ_8	0.8270	0.825 ± 0.011	$100\theta_{\text{s,eq}}$	0.45317	0.4528 ± 0.0034
$100\theta_{\text{MC}}$	1.041106	1.04108 ± 0.00032	S_8	0.8330	$0.833^{+0.012}_{-0.013}$	$H(0.15)$	73.37	73.29 ± 0.61
τ	0.0816	0.079 ± 0.018	$\sigma_8 \Omega_m^{0.5}$	0.4562	$0.4561^{+0.0066}_{-0.0073}$	$D_{\text{M}}(0.15)$	636.5	637.4 ± 6.0
$\ln(10^{10} A_{\text{s}})$	3.0938	3.089 ± 0.033	$\sigma_8 \Omega_m^{0.25}$	0.6143	0.6134 ± 0.0074	$H(0.38)$	83.366	83.30 ± 0.45
n_{s}	0.9716	0.9696 ± 0.0051	$\sigma_8/h^{0.5}$	1.0017	0.9999 ± 0.012	$D_{\text{M}}(0.38)$	1519.8	1522 ± 12
y_{cal}	1.00002	1.0002 ± 0.0025	$r_{\text{drag}} h$	100.46	100.3 ± 1.2	$H(0.51)$	90.016	89.96 ± 0.36
A_{217}^{CIB}	44.3	46 ± 7	$\langle d^2 \rangle^{1/2}$	2.4741	2.474 ± 0.029	$D_{\text{M}}(0.51)$	1969.9	1972 ± 14
$\xi^{\text{tSZ} \times \text{CIB}}$	0.85	—	z_{re}	10.19	$9.9^{+1.7}_{-1.4}$	$H(0.61)$	95.583	95.54 ± 0.29
A_{143}^{tSZ}	7.04	$5.7^{+2.1}_{-1.8}$	$10^9 A_{\text{s}}$	2.206	2.196 ± 0.072	$D_{\text{M}}(0.61)$	2293.1	2295 ± 15
A_{100}^{PS}	244.0	255 ± 28	$10^9 A_{\text{s}} e^{-2\tau}$	1.8739	1.874 ± 0.012	$H(2.33)$	235.57	235.67 ± 0.92
A_{143}^{PS}	50.9	44 ± 8	D_{40}	1225.0	1229 ± 12	$D_{\text{M}}(2.33)$	5750.5	5753 ± 13
$A_{143 \times 217}^{\text{PS}}$	56.3	42 ± 9	D_{220}	5726.8	5731 ± 39	$f\sigma_8(0.15)$	0.4615	0.4612 ± 0.0066
A_{217}^{PS}	122.8	115 ± 10	D_{810}	2535.5	2534 ± 14	$\sigma_8(0.15)$	0.7649	0.763 ± 0.011
A^{kSZ}	0.01	< 3.87	D_{1420}	818.16	816.8 ± 4.7	$f\sigma_8(0.38)$	0.4819	0.4812 ± 0.0059
A_{100}^{dustTT}	8.79	8.9 ± 1.8	D_{2000}	231.99	231.4 ± 1.6	$\sigma_8(0.38)$	0.6788	0.677 ± 0.010
A_{143}^{dustTT}	11.02	10.9 ± 1.8	$n_{\text{s},0.002}$	0.9716	0.9696 ± 0.0051	$f\sigma_8(0.51)$	0.4813	0.4805 ± 0.0057
$A_{143 \times 217}^{\text{dustTT}}$	20.32	18.6 ± 3.3	Y_{P}	0.245453	$0.245440^{+0.000064}_{-0.000058}$	$\sigma_8(0.51)$	0.6356	0.6338 ± 0.0096
A_{217}^{dustTT}	95.8	93.8 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246780	$0.246767^{+0.000064}_{-0.000058}$	$f\sigma_8(0.61)$	0.4768	0.4759 ± 0.0057
A_{100}^{dustTE}	0.1132	0.114 ± 0.038	$10^5 \text{D}/\text{H}$	2.5575	2.564 ± 0.030	$\sigma_8(0.61)$	0.6050	0.6032 ± 0.0093
$A_{100 \times 143}^{\text{dustTE}}$	0.1345	0.134 ± 0.029	Age/Gyr	13.7689	13.774 ± 0.028	$f\sigma_8(2.33)$	0.3053	0.3044 ± 0.0050
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.479 ± 0.085	z_*	1089.572	1089.63 ± 0.31	$\sigma_8(2.33)$	0.3151	0.3141 ± 0.0054
A_{143}^{dustTE}	0.224	0.223 ± 0.054	r_*	144.768	144.74 ± 0.33	f_{2000}^{143}	27.31	28.4 ± 2.8
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.662 ± 0.080	$100\theta_*$	1.041274	1.04125 ± 0.00032	$f_{2000}^{143 \times 217}$	30.95	31.3 ± 2.0
A_{217}^{dustTE}	2.070	2.07 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9030	13.901 ± 0.031	f_{2000}^{217}	105.43	106.2 ± 1.9
c_{100}	0.99972	0.99965 ± 0.00061	z_{drag}	1060.162	1060.11 ± 0.32	χ_{lensing}^2	9.66	10.1 ± 1.9
c_{217}	0.99816	0.99817 ± 0.00061	r_{drag}	147.385	147.37 ± 0.32	χ_{lowl}^2	23.14	23.54 ± 0.90
H_0	68.16	68.06 ± 0.71	k_{D}	0.140674	0.14066 ± 0.00033	χ_{plik}^2	2342.0	2357.3 ± 6.0
Ω_{Λ}	0.6956	$0.694^{+0.010}_{-0.0089}$	$100\theta_{\text{D}}$	0.160631	0.16067 ± 0.00018	χ_{prior}^2	1.50	11.5 ± 4.5
Ω_{m}	0.3044	$0.3058^{+0.0089}_{-0.010}$	z_{eq}	3363.9	3368 ± 35	χ_{CMB}^2	2374.8	2391.0 ± 5.8
$\Omega_{\text{m}} h^2$	0.14141	0.1416 ± 0.0015	k_{eq}	0.010267	0.01028 ± 0.00011			

Best-fit $\chi_{\text{eff}}^2 = 2376.35$; $\bar{\chi}_{\text{eff}}^2 = 2402.48$; $R - 1 = 0.01194$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 9.66 commander_dx12_v3_2_29: 23.14 plik_rd12_HM_v22b_TTTEEE: 2342.04

2.74 base_plikHM_TTTEEE_lowl_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022524	0.02250 ± 0.00014	σ_8	0.8263	0.825 ± 0.011	$H(0.15)$	73.366	73.33 ± 0.42
$\Omega_c h^2$	0.11825	0.1183 ± 0.0011	S_8	0.8324	0.832 ± 0.011	$D_M(0.15)$	636.58	637.0 ± 4.1
$100\theta_{MC}$	1.041102	1.04109 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4559	0.4557 ± 0.0062	$H(0.38)$	83.361	83.33 ± 0.31
τ	0.0808	0.080 ± 0.015	$\sigma_8 \Omega_m^{0.25}$	0.6138	0.6132 ± 0.0074	$D_M(0.38)$	1519.9	1520.7 ± 8.4
$\ln(10^{10} A_s)$	3.0922	3.090 ± 0.029	$\sigma_8/h^{0.5}$	1.0009	0.9998 ± 0.012	$H(0.51)$	90.011	89.98 ± 0.25
n_s	0.97153	0.9699 ± 0.0041	$r_{drag} h$	100.45	100.39 ± 0.85	$D_M(0.51)$	1970.0	1971.0 ± 9.8
y_{cal}	1.00003	1.0002 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4724	2.474 ± 0.029	$H(0.61)$	95.579	95.56 ± 0.21
A_{217}^{CIB}	44.7	46 ± 7	z_{re}	10.12	$9.98_{-1.2}^{+1.5}$	$D_M(0.61)$	2293.3	2294 ± 11
$\xi^{tSZ \times CIB}$	0.79	—	$10^9 A_s$	2.202	2.198 ± 0.063	$H(2.33)$	235.58	235.60 ± 0.65
A_{143}^{tSZ}	7.06	$5.7_{-1.9}^{+2.1}$	$10^9 A_s e^{-2\tau}$	1.8738	1.874 ± 0.011	$D_M(2.33)$	5750.7	5751.9 ± 9.6
A_{100}^{PS}	244.5	254 ± 28	D_{40}	1224.8	1229 ± 11	$f\sigma_8(0.15)$	0.4612	0.4609 ± 0.0060
A_{143}^{PS}	49.9	44 ± 8	D_{220}	5726.7	5731 ± 39	$\sigma_8(0.15)$	0.7643	0.763 ± 0.010
$A_{143 \times 217}^{PS}$	54.8	42 ± 9	D_{810}	2535.4	2534 ± 14	$f\sigma_8(0.38)$	0.4815	0.4810 ± 0.0058
A_{217}^{PS}	122.3	114.9 ± 9.9	D_{1420}	818.10	816.8 ± 4.7	$\sigma_8(0.38)$	0.6783	0.6772 ± 0.0092
A^{kSZ}	0.00	< 3.89	D_{2000}	231.95	231.4 ± 1.5	$f\sigma_8(0.51)$	0.4809	0.4804 ± 0.0058
A_{100}^{dustTT}	8.85	8.9 ± 1.8	$n_{s,0.002}$	0.97153	0.9699 ± 0.0041	$\sigma_8(0.51)$	0.6351	0.6341 ± 0.0087
A_{143}^{dustTT}	11.07	10.9 ± 1.8	Y_P	0.245453	0.245443 ± 0.000053	$f\sigma_8(0.61)$	0.4764	0.4759 ± 0.0057
$A_{143 \times 217}^{dustTT}$	20.17	18.6 ± 3.2	Y_P^{BBN}	0.246780	0.246770 ± 0.000053	$\sigma_8(0.61)$	0.6045	0.6035 ± 0.0084
A_{217}^{dustTT}	95.6	93.8 ± 7.3	$10^5 D/H$	2.5578	2.562 ± 0.025	$f\sigma_8(2.33)$	0.30509	0.3046 ± 0.0044
A_{100}^{dustTE}	0.1143	0.114 ± 0.038	Age/Gyr	13.7693	13.772 ± 0.022	$\sigma_8(2.33)$	0.31485	0.3143 ± 0.0047
$A_{100 \times 143}^{dustTE}$	0.1342	0.134 ± 0.029	z_*	1089.575	1089.61 ± 0.24	f_{2000}^{143}	27.33	28.4 ± 2.7
$A_{100 \times 217}^{dustTE}$	0.480	0.478 ± 0.085	r_*	144.766	144.77 ± 0.25	$f_{2000}^{143 \times 217}$	30.96	31.3 ± 1.9
A_{143}^{dustTE}	0.224	0.223 ± 0.054	$100\theta_*$	1.041267	1.04126 ± 0.00029	f_{2000}^{217}	105.48	106.2 ± 1.8
$A_{143 \times 217}^{dustTE}$	0.663	0.663 ± 0.079	$D_M(z_*)/\text{Gpc}$	13.9029	13.903 ± 0.023	$\chi_{lensing}^2$	9.54	10.1 ± 1.9
A_{217}^{dustTE}	2.064	2.06 ± 0.27	z_{drag}	1060.162	1060.11 ± 0.29	χ_{lowl}^2	23.12	23.49 ± 0.87
c_{100}	0.99971	0.99965 ± 0.00061	r_{drag}	147.384	147.39 ± 0.25	χ_{plik}^2	2342.2	2356.8 ± 5.9
c_{217}	0.99815	0.99818 ± 0.00062	k_D	0.140674	0.14065 ± 0.00029	χ_{6DF}^2	0.0001	0.030 ± 0.043
H_0	68.156	68.11 ± 0.49	$100\theta_D$	0.160632	0.16066 ± 0.00017	χ_{MGS}^2	1.68	1.70 ± 0.51
Ω_Λ	0.6956	0.6950 ± 0.0065	z_{eq}	3364.1	3365 ± 24	$\chi_{DR12BAO}^2$	3.523	4.03 ± 0.89
Ω_m	0.3044	0.3050 ± 0.0065	k_{eq}	0.010268	0.010271 ± 0.000074	χ_{prior}^2	1.54	11.5 ± 4.5
$\Omega_m h^2$	0.14142	0.1415 ± 0.0010	$100\theta_{eq}$	0.82072	0.8205 ± 0.0047	χ_{CMB}^2	2374.8	2390.4 ± 5.7
$\Omega_m h^3$	0.096388	0.09635 ± 0.00029	$100\theta_{s,eq}$	0.45315	0.4530 ± 0.0024	χ_{BAO}^2	5.201	5.77 ± 0.75

Best-fit $\chi_{eff}^2 = 2381.55$; $\bar{\chi}_{eff}^2 = 2407.65$; $R - 1 = 0.01895$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.52 CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb_consext8: 9.54 commander_dx12_v3.2.29: 23.12 plik_rd12_HM_v22b_TTTEEE: 2342.15

2.75 base_plikHM_TTTEEE_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02250 ± 0.00016	$\Omega_{\text{m}}h^3$	0.09635 ± 0.00029	$100\theta_{\text{eq}}$	0.8203 ± 0.0065
$\Omega_{\text{c}}h^2$	0.1184 ± 0.0015	σ_8	0.826 ± 0.010	$100\theta_{\text{s,eq}}$	0.4529 ± 0.0033
$100\theta_{\text{MC}}$	1.04108 ± 0.00032	S_8	$0.833^{+0.012}_{-0.013}$	$H(0.15)$	73.31 ± 0.60
τ	0.080 ± 0.017	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4561^{+0.0066}_{-0.0073}$	$D_{\text{M}}(0.15)$	637.2 ± 5.8
$\ln(10^{10}A_{\text{s}})$	3.090 ± 0.031	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6136 ± 0.0073	$H(0.38)$	83.32 ± 0.44
n_{s}	0.9698 ± 0.0050	$\sigma_8/h^{0.5}$	1.000 ± 0.012	$D_{\text{M}}(0.38)$	1521 ± 12
y_{cal}	1.0001 ± 0.0025	$r_{\text{drag}}h$	100.4 ± 1.2	$H(0.51)$	89.98 ± 0.35
A_{217}^{CIB}	46 ± 7	$\langle d^2 \rangle^{1/2}$	2.475 ± 0.028	$D_{\text{M}}(0.51)$	1971 ± 14
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$9.99^{+1.6}_{-1.4}$	$H(0.61)$	95.55 ± 0.28
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8}$	$10^9 A_{\text{s}}$	$2.199^{+0.065}_{-0.073}$	$D_{\text{M}}(0.61)$	2295 ± 15
A_{100}^{PS}	255 ± 28	$10^9 A_{\text{s}}e^{-2\tau}$	1.874 ± 0.012	$H(2.33)$	235.63 ± 0.89
A_{143}^{PS}	44 ± 8	D_{40}	1229 ± 12	$D_{\text{M}}(2.33)$	5752 ± 12
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{220}	5731 ± 39	$f\sigma_8(0.15)$	$0.4613^{+0.0062}_{-0.0069}$
A_{217}^{PS}	115 ± 10	D_{810}	2534 ± 14	$\sigma_8(0.15)$	0.763 ± 0.010
A^{kSZ}	< 3.86	D_{1420}	816.7 ± 4.7	$f\sigma_8(0.38)$	0.4813 ± 0.0058
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	D_{2000}	231.4 ± 1.6	$\sigma_8(0.38)$	0.6774 ± 0.0095
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	$n_{\text{s},0.002}$	0.9698 ± 0.0050	$f\sigma_8(0.51)$	0.4807 ± 0.0056
$A_{143 \times 217}^{\text{dust}TT}$	18.6 ± 3.3	Y_{P}	0.245442 ± 0.000062	$\sigma_8(0.51)$	0.6343 ± 0.0091
$A_{217}^{\text{dust}TT}$	93.8 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246769 ± 0.000062	$f\sigma_8(0.61)$	0.4761 ± 0.0055
$A_{100}^{\text{dust}TE}$	0.113 ± 0.038	10^5D/H	2.563 ± 0.029	$\sigma_8(0.61)$	0.6037 ± 0.0088
$A_{100 \times 143}^{\text{dust}TE}$	0.134 ± 0.029	Age/Gyr	13.773 ± 0.027	$f\sigma_8(2.33)$	0.3047 ± 0.0047
$A_{100 \times 217}^{\text{dust}TE}$	0.479 ± 0.085	z_*	1089.62 ± 0.31	$\sigma_8(2.33)$	0.3144 ± 0.0051
$A_{143}^{\text{dust}TE}$	0.223 ± 0.054	r_*	144.76 ± 0.33	f_{2000}^{143}	28.4 ± 2.8
$A_{143 \times 217}^{\text{dust}TE}$	0.662 ± 0.080	$100\theta_*$	1.04125 ± 0.00032	$f_{2000}^{143 \times 217}$	31.3 ± 1.9
$A_{217}^{\text{dust}TE}$	2.07 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.902 ± 0.030	f_{2000}^{217}	106.2 ± 1.9
c_{100}	0.99965 ± 0.00061	z_{drag}	1060.11 ± 0.31	χ_{lensing}^2	10.1 ± 1.9
c_{217}	0.99817 ± 0.00061	r_{drag}	147.38 ± 0.31	χ_{lowl}^2	23.54 ± 0.90
H_0	68.09 ± 0.69	k_{D}	0.14066 ± 0.00032	χ_{plik}^2	2357.2 ± 6.0
Ω_{Λ}	0.6946 ± 0.0092	$100\theta_{\text{D}}$	0.16066 ± 0.00018	χ_{prior}^2	11.5 ± 4.5
Ω_{m}	0.3054 ± 0.0092	z_{eq}	3366 ± 34	χ_{CMB}^2	2390.8 ± 5.8
$\Omega_{\text{m}}h^2$	0.1415 ± 0.0014	k_{eq}	0.01027 ± 0.00010		

$$\bar{\chi}_{\text{eff}}^2 = 2402.35; R - 1 = 0.01200$$

2.76 base_plikHM_TTTEEE_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02250 ± 0.00014	σ_8	0.825 ± 0.010	$H(0.15)$	73.33 ± 0.42
$\Omega_c h^2$	0.1183 ± 0.0011	S_8	0.832 ± 0.011	$D_M(0.15)$	636.9 ± 4.1
$100\theta_{MC}$	1.04109 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4558 ± 0.0062	$H(0.38)$	83.33 ± 0.31
τ	0.080 ± 0.015	$\sigma_8 \Omega_m^{0.25}$	0.6133 ± 0.0073	$D_M(0.38)$	1520.6 ± 8.3
$\ln(10^{10} A_s)$	3.090 ± 0.028	$\sigma_8/h^{0.5}$	1.000 ± 0.012	$H(0.51)$	89.99 ± 0.25
n_s	0.9699 ± 0.0041	$r_{\text{drag}} h$	100.40 ± 0.84	$D_M(0.51)$	1970.9 ± 9.7
y_{cal}	1.0001 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.474 ± 0.028	$H(0.61)$	95.56 ± 0.21
A_{217}^{CIB}	46 ± 7	z_{re}	$10.0^{+1.4}_{-1.2}$	$D_M(0.61)$	2294 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	2.199 ± 0.061	$H(2.33)$	235.59 ± 0.64
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8}$	$10^9 A_s e^{-2\tau}$	1.874 ± 0.011	$D_M(2.33)$	5751.8 ± 9.6
A_{100}^{PS}	254 ± 28	D_{40}	1229 ± 11	$f\sigma_8(0.15)$	0.4610 ± 0.0060
A_{143}^{PS}	44 ± 8	D_{220}	5731 ± 39	$\sigma_8(0.15)$	0.7634 ± 0.0097
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{810}	2534 ± 14	$f\sigma_8(0.38)$	0.4811 ± 0.0057
A_{217}^{PS}	114.9 ± 9.9	D_{1420}	816.8 ± 4.7	$\sigma_8(0.38)$	0.6775 ± 0.0089
A^{kSZ}	< 3.88	D_{2000}	231.4 ± 1.5	$f\sigma_8(0.51)$	0.4805 ± 0.0057
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	$n_{s,0.002}$	0.9699 ± 0.0041	$\sigma_8(0.51)$	0.6343 ± 0.0084
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P	0.245444 ± 0.000052	$f\sigma_8(0.61)$	0.4760 ± 0.0056
$A_{143 \times 217}^{\text{dust}TT}$	18.6 ± 3.2	Y_P^{BBN}	0.246770 ± 0.000053	$\sigma_8(0.61)$	0.6037 ± 0.0081
$A_{217}^{\text{dust}TT}$	93.8 ± 7.3	$10^5 D/H$	2.562 ± 0.025	$f\sigma_8(2.33)$	0.3047 ± 0.0042
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	Age/Gyr	13.772 ± 0.021	$\sigma_8(2.33)$	0.3144 ± 0.0045
$A_{100 \times 143}^{\text{dust}TE}$	0.134 ± 0.029	z_*	1089.61 ± 0.23	f_{2000}^{143}	28.4 ± 2.7
$A_{100 \times 217}^{\text{dust}TE}$	0.478 ± 0.085	r_*	144.77 ± 0.24	$f_{2000}^{143 \times 217}$	31.3 ± 1.9
$A_{143}^{\text{dust}TE}$	0.223 ± 0.054	$100\theta_*$	1.04127 ± 0.00029	f_{2000}^{217}	106.2 ± 1.8
$A_{143 \times 217}^{\text{dust}TE}$	0.663 ± 0.079	$D_M(z_*)/\text{Gpc}$	13.903 ± 0.023	χ_{lensing}^2	10.1 ± 1.9
$A_{217}^{\text{dust}TE}$	2.06 ± 0.27	z_{drag}	1060.12 ± 0.29	χ_{lowl}^2	23.49 ± 0.87
c_{100}	0.99965 ± 0.00061	r_{drag}	147.39 ± 0.25	χ_{plik}^2	2356.8 ± 5.9
c_{217}	0.99818 ± 0.00062	k_D	0.14064 ± 0.00029	$\chi_{6\text{DF}}^2$	0.030 ± 0.042
H_0	68.12 ± 0.49	$100\theta_D$	0.16066 ± 0.00017	χ_{MGS}^2	1.71 ± 0.51
Ω_Λ	0.6951 ± 0.0064	z_{eq}	3365 ± 24	χ_{DR12BAO}^2	4.02 ± 0.86
Ω_m	0.3049 ± 0.0064	k_{eq}	0.010270 ± 0.000074	χ_{prior}^2	11.5 ± 4.5
$\Omega_m h^2$	0.1415 ± 0.0010	$100\theta_{\text{eq}}$	0.8205 ± 0.0046	χ_{CMB}^2	2390.4 ± 5.7
$\Omega_m h^3$	0.09635 ± 0.00029	$100\theta_{s,\text{eq}}$	0.4531 ± 0.0024	χ_{BAO}^2	5.76 ± 0.74

$$\bar{\chi}_{\text{eff}}^2 = 2407.58; R - 1 = 0.01869$$

2.77 base_plikHM_TT_lowl_reion

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022143	0.02212 ± 0.00022	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6115	0.612 ± 0.012	$H(0.15)$	72.26	72.28 ± 0.78
$\Omega_{\text{c}}h^2$	0.12065	0.1206 ± 0.0021	$\sigma_8/h^{0.5}$	0.9937	0.995 ± 0.016	$D_{\text{M}}(0.15)$	647.5	647.4 ± 7.9
$100\theta_{\text{MC}}$	1.040768	1.04079 ± 0.00048	$r_{\text{drag}}h$	98.44	98.5 ± 1.6	$H(0.38)$	82.53	82.54 ± 0.56
τ	0.0526	$0.0549^{+0.0047}_{-0.010}$	$\langle d^2 \rangle^{1/2}$	2.4535	2.459 ± 0.038	$D_{\text{M}}(0.38)$	1542.0	1542 ± 16
$\ln(10^{10}A_{\text{s}})$	3.0417	$3.046^{+0.013}_{-0.019}$	z_{re}	7.57	$7.79^{+0.51}_{-1.1}$	$H(0.51)$	89.331	89.34 ± 0.44
n_{s}	0.9636	0.9629 ± 0.0056	$10^9 A_{\text{s}}$	2.0941	$2.103^{+0.026}_{-0.040}$	$D_{\text{M}}(0.51)$	1996.1	1996 ± 18
y_{cal}	1.00035	1.0003 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.8850	1.884 ± 0.014	$H(0.61)$	95.016	95.02 ± 0.35
A_{217}^{CIB}	48.3	48 ± 7	D_{40}	1231.5	1234 ± 15	$D_{\text{M}}(0.61)$	2321.6	2321 ± 20
$\xi^{\text{tSZ} \times \text{CIB}}$	0.37	—	D_{220}	5711.1	5712 ± 42	$H(2.33)$	236.75	236.7 ± 1.3
A_{143}^{tSZ}	7.03	5.1 ± 2.0	D_{810}	2538.0	2536 ± 14	$D_{\text{M}}(2.33)$	5776.8	5777 ± 16
A_{100}^{PS}	253.3	263 ± 28	D_{1420}	815.5	814.3 ± 5.1	$f\sigma_8(0.15)$	0.4640	0.464 ± 0.012
A_{143}^{PS}	50.3	49 ± 8	D_{2000}	229.99	229.6 ± 1.8	$\sigma_8(0.15)$	0.7501	$0.7511^{+0.0070}_{-0.0080}$
$A_{143 \times 217}^{\text{PS}}$	48.4	44 ± 9	$n_{\text{s},0.002}$	0.9636	0.9629 ± 0.0056	$f\sigma_8(0.38)$	0.4803	0.4808 ± 0.0096
A_{217}^{PS}	120.1	115 ± 10	Y_{P}	0.245302	$0.24529^{+0.00011}_{-0.000085}$	$\sigma_8(0.38)$	0.6639	$0.6649^{+0.0053}_{-0.0066}$
A^{kSZ}	0.00	< 4.75	$Y_{\text{P}}^{\text{BBN}}$	0.246628	$0.24662^{+0.00011}_{-0.000085}$	$f\sigma_8(0.51)$	0.4779	0.4784 ± 0.0082
A_{100}^{dustTT}	8.89	8.9 ± 1.8	$10^5 \text{D}/\text{H}$	2.6289	2.633 ± 0.042	$\sigma_8(0.51)$	0.6209	$0.6218^{+0.0046}_{-0.0061}$
A_{143}^{dustTT}	10.84	10.7 ± 1.8	Age/Gyr	13.8277	13.828 ± 0.036	$f\sigma_8(0.61)$	0.4721	0.4727 ± 0.0073
$A_{143 \times 217}^{\text{dustTT}}$	19.55	18.3 ± 3.3	z_*	1090.267	1090.29 ± 0.40	$\sigma_8(0.61)$	0.5905	$0.5914^{+0.0042}_{-0.0057}$
A_{217}^{dustTT}	94.9	93.4 ± 7.4	r_*	144.436	144.47 ± 0.47	$f\sigma_8(2.33)$	0.29739	$0.2979^{+0.0020}_{-0.0029}$
c_{100}	0.99965	0.99961 ± 0.00061	$100\theta_*$	1.040971	1.04100 ± 0.00047	$\sigma_8(2.33)$	0.30621	$0.3067^{+0.0020}_{-0.0031}$
c_{217}	0.99824	0.99825 ± 0.00062	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8752	13.878 ± 0.044	f_{2000}^{143}	30.40	31.1 ± 2.9
H_0	66.89	66.91 ± 0.91	z_{drag}	1059.437	1059.41 ± 0.45	$f_{2000}^{143 \times 217}$	33.29	33.5 ± 2.0
Ω_{Λ}	0.6794	0.680 ± 0.013	r_{drag}	147.174	147.22 ± 0.47	f_{2000}^{217}	107.68	108.1 ± 1.9
Ω_{m}	0.3206	0.320 ± 0.013	k_{D}	0.14061	0.14054 ± 0.00052	χ_{lowl}^2	23.60	23.9 ± 1.3
$\Omega_{\text{m}}h^2$	0.14344	0.1433 ± 0.0020	$100\theta_{\text{D}}$	0.161031	0.16107 ± 0.00026	χ_{plik}^2	758.7	771.1 ± 5.4
$\Omega_{\text{m}}h^3$	0.095943	0.09590 ± 0.00046	z_{eq}	3412.4	3410 ± 47	χ_{prior}^2	1.66	8.5 ± 4.0
σ_8	0.8127	0.8138 ± 0.0090	k_{eq}	0.010415	0.01041 ± 0.00014	χ_{CMB}^2	782.3	795.0 ± 5.4
S_8	0.8401	0.841 ± 0.024	$100\theta_{\text{eq}}$	0.8107	0.8112 ± 0.0088			
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4602	0.461 ± 0.013	$100\theta_{\text{s,eq}}$	0.44821	0.4485 ± 0.0045			

Best-fit $\chi_{\text{eff}}^2 = 784.00$; $\bar{\chi}_{\text{eff}}^2 = 803.49$; $R - 1 = 0.00586$

χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 23.60 plik_rd12_HM_v22_TT: 758.75

2.78 base_plikHM_TT_lowl_reion_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022226	0.02222 ± 0.00019	$\sigma_8/h^{0.5}$	0.9823	0.984 ± 0.012	$H(0.38)$	82.962	82.97 ± 0.35
$\Omega_c h^2$	0.11895	0.1190 ± 0.0012	$r_{\text{drag}} h$	99.76	99.78 ± 0.94	$D_M(0.38)$	1529.6	1529.5 ± 9.4
$100\theta_{\text{MC}}$	1.040963	1.04101 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.4271	$2.434^{+0.027}_{-0.030}$	$H(0.51)$	89.660	89.67 ± 0.29
τ	0.0542	$0.0565^{+0.0055}_{-0.010}$	z_{re}	7.69	$7.90^{+0.59}_{-1.1}$	$D_M(0.51)$	1981.7	1981 ± 11
$\ln(10^{10} A_s)$	3.0410	$3.045^{+0.014}_{-0.020}$	$10^9 A_s$	2.0926	$2.102^{+0.028}_{-0.042}$	$H(0.61)$	95.264	95.27 ± 0.25
n_s	0.96745	0.9666 ± 0.0042	$10^9 A_s e^{-2\tau}$	1.8776	1.877 ± 0.012	$D_M(0.61)$	2306.1	2306 ± 12
y_{cal}	1.00044	1.0004 ± 0.0025	D_{40}	1223.2	1226 ± 13	$H(2.33)$	235.73	235.73 ± 0.79
A_{217}^{CIB}	48.7	48 ± 7	D_{220}	5717.0	5719 ± 41	$D_M(2.33)$	5766.8	5766 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	0.35	—	D_{810}	2536.8	2535 ± 14	$f\sigma_8(0.15)$	0.4545	0.4554 ± 0.0078
A_{143}^{tSZ}	7.08	5.1 ± 1.9	D_{1420}	816.28	815.2 ± 5.0	$\sigma_8(0.15)$	0.7465	$0.7479^{+0.0061}_{-0.0079}$
A_{100}^{PS}	253.3	263 ± 28	D_{2000}	230.27	229.9 ± 1.7	$f\sigma_8(0.38)$	0.4731	0.4740 ± 0.0066
A_{143}^{PS}	49.2	48 ± 8	$n_{s,0.002}$	0.96745	0.9666 ± 0.0042	$\sigma_8(0.38)$	0.6619	$0.6631^{+0.0051}_{-0.0068}$
$A_{143 \times 217}^{\text{PS}}$	47.4	43 ± 9	Y_{P}	0.245337	$0.245331^{+0.000087}_{-0.000074}$	$f\sigma_8(0.51)$	0.4719	0.4727 ± 0.0059
A_{217}^{PS}	119.1	115 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246663	$0.246658^{+0.000087}_{-0.000074}$	$\sigma_8(0.51)$	0.6195	$0.6206^{+0.0046}_{-0.0064}$
A^{kSZ}	0.02	< 4.80	$10^5 D/H$	2.6130	2.614 ± 0.037	$f\sigma_8(0.61)$	0.4670	0.4679 ± 0.0055
A_{100}^{dustTT}	8.92	8.9 ± 1.9	Age/Gyr	13.8062	13.805 ± 0.028	$\sigma_8(0.61)$	0.5895	$0.5906^{+0.0043}_{-0.0060}$
A_{143}^{dustTT}	10.78	10.8 ± 1.8	z_*	1090.011	1090.02 ± 0.29	$f\sigma_8(2.33)$	0.29728	$0.2978^{+0.0021}_{-0.0030}$
$A_{143 \times 217}^{\text{dustTT}}$	19.39	18.3 ± 3.3	r_*	144.813	144.82 ± 0.32	$\sigma_8(2.33)$	0.30654	$0.3071^{+0.0022}_{-0.0032}$
A_{217}^{dustTT}	94.5	93.5 ± 7.4	$100\theta_*$	1.041166	1.04121 ± 0.00042	f_{2000}^{143}	30.09	30.8 ± 2.9
c_{100}	0.99966	0.99961 ± 0.00061	$D_M(z_*)/\text{Gpc}$	13.9088	13.908 ± 0.031	$f_{2000}^{143 \times 217}$	33.08	33.3 ± 2.0
c_{217}	0.99823	0.99825 ± 0.00062	z_{drag}	1059.513	1059.51 ± 0.44	f_{2000}^{217}	107.48	107.9 ± 1.9
H_0	67.62	67.63 ± 0.55	r_{drag}	147.532	147.54 ± 0.35	χ_{lowl}^2	22.83	23.15 ± 0.94
Ω_Λ	0.6898	0.6898 ± 0.0073	k_{D}	0.140294	0.14028 ± 0.00044	χ_{plik}^2	760.0	771.7 ± 5.5
Ω_{m}	0.3102	0.3102 ± 0.0073	$100\theta_{\text{D}}$	0.160999	0.16102 ± 0.00025	$\chi_{6\text{DF}}^2$	0.0219	0.058 ± 0.075
$\Omega_{\text{m}} h^2$	0.14182	0.1418 ± 0.0012	z_{eq}	3373.7	3374 ± 29	χ_{MGS}^2	1.28	1.36 ± 0.53
$\Omega_{\text{m}} h^3$	0.095899	0.09591 ± 0.00046	k_{eq}	0.010297	0.010297 ± 0.000087	χ_{DR12BAO}^2	4.19	4.8 ± 1.6
σ_8	0.8078	$0.8093^{+0.0070}_{-0.0087}$	$100\theta_{\text{eq}}$	0.8181	0.8181 ± 0.0053	χ_{prior}^2	1.84	8.7 ± 4.1
S_8	0.8213	0.823 ± 0.015	$100\theta_{s,\text{eq}}$	0.45198	0.4520 ± 0.0027	χ_{BAO}^2	5.50	6.2 ± 1.3
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4499	0.4507 ± 0.0082	$H(0.15)$	72.882	72.89 ± 0.47	χ_{CMB}^2	782.9	794.9 ± 5.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6028	0.6039 ± 0.0081	$D_M(0.15)$	641.22	641.2 ± 4.7			

Best-fit $\chi_{\text{eff}}^2 = 790.20$; $\bar{\chi}_{\text{eff}}^2 = 809.76$; $R - 1 = 0.01181$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.19 CMB - commander_dx12_v3.2.29: 22.83 plik_rd12_HM_v22_TT: 760.03

2.79 base_plikHM_TTTEEE_lowl_reion

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022381	0.02237 ± 0.00015	$\Omega_m h^3$	0.096363	0.09634 ± 0.00029	$100\theta_{\text{eq}}$	0.8126	0.8129 ± 0.0057
$\Omega_c h^2$	0.12016	0.1201 ± 0.0014	σ_8	0.8138	$0.8140^{+0.0070}_{-0.0085}$	$100\theta_{\text{s,eq}}$	0.44899	0.4492 ± 0.0029
$100\theta_{\text{MC}}$	1.040891	1.04092 ± 0.00032	S_8	0.8355	0.835 ± 0.016	$H(0.15)$	72.63	72.65 ± 0.52
τ	0.0561	$0.0573^{+0.0061}_{-0.010}$	$\sigma_8 \Omega_m^{0.5}$	0.4576	0.4575 ± 0.0089	$D_{\text{M}}(0.15)$	643.9	643.7 ± 5.2
$\ln(10^{10} A_{\text{s}})$	3.0488	$3.050^{+0.014}_{-0.019}$	$\sigma_8 \Omega_m^{0.25}$	0.6102	0.6102 ± 0.0085	$H(0.38)$	82.834	82.85 ± 0.38
n_{s}	0.96605	0.9650 ± 0.0043	$\sigma_8/h^{0.5}$	0.9920	0.992 ± 0.012	$D_{\text{M}}(0.38)$	1534.4	1534 ± 10
y_{cal}	1.00066	1.0006 ± 0.0025	$r_{\text{drag}} h$	98.95	99.0 ± 1.0	$H(0.51)$	89.604	89.61 ± 0.30
A_{217}^{CIB}	46.2	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.4504	2.454 ± 0.029	$D_{\text{M}}(0.51)$	1987.0	1987 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	0.61	—	z_{re}	7.86	$7.97^{+0.67}_{-0.99}$	$H(0.61)$	95.264	95.27 ± 0.24
A_{143}^{tSZ}	7.10	$5.5^{+2.1}_{-1.9}$	$10^9 A_{\text{s}}$	2.1089	$2.113^{+0.029}_{-0.041}$	$D_{\text{M}}(0.61)$	2311.5	2311 ± 13
A_{100}^{PS}	248.2	258 ± 28	$10^9 A_{\text{s}} e^{-2\tau}$	1.8852	1.884 ± 0.012	$H(2.33)$	236.68	236.62 ± 0.80
A_{143}^{PS}	49.9	46 ± 8	D_{40}	1229.9	1233 ± 13	$D_{\text{M}}(2.33)$	5763.9	5764 ± 11
$A_{143 \times 217}^{\text{PS}}$	52.0	43 ± 9	D_{220}	5731.2	5733 ± 39	$f\sigma_8(0.15)$	0.4618	0.4617 ± 0.0083
A_{217}^{PS}	121.5	115 ± 10	D_{810}	2542.1	2539 ± 13	$\sigma_8(0.15)$	0.7515	$0.7517^{+0.0061}_{-0.0076}$
A^{kSZ}	0.00	< 4.17	D_{1420}	818.68	817.3 ± 4.8	$f\sigma_8(0.38)$	0.4792	0.4791 ± 0.0069
A_{100}^{dustTT}	8.81	8.9 ± 1.8	D_{2000}	231.45	231.0 ± 1.6	$\sigma_8(0.38)$	0.6657	$0.6659^{+0.0050}_{-0.0066}$
A_{143}^{dustTT}	11.05	10.9 ± 1.8	$n_{\text{s},0.002}$	0.96605	0.9650 ± 0.0043	$f\sigma_8(0.51)$	0.4772	0.4772 ± 0.0061
$A_{143 \times 217}^{\text{dustTT}}$	20.08	18.6 ± 3.3	Y_{P}	0.245400	0.245393 ± 0.000058	$\sigma_8(0.51)$	0.6228	$0.6230^{+0.0046}_{-0.0061}$
A_{217}^{dustTT}	95.4	93.7 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246726	0.246719 ± 0.000058	$f\sigma_8(0.61)$	0.4719	0.4719 ± 0.0056
A_{100}^{dustTE}	0.1131	0.114 ± 0.038	$10^5 \text{D}/\text{H}$	2.5835	2.586 ± 0.027	$\sigma_8(0.61)$	0.5924	$0.5926^{+0.0043}_{-0.0058}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.135 ± 0.030	Age/Gyr	13.7978	13.798 ± 0.024	$f\sigma_8(2.33)$	0.29852	$0.2986^{+0.0021}_{-0.0030}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.482 ± 0.086	z_*	1089.922	1089.93 ± 0.27	$\sigma_8(2.33)$	0.30756	$0.3077^{+0.0022}_{-0.0031}$
A_{143}^{dustTE}	0.224	0.225 ± 0.054	r_*	144.381	144.41 ± 0.30	f_{2000}^{143}	28.59	29.4 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.667	0.666 ± 0.080	$100\theta_*$	1.041079	1.04110 ± 0.00031	$f_{2000}^{143 \times 217}$	31.93	32.1 ± 1.9
A_{217}^{dustTE}	2.092	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8684	13.871 ± 0.027	f_{2000}^{217}	106.50	107.0 ± 1.8
c_{100}	0.99972	0.99968 ± 0.00061	z_{drag}	1059.971	1059.94 ± 0.30	χ_{lowl}^2	23.30	23.63 ± 0.99
c_{217}	0.99818	0.99819 ± 0.00062	r_{drag}	147.037	147.07 ± 0.29	χ_{plik}^2	2344.4	2359.0 ± 5.7
H_0	67.30	67.32 ± 0.61	k_{D}	0.140934	0.14089 ± 0.00031	χ_{prior}^2	2.40	13.2 ± 4.9
Ω_{Λ}	0.6838	0.6841 ± 0.0084	$100\theta_{\text{D}}$	0.160734	0.16076 ± 0.00017	χ_{CMB}^2	2367.7	2382.7 ± 5.7
Ω_{m}	0.3162	0.3159 ± 0.0084	z_{eq}	3406.4	3404 ± 30			
$\Omega_{\text{m}} h^2$	0.14319	0.1431 ± 0.0013	k_{eq}	0.010397	0.010391 ± 0.000093			

Best-fit $\chi_{\text{eff}}^2 = 2370.13$; $\bar{\chi}_{\text{eff}}^2 = 2395.81$; $R - 1 = 0.00802$

χ_{eff}^2 : CMB - commander_dx12.v3.2.29: 23.30 plik_rd12_HM.v22b_TTTEEE: 2344.42

2.80 base_plikHM_TTTEEE_lowl_reion_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022447	0.02243 ± 0.00014	σ_8	0.8123	$0.8118^{+0.0067}_{-0.0083}$	$H(0.15)$	72.979	72.97 ± 0.39
$\Omega_c h^2$	0.11928	0.1193 ± 0.0010	S_8	0.8265	0.826 ± 0.013	$D_M(0.15)$	640.41	640.5 ± 3.8
$100\theta_{MC}$	1.041023	1.04102 ± 0.00029	$\sigma_8 \Omega_m^{0.5}$	0.4527	0.4525 ± 0.0070	$H(0.38)$	83.084	83.07 ± 0.29
τ	0.0584	$0.0584^{+0.0066}_{-0.010}$	$\sigma_8 \Omega_m^{0.25}$	0.6064	0.6061 ± 0.0072	$D_M(0.38)$	1527.5	1527.8 ± 7.7
$\ln(10^{10} A_s)$	3.0512	$3.051^{+0.015}_{-0.020}$	$\sigma_8/h^{0.5}$	0.9872	$0.987^{+0.010}_{-0.011}$	$H(0.51)$	89.798	89.79 ± 0.23
n_s	0.96808	0.9669 ± 0.0037	$r_{drag} h$	99.66	99.66 ± 0.78	$D_M(0.51)$	1978.9	1979.3 ± 9.1
y_{cal}	1.00049	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4398	2.442 ± 0.026	$H(0.61)$	95.415	$95.40^{+0.18}_{-0.20}$
A_{217}^{CIB}	46.1	47 ± 7	z_{re}	8.07	$8.05^{+0.70}_{-0.99}$	$D_M(0.61)$	2302.9	2303.3 ± 9.8
$\xi^{tSZ \times CIB}$	0.62	—	$10^9 A_s$	2.1140	$2.113^{+0.030}_{-0.042}$	$H(2.33)$	236.17	236.14 ± 0.61
A_{143}^{tSZ}	7.11	$5.5^{+2.2}_{-1.9}$	$10^9 A_s e^{-2\tau}$	1.8808	1.880 ± 0.011	$D_M(2.33)$	5757.4	5758.3 ± 9.0
A_{100}^{PS}	248.1	258 ± 28	D_{40}	1225.8	1229 ± 12	$f\sigma_8(0.15)$	0.4574	0.4572 ± 0.0066
A_{143}^{PS}	49.5	45 ± 8	D_{220}	5734.1	5737 ± 39	$\sigma_8(0.15)$	0.7507	$0.7503^{+0.0060}_{-0.0076}$
$A_{143 \times 217}^{PS}$	52.0	42 ± 9	D_{810}	2540.6	2539 ± 13	$f\sigma_8(0.38)$	0.4760	0.4757 ± 0.0058
A_{217}^{PS}	121.3	115 ± 10	D_{1420}	818.88	817.8 ± 4.7	$\sigma_8(0.38)$	0.6655	$0.6651^{+0.0051}_{-0.0067}$
A^{kSZ}	0.00	< 4.26	D_{2000}	231.61	231.2 ± 1.5	$f\sigma_8(0.51)$	0.4747	0.4744 ± 0.0053
A_{100}^{dustTT}	8.82	8.9 ± 1.8	$n_{s,0.002}$	0.96808	0.9669 ± 0.0037	$\sigma_8(0.51)$	0.6229	$0.6225^{+0.0047}_{-0.0062}$
A_{143}^{dustTT}	11.02	10.9 ± 1.8	Y_P	0.245425	0.245415 ± 0.000052	$f\sigma_8(0.61)$	0.46976	$0.4695^{+0.0047}_{-0.0052}$
$A_{143 \times 217}^{dustTT}$	20.01	18.6 ± 3.3	Y_P^{BBN}	0.246752	0.246742 ± 0.000052	$\sigma_8(0.61)$	0.5927	$0.5923^{+0.0044}_{-0.0059}$
A_{217}^{dustTT}	95.3	93.7 ± 7.4	$10^5 D/H$	2.5714	2.576 ± 0.025	$f\sigma_8(2.33)$	0.29888	$0.2987^{+0.0022}_{-0.0030}$
A_{100}^{dustTE}	0.1133	0.114 ± 0.038	Age/Gyr	13.7837	13.786 ± 0.020	$\sigma_8(2.33)$	0.30817	$0.3080^{+0.0023}_{-0.0031}$
$A_{100 \times 143}^{dustTE}$	0.1349	0.134 ± 0.030	z_*	1089.761	1089.79 ± 0.22	f_{2000}^{143}	28.33	29.2 ± 2.7
$A_{100 \times 217}^{dustTE}$	0.479	0.483 ± 0.087	r_*	144.558	144.58 ± 0.23	$f_{2000}^{143 \times 217}$	31.72	32.0 ± 1.8
A_{143}^{dustTE}	0.226	0.224 ± 0.054	$100\theta_*$	1.041198	1.04120 ± 0.00029	f_{2000}^{217}	106.27	106.8 ± 1.8
$A_{143 \times 217}^{dustTE}$	0.666	0.663 ± 0.079	$D_M(z_*)/\text{Gpc}$	13.8838	13.886 ± 0.022	χ_{lowl}^2	22.97	23.23 ± 0.85
A_{217}^{dustTE}	2.079	2.07 ± 0.27	z_{drag}	1060.047	1060.01 ± 0.29	χ_{plik}^2	2344.8	2359.2 ± 5.7
c_{100}	0.99972	0.99967 ± 0.00061	r_{drag}	147.197	147.22 ± 0.24	χ_{6DF}^2	0.0289	0.054 ± 0.064
c_{217}	0.99817	0.99820 ± 0.00063	k_D	0.140815	0.14077 ± 0.00029	χ_{MGS}^2	1.217	1.28 ± 0.43
H_0	67.703	67.69 ± 0.45	$100\theta_D$	0.160692	0.16072 ± 0.00017	$\chi_{DR12BAO}^2$	4.42	4.8 ± 1.4
Ω_Λ	0.6894	0.6893 ± 0.0061	z_{eq}	3386.9	3386 ± 23	χ_{prior}^2	2.75	13.5 ± 5.1
Ω_m	0.3106	0.3107 ± 0.0061	k_{eq}	0.010337	0.010335 ± 0.000069	χ_{BAO}^2	5.66	6.1 ± 1.1
$\Omega_m h^2$	0.14237	0.14234 ± 0.00095	$100\theta_{eq}$	0.81633	0.8165 ± 0.0043	χ_{CMB}^2	2367.8	2382.4 ± 5.6
$\Omega_m h^3$	0.096391	0.09635 ± 0.00029	$100\theta_{s,eq}$	0.45091	0.4510 ± 0.0022			

Best-fit $\chi_{eff}^2 = 2376.23$; $\bar{\chi}_{eff}^2 = 2402.05$; $R - 1 = 0.01766$

χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.42 CMB - commander_dx12_v3.2.29: 22.97 plik_rd12_HM_v22b_TTTEEE: 2344.84

2.81 base_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022174	0.02214 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.6085	0.6086 ± 0.0076	$H(0.15)$	72.46	72.41 ± 0.60
$\Omega_c h^2$	0.12010	0.1202 ± 0.0015	$\sigma_8/h^{0.5}$	0.9896	0.990 ± 0.010	$D_M(0.15)$	645.5	646.1 ± 6.0
$100\theta_{MC}$	1.040829	1.04080 ± 0.00046	$r_{drag}h$	98.86	98.8 ± 1.2	$H(0.38)$	82.667	82.62 ± 0.44
τ	0.0527	0.0524 ± 0.0079	$\langle d^2 \rangle^{1/2}$	2.4428	2.447 ± 0.025	$D_M(0.38)$	1538.0	1539 ± 12
$\ln(10^{10} A_s)$	3.0404	3.040 ± 0.015	z_{re}	7.55	7.52 ± 0.80	$H(0.51)$	89.437	89.40 ± 0.35
n_s	0.96529	0.9634 ± 0.0048	$10^9 A_s$	2.0913	2.091 ± 0.031	$D_M(0.51)$	1991.4	1993 ± 14
y_{cal}	1.00033	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8823	1.882 ± 0.011	$H(0.61)$	95.097	95.06 ± 0.29
A_{217}^{CIB}	47.9	48 ± 7	D_{40}	1227.4	1232 ± 13	$D_M(0.61)$	2316.6	2318 ± 15
$\xi^{tSZ \times CIB}$	0.44	—	D_{220}	5710.2	5716 ± 40	$H(2.33)$	236.43	236.45 ± 0.94
A_{143}^{tSZ}	6.92	5.0 ± 2.0	D_{810}	2537.7	2536 ± 13	$D_M(2.33)$	5773.5	5775 ± 14
A_{100}^{PS}	253.7	264 ± 28	D_{1420}	816.0	814.5 ± 5.1	$f\sigma_8(0.15)$	0.4608	0.4611 ± 0.0080
A_{143}^{PS}	51.1	49 ± 8	D_{2000}	230.18	229.6 ± 1.8	$\sigma_8(0.15)$	0.7486	0.7482 ± 0.0056
$A_{143 \times 217}^{PS}$	49.9	43 ± 9	$n_{s,0.002}$	0.96529	0.9634 ± 0.0048	$f\sigma_8(0.38)$	0.4778	0.4779 ± 0.0062
A_{217}^{PS}	120.7	115 ± 10	Y_P	0.245315	$0.245295^{+0.000095}_{-0.000081}$	$\sigma_8(0.38)$	0.66299	0.6625 ± 0.0049
A^{kSZ}	0.01	< 5.00	Y_P^{BBN}	0.246641	$0.246622^{+0.000096}_{-0.000081}$	$f\sigma_8(0.51)$	0.4757	0.4757 ± 0.0053
A_{100}^{dustTT}	8.86	8.9 ± 1.8	$10^5 D/H$	2.6229	2.630 ± 0.039	$\sigma_8(0.51)$	0.62019	0.6197 ± 0.0046
A_{143}^{dustTT}	10.80	10.7 ± 1.8	Age/Gyr	13.8206	13.825 ± 0.032	$f\sigma_8(0.61)$	0.47032	0.4702 ± 0.0047
$A_{143 \times 217}^{dustTT}$	19.54	18.3 ± 3.3	z_*	1090.177	1090.23 ± 0.34	$\sigma_8(0.61)$	0.58997	0.5895 ± 0.0044
A_{217}^{dustTT}	94.8	93.2 ± 7.4	r_*	144.554	144.56 ± 0.36	$f\sigma_8(2.33)$	0.29724	0.2970 ± 0.0023
c_{100}	0.99966	0.99961 ± 0.00062	$100\theta_*$	1.041029	1.04101 ± 0.00045	$\sigma_8(2.33)$	0.30620	0.3059 ± 0.0026
c_{217}	0.99826	0.99826 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.8857	13.886 ± 0.034	f_{2000}^{143}	30.17	31.3 ± 2.9
H_0	67.12	67.06 ± 0.70	z_{drag}	1059.475	1059.41 ± 0.44	$f_{2000}^{143 \times 217}$	33.12	33.6 ± 2.0
Ω_Λ	0.6828	0.6819 ± 0.0097	r_{drag}	147.284	147.30 ± 0.38	f_{2000}^{217}	107.51	108.2 ± 1.9
Ω_m	0.3172	0.3181 ± 0.0097	k_D	0.140513	0.14047 ± 0.00045	$\chi_{lensing}^2$	8.902	9.45 ± 0.86
$\Omega_m h^2$	0.14292	0.1430 ± 0.0015	$100\theta_D$	0.161015	0.16106 ± 0.00026	χ_{small}^2	395.86	396.9 ± 1.6
$\Omega_m h^3$	0.095935	0.09587 ± 0.00045	z_{eq}	3400.0	3401 ± 35	χ_{lowl}^2	23.23	23.7 ± 1.0
σ_8	0.8108	0.8104 ± 0.0063	k_{eq}	0.010377	0.01038 ± 0.00011	χ_{plik}^2	759.32	771.1 ± 5.2
S_8	0.8337	0.834 ± 0.016	$100\theta_{eq}$	0.8131	0.8128 ± 0.0066	χ_{prior}^2	1.25	7.3 ± 3.6
$\sigma_8 \Omega_m^{0.5}$	0.4566	0.4570 ± 0.0087	$100\theta_{s,eq}$	0.44941	0.4493 ± 0.0034	χ_{CMB}^2	1187.3	1201.1 ± 5.5

Best-fit $\chi_{eff}^2 = 1188.57$; $\bar{\chi}_{eff}^2 = 1208.41$; $R - 1 = 0.00560$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.90 small_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2_29: 23.23 plik_rd12_HM_v22_TT: 759.32

2.82 base_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022224	0.02221 ± 0.00019	$r_{\text{drag}} h$	99.65	99.63 ± 0.83	$H(0.51)$	89.633	89.63 ± 0.27
$\Omega_c h^2$	0.11909	0.1191 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.4309	2.436 ± 0.022	$D_M(0.51)$	1982.8	1983 ± 10
$100\theta_{\text{MC}}$	1.040933	1.04097 ± 0.00042	z_{re}	7.71	7.77 ± 0.75	$H(0.61)$	95.244	95.24 ± 0.23
τ	0.0544	0.0552 ± 0.0074	$10^9 A_s$	2.0948	$2.099^{+0.029}_{-0.032}$	$D_M(0.61)$	2307.4	2308 ± 11
$\ln(10^{10} A_s)$	3.0421	3.044 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8788	1.879 ± 0.011	$H(2.33)$	235.81	235.83 ± 0.71
n_s	0.96694	0.9659 ± 0.0041	D_{40}	1225.0	1228 ± 12	$D_M(2.33)$	5767.6	5768 ± 12
y_{cal}	1.00051	1.0007 ± 0.0025	D_{220}	5719.8	5724 ± 39	$f\sigma_8(0.15)$	0.4555	0.4560 ± 0.0060
A_{217}^{CIB}	48.5	48 ± 7	D_{810}	2537.5	2537 ± 13	$\sigma_8(0.15)$	0.7471	0.7477 ± 0.0056
$\xi^{\text{tSZ} \times \text{CIB}}$	0.33	—	D_{1420}	816.36	815.6 ± 4.9	$f\sigma_8(0.38)$	0.4739	0.4744 ± 0.0050
A_{143}^{tSZ}	7.04	$5.1^{+2.2}_{-2.0}$	D_{2000}	230.29	230.0 ± 1.7	$\sigma_8(0.38)$	0.66232	0.6628 ± 0.0049
A_{100}^{PS}	253.4	263 ± 28	$n_{s,0.002}$	0.96694	0.9659 ± 0.0041	$f\sigma_8(0.51)$	0.47256	0.4730 ± 0.0045
A_{143}^{PS}	49.0	49 ± 8	Y_{P}	0.245336	$0.245326^{+0.000085}_{-0.000075}$	$\sigma_8(0.51)$	0.61984	0.6203 ± 0.0046
$A_{143 \times 217}^{\text{PS}}$	46.8	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246662	$0.246652^{+0.000085}_{-0.000076}$	$f\sigma_8(0.61)$	0.46764	0.4680 ± 0.0041
A_{217}^{PS}	119.3	115 ± 10	$10^5 D/H$	2.6134	2.617 ± 0.036	$\sigma_8(0.61)$	0.58980	0.5902 ± 0.0044
A^{kSZ}	0.03	< 4.82	Age/Gyr	13.8079	13.809 ± 0.027	$f\sigma_8(2.33)$	0.29740	$0.2976^{+0.0021}_{-0.0024}$
A_{100}^{dustTT}	8.84	8.9 ± 1.8	z_*	1090.027	1090.05 ± 0.28	$\sigma_8(2.33)$	0.30663	$0.3068^{+0.0023}_{-0.0026}$
A_{143}^{dustTT}	10.77	10.7 ± 1.8	r_*	144.779	144.78 ± 0.29	f_{2000}^{143}	30.08	30.9 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.36	18.3 ± 3.3	$100\theta_*$	1.041135	1.04117 ± 0.00042	$f_{2000}^{143 \times 217}$	33.01	33.3 ± 2.0
A_{217}^{dustTT}	94.5	93.4 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.9059	13.906 ± 0.029	f_{2000}^{217}	107.49	107.9 ± 1.9
c_{100}	0.99966	0.99963 ± 0.00062	z_{drag}	1059.513	1059.49 ± 0.43	χ_{lensing}^2	8.875	9.26 ± 0.70
c_{217}	0.99822	0.99826 ± 0.00062	r_{drag}	147.498	147.50 ± 0.32	χ_{simall}^2	396.09	397.1 ± 1.8
H_0	67.559	67.54 ± 0.49	k_{D}	0.140329	0.14031 ± 0.00043	χ_{lowl}^2	22.96	23.24 ± 0.87
Ω_Λ	0.6890	0.6887 ± 0.0065	$100\theta_{\text{D}}$	0.160992	0.16102 ± 0.00025	χ_{plik}^2	759.80	771.6 ± 5.2
Ω_{m}	0.3110	0.3113 ± 0.0065	z_{eq}	3376.9	3378 ± 26	$\chi_{6\text{DF}}^2$	0.0292	0.060 ± 0.071
$\Omega_{\text{m}} h^2$	0.14196	0.1420 ± 0.0011	k_{eq}	0.010307	0.010309 ± 0.000078	χ_{MGS}^2	1.217	1.27 ± 0.46
$\Omega_{\text{m}} h^3$	0.095904	0.09590 ± 0.00045	$100\theta_{\text{eq}}$	0.81745	0.8173 ± 0.0047	χ_{DR12BAO}^2	4.37	4.9 ± 1.5
σ_8	0.8085	0.8091 ± 0.0062	$100\theta_{s,\text{eq}}$	0.45166	0.4516 ± 0.0024	χ_{prior}^2	1.34	7.3 ± 3.6
S_8	0.8232	0.824 ± 0.012	$H(0.15)$	72.831	72.82 ± 0.42	χ_{CMB}^2	1187.7	1201.2 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4509	0.4514 ± 0.0064	$D_M(0.15)$	641.74	641.9 ± 4.2	χ_{BAO}^2	5.62	6.2 ± 1.2
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6038	0.6043 ± 0.0062	$H(0.38)$	82.926	82.92 ± 0.32			
$\sigma_8/h^{0.5}$	0.9836	0.9845 ± 0.0089	$D_M(0.38)$	1530.6	1530.9 ± 8.5			

Best-fit $\chi_{\text{eff}}^2 = 1194.68$; $\bar{\chi}_{\text{eff}}^2 = 1214.73$; $R - 1 = 0.01723$

χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.37 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.88 simall_100x143_offlike5_EE_Aplanck_B: 396.09 commander_dx12_v3_2_29: 22.96 plik_rd12_HM_v22_TT: 759.80

2.83 base_plikHM_TT_lowl_lowE_lensing_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022349	0.02232 ± 0.00020	$\sigma_8/h^{0.5}$	0.9794	0.9796 ± 0.0099	$H(0.38)$	83.240	83.24 ± 0.43
$\Omega_c h^2$	0.11826	0.1181 ± 0.0015	$r_{\text{drag}} h$	100.39	100.5 ± 1.2	$D_M(0.38)$	1522.4	1522 ± 11
$100\theta_{\text{MC}}$	1.041151	1.04115 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.4224	2.425 ± 0.024	$H(0.51)$	89.891	89.89 ± 0.35
τ	0.0572	0.0583 ± 0.0080	z_{re}	7.95	8.04 ± 0.78	$D_M(0.51)$	1973.2	1973 ± 13
$\ln(10^{10} A_s)$	3.0466	3.048 ± 0.016	$10^9 A_s$	2.1044	2.109 ± 0.033	$H(0.61)$	95.460	95.45 ± 0.29
n_s	0.96915	0.9685 ± 0.0048	$10^9 A_s e^{-2\tau}$	1.8770	$1.876_{-0.011}^{+0.010}$	$D_M(0.61)$	2296.9	2297 ± 15
y_{cal}	1.00071	1.0010 ± 0.0024	D_{40}	1222.6	1225 ± 12	$H(2.33)$	235.41	235.30 ± 0.92
A_{217}^{CIB}	47.7	47 ± 7	D_{220}	5733.4	5735 ± 39	$D_M(2.33)$	5757.4	5758 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	D_{810}	2539.5	2538 ± 13	$f\sigma_8(0.15)$	0.4514	0.4512 ± 0.0075
A_{143}^{tSZ}	6.91	5.2 ± 1.9	D_{1420}	818.0	817.1 ± 5.0	$\sigma_8(0.15)$	0.7471	0.7474 ± 0.0056
A_{100}^{PS}	252.3	262 ± 27	D_{2000}	231.02	230.7 ± 1.8	$f\sigma_8(0.38)$	0.4711	0.4710 ± 0.0059
A_{143}^{PS}	49.9	48 ± 8	$n_{s,0.002}$	0.96915	0.9685 ± 0.0048	$\sigma_8(0.38)$	0.66295	0.6632 ± 0.0050
$A_{143 \times 217}^{\text{PS}}$	49.6	43 ± 9	Y_{P}	0.245387	$0.245371_{-0.000072}^{+0.000088}$	$f\sigma_8(0.51)$	0.4704	0.4704 ± 0.0051
A_{217}^{PS}	120.0	$115_{-9.7}^{+11}$	$Y_{\text{P}}^{\text{BBN}}$	0.246714	$0.246697_{-0.000072}^{+0.000088}$	$\sigma_8(0.51)$	0.62069	0.6210 ± 0.0047
A^{kSZ}	0.00	< 4.64	$10^5 D/H$	2.5894	$2.596_{-0.040}^{+0.035}$	$f\sigma_8(0.61)$	0.46596	0.4660 ± 0.0046
A_{100}^{dustTT}	8.88	9.0 ± 1.8	Age/Gyr	13.7853	13.788 ± 0.030	$\sigma_8(0.61)$	0.59078	0.5911 ± 0.0045
A_{143}^{dustTT}	10.90	10.7 ± 1.8	z_*	1089.795	1089.83 ± 0.32	$f\sigma_8(2.33)$	0.29813	0.2983 ± 0.0024
$A_{143 \times 217}^{\text{dustTT}}$	19.54	18.3 ± 3.4	r_*	144.898	144.96 ± 0.36	$\sigma_8(2.33)$	0.30764	0.3078 ± 0.0026
A_{217}^{dustTT}	94.9	93.5 ± 7.7	$100\theta_*$	1.041339	1.04134 ± 0.00043	f_{2000}^{143}	29.37	30.4 ± 3.0
c_{100}	0.99969	0.99966 ± 0.00064	$D_M(z_*)/\text{Gpc}$	13.9146	13.920 ± 0.034	$f_{2000}^{143 \times 217}$	32.55	32.9 ± 2.0
c_{217}	0.99826	0.99824 ± 0.00062	z_{drag}	1059.780	1059.68 ± 0.43	f_{2000}^{217}	107.04	107.5 ± 1.9
H_0	68.03	68.05 ± 0.67	r_{drag}	147.575	147.65 ± 0.38	χ_{lensing}^2	8.98	9.5 ± 1.1
Ω_Λ	0.6948	0.6951 ± 0.0089	k_{D}	0.140341	0.14024 ± 0.00045	χ_{small}^2	396.58	397.8 ± 2.3
Ω_{m}	0.3052	0.3049 ± 0.0089	$100\theta_{\text{D}}$	0.160878	0.16093 ± 0.00025	χ_{lowl}^2	22.68	22.87 ± 0.91
$\Omega_{\text{m}} h^2$	0.14126	0.1411 ± 0.0014	z_{eq}	3360.1	3357 ± 34	χ_{plik}^2	760.9	772.9 ± 5.5
$\Omega_{\text{m}} h^3$	0.096093	0.09601 ± 0.00043	k_{eq}	0.010256	0.01024 ± 0.00010	χ_{H073p45}^2	10.67	10.8 ± 2.6
σ_8	0.8078	0.8081 ± 0.0062	$100\theta_{\text{eq}}$	0.8210	0.8216 ± 0.0065	χ_{prior}^2	1.26	7.3 ± 3.6
S_8	0.8149	0.815 ± 0.015	$100\theta_{s,\text{eq}}$	0.45343	0.4538 ± 0.0033	χ_{CMB}^2	1189.1	1203.1 ± 5.9
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4463	0.4461 ± 0.0081	$H(0.15)$	73.24	73.25 ± 0.58			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6005	0.6004 ± 0.0072	$D_M(0.15)$	637.7	637.6 ± 5.7			

Best-fit $\chi_{\text{eff}}^2 = 1201.06$; $\bar{\chi}_{\text{eff}}^2 = 1221.17$; $R - 1 = 0.06771$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.98 simall_100x143_offlike5_EE_Aplanck_B: 396.58 commander_dx12_v3.2.29: 22.68 plik_rd12_HM.v22.TT: 760.89 Hubble - H073p45: 10.67

2.84 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022352	0.02231 ± 0.00019	$r_{\text{drag}} h$	100.44	100.43 ± 0.83	$H(0.51)$	89.901	89.87 ± 0.26
$\Omega_c h^2$	0.11819	0.1182 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.4196	2.425 ± 0.022	$D_M(0.51)$	1972.7	$1973^{+10}_{-9.2}$
$100\theta_{\text{MC}}$	1.041135	1.04114 ± 0.00041	z_{re}	7.91	8.03 ± 0.74	$H(0.61)$	95.466	95.44 ± 0.23
τ	0.0569	0.0580 ± 0.0075	$10^9 A_s$	2.1030	2.108 ± 0.032	$D_M(0.61)$	2296.4	2297^{+11}_{-10}
$\ln(10^{10} A_s)$	3.0460	3.048 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8769	1.876 ± 0.010	$H(2.33)$	235.37	235.32 ± 0.70
n_s	0.96980	0.9684 ± 0.0041	D_{40}	1221.0	1225 ± 12	$D_M(2.33)$	5757.3	5759 ± 11
y_{cal}	1.00084	1.0010 ± 0.0025	D_{220}	5731.8	5735 ± 39	$f\sigma_8(0.15)$	0.4509	0.4514 ± 0.0059
A_{217}^{CIB}	46.5	48 ± 7	D_{810}	2540.2	2538 ± 13	$\sigma_8(0.15)$	0.7468	0.7473 ± 0.0057
$\xi^{\text{tSZ} \times \text{CIB}}$	0.61	—	D_{1420}	818.52	817.0 ± 4.9	$f\sigma_8(0.38)$	0.47070	0.4711 ± 0.0050
A_{143}^{tSZ}	6.92	$5.3^{+2.2}_{-1.9}$	D_{2000}	231.19	230.6 ± 1.7	$\sigma_8(0.38)$	0.6627	0.6631 ± 0.0050
A_{100}^{PS}	250.4	261 ± 28	$n_{\text{s},0.002}$	0.96980	0.9684 ± 0.0041	$f\sigma_8(0.51)$	0.47009	0.4705 ± 0.0045
A_{143}^{PS}	51.7	48 ± 8	Y_{P}	0.245388	$0.245369^{+0.000082}_{-0.000071}$	$\sigma_8(0.51)$	0.62051	0.6209 ± 0.0047
$A_{143 \times 217}^{\text{PS}}$	52.9	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246715	$0.246695^{+0.000083}_{-0.000071}$	$f\sigma_8(0.61)$	0.46567	0.4660 ± 0.0041
A_{217}^{PS}	121.7	115 ± 10	$10^5 \text{D}/\text{H}$	2.5888	2.597 ± 0.035	$\sigma_8(0.61)$	0.59062	0.5910 ± 0.0045
A^{kSZ}	0.03	< 4.61	Age/Gyr	13.7850	13.789 ± 0.026	$f\sigma_8(2.33)$	0.29806	0.2982 ± 0.0023
A_{100}^{dustTT}	8.87	$8.9^{+2.0}_{-1.8}$	z_*	1089.785	1089.84 ± 0.27	$\sigma_8(2.33)$	0.30759	0.3078 ± 0.0025
A_{143}^{dustTT}	10.81	10.7 ± 1.8	r_*	144.915	144.95 ± 0.29	f_{2000}^{143}	29.28	30.4 ± 3.0
$A_{143 \times 217}^{\text{dustTT}}$	19.92	18.3 ± 3.4	$100\theta_*$	1.041326	1.04134 ± 0.00041	$f_{2000}^{143 \times 217}$	32.46	32.9 ± 2.0
A_{217}^{dustTT}	95.6	93.4 ± 7.5	$D_M(z_*)/\text{Gpc}$	13.9164	13.919 ± 0.029	f_{2000}^{217}	106.92	107.6 ± 1.9
c_{100}	0.99969	0.99966 ± 0.00064	z_{drag}	1059.780	1059.67 ± 0.43	χ_{lensing}^2	9.06	9.43 ± 0.96
c_{217}	0.99824	0.99824 ± 0.00062	r_{drag}	147.592	147.64 ± 0.32	χ_{small}^2	396.46	397.7 ± 2.2
H_0	68.054	$68.02^{+0.45}_{-0.51}$	k_{D}	0.140326	0.14024 ± 0.00043	χ_{lowl}^2	22.53	22.87 ± 0.83
Ω_Λ	0.6952	0.6949 ± 0.0063	$100\theta_{\text{D}}$	0.160874	0.16093 ± 0.00025	χ_{plik}^2	761.2	772.6 ± 5.3
Ω_{m}	0.3048	0.3051 ± 0.0063	z_{eq}	3358.4	3357 ± 25	χ_{H073p45}^2	10.57	10.8 ± 1.9
$\Omega_{\text{m}} h^2$	0.14118	0.1411 ± 0.0011	k_{eq}	0.010250	0.010247 ± 0.000077	$\chi_{6\text{DF}}^2$	0.0001	0.029 ± 0.042
$\Omega_{\text{m}} h^3$	0.096080	0.09601 ± 0.00044	$100\theta_{\text{eq}}$	0.82133	0.8214 ± 0.0047	χ_{MGS}^2	1.68	1.73 ± 0.51
σ_8	0.8075	0.8080 ± 0.0062	$100\theta_{\text{s,eq}}$	0.45359	0.4537 ± 0.0024	χ_{DR12BAO}^2	3.495	3.96 ± 0.80
S_8	0.8140	0.815 ± 0.012	$H(0.15)$	73.262	$73.23^{+0.39}_{-0.44}$	χ_{prior}^2	1.26	7.4 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4458	0.4463 ± 0.0063	$D_M(0.15)$	637.51	637.8 ± 4.1	χ_{CMB}^2	1189.2	1202.6 ± 5.6
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6000	0.6005 ± 0.0061	$H(0.38)$	83.254	$83.23^{+0.30}_{-0.33}$	χ_{BAO}^2	5.173	5.71 ± 0.74
$\sigma_8/h^{0.5}$	0.9788	0.9797 ± 0.0088	$D_M(0.38)$	1522.0	$1522.6^{+8.6}_{-7.8}$			

Best-fit $\chi_{\text{eff}}^2 = 1206.21$; $\bar{\chi}_{\text{eff}}^2 = 1226.45$; $R - 1 = 0.05385$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.50 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.06 small_100x143_offlike5_EE_Aplanck_B: 396.46 commander_dx12_v3_2_29: 22.54 plik_rd12_HM_v22_TT: 761.15 Hubble - H073p45: 10.57

2.85 base_plikHM_TT_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022191	0.02217 ± 0.00020	$\sigma_8/h^{0.5}$	0.9871	0.9874 ± 0.0099	$H(0.38)$	82.760	82.75 ± 0.41
$\Omega_c h^2$	0.11977	0.1197 ± 0.0014	$r_{\text{drag}} h$	99.13	99.2 ± 1.1	$D_M(0.38)$	1535.4	1536 ± 11
$100\theta_{\text{MC}}$	1.040888	1.04087 ± 0.00045	$\langle d^2 \rangle^{1/2}$	2.4391	2.442 ± 0.024	$H(0.51)$	89.509	89.50 ± 0.33
τ	0.0527	0.0536 ± 0.0078	z_{re}	7.55	7.63 ± 0.78	$D_M(0.51)$	1988.4	1989 ± 13
$\ln(10^{10} A_s)$	3.0404	3.042 ± 0.015	$10^9 A_s$	2.0913	2.094 ± 0.031	$H(0.61)$	95.152	95.14 ± 0.28
n_s	0.96535	0.9645 ± 0.0046	$10^9 A_s e^{-2\tau}$	1.8820	1.881 ± 0.011	$D_M(0.61)$	2313.3	2314 ± 14
y_{cal}	1.00064	1.0006 ± 0.0025	D_{40}	1228.3	1230 ± 12	$H(2.33)$	236.23	236.18 ± 0.88
A_{217}^{CIB}	49.8	48 ± 7	D_{220}	5718.5	5720 ± 40	$D_M(2.33)$	5771.1	5772 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	0.14	—	D_{810}	2538.4	2537 ± 13	$f\sigma_8(0.15)$	0.4588	0.4588 ± 0.0074
A_{143}^{tSZ}	7.12	$5.1^{+2.2}_{-2.0}$	D_{1420}	816.2	815.1 ± 5.0	$\sigma_8(0.15)$	0.7478	0.7480 ± 0.0056
A_{100}^{PS}	255.7	263 ± 28	D_{2000}	230.19	229.8 ± 1.8	$f\sigma_8(0.38)$	0.4763	0.4764 ± 0.0058
A_{143}^{PS}	46.5	49 ± 8	$n_{s,0.002}$	0.96535	0.9645 ± 0.0046	$\sigma_8(0.38)$	0.66251	0.6626 ± 0.0049
$A_{143 \times 217}^{\text{PS}}$	42.0	43 ± 9	Y_{P}	0.245322	$0.245310^{+0.000091}_{-0.000079}$	$f\sigma_8(0.51)$	0.4745	0.4745 ± 0.0050
A_{217}^{PS}	117.3	115 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246648	$0.246636^{+0.000091}_{-0.000079}$	$\sigma_8(0.51)$	0.61984	0.6200 ± 0.0046
A^{kSZ}	0.00	< 4.91	$10^5 D/H$	2.6197	2.624 ± 0.038	$f\sigma_8(0.61)$	0.46922	0.4693 ± 0.0045
A_{100}^{dustTT}	8.87	8.9 ± 1.8	Age/Gyr	13.8154	13.818 ± 0.030	$\sigma_8(0.61)$	0.58970	0.5898 ± 0.0045
A_{143}^{dustTT}	10.79	10.7 ± 1.8	z_*	1090.126	1090.15 ± 0.32	$f\sigma_8(2.33)$	0.29719	0.2973 ± 0.0023
$A_{143 \times 217}^{\text{dustTT}}$	18.97	18.3 ± 3.3	r_*	144.627	144.65 ± 0.34	$\sigma_8(2.33)$	0.30623	0.3063 ± 0.0026
A_{217}^{dustTT}	94.0	93.3 ± 7.5	$100\theta_*$	1.041096	1.04107 ± 0.00044	f_{2000}^{143}	30.41	31.1 ± 2.9
c_{100}	0.99962	0.99962 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.8918	13.895 ± 0.033	$f_{2000}^{143 \times 217}$	33.15	33.5 ± 2.0
c_{217}	0.99824	0.99826 ± 0.00063	z_{drag}	1059.513	1059.45 ± 0.44	f_{2000}^{217}	107.72	108.0 ± 1.9
H_0	67.28	67.27 ± 0.64	r_{drag}	147.351	147.39 ± 0.36	χ_{lensing}^2	8.843	9.35 ± 0.76
Ω_Λ	0.6849	0.6849 ± 0.0087	k_{D}	0.140453	0.14040 ± 0.00044	χ_{simall}^2	395.87	397.0 ± 1.7
Ω_{m}	0.3151	0.3151 ± 0.0087	$100\theta_{\text{D}}$	0.161012	0.16104 ± 0.00026	χ_{lowl}^2	23.23	23.48 ± 0.97
$\Omega_{\text{m}} h^2$	0.14261	0.1425 ± 0.0014	z_{eq}	3392.4	3391 ± 32	χ_{plik}^2	759.12	771.3 ± 5.2
$\Omega_{\text{m}} h^3$	0.095942	0.09589 ± 0.00045	k_{eq}	0.010354	0.010350 ± 0.000099	χ_{JLA}^2	1035.264	1035.42 ± 0.61
σ_8	0.8097	0.8098 ± 0.0063	$100\theta_{\text{eq}}$	0.8145	0.8148 ± 0.0061	χ_{prior}^2	1.55	7.3 ± 3.7
S_8	0.8298	0.830 ± 0.015	$100\theta_{s,\text{eq}}$	0.45016	0.4503 ± 0.0031	χ_{CMB}^2	1187.1	1201.1 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4545	0.4546 ± 0.0080	$H(0.15)$	72.59	72.59 ± 0.55			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6066	0.6067 ± 0.0071	$D_M(0.15)$	644.1	644.2 ± 5.5			

Best-fit $\chi_{\text{eff}}^2 = 2223.87$; $\bar{\chi}_{\text{eff}}^2 = 2243.81$; $R - 1 = 0.01128$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.84 simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 23.23 plik_rd12_HM.v22.TT: 759.12 SN - JLA Pantheon18: 1035.26

2.86 base_plikHM_TT_lowl_lowE_lensing_post_BAO_JLA_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022347	0.02232 ± 0.00019	$r_{\text{drag}} h$	100.44	100.48 ± 0.82	$H(0.51)$	89.894	89.89 ± 0.26
$\Omega_c h^2$	0.11818	0.1181 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.4228	2.425 ± 0.021	$D_M(0.51)$	1972.9	$1973^{+10}_{-9.1}$
$100\theta_{\text{MC}}$	1.041122	1.04115 ± 0.00041	z_{re}	8.05	8.04 ± 0.74	$H(0.61)$	95.459	95.45 ± 0.23
τ	0.0582	0.0582 ± 0.0075	$10^9 A_s$	2.1083	2.108 ± 0.032	$D_M(0.61)$	2296.6	$2297^{+11}_{-9.8}$
$\ln(10^{10} A_s)$	3.0485	3.048 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8765	1.876 ± 0.010	$H(2.33)$	235.35	235.29 ± 0.69
n_s	0.96973	0.9685 ± 0.0041	D_{40}	1221.3	1224 ± 12	$D_M(2.33)$	5757.7	5758 ± 11
y_{cal}	1.00072	1.0010 ± 0.0025	D_{220}	5730.7	5735 ± 39	$f\sigma_8(0.15)$	0.4515	0.4511 ± 0.0059
A_{217}^{CIB}	47.0	48 ± 7	D_{810}	2539.5	2538 ± 13	$\sigma_8(0.15)$	0.7477	0.7473 ± 0.0057
$\xi^{\text{tSZ} \times \text{CIB}}$	0.53	—	D_{1420}	818.21	817.1 ± 4.9	$f\sigma_8(0.38)$	0.47129	0.4709 ± 0.0049
A_{143}^{tSZ}	6.96	$5.3^{+2.1}_{-1.9}$	D_{2000}	231.11	230.6 ± 1.7	$\sigma_8(0.38)$	0.6635	0.6632 ± 0.0050
A_{100}^{PS}	250.6	261 ± 28	$n_{\text{s},0.002}$	0.96973	0.9685 ± 0.0041	$f\sigma_8(0.51)$	0.47068	0.4703 ± 0.0044
A_{143}^{PS}	50.3	48 ± 8	Y_{P}	0.245386	$0.245371^{+0.000082}_{-0.000070}$	$\sigma_8(0.51)$	0.62126	0.6209 ± 0.0047
$A_{143 \times 217}^{\text{PS}}$	50.9	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246713	$0.246697^{+0.000082}_{-0.000071}$	$f\sigma_8(0.61)$	0.46625	0.4659 ± 0.0041
A_{217}^{PS}	121.0	115 ± 10	$10^5 D/H$	2.5899	2.596 ± 0.035	$\sigma_8(0.61)$	0.59133	0.5910 ± 0.0045
A^{kSZ}	0.01	< 4.61	Age/Gyr	13.7860	13.788 ± 0.026	$f\sigma_8(2.33)$	0.29842	0.2983 ± 0.0023
A_{100}^{dustTT}	8.81	$8.9^{+2.0}_{-1.8}$	z_*	1089.791	1089.83 ± 0.27	$\sigma_8(2.33)$	0.30795	0.3078 ± 0.0025
A_{143}^{dustTT}	10.74	10.7 ± 1.8	r_*	144.922	144.96 ± 0.29	f_{2000}^{143}	29.18	30.4 ± 3.0
$A_{143 \times 217}^{\text{dustTT}}$	19.59	18.3 ± 3.4	$100\theta_*$	1.041312	1.04134 ± 0.00041	$f_{2000}^{143 \times 217}$	32.38	32.9 ± 2.0
A_{217}^{dustTT}	95.1	93.4 ± 7.5	$D_M(z_*)/\text{Gpc}$	13.9172	13.921 ± 0.028	f_{2000}^{217}	106.89	107.5 ± 1.9
c_{100}	0.99968	0.99966 ± 0.00064	z_{drag}	1059.742	1059.67 ± 0.43	χ_{lensing}^2	8.94	9.44 ± 0.97
c_{217}	0.99823	0.99824 ± 0.00062	r_{drag}	147.602	147.65 ± 0.32	χ_{small}^2	396.83	397.7 ± 2.2
H_0	68.046	$68.05^{+0.44}_{-0.50}$	k_{D}	0.140312	0.14023 ± 0.00043	χ_{lowl}^2	22.59	22.85 ± 0.83
Ω_Λ	0.6951	0.6953 ± 0.0062	$100\theta_{\text{D}}$	0.160880	0.16093 ± 0.00025	χ_{plik}^2	760.8	772.7 ± 5.3
Ω_{m}	0.3049	0.3047 ± 0.0062	z_{eq}	3358.1	3356 ± 25	χ_{H073p45}^2	10.60	10.7 ± 1.9
$\Omega_{\text{m}} h^2$	0.14117	0.1411 ± 0.0010	k_{eq}	0.010249	0.010243 ± 0.000076	χ_{JLA}^2	706.592	706.62 ± 0.12
$\Omega_{\text{m}} h^3$	0.096061	0.09601 ± 0.00044	$100\theta_{\text{eq}}$	0.82136	0.8217 ± 0.0047	$\chi_{6\text{DF}}^2$	0.0001	0.028 ± 0.040
σ_8	0.8085	0.8080 ± 0.0062	$100\theta_{\text{s,eq}}$	0.45361	0.4538 ± 0.0024	χ_{MGS}^2	1.677	1.76 ± 0.51
S_8	0.8150	0.814 ± 0.011	$H(0.15)$	73.255	$73.26^{+0.38}_{-0.44}$	χ_{DR12BAO}^2	3.496	3.92 ± 0.76
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4464	0.4460 ± 0.0062	$D_M(0.15)$	637.58	637.6 ± 4.0	χ_{prior}^2	1.26	7.4 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6008	0.6003 ± 0.0060	$H(0.38)$	83.246	$83.24^{+0.29}_{-0.33}$	χ_{CMB}^2	1189.2	1202.7 ± 5.6
$\sigma_8/h^{0.5}$	0.9801	0.9795 ± 0.0088	$D_M(0.38)$	1522.2	$1522.2^{+8.5}_{-7.7}$	χ_{BAO}^2	5.174	5.70 ± 0.72

Best-fit $\chi_{\text{eff}}^2 = 1912.81$; $\bar{\chi}_{\text{eff}}^2 = 1933.05$; $R - 1 = 0.05858$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.50 CMB - smicadx12_Dec5.ftl_mv2.ndclpp.p.teb_consext8: 8.94 small_100x143.offlike5_EE_Aplanck_B: 396.83 commander_dx12.v3.2.29: 22.59 plik_rdl2_HM.v22_TT: 760.83 Hubble - H073p45: 10.60 SN - JLA December_2013: 706.59

2.87 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022241	0.02222 ± 0.00019	$r_{\text{drag}} h$	99.87	99.75 ± 0.80	$H(0.51)$	89.702	89.66 ± 0.26
$\Omega_c h^2$	0.11884	0.1190 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.4298	2.434 ± 0.021	$D_M(0.51)$	1980.2	1981.8 ± 9.6
$100\theta_{\text{MC}}$	1.041029	1.04099 ± 0.00042	z_{re}	7.86	7.81 ± 0.74	$H(0.61)$	95.300	95.26 ± 0.22
τ	0.0560	0.0556 ± 0.0074	$10^9 A_s$	2.1009	$2.100^{+0.029}_{-0.032}$	$D_M(0.61)$	2304.5	2306 ± 10
$\ln(10^{10} A_s)$	3.0450	3.044 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8783	1.879 ± 0.011	$H(2.33)$	235.68	235.74 ± 0.69
n_s	0.96789	0.9663 ± 0.0040	D_{40}	1223.6	1227 ± 12	$D_M(2.33)$	5765.0	5767 ± 11
y_{cal}	1.00073	1.0008 ± 0.0025	D_{220}	5720.8	5725 ± 39	$f\sigma_8(0.15)$	0.4548	0.4553 ± 0.0059
A_{217}^{CIB}	48.6	48 ± 7	D_{810}	2538.4	2537 ± 13	$\sigma_8(0.15)$	0.7479	0.7476 ± 0.0056
$\xi^{\text{tSZ} \times \text{CIB}}$	0.30	—	D_{1420}	816.96	815.8 ± 4.9	$f\sigma_8(0.38)$	0.47357	0.4738 ± 0.0049
A_{143}^{tSZ}	7.09	$5.1^{+2.2}_{-2.0}$	D_{2000}	230.54	230.1 ± 1.7	$\sigma_8(0.38)$	0.66319	0.6628 ± 0.0050
A_{100}^{PS}	253.3	263 ± 28	$n_{\text{s},0.002}$	0.96789	0.9663 ± 0.0040	$f\sigma_8(0.51)$	0.47243	0.4726 ± 0.0044
A_{143}^{PS}	48.1	49 ± 8	Y_{P}	0.245343	$0.245331^{+0.000084}_{-0.000075}$	$\sigma_8(0.51)$	0.62074	0.6203 ± 0.0047
$A_{143 \times 217}^{\text{PS}}$	45.8	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246669	$0.246657^{+0.000084}_{-0.000075}$	$f\sigma_8(0.61)$	0.46764	0.4677 ± 0.0041
A_{217}^{PS}	119.0	115 ± 10	$10^5 D/H$	2.6100	2.615 ± 0.036	$\sigma_8(0.61)$	0.59070	0.5903 ± 0.0045
A^{kSZ}	0.01	< 4.80	Age/Gyr	13.8023	13.806 ± 0.026	$f\sigma_8(2.33)$	0.29793	$0.2977^{+0.0021}_{-0.0024}$
A_{100}^{dustTT}	8.88	8.9 ± 1.8	z_*	1089.981	1090.02 ± 0.27	$\sigma_8(2.33)$	0.30724	$0.3069^{+0.0023}_{-0.0026}$
A_{143}^{dustTT}	10.81	10.7 ± 1.8	r_*	144.829	144.81 ± 0.28	f_{2000}^{143}	29.97	30.9 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.35	18.3 ± 3.3	$100\theta_*$	1.041228	1.04119 ± 0.00041	$f_{2000}^{143 \times 217}$	32.95	33.3 ± 2.0
A_{217}^{dustTT}	94.7	93.4 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.9094	13.908 ± 0.028	f_{2000}^{217}	107.50	107.9 ± 1.9
c_{100}	0.99963	0.99963 ± 0.00062	z_{drag}	1059.551	1059.51 ± 0.43	χ_{lensing}^2	8.881	9.27 ± 0.73
c_{217}	0.99826	0.99826 ± 0.00063	r_{drag}	147.542	147.53 ± 0.32	χ_{small}^2	396.37	397.2 ± 1.9
H_0	67.691	67.61 ± 0.47	k_{D}	0.140294	0.14028 ± 0.00043	χ_{lowl}^2	22.81	23.17 ± 0.86
Ω_{Λ}	0.6907	0.6897 ± 0.0063	$100\theta_{\text{D}}$	0.160991	0.16102 ± 0.00025	χ_{plik}^2	759.79	771.7 ± 5.2
Ω_{m}	0.3093	0.3103 ± 0.0063	z_{eq}	3371.5	3374 ± 25	χ_{JLA}^2	1034.955	1035.08 ± 0.31
$\Omega_{\text{m}} h^2$	0.14173	0.1418 ± 0.0010	k_{eq}	0.010290	0.010298 ± 0.000075	$\chi_{6\text{DF}}^2$	0.0156	0.049 ± 0.061
$\Omega_{\text{m}} h^3$	0.095939	0.09590 ± 0.00045	$100\theta_{\text{eq}}$	0.81855	0.8180 ± 0.0045	χ_{MGS}^2	1.343	1.33 ± 0.45
σ_8	0.8091	0.8089 ± 0.0062	$100\theta_{\text{s,eq}}$	0.45222	0.4520 ± 0.0024	χ_{DR12BAO}^2	4.03	4.6 ± 1.3
S_8	0.8216	0.823 ± 0.011	$H(0.15)$	72.945	72.88 ± 0.41	χ_{prior}^2	1.51	7.3 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4500	0.4506 ± 0.0063	$D_M(0.15)$	640.61	641.3 ± 4.0	χ_{CMB}^2	1187.9	1201.4 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6034	0.6037 ± 0.0060	$H(0.38)$	83.011	82.96 ± 0.31	χ_{BAO}^2	5.39	6.0 ± 1.1
$\sigma_8/h^{0.5}$	0.9835	0.9837 ± 0.0088	$D_M(0.38)$	1528.3	1529.7 ± 8.1			

Best-fit $\chi_{\text{eff}}^2 = 2229.71$; $\bar{\chi}_{\text{eff}}^2 = 2249.77$; $R - 1 = 0.01879$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.03 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.88 small_100x143_offlike5_EE_Aplanck_B: 396.37 commander_dx12_v3_2_29: 22.81 plik_rd12_HM_v22_TT: 759.79 SN - JLA Pantheon18: 1034.95

2.88 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022359	0.02232 ± 0.00019	$r_{\text{drag}} h$	100.56	100.49 ± 0.80	$H(0.51)$	89.927	89.89 ± 0.26
$\Omega_c h^2$	0.11802	0.1181 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.4217	2.424 ± 0.021	$D_M(0.51)$	1971.5	$1972.8^{+9.9}_{-8.9}$
$100\theta_{\text{MC}}$	1.041130	1.04115 ± 0.00041	z_{re}	8.07	8.04 ± 0.74	$H(0.61)$	95.484	95.45 ± 0.22
τ	0.0585	0.0583 ± 0.0075	$10^9 A_s$	2.1092	2.108 ± 0.032	$D_M(0.61)$	2295.1	$2297^{+11}_{-9.6}$
$\ln(10^{10} A_s)$	3.0489	3.048 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8763	1.876 ± 0.010	$H(2.33)$	235.26	235.28 ± 0.68
n_s	0.96968	0.9685 ± 0.0041	D_{40}	1222.0	1224 ± 12	$D_M(2.33)$	5756.6	5758 ± 11
y_{cal}	1.00094	1.0010 ± 0.0025	D_{220}	5735.2	5735 ± 39	$f\sigma_8(0.15)$	0.4507	0.4510 ± 0.0058
A_{217}^{CIB}	48.1	48 ± 7	D_{810}	2539.7	2538 ± 13	$\sigma_8(0.15)$	0.7474	0.7473 ± 0.0057
$\xi^{\text{tSZ} \times \text{CIB}}$	0.38	—	D_{1420}	818.21	817.1 ± 4.9	$f\sigma_8(0.38)$	0.47063	0.4708 ± 0.0049
A_{143}^{tSZ}	7.00	$5.3^{+2.2}_{-1.9}$	D_{2000}	231.09	230.6 ± 1.7	$\sigma_8(0.38)$	0.6634	0.6632 ± 0.0050
A_{100}^{PS}	252.8	261 ± 28	$n_{\text{s},0.002}$	0.96968	0.9685 ± 0.0041	$f\sigma_8(0.51)$	0.47013	0.4703 ± 0.0044
A_{143}^{PS}	48.6	48 ± 8	Y_{P}	0.245391	$0.245371^{+0.000082}_{-0.000070}$	$\sigma_8(0.51)$	0.62114	0.6209 ± 0.0047
$A_{143 \times 217}^{\text{PS}}$	47.3	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246718	$0.246697^{+0.000082}_{-0.000070}$	$f\sigma_8(0.61)$	0.46578	0.4659 ± 0.0041
A_{217}^{PS}	119.4	115 ± 10	$10^5 D/H$	2.5875	2.596 ± 0.035	$\sigma_8(0.61)$	0.59124	0.5910 ± 0.0045
A^{kSZ}	0.00	< 4.60	Age/Gyr	13.7838	13.788 ± 0.026	$f\sigma_8(2.33)$	0.29841	0.2983 ± 0.0023
A_{100}^{dustTT}	8.87	$8.9^{+2.0}_{-1.8}$	z_*	1089.763	1089.82 ± 0.27	$\sigma_8(2.33)$	0.30799	0.3078 ± 0.0025
A_{143}^{dustTT}	10.83	10.7 ± 1.8	r_*	144.953	144.96 ± 0.28	f_{2000}^{143}	29.47	30.4 ± 3.0
$A_{143 \times 217}^{\text{dustTT}}$	19.40	18.3 ± 3.4	$100\theta_*$	1.041318	1.04134 ± 0.00041	$f_{2000}^{143 \times 217}$	32.52	32.9 ± 2.0
A_{217}^{dustTT}	94.6	93.4 ± 7.5	$D_M(z_*)/\text{Gpc}$	13.9202	13.921 ± 0.028	f_{2000}^{217}	107.11	107.5 ± 1.9
c_{100}	0.99967	0.99966 ± 0.00064	z_{drag}	1059.780	1059.67 ± 0.43	χ_{lensing}^2	9.00	9.44 ± 0.97
c_{217}	0.99823	0.99824 ± 0.00062	r_{drag}	147.628	147.65 ± 0.32	χ_{small}^2	396.89	397.7 ± 2.2
H_0	68.116	$68.06^{+0.43}_{-0.49}$	k_{D}	0.140293	0.14023 ± 0.00042	χ_{lowl}^2	22.60	22.85 ± 0.83
Ω_Λ	0.6961	0.6954 ± 0.0061	$100\theta_{\text{D}}$	0.160868	0.16093 ± 0.00025	χ_{plik}^2	760.8	772.7 ± 5.3
Ω_{m}	0.3039	0.3046 ± 0.0061	z_{eq}	3354.6	3356 ± 25	χ_{H073p45}^2	10.33	10.6 ± 1.8
$\Omega_{\text{m}} h^2$	0.14102	0.1411 ± 0.0010	k_{eq}	0.010239	0.010242 ± 0.000075	χ_{JLA}^2	1034.786	1034.88 ± 0.18
$\Omega_{\text{m}} h^3$	0.096060	0.09601 ± 0.00044	$100\theta_{\text{eq}}$	0.82203	0.8218 ± 0.0046	$\chi_{6\text{DF}}^2$	0.0002	0.027 ± 0.039
σ_8	0.8080	0.8079 ± 0.0062	$100\theta_{\text{s,eq}}$	0.45395	0.4538 ± 0.0024	χ_{MGS}^2	1.748	1.76 ± 0.50
S_8	0.8133	0.814 ± 0.011	$H(0.15)$	73.314	$73.26^{+0.38}_{-0.43}$	χ_{DR12BAO}^2	3.436	3.89 ± 0.72
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4455	0.4459 ± 0.0061	$D_M(0.15)$	636.99	637.5 ± 4.0	χ_{prior}^2	1.39	7.4 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6000	0.6002 ± 0.0060	$H(0.38)$	83.289	$83.25^{+0.29}_{-0.32}$	χ_{CMB}^2	1189.3	1202.7 ± 5.5
$\sigma_8/h^{0.5}$	0.9790	0.9794 ± 0.0087	$D_M(0.38)$	1521.0	$1522.1^{+8.4}_{-7.5}$	χ_{BAO}^2	5.184	5.68 ± 0.70

Best-fit $\chi_{\text{eff}}^2 = 2241.01$; $\bar{\chi}_{\text{eff}}^2 = 2261.26$; $R - 1 = 0.05989$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.44 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.00 small_100x143_offlike5_EE_Aplanck_B: 396.89 commander_dx12_v3_2_29: 22.60 plik_rd12_HM_v22_TT: 760.84 Hubble - H073p45: 10.33 SN - JLA Pantheon18: 1034.79

2.89 base_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02215 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.6088 ± 0.0075	$H(0.15)$	72.45 ± 0.58
$\Omega_c h^2$	0.1201 ± 0.0015	$\sigma_8 / h^{0.5}$	0.990 ± 0.010	$D_M(0.15)$	645.6 ± 5.9
$100\theta_{MC}$	1.04082 ± 0.00045	$r_{drag} h$	98.9 ± 1.2	$H(0.38)$	82.66 ± 0.43
τ	$0.0539^{+0.0047}_{-0.0083}$	$\langle d^2 \rangle^{1/2}$	2.449 ± 0.024	$D_M(0.38)$	1538 ± 12
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.015}$	z_{re}	$7.68^{+0.54}_{-0.80}$	$H(0.51)$	89.43 ± 0.35
n_s	0.9638 ± 0.0047	$10^9 A_s$	$2.096^{+0.022}_{-0.031}$	$D_M(0.51)$	1992 ± 14
y_{cal}	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.882 ± 0.011	$H(0.61)$	95.08 ± 0.29
A_{217}^{CIB}	48 ± 7	D_{40}	1232 ± 12	$D_M(0.61)$	2317 ± 15
$\xi^{tSZ \times CIB}$	—	D_{220}	5716 ± 40	$H(2.33)$	236.37 ± 0.92
A_{143}^{tSZ}	5.0 ± 2.0	D_{810}	2536 ± 13	$D_M(2.33)$	5775 ± 14
A_{100}^{PS}	264 ± 28	D_{1420}	814.5 ± 5.1	$f\sigma_8(0.15)$	0.4610 ± 0.0080
A_{143}^{PS}	49 ± 8	D_{2000}	229.6 ± 1.8	$\sigma_8(0.15)$	$0.7490^{+0.0048}_{-0.0054}$
$A_{143 \times 217}^{PS}$	43 ± 9	$n_{s,0.002}$	0.9638 ± 0.0047	$f\sigma_8(0.38)$	0.4780 ± 0.0062
A_{217}^{PS}	115 ± 10	Y_P	$0.245300^{+0.000094}_{-0.000081}$	$\sigma_8(0.38)$	$0.6633^{+0.0040}_{-0.0048}$
A^{kSZ}	< 5.00	Y_P^{BBN}	$0.246626^{+0.000094}_{-0.000081}$	$f\sigma_8(0.51)$	0.4759 ± 0.0053
A_{100}^{dustTT}	8.9 ± 1.8	$10^5 D/H$	2.628 ± 0.039	$\sigma_8(0.51)$	$0.6205^{+0.0036}_{-0.0045}$
A_{143}^{dustTT}	10.7 ± 1.8	Age/Gyr	13.823 ± 0.032	$f\sigma_8(0.61)$	0.4705 ± 0.0047
$A_{143 \times 217}^{dustTT}$	18.2 ± 3.3	z_*	1090.21 ± 0.33	$\sigma_8(0.61)$	$0.5903^{+0.0034}_{-0.0044}$
A_{217}^{dustTT}	93.2 ± 7.4	r_*	144.59 ± 0.36	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0023}$
c_{100}	0.99961 ± 0.00062	$100\theta_*$	1.04103 ± 0.00045	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0026}$
c_{217}	0.99826 ± 0.00062	$D_M(z_*)/Gpc$	13.889 ± 0.034	f_{2000}^{143}	31.2 ± 2.9
H_0	67.12 ± 0.68	z_{drag}	1059.42 ± 0.44	$f_{2000}^{143 \times 217}$	33.5 ± 2.0
Ω_Λ	0.6827 ± 0.0094	r_{drag}	147.32 ± 0.37	f_{2000}^{217}	108.1 ± 1.9
Ω_m	0.3173 ± 0.0094	k_D	0.14045 ± 0.00045	$\chi_{lensing}^2$	9.42 ± 0.86
$\Omega_m h^2$	0.1429 ± 0.0014	$100\theta_D$	0.16106 ± 0.00026	χ_{simall}^2	396.8 ± 1.6
$\Omega_m h^3$	0.09588 ± 0.00045	z_{eq}	3398 ± 34	χ_{lowl}^2	23.7 ± 1.0
σ_8	0.8112 ± 0.0059	k_{eq}	0.01037 ± 0.00010	χ_{plik}^2	771.0 ± 5.2
S_8	0.834 ± 0.016	$100\theta_{eq}$	0.8133 ± 0.0064	χ_{prior}^2	7.3 ± 3.6
$\sigma_8 \Omega_m^{0.5}$	0.4569 ± 0.0087	$100\theta_{s,eq}$	0.4496 ± 0.0033	χ_{CMB}^2	1200.9 ± 5.4

$\bar{\chi}_{eff}^2 = 1208.16$; $R - 1 = 0.00659$

2.90 base_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02221 ± 0.00019	$r_{\text{drag}} h$	99.65 ± 0.83	$H(0.51)$	89.63 ± 0.26
$\Omega_c h^2$	0.1191 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.021	$D_M(0.51)$	1982.9 ± 9.9
$100\theta_{\text{MC}}$	1.04098 ± 0.00042	z_{re}	$7.85^{+0.61}_{-0.76}$	$H(0.61)$	95.24 ± 0.23
τ	$0.0559^{+0.0056}_{-0.0078}$	$10^9 A_s$	$2.101^{+0.024}_{-0.032}$	$D_M(0.61)$	2307 ± 11
$\ln(10^{10} A_s)$	$3.045^{+0.012}_{-0.015}$	$10^9 A_s e^{-2\tau}$	1.879 ± 0.011	$H(2.33)$	235.81 ± 0.70
n_s	0.9660 ± 0.0041	D_{40}	1228 ± 12	$D_M(2.33)$	5768 ± 12
y_{cal}	1.0007 ± 0.0025	D_{220}	5724 ± 39	$f\sigma_8(0.15)$	0.4561 ± 0.0060
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 13	$\sigma_8(0.15)$	$0.7481^{+0.0048}_{-0.0057}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815.6 ± 4.9	$f\sigma_8(0.38)$	0.4745 ± 0.0049
A_{143}^{tSZ}	$5.1^{+2.2}_{-2.0}$	D_{2000}	230.0 ± 1.7	$\sigma_8(0.38)$	$0.6632^{+0.0041}_{-0.0051}$
A_{100}^{PS}	263 ± 28	$n_{s,0.002}$	0.9660 ± 0.0041	$f\sigma_8(0.51)$	0.4732 ± 0.0044
A_{143}^{PS}	49 ± 8	Y_{P}	$0.245327^{+0.000084}_{-0.000076}$	$\sigma_8(0.51)$	$0.6206^{+0.0038}_{-0.0048}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	$0.246653^{+0.000085}_{-0.000076}$	$f\sigma_8(0.61)$	0.4682 ± 0.0040
A_{217}^{PS}	115 ± 10	10^5D/H	2.616 ± 0.036	$\sigma_8(0.61)$	$0.5906^{+0.0036}_{-0.0046}$
A^{kSZ}	< 4.82	Age/Gyr	13.808 ± 0.027	$f\sigma_8(2.33)$	$0.2978^{+0.0018}_{-0.0024}$
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1090.05 ± 0.28	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0026}$
A_{143}^{dustTT}	10.7 ± 1.8	r_*	144.79 ± 0.29	f_{2000}^{143}	30.9 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$100\theta_*$	1.04118 ± 0.00042	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
A_{217}^{dustTT}	93.3 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.906 ± 0.028	f_{2000}^{217}	107.9 ± 1.9
c_{100}	0.99963 ± 0.00062	z_{drag}	1059.50 ± 0.44	χ_{lensing}^2	9.22 ± 0.66
c_{217}	0.99826 ± 0.00062	r_{drag}	147.51 ± 0.32	χ_{simall}^2	397.1 ± 1.9
H_0	67.56 ± 0.48	k_{D}	0.14030 ± 0.00043	χ_{lowl}^2	23.24 ± 0.88
Ω_{Λ}	0.6889 ± 0.0065	$100\theta_{\text{D}}$	0.16102 ± 0.00026	χ_{plik}^2	771.5 ± 5.2
Ω_{m}	0.3111 ± 0.0065	z_{eq}	3377 ± 25	$\chi_{6\text{DF}}^2$	0.057 ± 0.069
$\Omega_{\text{m}} h^2$	0.1420 ± 0.0011	k_{eq}	0.010307 ± 0.000077	χ_{MGS}^2	1.28 ± 0.45
$\Omega_{\text{m}} h^3$	0.09590 ± 0.00045	$100\theta_{\text{eq}}$	0.8175 ± 0.0047	χ_{DR12BAO}^2	4.8 ± 1.5
σ_8	$0.8095^{+0.0054}_{-0.0063}$	$100\theta_{s,\text{eq}}$	0.4517 ± 0.0024	χ_{prior}^2	7.3 ± 3.6
S_8	0.824 ± 0.012	$H(0.15)$	72.83 ± 0.42	χ_{CMB}^2	1201.1 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4515 ± 0.0064	$D_M(0.15)$	641.8 ± 4.1	χ_{BAO}^2	6.2 ± 1.2
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6046 ± 0.0061	$H(0.38)$	82.93 ± 0.32		
$\sigma_8/h^{0.5}$	0.9849 ± 0.0087	$D_M(0.38)$	1530.7 ± 8.4		

$$\bar{\chi}_{\text{eff}}^2 = 1214.57; R - 1 = 0.01797$$

2.91 base_plikHM_TT_lowl_lowE_lensing_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02232 ± 0.00020	$\sigma_8/h^{0.5}$	0.9798 ± 0.0099	$H(0.38)$	83.25 ± 0.43
$\Omega_c h^2$	0.1181 ± 0.0015	$r_{\text{drag}} h$	100.5 ± 1.2	$D_M(0.38)$	1522 ± 11
$100\theta_{\text{MC}}$	1.04116 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.024	$H(0.51)$	89.90 ± 0.34
τ	$0.0588^{+0.0069}_{-0.0083}$	z_{re}	$8.09^{+0.70}_{-0.79}$	$D_M(0.51)$	1973 ± 13
$\ln(10^{10} A_s)$	$3.049^{+0.014}_{-0.016}$	$10^9 A_s$	$2.110^{+0.028}_{-0.035}$	$H(0.61)$	95.46 ± 0.28
n_s	0.9686 ± 0.0047	$10^9 A_s e^{-2\tau}$	$1.876^{+0.010}_{-0.011}$	$D_M(0.61)$	2296 ± 14
y_{cal}	1.0010 ± 0.0024	D_{40}	1224 ± 12	$H(2.33)$	235.28 ± 0.91
A_{217}^{CIB}	47 ± 7	D_{220}	5735 ± 39	$D_M(2.33)$	5758 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	2538 ± 13	$f\sigma_8(0.15)$	0.4512 ± 0.0075
A_{143}^{tSZ}	5.2 ± 1.9	D_{1420}	817.1 ± 5.0	$\sigma_8(0.15)$	0.7476 ± 0.0054
A_{100}^{PS}	262 ± 27	D_{2000}	230.7 ± 1.8	$f\sigma_8(0.38)$	0.4710 ± 0.0059
A_{143}^{PS}	48 ± 8	$n_{s,0.002}$	0.9686 ± 0.0047	$\sigma_8(0.38)$	$0.6635^{+0.0045}_{-0.0051}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	Y_{P}	$0.245372^{+0.000087}_{-0.000071}$	$f\sigma_8(0.51)$	0.4704 ± 0.0051
A_{217}^{PS}	$115^{+11}_{-9.8}$	$Y_{\text{P}}^{\text{BBN}}$	$0.246698^{+0.000088}_{-0.000072}$	$\sigma_8(0.51)$	$0.6212^{+0.0042}_{-0.0049}$
A^{kSZ}	< 4.64	$10^5 \text{D}/\text{H}$	$2.596^{+0.035}_{-0.040}$	$f\sigma_8(0.61)$	0.4660 ± 0.0046
A_{100}^{dustTT}	9.0 ± 1.8	Age/Gyr	13.787 ± 0.030	$\sigma_8(0.61)$	$0.5913^{+0.0040}_{-0.0047}$
A_{143}^{dustTT}	10.7 ± 1.8	z_*	1089.82 ± 0.32	$f\sigma_8(2.33)$	$0.2984^{+0.0021}_{-0.0025}$
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.4	r_*	144.96 ± 0.36	$\sigma_8(2.33)$	$0.3080^{+0.0023}_{-0.0028}$
A_{217}^{dustTT}	93.5 ± 7.7	$100\theta_*$	1.04135 ± 0.00043	f_{2000}^{143}	30.3 ± 3.0
c_{100}	0.99966 ± 0.00064	$D_M(z_*)/\text{Gpc}$	13.921 ± 0.034	$f_{2000}^{143 \times 217}$	32.8 ± 2.0
c_{217}	0.99823 ± 0.00062	z_{drag}	1059.68 ± 0.43	f_{2000}^{217}	107.5 ± 1.9
H_0	68.07 ± 0.67	r_{drag}	147.65 ± 0.38	χ_{lensing}^2	9.5 ± 1.0
Ω_Λ	0.6954 ± 0.0088	k_{D}	0.14023 ± 0.00045	χ_{simall}^2	397.8 ± 2.4
Ω_{m}	0.3046 ± 0.0088	$100\theta_{\text{D}}$	0.16093 ± 0.00025	χ_{lowl}^2	22.86 ± 0.91
$\Omega_{\text{m}} h^2$	0.1411 ± 0.0014	z_{eq}	3356 ± 34	χ_{plik}^2	772.9 ± 5.5
$\Omega_{\text{m}} h^3$	0.09601 ± 0.00043	k_{eq}	0.01024 ± 0.00010	χ_{H073p45}^2	10.7 ± 2.6
σ_8	0.8083 ± 0.0061	$100\theta_{\text{eq}}$	0.8218 ± 0.0064	χ_{prior}^2	7.3 ± 3.6
S_8	0.814 ± 0.015	$100\theta_{\text{s,eq}}$	0.4539 ± 0.0033	χ_{CMB}^2	1203.0 ± 5.9
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4461 ± 0.0081	$H(0.15)$	73.27 ± 0.57		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6005 ± 0.0072	$D_M(0.15)$	637.5 ± 5.6		
$\bar{\chi}_{\text{eff}}^2 = 1221.07; R - 1 = 0.06981$					

2.92 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02231 ± 0.00019	$r_{\mathrm{drag}}h$	100.45 ± 0.83	$H(0.51)$	89.88 ± 0.26
$\Omega_{\mathrm{c}}h^2$	0.1182 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.426 ± 0.021	$D_{\mathrm{M}}(0.51)$	$1973_{-9.2}^{+10}$
$100\theta_{\mathrm{MC}}$	1.04115 ± 0.00041	z_{re}	8.07 ± 0.69	$H(0.61)$	95.44 ± 0.23
τ	$0.0585_{-0.0077}^{+0.0066}$	$10^9 A_{\mathrm{s}}$	$2.109_{-0.033}^{+0.028}$	$D_{\mathrm{M}}(0.61)$	2297_{-10}^{+11}
$\ln(10^{10} A_{\mathrm{s}})$	$3.049_{-0.016}^{+0.013}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.876 ± 0.010	$H(2.33)$	235.31 ± 0.70
n_{s}	0.9684 ± 0.0041	D_{40}	1225 ± 12	$D_{\mathrm{M}}(2.33)$	5759 ± 11
y_{cal}	1.0010 ± 0.0025	D_{220}	5734 ± 39	$f\sigma_8(0.15)$	0.4514 ± 0.0059
A_{217}^{CIB}	48 ± 7	D_{810}	2538 ± 13	$\sigma_8(0.15)$	$0.7476_{-0.0058}^{+0.0051}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	817.0 ± 4.9	$f\sigma_8(0.38)$	0.4712 ± 0.0049
A_{143}^{tSZ}	$5.3_{-1.9}^{+2.2}$	D_{2000}	230.6 ± 1.7	$\sigma_8(0.38)$	$0.6634_{-0.0052}^{+0.0045}$
A_{100}^{PS}	261 ± 28	$n_{\mathrm{s},0.002}$	0.9684 ± 0.0041	$f\sigma_8(0.51)$	0.4706 ± 0.0044
A_{143}^{PS}	48 ± 8	Y_{P}	$0.245369_{-0.000071}^{+0.000082}$	$\sigma_8(0.51)$	$0.6211_{-0.0049}^{+0.0042}$
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246696_{-0.000071}^{+0.000083}$	$f\sigma_8(0.61)$	0.4661 ± 0.0041
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.597 ± 0.035	$\sigma_8(0.61)$	$0.5912_{-0.0047}^{+0.0040}$
A^{kSZ}	< 4.61	$\mathrm{Age}/\mathrm{Gyr}$	13.789 ± 0.026	$f\sigma_8(2.33)$	$0.2983_{-0.0024}^{+0.0021}$
$A_{100}^{\mathrm{dust}TT}$	$8.9_{-1.8}^{+2.0}$	z_*	1089.83 ± 0.27	$\sigma_8(2.33)$	$0.3079_{-0.0026}^{+0.0022}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.95 ± 0.29	f_{2000}^{143}	30.4 ± 3.0
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.4	$100\theta_*$	1.04134 ± 0.00041	$f_{2000}^{143 \times 217}$	32.9 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.5	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.920 ± 0.028	f_{2000}^{217}	107.5 ± 1.9
c_{100}	0.99966 ± 0.00064	z_{drag}	1059.67 ± 0.43	$\chi_{\mathrm{lensing}}^2$	9.39 ± 0.93
c_{217}	0.99824 ± 0.00062	r_{drag}	147.64 ± 0.32	χ_{simall}^2	397.7 ± 2.2
H_0	$68.03_{-0.51}^{+0.45}$	k_{D}	0.14024 ± 0.00043	χ_{lowl}^2	22.87 ± 0.84
Ω_{Λ}	0.6950 ± 0.0063	$100\theta_{\mathrm{D}}$	0.16093 ± 0.00025	χ_{plik}^2	772.6 ± 5.3
Ω_{m}	0.3050 ± 0.0063	z_{eq}	3357 ± 25	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 1.9
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0011	k_{eq}	0.010246 ± 0.000077	$\chi_{6\mathrm{DF}}^2$	0.029 ± 0.041
$\Omega_{\mathrm{m}}h^3$	0.09601 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8215 ± 0.0047	χ_{MGS}^2	1.74 ± 0.51
σ_8	0.8083 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4537 ± 0.0024	$\chi_{\mathrm{DR12BAO}}^2$	3.94 ± 0.79
S_8	0.815 ± 0.012	$H(0.15)$	$73.24_{-0.44}^{+0.39}$	χ_{prior}^2	7.4 ± 3.6
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4464 ± 0.0063	$D_{\mathrm{M}}(0.15)$	637.7 ± 4.1	χ_{CMB}^2	1202.5 ± 5.5
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6006 ± 0.0060	$H(0.38)$	$83.23_{-0.33}^{+0.30}$	χ_{BAO}^2	5.71 ± 0.73
$\sigma_8/h^{0.5}$	0.9800 ± 0.0087	$D_{\mathrm{M}}(0.38)$	$1522.5_{-7.8}^{+8.6}$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1226.35$; $R - 1 = 0.05547$

2.93 base_plikHM_TT_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02218 ± 0.00020	$\sigma_8/h^{0.5}$	0.9879 ± 0.0098	$H(0.38)$	82.77 ± 0.40
$\Omega_{\mathrm{c}}h^2$	0.1196 ± 0.0014	$r_{\mathrm{drag}}h$	99.2 ± 1.1	$D_{\mathrm{M}}(0.38)$	1535 ± 11
$100\theta_{\mathrm{MC}}$	1.04088 ± 0.00045	$\langle d^2 \rangle^{1/2}$	2.443 ± 0.023	$H(0.51)$	89.52 ± 0.33
τ	$0.0548^{+0.0052}_{-0.0081}$	z_{re}	$7.75^{+0.57}_{-0.79}$	$D_{\mathrm{M}}(0.51)$	1988 ± 13
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.011}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.023}_{-0.032}$	$H(0.61)$	95.15 ± 0.27
n_{s}	0.9648 ± 0.0045	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.881 ± 0.011	$D_{\mathrm{M}}(0.61)$	2313 ± 14
y_{cal}	1.0006 ± 0.0025	D_{40}	1230 ± 12	$H(2.33)$	236.13 ± 0.86
A_{217}^{CIB}	48 ± 7	D_{220}	5720 ± 40	$D_{\mathrm{M}}(2.33)$	5771 ± 13
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2536 ± 13	$f\sigma_8(0.15)$	0.4589 ± 0.0074
A_{143}^{tSZ}	$5.1^{+2.2}_{-2.0}$	D_{1420}	815.0 ± 5.0	$\sigma_8(0.15)$	$0.7486^{+0.0048}_{-0.0056}$
A_{100}^{PS}	263 ± 28	D_{2000}	229.8 ± 1.8	$f\sigma_8(0.38)$	0.4765 ± 0.0058
A_{143}^{PS}	49 ± 8	$n_{\mathrm{s},0.002}$	0.9648 ± 0.0045	$\sigma_8(0.38)$	$0.6632^{+0.0040}_{-0.0049}$
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	$0.245313^{+0.000090}_{-0.000079}$	$f\sigma_8(0.51)$	0.4747 ± 0.0050
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246639^{+0.000090}_{-0.000079}$	$\sigma_8(0.51)$	$0.6206^{+0.0037}_{-0.0047}$
A^{kSZ}	< 4.91	$10^5 \mathrm{D}/\mathrm{H}$	2.623 ± 0.038	$f\sigma_8(0.61)$	0.4695 ± 0.0045
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$\mathrm{Age}/\mathrm{Gyr}$	13.817 ± 0.030	$\sigma_8(0.61)$	$0.5904^{+0.0035}_{-0.0045}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_*	1090.14 ± 0.32	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0024}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	r_*	144.67 ± 0.34	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0026}$
$A_{217}^{\mathrm{dust}TT}$	93.2 ± 7.4	$100\theta_*$	1.04108 ± 0.00044	f_{2000}^{143}	31.0 ± 2.9
c_{100}	0.99962 ± 0.00062	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.896 ± 0.032	$f_{2000}^{143 \times 217}$	33.4 ± 2.0
c_{217}	0.99826 ± 0.00062	z_{drag}	1059.46 ± 0.44	f_{2000}^{217}	108.0 ± 1.9
H_0	67.31 ± 0.63	r_{drag}	147.40 ± 0.36	$\chi_{\mathrm{lensing}}^2$	9.32 ± 0.75
Ω_{Λ}	0.6854 ± 0.0086	k_{D}	0.14039 ± 0.00044	χ_{simall}^2	396.9 ± 1.7
Ω_{m}	0.3146 ± 0.0086	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00026	χ_{lowl}^2	23.47 ± 0.97
$\Omega_{\mathrm{m}}h^2$	0.1425 ± 0.0013	z_{eq}	3389 ± 32	χ_{plik}^2	771.2 ± 5.2
$\Omega_{\mathrm{m}}h^3$	0.09589 ± 0.00045	k_{eq}	0.010344 ± 0.000097	χ_{JLA}^2	1035.38 ± 0.57
σ_8	$0.8104^{+0.0055}_{-0.0062}$	$100\theta_{\mathrm{eq}}$	0.8151 ± 0.0060	χ_{prior}^2	7.3 ± 3.7
S_8	0.830 ± 0.015	$100\theta_{\mathrm{s,eq}}$	0.4505 ± 0.0031	χ_{CMB}^2	1200.9 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4545 ± 0.0080	$H(0.15)$	72.62 ± 0.54		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6069 ± 0.0071	$D_{\mathrm{M}}(0.15)$	643.9 ± 5.4		
$\bar{\chi}_{\mathrm{eff}}^2 = 2243.62; R - 1 = 0.01253$					

2.94 base_plikHM_TT_lowl_lowE_lensing_post_BAO_JLA_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00019	$r_{\mathrm{drag}}h$	100.49 ± 0.82	$H(0.51)$	89.89 ± 0.26
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0011	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.021	$D_{\mathrm{M}}(0.51)$	$1973_{-9.1}^{+10}$
$100\theta_{\mathrm{MC}}$	1.04115 ± 0.00041	z_{re}	8.08 ± 0.69	$H(0.61)$	95.45 ± 0.23
τ	$0.0586_{-0.0077}^{+0.0066}$	$10^9 A_{\mathrm{s}}$	$2.110_{-0.033}^{+0.028}$	$D_{\mathrm{M}}(0.61)$	$2296_{-9.9}^{+11}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.049_{-0.016}^{+0.013}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.876 ± 0.010	$H(2.33)$	235.28 ± 0.69
n_{s}	0.9686 ± 0.0041	D_{40}	1224 ± 12	$D_{\mathrm{M}}(2.33)$	5758 ± 11
y_{cal}	1.0010 ± 0.0025	D_{220}	5735 ± 39	$f\sigma_8(0.15)$	0.4512 ± 0.0059
A_{217}^{CIB}	48 ± 7	D_{810}	2538 ± 13	$\sigma_8(0.15)$	$0.7475_{-0.0058}^{+0.0052}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	817.0 ± 4.9	$f\sigma_8(0.38)$	0.4710 ± 0.0049
A_{143}^{tSZ}	$5.3_{-1.9}^{+2.2}$	D_{2000}	230.6 ± 1.7	$\sigma_8(0.38)$	$0.6634_{-0.0052}^{+0.0045}$
A_{100}^{PS}	261 ± 28	$n_{\mathrm{s},0.002}$	0.9686 ± 0.0041	$f\sigma_8(0.51)$	0.4704 ± 0.0044
A_{143}^{PS}	48 ± 8	Y_{P}	$0.245371_{-0.000070}^{+0.000082}$	$\sigma_8(0.51)$	$0.6211_{-0.0049}^{+0.0042}$
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246698_{-0.000071}^{+0.000082}$	$f\sigma_8(0.61)$	0.4660 ± 0.0041
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.596 ± 0.035	$\sigma_8(0.61)$	$0.5912_{-0.0047}^{+0.0040}$
A^{kSZ}	< 4.61	$\mathrm{Age}/\mathrm{Gyr}$	13.788 ± 0.026	$f\sigma_8(2.33)$	$0.2984_{-0.0024}^{+0.0021}$
$A_{100}^{\mathrm{dust}TT}$	$8.9_{-1.8}^{+2.0}$	z_*	1089.82 ± 0.27	$\sigma_8(2.33)$	$0.3079_{-0.0026}^{+0.0022}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.96 ± 0.29	f_{2000}^{143}	30.4 ± 3.0
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.4	$100\theta_*$	1.04134 ± 0.00041	$f_{2000}^{143 \times 217}$	32.9 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.5	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.921 ± 0.028	f_{2000}^{217}	107.5 ± 1.9
c_{100}	0.99966 ± 0.00064	z_{drag}	1059.67 ± 0.43	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.94
c_{217}	0.99824 ± 0.00062	r_{drag}	147.65 ± 0.32	χ_{simall}^2	397.7 ± 2.2
H_0	$68.06_{-0.50}^{+0.44}$	k_{D}	0.14023 ± 0.00043	χ_{lowl}^2	22.85 ± 0.83
Ω_{Λ}	0.6954 ± 0.0062	$100\theta_{\mathrm{D}}$	0.16093 ± 0.00025	χ_{plik}^2	772.6 ± 5.3
Ω_{m}	0.3046 ± 0.0062	z_{eq}	3356 ± 25	$\chi_{\mathrm{H073p45}}^2$	10.6 ± 1.9
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0010	k_{eq}	0.010242 ± 0.000076	χ_{JLA}^2	706.62 ± 0.12
$\Omega_{\mathrm{m}}h^3$	0.09601 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8218 ± 0.0046	$\chi_{6\mathrm{DF}}^2$	0.028 ± 0.040
σ_8	0.8082 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4538 ± 0.0024	χ_{MGS}^2	1.77 ± 0.51
S_8	0.814 ± 0.011	$H(0.15)$	$73.26_{-0.44}^{+0.38}$	$\chi_{\mathrm{DR12BAO}}^2$	3.91 ± 0.74
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4461 ± 0.0062	$D_{\mathrm{M}}(0.15)$	$637.5_{-3.8}^{+4.2}$	χ_{prior}^2	7.4 ± 3.6
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6004 ± 0.0060	$H(0.38)$	$83.25_{-0.33}^{+0.29}$	χ_{CMB}^2	1202.6 ± 5.5
$\sigma_8/h^{0.5}$	0.9797 ± 0.0087	$D_{\mathrm{M}}(0.38)$	$1522.1_{-7.7}^{+8.5}$	χ_{BAO}^2	5.70 ± 0.72

$\bar{\chi}_{\mathrm{eff}}^2 = 1932.95$; $R - 1 = 0.06025$

2.95 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02222 ± 0.00019	$r_{\text{drag}} h$	99.77 ± 0.80	$H(0.51)$	89.67 ± 0.26
$\Omega_c h^2$	0.1190 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.435 ± 0.021	$D_M(0.51)$	1981.6 ± 9.5
$100\theta_{\text{MC}}$	1.04099 ± 0.00042	z_{re}	$7.88^{+0.62}_{-0.76}$	$H(0.61)$	95.27 ± 0.22
τ	$0.0563^{+0.0058}_{-0.0077}$	$10^9 A_s$	$2.102^{+0.025}_{-0.033}$	$D_M(0.61)$	2306 ± 10
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.015}$	$10^9 A_s e^{-2\tau}$	1.878 ± 0.010	$H(2.33)$	235.73 ± 0.68
n_s	0.9664 ± 0.0040	D_{40}	1227 ± 12	$D_M(2.33)$	5767 ± 11
y_{cal}	1.0008 ± 0.0025	D_{220}	5725 ± 39	$f\sigma_8(0.15)$	0.4554 ± 0.0058
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 13	$\sigma_8(0.15)$	$0.7480^{+0.0048}_{-0.0057}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815.7 ± 4.9	$f\sigma_8(0.38)$	0.4740 ± 0.0049
A_{143}^{tSZ}	$5.1^{+2.2}_{-2.0}$	D_{2000}	230.1 ± 1.7	$\sigma_8(0.38)$	$0.6632^{+0.0041}_{-0.0051}$
A_{100}^{PS}	263 ± 28	$n_{s,0.002}$	0.9664 ± 0.0040	$f\sigma_8(0.51)$	0.4728 ± 0.0043
A_{143}^{PS}	48 ± 8	Y_{P}	$0.245331^{+0.000084}_{-0.000075}$	$\sigma_8(0.51)$	$0.6207^{+0.0039}_{-0.0048}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	$0.246658^{+0.000084}_{-0.000075}$	$f\sigma_8(0.61)$	0.4679 ± 0.0040
A_{217}^{PS}	115 ± 10	$10^5 D/H$	2.614 ± 0.036	$\sigma_8(0.61)$	$0.5906^{+0.0037}_{-0.0046}$
A^{kSZ}	< 4.80	Age/Gyr	13.806 ± 0.026	$f\sigma_8(2.33)$	$0.2979^{+0.0019}_{-0.0024}$
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1090.02 ± 0.27	$\sigma_8(2.33)$	$0.3071^{+0.0020}_{-0.0026}$
A_{143}^{dustTT}	10.7 ± 1.8	r_*	144.82 ± 0.28	f_{2000}^{143}	30.9 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$100\theta_*$	1.04119 ± 0.00041	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
A_{217}^{dustTT}	93.3 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.028	f_{2000}^{217}	107.9 ± 1.9
c_{100}	0.99963 ± 0.00062	z_{drag}	1059.51 ± 0.43	χ_{lensing}^2	9.23 ± 0.68
c_{217}	0.99826 ± 0.00062	r_{drag}	147.54 ± 0.32	χ_{small}^2	397.2 ± 1.9
H_0	67.63 ± 0.47	k_{D}	0.14028 ± 0.00043	χ_{lowl}^2	23.18 ± 0.86
Ω_{Λ}	0.6898 ± 0.0062	$100\theta_{\text{D}}$	0.16101 ± 0.00025	χ_{plik}^2	771.6 ± 5.2
Ω_{m}	0.3102 ± 0.0062	z_{eq}	3374 ± 25	χ_{JLA}^2	1035.07 ± 0.30
$\Omega_{\text{m}} h^2$	0.1418 ± 0.0010	k_{eq}	0.010297 ± 0.000075	$\chi_{6\text{DF}}^2$	0.048 ± 0.059
$\Omega_{\text{m}} h^3$	0.09590 ± 0.00045	$100\theta_{\text{eq}}$	0.8181 ± 0.0045	χ_{MGS}^2	1.34 ± 0.45
σ_8	$0.8093^{+0.0055}_{-0.0063}$	$100\theta_{s,\text{eq}}$	0.4520 ± 0.0023	χ_{DR12BAO}^2	4.6 ± 1.3
S_8	0.823 ± 0.011	$H(0.15)$	72.89 ± 0.40	χ_{prior}^2	7.3 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4507 ± 0.0062	$D_M(0.15)$	641.2 ± 4.0	χ_{CMB}^2	1201.2 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6039 ± 0.0060	$H(0.38)$	82.97 ± 0.31	χ_{BAO}^2	6.0 ± 1.0
$\sigma_8/h^{0.5}$	0.9841 ± 0.0086	$D_M(0.38)$	1529.5 ± 8.1		

$\bar{\chi}_{\text{eff}}^2 = 2249.62$; $R - 1 = 0.01932$

2.96 base_plikHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00019	$r_{\mathrm{drag}}h$	100.50 ± 0.80	$H(0.51)$	89.89 ± 0.26
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.021	$D_{\mathrm{M}}(0.51)$	$1972.6^{+9.9}_{-8.9}$
$100\theta_{\mathrm{MC}}$	1.04115 ± 0.00041	z_{re}	8.08 ± 0.69	$H(0.61)$	95.45 ± 0.22
τ	$0.0587^{+0.0066}_{-0.0077}$	$10^9 A_{\mathrm{s}}$	$2.110^{+0.028}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	$2296^{+11}_{-9.7}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.049^{+0.013}_{-0.016}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.876 ± 0.010	$H(2.33)$	235.27 ± 0.68
n_{s}	0.9686 ± 0.0041	D_{40}	1224 ± 12	$D_{\mathrm{M}}(2.33)$	5758 ± 11
y_{cal}	1.0010 ± 0.0025	D_{220}	5735 ± 39	$f\sigma_8(0.15)$	0.4511 ± 0.0058
A_{217}^{CIB}	48 ± 7	D_{810}	2538 ± 13	$\sigma_8(0.15)$	$0.7475^{+0.0052}_{-0.0058}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	817.1 ± 4.9	$f\sigma_8(0.38)$	0.4709 ± 0.0048
A_{143}^{tSZ}	$5.3^{+2.2}_{-1.9}$	D_{2000}	230.6 ± 1.7	$\sigma_8(0.38)$	$0.6634^{+0.0045}_{-0.0052}$
A_{100}^{PS}	261 ± 28	$n_{\mathrm{s},0.002}$	0.9686 ± 0.0041	$f\sigma_8(0.51)$	0.4704 ± 0.0044
A_{143}^{PS}	48 ± 8	Y_{P}	$0.245372^{+0.000082}_{-0.000070}$	$\sigma_8(0.51)$	$0.6211^{+0.0042}_{-0.0049}$
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246698^{+0.000082}_{-0.000070}$	$f\sigma_8(0.61)$	0.4660 ± 0.0040
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.596 ± 0.035	$\sigma_8(0.61)$	$0.5912^{+0.0040}_{-0.0047}$
A^{kSZ}	< 4.60	$\mathrm{Age}/\mathrm{Gyr}$	13.788 ± 0.026	$f\sigma_8(2.33)$	$0.2984^{+0.0021}_{-0.0024}$
$A_{100}^{\mathrm{dust}TT}$	$8.9^{+2.0}_{-1.8}$	z_*	1089.82 ± 0.27	$\sigma_8(2.33)$	$0.3079^{+0.0022}_{-0.0026}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.97 ± 0.28	f_{2000}^{143}	30.3 ± 3.0
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.4	$100\theta_*$	1.04135 ± 0.00041	$f_{2000}^{143 \times 217}$	32.9 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.5	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.921 ± 0.028	f_{2000}^{217}	107.5 ± 1.9
c_{100}	0.99966 ± 0.00064	z_{drag}	1059.68 ± 0.43	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.94
c_{217}	0.99824 ± 0.00062	r_{drag}	147.66 ± 0.32	χ_{simall}^2	397.7 ± 2.2
H_0	$68.07^{+0.43}_{-0.49}$	k_{D}	0.14023 ± 0.00042	χ_{lowl}^2	22.85 ± 0.83
Ω_{Λ}	0.6955 ± 0.0061	$100\theta_{\mathrm{D}}$	0.16093 ± 0.00025	χ_{plik}^2	772.6 ± 5.3
Ω_{m}	0.3045 ± 0.0061	z_{eq}	3355 ± 25	$\chi_{\mathrm{H073p45}}^2$	10.6 ± 1.8
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0010	k_{eq}	0.010241 ± 0.000075	χ_{JLA}^2	1034.87 ± 0.17
$\Omega_{\mathrm{m}}h^3$	0.09601 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8218 ± 0.0045	$\chi_{6\mathrm{DF}}^2$	0.027 ± 0.039
σ_8	0.8082 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4539 ± 0.0024	χ_{MGS}^2	1.77 ± 0.50
S_8	0.814 ± 0.011	$H(0.15)$	$73.27^{+0.38}_{-0.43}$	$\chi_{\mathrm{DR12BAO}}^2$	3.88 ± 0.71
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4460 ± 0.0061	$D_{\mathrm{M}}(0.15)$	$637.4^{+4.1}_{-3.7}$	χ_{prior}^2	7.4 ± 3.6
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6003 ± 0.0059	$H(0.38)$	$83.25^{+0.29}_{-0.32}$	χ_{CMB}^2	1202.6 ± 5.5
$\sigma_8/h^{0.5}$	0.9796 ± 0.0086	$D_{\mathrm{M}}(0.38)$	$1521.9^{+8.4}_{-7.5}$	χ_{BAO}^2	5.68 ± 0.69

$\bar{\chi}_{\mathrm{eff}}^2 = 2261.17$; $R - 1 = 0.06158$

2.97 base_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022383	0.02237 ± 0.00015	$\Omega_m h^3$	0.096360	0.09633 ± 0.00030	$100\theta_{\text{eq}}$	0.81281	0.8134 ± 0.0050
$\Omega_c h^2$	0.12011	0.1200 ± 0.0012	σ_8	0.8120	0.8111 ± 0.0060	$100\theta_{\text{s,eq}}$	0.44912	0.4494 ± 0.0026
$100\theta_{\text{MC}}$	1.040909	1.04092 ± 0.00031	S_8	0.8331	0.832 ± 0.013	$H(0.15)$	72.652	72.68 ± 0.46
τ	0.0543	0.0544 ± 0.0073	$\sigma_8 \Omega_m^{0.5}$	0.4563	0.4554 ± 0.0070	$D_{\text{M}}(0.15)$	643.66	643.4 ± 4.6
$\ln(10^{10} A_s)$	3.0448	3.044 ± 0.014	$\sigma_8 \Omega_m^{0.25}$	0.6087	0.6078 ± 0.0064	$H(0.38)$	82.848	82.87 ± 0.34
n_s	0.96605	0.9649 ± 0.0042	$\sigma_8/h^{0.5}$	0.9897	0.9883 ± 0.0091	$D_{\text{M}}(0.38)$	1534.0	1533.5 ± 9.2
y_{cal}	1.00044	1.0006 ± 0.0024	$r_{\text{drag}} h$	99.00	99.08 ± 0.92	$H(0.51)$	89.614	89.63 ± 0.27
A_{217}^{CIB}	46.1	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.4449	2.446 ± 0.022	$D_{\text{M}}(0.51)$	1986.5	1986 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	0.66	—	z_{re}	7.68	7.67 ± 0.73	$H(0.61)$	95.272	95.28 ± 0.22
A_{143}^{tSZ}	7.08	5.4 ± 2.0	$10^9 A_s$	2.1005	2.100 ± 0.030	$D_{\text{M}}(0.61)$	2311.0	2310 ± 12
A_{100}^{PS}	248.2	260 ± 28	$10^9 A_s e^{-2\tau}$	1.8843	1.883 ± 0.011	$H(2.33)$	236.64	236.56 ± 0.70
A_{143}^{PS}	50.7	46 ± 8	D_{40}	1229.0	1232 ± 12	$D_{\text{M}}(2.33)$	5763.6	5763 ± 10
$A_{143 \times 217}^{\text{PS}}$	53.3	42 ± 9	D_{220}	5730.1	5736 ± 38	$f\sigma_8(0.15)$	0.4606	0.4597 ± 0.0065
A_{217}^{PS}	121.9	115 ± 10	D_{810}	2541.3	2539 ± 13	$\sigma_8(0.15)$	0.7499	0.7492 ± 0.0054
A^{kSZ}	0.00	< 4.32	D_{1420}	818.44	817.2 ± 4.8	$f\sigma_8(0.38)$	0.4780	0.4772 ± 0.0053
A_{100}^{dustTT}	8.80	8.9 ± 1.8	D_{2000}	231.33	230.9 ± 1.6	$\sigma_8(0.38)$	0.66427	0.6637 ± 0.0047
A_{143}^{dustTT}	11.01	10.9 ± 1.8	$n_{\text{s},0.002}$	0.96605	0.9649 ± 0.0042	$f\sigma_8(0.51)$	0.47606	0.4754 ± 0.0046
$A_{143 \times 217}^{\text{dustTT}}$	20.16	18.6 ± 3.3	Y_{P}	0.245401	$0.245395^{+0.000060}_{-0.000053}$	$\sigma_8(0.51)$	0.62145	0.6209 ± 0.0044
A_{217}^{dustTT}	95.5	93.5 ± 7.2	$Y_{\text{P}}^{\text{BBN}}$	0.246727	$0.246721^{+0.000060}_{-0.000054}$	$f\sigma_8(0.61)$	0.47073	0.4701 ± 0.0042
A_{100}^{dustTE}	0.1138	0.114 ± 0.038	$10^5 \text{D}/\text{H}$	2.5831	2.585 ± 0.027	$\sigma_8(0.61)$	0.59120	0.5907 ± 0.0042
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.135 ± 0.029	Age/Gyr	13.7971	13.797 ± 0.023	$f\sigma_8(2.33)$	0.29792	0.2977 ± 0.0022
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.481 ± 0.085	z_*	1089.914	1089.92 ± 0.25	$\sigma_8(2.33)$	0.30695	0.3068 ± 0.0024
A_{143}^{dustTE}	0.225	0.225 ± 0.054	r_*	144.394	144.43 ± 0.26	f_{2000}^{143}	28.58	29.6 ± 2.8
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.668 ± 0.080	$100\theta_*$	1.041085	1.04110 ± 0.00031	$f_{2000}^{143 \times 217}$	31.97	32.3 ± 1.9
A_{217}^{dustTE}	2.082	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8696	13.873 ± 0.025	f_{2000}^{217}	106.46	107.1 ± 1.8
c_{100}	0.99974	0.99967 ± 0.00061	z_{drag}	1059.971	1059.94 ± 0.30	χ_{lensing}^2	8.868	9.23 ± 0.69
c_{217}	0.99819	0.99819 ± 0.00062	r_{drag}	147.049	147.09 ± 0.26	χ_{small}^2	396.05	397.0 ± 1.7
H_0	67.32	67.36 ± 0.54	k_{D}	0.140922	0.14087 ± 0.00030	χ_{lowl}^2	23.25	23.53 ± 0.90
Ω_{Λ}	0.6842	0.6847 ± 0.0073	$100\theta_{\text{D}}$	0.160734	0.16076 ± 0.00017	χ_{plik}^2	2344.9	2359.4 ± 5.7
Ω_{m}	0.3158	0.3153 ± 0.0073	z_{eq}	3405.1	3402 ± 26	χ_{prior}^2	1.53	11.5 ± 4.5
$\Omega_{\text{m}} h^2$	0.14314	0.1430 ± 0.0011	k_{eq}	0.010393	0.010384 ± 0.000081	χ_{CMB}^2	2773.1	2789.2 ± 5.8

Best-fit $\chi_{\text{eff}}^2 = 2774.63$; $\bar{\chi}_{\text{eff}}^2 = 2800.69$; $R - 1 = 0.01032$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 simall_100x143_offlike5_EE_Aplanck_B: 396.05 commander_dx12_v3.2_29: 23.25 plik_rd12_HM_v22b_TTTEEE: 2344.93

2.98 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022447	0.02242 ± 0.00014	S_8	0.8253	0.825 ± 0.011	$H(0.38)$	83.083	83.05 ± 0.27
$\Omega_c h^2$	0.11928	0.11933 ± 0.00091	$\sigma_8 \Omega_m^{0.5}$	0.4520	0.4519 ± 0.0058	$D_M(0.38)$	1527.5	1528.3 ± 7.1
$100\theta_{MC}$	1.041010	1.04101 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6055	0.6051 ± 0.0058	$H(0.51)$	89.797	89.77 ± 0.22
τ	0.0568	0.0561 ± 0.0071	$\sigma_8/h^{0.5}$	0.9857	0.9850 ± 0.0085	$D_M(0.51)$	1978.9	1979.8 ± 8.4
$\ln(10^{10} A_s)$	3.0480	3.047 ± 0.014	$r_{\text{drag}} h$	99.66	99.61 ± 0.71	$H(0.61)$	95.414	95.39 ± 0.18
n_s	0.96824	0.9665 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.4356	2.438 ± 0.021	$D_M(0.61)$	2302.9	2303.8 ± 9.1
y_{cal}	1.00047	1.0008 ± 0.0025	z_{re}	7.90	7.82 ± 0.71	$H(2.33)$	236.17	236.18 ± 0.56
A_{217}^{CIB}	45.6	47 ± 7	$10^9 A_s$	2.1073	2.105 ± 0.030	$D_M(2.33)$	5757.5	5758.7 ± 8.8
$\xi^{\text{tSZ} \times \text{CIB}}$	0.709	> 0.375	$10^9 A_s e^{-2\tau}$	1.8811	1.881 ± 0.010	$f\sigma_8(0.15)$	0.4567	0.4565 ± 0.0055
A_{143}^{tSZ}	7.06	$5.4^{+2.2}_{-1.9}$	D_{40}	1225.0	1229 ± 12	$\sigma_8(0.15)$	0.7495	0.7487 ± 0.0054
A_{100}^{PS}	246.6	259 ± 28	D_{220}	5734.2	5741 ± 38	$f\sigma_8(0.38)$	0.47523	0.4749 ± 0.0047
A_{143}^{PS}	50.6	46 ± 8	D_{810}	2541.2	2540 ± 13	$\sigma_8(0.38)$	0.66450	0.6637 ± 0.0048
$A_{143 \times 217}^{\text{PS}}$	54.1	42 ± 9	D_{1420}	819.18	817.9 ± 4.7	$f\sigma_8(0.51)$	0.47393	0.4736 ± 0.0042
A_{217}^{PS}	122.3	115 ± 10	D_{2000}	231.67	231.1 ± 1.5	$\sigma_8(0.51)$	0.62190	0.6212 ± 0.0044
A^{kSZ}	0.01	< 4.27	$n_{s,0.002}$	0.96824	0.9665 ± 0.0038	$f\sigma_8(0.61)$	0.46903	0.4686 ± 0.0039
A_{100}^{dustTT}	8.78	8.9 ± 1.8	Y_{P}	0.245425	$0.245414^{+0.000055}_{-0.000048}$	$\sigma_8(0.61)$	0.59178	0.5911 ± 0.0042
A_{143}^{dustTT}	10.97	10.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.246752	$0.246740^{+0.000055}_{-0.000048}$	$f\sigma_8(2.33)$	0.29841	0.2980 ± 0.0022
$A_{143 \times 217}^{\text{dustTT}}$	20.03	18.5 ± 3.3	$10^5 \text{D}/\text{H}$	2.5713	2.576 ± 0.025	$\sigma_8(2.33)$	0.30769	0.3073 ± 0.0023
A_{217}^{dustTT}	95.3	93.5 ± 7.3	Age/Gyr	13.7839	13.787 ± 0.020	f_{2000}^{143}	28.16	29.4 ± 2.7
A_{100}^{dustTE}	0.1136	0.114 ± 0.038	z_*	1089.760	1089.80 ± 0.21	$f_{2000}^{143 \times 217}$	31.63	32.1 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1347	0.135 ± 0.030	r_*	144.559	144.57 ± 0.22	f_{2000}^{217}	106.20	106.9 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.481 ± 0.084	$100\theta_*$	1.041190	1.04119 ± 0.00029	χ_{lensing}^2	8.730	9.10 ± 0.59
A_{143}^{dustTE}	0.224	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8840	13.885 ± 0.021	χ_{small}^2	396.52	397.2 ± 1.8
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.668 ± 0.081	z_{drag}	1060.047	1060.01 ± 0.29	χ_{lowl}^2	22.90	23.25 ± 0.82
A_{217}^{dustTE}	2.076	2.08 ± 0.27	r_{drag}	147.198	147.21 ± 0.23	χ_{plik}^2	2345.3	2359.6 ± 5.8
c_{100}	0.99973	0.99967 ± 0.00062	k_{D}	0.140814	0.14078 ± 0.00028	$\chi_{6\text{DF}}^2$	0.0289	0.053 ± 0.060
c_{217}	0.99817	0.99818 ± 0.00063	$100\theta_{\text{D}}$	0.160690	0.16072 ± 0.00017	χ_{MGS}^2	1.217	1.24 ± 0.38
H_0	67.702	67.66 ± 0.42	z_{eq}	3386.8	3387 ± 21	χ_{DR12BAO}^2	4.42	4.8 ± 1.3
Ω_{Λ}	0.6894	0.6889 ± 0.0056	k_{eq}	0.010337	0.010339 ± 0.000063	χ_{prior}^2	1.56	11.5 ± 4.5
Ω_{m}	0.3106	0.3111 ± 0.0056	$100\theta_{\text{eq}}$	0.81635	0.8162 ± 0.0039	χ_{CMB}^2	2773.5	2789.2 ± 5.9
$\Omega_{\text{m}} h^2$	0.14237	0.14240 ± 0.00087	$100\theta_{\text{s,eq}}$	0.45092	0.4509 ± 0.0020	χ_{BAO}^2	5.67	6.1 ± 1.0
$\Omega_{\text{m}} h^3$	0.096387	0.09635 ± 0.00030	$H(0.15)$	72.978	72.94 ± 0.36			
σ_8	0.8110	0.8102 ± 0.0060	$D_M(0.15)$	640.41	640.8 ± 3.5			

Best-fit $\chi_{\text{eff}}^2 = 2780.70$; $\bar{\chi}_{\text{eff}}^2 = 2806.84$; $R - 1 = 0.01508$

χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.42 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.73 small_100x143.offlike5_EE_Aplanck_B: 396.52 commander_dx12.v3.2.29: 22.90 plik_rd12_HM_v22b_TTTEEE: 2345.32

2.99 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022506	0.02248 ± 0.00014	σ_8	0.8103	0.8095 ± 0.0060	$H(0.15)$	73.237	73.17 ± 0.44
$\Omega_c h^2$	0.11866	0.1188 ± 0.0011	S_8	0.8193	0.820 ± 0.012	$D_M(0.15)$	637.86	638.5 ± 4.3
$100\theta_{MC}$	1.041111	1.04109 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4487	0.4490 ± 0.0067	$H(0.38)$	83.273	83.22 ± 0.33
τ	0.0587	0.0575 ± 0.0074	$\sigma_8 \Omega_m^{0.25}$	0.6030	0.6028 ± 0.0063	$D_M(0.38)$	1522.4	1523.8 ± 8.7
$\ln(10^{10} A_s)$	3.0509	3.049 ± 0.014	$\sigma_8/h^{0.5}$	0.9826	0.9822 ± 0.0090	$H(0.51)$	89.947	89.91 ± 0.26
n_s	0.96947	0.9679 ± 0.0042	$r_{drag} h$	100.16	100.05 ± 0.87	$D_M(0.51)$	1972.9	1974 ± 10
y_{cal}	1.00073	1.0008 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4299	2.432 ± 0.022	$H(0.61)$	95.534	95.50 ± 0.22
A_{217}^{CIB}	45.8	47 ± 7	z_{re}	8.07	7.94 ± 0.72	$D_M(0.61)$	2296.4	2298 ± 11
$\xi^{tSZ \times CIB}$	0.610	> 0.380	$10^9 A_s$	2.1134	2.109 ± 0.030	$H(2.33)$	235.83	235.90 ± 0.66
A_{143}^{tSZ}	7.08	5.5 ± 2.0	$10^9 A_s e^{-2\tau}$	1.8793	1.879 ± 0.011	$D_M(2.33)$	5752.2	5754 ± 10
A_{100}^{PS}	247.9	258 ± 28	D_{40}	1223.8	1227 ± 12	$f\sigma_8(0.15)$	0.4537	0.4539 ± 0.0062
A_{143}^{PS}	48.8	45 ± 8	D_{220}	5742.6	5746 ± 38	$\sigma_8(0.15)$	0.7493	0.7484 ± 0.0055
$A_{143 \times 217}^{PS}$	51.2	42 ± 9	D_{810}	2541.8	2540 ± 13	$f\sigma_8(0.38)$	0.4731	0.4730 ± 0.0051
A_{217}^{PS}	121.4	115 ± 10	D_{1420}	819.81	818.6 ± 4.7	$\sigma_8(0.38)$	0.66469	0.6638 ± 0.0048
A^{kSZ}	0.01	< 4.19	D_{2000}	231.94	231.4 ± 1.6	$f\sigma_8(0.51)$	0.47230	0.4721 ± 0.0045
A_{100}^{dustTT}	8.85	8.8 ± 1.8	$n_{s,0.002}$	0.96947	0.9679 ± 0.0042	$\sigma_8(0.51)$	0.62226	0.6214 ± 0.0045
A_{143}^{dustTT}	10.96	10.9 ± 1.8	Y_P	0.245447	0.245437 ± 0.000054	$f\sigma_8(0.61)$	0.46771	0.4674 ± 0.0042
$A_{143 \times 217}^{dustTT}$	19.94	18.5 ± 3.3	Y_P^{BBN}	0.246774	0.246763 ± 0.000055	$\sigma_8(0.61)$	0.59223	0.5914 ± 0.0043
A_{217}^{dustTT}	95.4	93.4 ± 7.4	$10^5 D/H$	2.5608	2.565 ± 0.026	$f\sigma_8(2.33)$	0.29880	0.2983 ± 0.0022
A_{100}^{dustTE}	0.1130	0.113 ± 0.038	Age/Gyr	13.7724	13.776 ± 0.022	$\sigma_8(2.33)$	0.30826	0.3077 ± 0.0024
$A_{100 \times 143}^{dustTE}$	0.1349	0.135 ± 0.029	z_*	1089.632	1089.68 ± 0.24	f_{2000}^{143}	28.06	29.0 ± 2.8
$A_{100 \times 217}^{dustTE}$	0.482	0.482 ± 0.083	r_*	144.674	144.66 ± 0.25	$f_{2000}^{143 \times 217}$	31.45	31.8 ± 1.9
A_{143}^{dustTE}	0.224	0.225 ± 0.054	$100\theta_*$	1.041279	1.04127 ± 0.00030	f_{2000}^{217}	106.15	106.7 ± 1.8
$A_{143 \times 217}^{dustTE}$	0.662	0.667 ± 0.083	$D_M(z_*)/\text{Gpc}$	13.8939	13.892 ± 0.023	$\chi_{lensing}^2$	8.714	9.17 ± 0.72
A_{217}^{dustTE}	2.073	2.07 ± 0.27	z_{drag}	1060.162	1060.11 ± 0.30	χ_{small}^2	396.93	397.5 ± 2.1
c_{100}	0.99975	0.99968 ± 0.00062	r_{drag}	147.295	147.28 ± 0.25	χ_{lowl}^2	22.73	23.05 ± 0.84
c_{217}	0.99817	0.99818 ± 0.00064	k_D	0.140755	0.14075 ± 0.00029	χ_{plik}^2	2346.0	2360.5 ± 6.1
H_0	68.002	67.93 ± 0.51	$100\theta_D$	0.160643	0.16067 ± 0.00017	$\chi_{H073p45}^2$	10.77	11.2 ± 2.0
Ω_Λ	0.6933	0.6923 ± 0.0067	z_{eq}	3373.4	3376 ± 25	χ_{prior}^2	1.63	11.6 ± 4.5
Ω_m	0.3067	0.3077 ± 0.0067	k_{eq}	0.010296	0.010305 ± 0.000076	χ_{CMB}^2	2774.3	2790.2 ± 6.1
$\Omega_m h^2$	0.14181	0.1419 ± 0.0010	$100\theta_{eq}$	0.81901	0.8184 ± 0.0048			
$\Omega_m h^3$	0.096433	0.09641 ± 0.00029	$100\theta_{s,eq}$	0.45226	0.4520 ± 0.0024			

Best-fit $\chi_{eff}^2 = 2786.73$; $\bar{\chi}_{eff}^2 = 2812.97$; $R - 1 = 0.03088$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.71 simall_100x143_offlike5_EE_Aplanck_B: 396.93 commander_dx12_v3.2_29: 22.73 plik_rd12_HM_v22b_TTTEEE: 2345.95 Hubble - H073p45: 10.77

2.100 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022515	0.02249 ± 0.00013	S_8	0.8172	0.818 ± 0.010	$H(0.38)$	83.292	83.27 ± 0.26
$\Omega_c h^2$	0.11857	0.11863 ± 0.00090	$\sigma_8 \Omega_m^{0.5}$	0.4476	0.4480 ± 0.0057	$D_M(0.38)$	1521.9	1522.4 ± 7.0
$100\theta_{MC}$	1.041086	1.04112 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6017	0.6021 ± 0.0057	$H(0.51)$	89.961	89.95 ± 0.21
τ	0.0573	0.0579 ± 0.0072	$\sigma_8/h^{0.5}$	0.9807	0.9812 ± 0.0084	$D_M(0.51)$	1972.3	1972.9 ± 8.2
$\ln(10^{10} A_s)$	3.0482	3.049 ± 0.014	$r_{\text{drag}} h$	100.22	100.19 ± 0.70	$H(0.61)$	95.544	95.53 ± 0.18
n_s	0.96965	0.9682 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.4254	2.430 ± 0.021	$D_M(0.61)$	2295.7	2296.4 ± 8.9
y_{cal}	1.00084	1.0008 ± 0.0024	z_{re}	7.93	7.98 ± 0.71	$H(2.33)$	235.78	235.80 ± 0.55
A_{217}^{CIB}	45.7	47 ± 7	$10^9 A_s$	2.1078	2.110 ± 0.030	$D_M(2.33)$	5751.9	5752.6 ± 8.6
$\xi^{\text{tSZ} \times \text{CIB}}$	0.681	> 0.384	$10^9 A_s e^{-2\tau}$	1.8794	1.879 ± 0.010	$f\sigma_8(0.15)$	0.4526	0.4530 ± 0.0054
A_{143}^{tSZ}	7.12	5.5 ± 2.0	D_{40}	1223.2	1226 ± 12	$\sigma_8(0.15)$	0.7480	0.7482 ± 0.0055
A_{100}^{PS}	246.4	258 ± 28	D_{220}	5744.9	5747 ± 38	$f\sigma_8(0.38)$	0.47212	0.4724 ± 0.0046
A_{143}^{PS}	49.7	45 ± 8	D_{810}	2542.5	2540 ± 13	$\sigma_8(0.38)$	0.66365	0.6637 ± 0.0048
$A_{143 \times 217}^{\text{PS}}$	53.0	42 ± 9	D_{1420}	820.13	818.7 ± 4.6	$f\sigma_8(0.51)$	0.47135	0.4716 ± 0.0042
A_{217}^{PS}	121.8	115 ± 10	D_{2000}	232.02	231.5 ± 1.5	$\sigma_8(0.51)$	0.62131	0.6214 ± 0.0045
A^{kSZ}	0.01	< 4.17	$n_{s,0.002}$	0.96965	0.9682 ± 0.0038	$f\sigma_8(0.61)$	0.46681	0.4670 ± 0.0040
A_{100}^{dustTT}	8.81	8.8 ± 1.8	Y_P	0.2454498	0.245441 ± 0.000050	$\sigma_8(0.61)$	0.59134	0.5914 ± 0.0043
A_{143}^{dustTT}	11.02	10.9 ± 1.8	Y_P^{BBN}	0.2467765	0.246768 ± 0.000051	$f\sigma_8(2.33)$	0.29837	0.2984 ± 0.0022
$A_{143 \times 217}^{\text{dustTT}}$	20.09	18.5 ± 3.3	$10^5 D/H$	2.5593	2.563 ± 0.024	$\sigma_8(2.33)$	0.30784	0.3078 ± 0.0023
A_{217}^{dustTT}	95.4	93.4 ± 7.4	Age/Gyr	13.7717	13.773 ± 0.019	f_{2000}^{143}	28.00	29.0 ± 2.7
A_{100}^{dustTE}	0.1132	0.113 ± 0.038	z_*	1089.614	1089.65 ± 0.21	$f_{2000}^{143 \times 217}$	31.49	31.8 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.135 ± 0.029	r_*	144.691	144.69 ± 0.22	f_{2000}^{217}	106.12	106.7 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.483 ± 0.083	$100\theta_*$	1.041261	1.04129 ± 0.00028	χ_{lensing}^2	8.789	9.15 ± 0.73
A_{143}^{dustTE}	0.223	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8958	13.895 ± 0.021	χ_{small}^2	396.58	397.6 ± 2.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.667 ± 0.083	z_{drag}	1060.162	1060.12 ± 0.29	χ_{lowl}^2	22.65	22.98 ± 0.79
A_{217}^{dustTE}	2.077	2.07 ± 0.27	r_{drag}	147.310	147.32 ± 0.23	χ_{plik}^2	2346.5	2360.5 ± 6.0
c_{100}	0.99974	0.99968 ± 0.00062	k_D	0.140746	0.14072 ± 0.00028	χ_{H073p45}^2	10.64	10.8 ± 1.6
c_{217}	0.99817	0.99818 ± 0.00063	$100\theta_D$	0.160632	0.16066 ± 0.00017	$\chi_{6\text{DF}}^2$	0.0029	0.024 ± 0.034
H_0	68.035	68.01 ± 0.41	z_{eq}	3371.4	3372 ± 20	χ_{MGS}^2	1.540	1.57 ± 0.41
Ω_Λ	0.6938	0.6934 ± 0.0054	k_{eq}	0.010290	0.010293 ± 0.000062	χ_{DR12BAO}^2	3.696	4.05 ± 0.80
Ω_m	0.3062	0.3066 ± 0.0054	$100\theta_{\text{eq}}$	0.81937	0.8192 ± 0.0039	χ_{prior}^2	1.65	11.6 ± 4.5
$\Omega_m h^2$	0.14173	0.14177 ± 0.00085	$100\theta_{s,\text{eq}}$	0.45245	0.4524 ± 0.0020	χ_{CMB}^2	2774.5	2790.2 ± 6.0
$\Omega_m h^3$	0.096425	0.09641 ± 0.00029	$H(0.15)$	73.264	73.24 ± 0.35	χ_{BAO}^2	5.239	5.64 ± 0.58
σ_8	0.8089	0.8091 ± 0.0060	$D_M(0.15)$	637.59	637.9 ± 3.4			

Best-fit $\chi_{\text{eff}}^2 = 2792.01$; $\bar{\chi}_{\text{eff}}^2 = 2818.25$; $R - 1 = 0.03699$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.70 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.79 small_100x143.offlike5_EE_Aplanck_B: 396.58 commander_dx12.v3.2.29: 22.66 plik_rd12_HM_v22b_TTTEEE: 2346.46 Hubble - H073p45: 10.64

2.101 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022400	0.02239 ± 0.00014	σ_8	0.8112	0.8108 ± 0.0060	$H(0.15)$	72.773	72.78 ± 0.43
$\Omega_c h^2$	0.11977	0.1197 ± 0.0011	S_8	0.8296	0.829 ± 0.012	$D_M(0.15)$	642.44	642.4 ± 4.3
$100\theta_{MC}$	1.040941	1.04095 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4544	0.4541 ± 0.0067	$H(0.38)$	82.933	82.94 ± 0.32
τ	0.0549	0.0550 ± 0.0073	$\sigma_8 \Omega_m^{0.25}$	0.6071	0.6068 ± 0.0062	$D_M(0.38)$	1531.6	1531.5 ± 8.7
$\ln(10^{10} A_s)$	3.0453	3.045 ± 0.014	$\sigma_8/h^{0.5}$	0.9876	0.9871 ± 0.0089	$H(0.51)$	89.679	89.68 ± 0.26
n_s	0.96641	0.9655 ± 0.0041	$r_{\text{drag}} h$	99.25	99.28 ± 0.87	$D_M(0.51)$	1983.7	1984 ± 10
y_{cal}	1.00064	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4413	2.443 ± 0.022	$H(0.61)$	95.320	95.32 ± 0.21
A_{217}^{CIB}	47.2	47 ± 7	z_{re}	7.73	7.73 ± 0.73	$D_M(0.61)$	2308.0	2308 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	0.446	> 0.375	$10^9 A_s$	2.1016	2.102 ± 0.030	$H(2.33)$	236.44	236.41 ± 0.66
A_{143}^{tSZ}	7.20	$5.4_{-1.9}^{+2.2}$	$10^9 A_s e^{-2\tau}$	1.8832	1.883 ± 0.011	$D_M(2.33)$	5761.6	5761.7 ± 9.9
A_{100}^{PS}	250.3	259 ± 28	D_{40}	1228.7	1231 ± 12	$f\sigma_8(0.15)$	0.4588	0.4585 ± 0.0062
A_{143}^{PS}	47.7	46 ± 8	D_{220}	5734.6	5738 ± 38	$\sigma_8(0.15)$	0.7493	0.7490 ± 0.0054
$A_{143 \times 217}^{\text{PS}}$	47.9	42 ± 9	D_{810}	2541.2	2540 ± 13	$f\sigma_8(0.38)$	0.4766	0.4763 ± 0.0051
A_{217}^{PS}	119.7	115 ± 10	D_{1420}	818.47	817.5 ± 4.7	$\sigma_8(0.38)$	0.66399	0.6637 ± 0.0047
A^{kSZ}	0.00	< 4.31	D_{2000}	231.33	231.0 ± 1.6	$f\sigma_8(0.51)$	0.47497	0.4747 ± 0.0045
A_{100}^{dustTT}	8.83	8.9 ± 1.8	$n_{s,0.002}$	0.96641	0.9655 ± 0.0041	$\sigma_8(0.51)$	0.62128	0.6210 ± 0.0044
A_{143}^{dustTT}	11.02	10.9 ± 1.8	Y_P	0.245407	$0.245402_{-0.000052}^{+0.000058}$	$f\sigma_8(0.61)$	0.46981	0.4695 ± 0.0041
$A_{143 \times 217}^{\text{dustTT}}$	19.81	18.5 ± 3.3	Y_P^{BBN}	0.246734	$0.246729_{-0.000052}^{+0.000059}$	$\sigma_8(0.61)$	0.59110	0.5909 ± 0.0042
A_{217}^{dustTT}	95.0	93.5 ± 7.3	$10^5 D/H$	2.5800	2.582 ± 0.026	$f\sigma_8(2.33)$	0.29794	0.2978 ± 0.0022
A_{100}^{dustTE}	0.1139	0.114 ± 0.038	Age/Gyr	13.7930	13.793 ± 0.022	$\sigma_8(2.33)$	0.30707	0.3070 ± 0.0023
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.135 ± 0.030	z_*	1089.862	1089.87 ± 0.24	f_{2000}^{143}	28.79	29.5 ± 2.7
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085	r_*	144.467	144.48 ± 0.25	$f_{2000}^{143 \times 217}$	31.98	32.2 ± 1.9
A_{143}^{dustTE}	0.223	0.225 ± 0.054	$100\theta_*$	1.041120	1.04113 ± 0.00030	f_{2000}^{217}	106.61	107.0 ± 1.8
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.669 ± 0.081	$D_M(z_*)/\text{Gpc}$	13.8761	13.877 ± 0.024	χ_{lensing}^2	8.771	9.17 ± 0.63
A_{217}^{dustTE}	2.080	2.08 ± 0.27	z_{drag}	1059.971	1059.97 ± 0.30	χ_{simall}^2	396.16	397.1 ± 1.7
c_{100}	0.99973	0.99967 ± 0.00061	r_{drag}	147.120	147.14 ± 0.25	χ_{lowl}^2	23.18	23.42 ± 0.87
c_{217}	0.99817	0.99819 ± 0.00062	k_D	0.140861	0.14084 ± 0.00029	χ_{plik}^2	2344.9	2359.5 ± 5.8
H_0	67.46	67.48 ± 0.50	$100\theta_D$	0.160728	0.16074 ± 0.00017	χ_{JLA}^2	1035.184	1035.27 ± 0.43
Ω_Λ	0.6862	0.6863 ± 0.0069	z_{eq}	3397.5	3396 ± 25	χ_{prior}^2	1.70	11.5 ± 4.5
Ω_m	0.3138	0.3137 ± 0.0069	k_{eq}	0.010369	0.010366 ± 0.000076	χ_{CMB}^2	2773.0	2789.2 ± 5.9
$\Omega_m h^2$	0.14282	0.1428 ± 0.0010	$100\theta_{\text{eq}}$	0.81424	0.8144 ± 0.0047			
$\Omega_m h^3$	0.096351	0.09633 ± 0.00030	$100\theta_{s,\text{eq}}$	0.44985	0.4500 ± 0.0024			

Best-fit $\chi_{\text{eff}}^2 = 3809.84$; $\bar{\chi}_{\text{eff}}^2 = 3835.97$; $R - 1 = 0.01281$
 χ_{eff}^2 : CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p_teb_consext8: 8.77 simall_100x143_offlike5_EE_Aplanck_B: 396.16 commander_dx12_v3.2_29: 23.18 plik_rd12_HM_v22b_TTTEEE: 2344.85 SN - JLA Pantheon18: 1035.18

2.102 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_JLA_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022522	0.02250 ± 0.00013	S_8	0.8169	0.817 ± 0.010	$H(0.38)$	83.330	83.29 ± 0.26
$\Omega_c h^2$	0.11843	0.11858 ± 0.00089	$\sigma_8 \Omega_m^{0.5}$	0.4474	0.4477 ± 0.0057	$D_M(0.38)$	1520.8	1522.0 ± 6.9
$100\theta_{MC}$	1.041109	1.04112 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6019	0.6018 ± 0.0057	$H(0.51)$	89.991	89.96 ± 0.21
τ	0.0588	0.0580 ± 0.0072	$\sigma_8/h^{0.5}$	0.9812	0.9809 ± 0.0084	$D_M(0.51)$	1971.1	1972.5 ± 8.1
$\ln(10^{10} A_s)$	3.0511	3.049 ± 0.014	$r_{\text{drag}} h$	100.33	100.22 ± 0.69	$H(0.61)$	95.567	95.54 ± 0.18
n_s	0.96996	0.9684 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.4267	2.429 ± 0.021	$D_M(0.61)$	2294.4	2295.9 ± 8.8
y_{cal}	1.00101	1.0008 ± 0.0024	z_{re}	8.07	7.99 ± 0.71	$H(2.33)$	235.69	235.77 ± 0.55
A_{217}^{CIB}	45.6	47 ± 7	$10^9 A_s$	2.1138	2.110 ± 0.030	$D_M(2.33)$	5751.0	5752.2 ± 8.6
$\xi^{\text{tSZ} \times \text{CIB}}$	0.672	> 0.386	$10^9 A_s e^{-2\tau}$	1.8793	1.879 ± 0.010	$f\sigma_8(0.15)$	0.4525	0.4527 ± 0.0054
A_{143}^{tSZ}	7.15	5.5 ± 2.0	D_{40}	1223.3	1226 ± 12	$\sigma_8(0.15)$	0.7488	0.7481 ± 0.0055
A_{100}^{PS}	247.3	258 ± 28	D_{220}	5746.7	5747 ± 38	$f\sigma_8(0.38)$	0.47220	0.4722 ± 0.0046
A_{143}^{PS}	49.8	45 ± 8	D_{810}	2542.8	2540 ± 13	$\sigma_8(0.38)$	0.66444	0.6637 ± 0.0048
$A_{143 \times 217}^{\text{PS}}$	52.8	42 ± 9	D_{1420}	820.31	818.7 ± 4.6	$f\sigma_8(0.51)$	0.47153	0.4714 ± 0.0042
A_{217}^{PS}	121.8	115 ± 10	D_{2000}	232.10	231.5 ± 1.5	$\sigma_8(0.51)$	0.62208	0.6214 ± 0.0045
A^{kSZ}	0.00	< 4.17	$n_{s,0.002}$	0.96996	0.9684 ± 0.0038	$f\sigma_8(0.61)$	0.46705	0.4669 ± 0.0039
A_{100}^{dustTT}	8.81	8.8 ± 1.8	Y_P	0.2454524	0.245442 ± 0.000050	$\sigma_8(0.61)$	0.59210	0.5914 ± 0.0043
A_{143}^{dustTT}	11.06	10.9 ± 1.8	Y_P^{BBN}	0.2467791	0.246769 ± 0.000050	$f\sigma_8(2.33)$	0.29879	0.2984 ± 0.0022
$A_{143 \times 217}^{\text{dustTT}}$	20.24	18.5 ± 3.3	$10^5 D/H$	2.5580	2.563 ± 0.024	$\sigma_8(2.33)$	0.30831	0.3079 ± 0.0023
A_{217}^{dustTT}	95.8	93.4 ± 7.4	Age/Gyr	13.7698	13.773 ± 0.019	f_{2000}^{143}	28.11	29.0 ± 2.7
A_{100}^{dustTE}	0.1136	0.113 ± 0.038	z_*	1089.592	1089.64 ± 0.21	$f_{2000}^{143 \times 217}$	31.50	31.7 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1345	0.135 ± 0.029	r_*	144.722	144.70 ± 0.21	f_{2000}^{217}	106.14	106.7 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.483 ± 0.083	$100\theta_*$	1.041281	1.04129 ± 0.00028	χ_{lensing}^2	8.753	9.16 ± 0.74
A_{143}^{dustTE}	0.224	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8984	13.896 ± 0.021	χ_{small}^2	396.93	397.6 ± 2.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.667 ± 0.083	z_{drag}	1060.162	1060.13 ± 0.29	χ_{lowl}^2	22.63	22.96 ± 0.79
A_{217}^{dustTE}	2.071	2.06 ± 0.27	r_{drag}	147.339	147.33 ± 0.23	χ_{plik}^2	2346.4	2360.6 ± 6.0
c_{100}	0.99974	0.99968 ± 0.00062	k_D	0.140721	0.14071 ± 0.00028	χ_{H073p45}^2	10.40	10.7 ± 1.6
c_{217}	0.99817	0.99818 ± 0.00063	$100\theta_D$	0.160630	0.16066 ± 0.00017	χ_{JLA}^2	706.600	706.64 ± 0.11
H_0	68.098	68.03 ± 0.40	z_{eq}	3368.3	3371 ± 20	$\chi_{6\text{DF}}^2$	0.00098	0.023 ± 0.032
Ω_Λ	0.6947	0.6937 ± 0.0053	k_{eq}	0.010280	0.010290 ± 0.000062	χ_{MGS}^2	1.608	1.59 ± 0.41
Ω_m	0.3053	0.3063 ± 0.0053	$100\theta_{\text{eq}}$	0.81998	0.8194 ± 0.0038	χ_{DR12BAO}^2	3.602	4.01 ± 0.76
$\Omega_m h^2$	0.14160	0.14172 ± 0.00084	$100\theta_{s,\text{eq}}$	0.45276	0.4525 ± 0.0020	χ_{prior}^2	1.71	11.6 ± 4.6
$\Omega_m h^3$	0.096424	0.09641 ± 0.00029	$H(0.15)$	73.317	73.26 ± 0.35	χ_{CMB}^2	2774.7	2790.3 ± 6.1
σ_8	0.8097	0.8090 ± 0.0060	$D_M(0.15)$	637.07	637.7 ± 3.4	χ_{BAO}^2	5.211	5.62 ± 0.56

Best-fit $\chi_{\text{eff}}^2 = 3498.60$; $\bar{\chi}_{\text{eff}}^2 = 3524.87$; $R - 1 = 0.03975$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.60 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.75 small_100x143.offlike5_EE_Aplanck_B: 396.93 commander_dx12.v3.2.29: 22.63 plik_rd12_HM_v22b_TTTEEE: 2346.36 Hubble - H073p45: 10.40 SN - JLA December_2013: 706.60

2.103 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022451	0.02243 ± 0.00013	S_8	0.8237	0.824 ± 0.010	$H(0.38)$	83.116	83.09 ± 0.26
$\Omega_c h^2$	0.11913	0.11921 ± 0.00089	$\sigma_8 \Omega_m^{0.5}$	0.4511	0.4513 ± 0.0057	$D_M(0.38)$	1526.6	1527.4 ± 6.9
$100\theta_{MC}$	1.041017	1.04102 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6047	0.6046 ± 0.0057	$H(0.51)$	89.821	89.80 ± 0.21
τ	0.0568	0.0564 ± 0.0071	$\sigma_8/h^{0.5}$	0.9847	0.9844 ± 0.0084	$D_M(0.51)$	1977.8	1978.8 ± 8.2
$\ln(10^{10} A_s)$	3.0482	3.047 ± 0.014	$r_{\text{drag}} h$	99.77	99.70 ± 0.69	$H(0.61)$	95.431	95.41 ± 0.18
n_s	0.96823	0.9668 ± 0.0037	$\langle d^2 \rangle^{1/2}$	2.4343	2.437 ± 0.021	$D_M(0.61)$	2301.7	2302.7 ± 8.8
y_{cal}	1.00085	1.0008 ± 0.0025	z_{re}	7.90	7.85 ± 0.70	$H(2.33)$	236.07	236.11 ± 0.55
A_{217}^{CIB}	46.6	47 ± 7	$10^9 A_s$	2.1077	2.105 ± 0.030	$D_M(2.33)$	5756.9	5757.8 ± 8.7
$\xi^{\text{tSZ} \times \text{CIB}}$	0.558	> 0.377	$10^9 A_s e^{-2\tau}$	1.8813	1.881 ± 0.010	$f\sigma_8(0.15)$	0.4559	0.4559 ± 0.0054
A_{143}^{tSZ}	7.16	$5.4^{+2.2}_{-2.0}$	D_{40}	1225.7	1229 ± 12	$\sigma_8(0.15)$	0.7492	0.7486 ± 0.0054
A_{100}^{PS}	248.6	259 ± 28	D_{220}	5739.0	5741 ± 38	$f\sigma_8(0.38)$	0.47461	0.4745 ± 0.0046
A_{143}^{PS}	48.8	46 ± 8	D_{810}	2542.0	2540 ± 13	$\sigma_8(0.38)$	0.66431	0.6637 ± 0.0048
$A_{143 \times 217}^{\text{PS}}$	50.4	42 ± 9	D_{1420}	819.38	818.0 ± 4.7	$f\sigma_8(0.51)$	0.47342	0.4732 ± 0.0042
A_{217}^{PS}	120.6	115 ± 10	D_{2000}	231.70	231.2 ± 1.5	$\sigma_8(0.51)$	0.62176	0.6212 ± 0.0045
A^{kSZ}	0.00	< 4.24	$n_{s,0.002}$	0.96823	0.9668 ± 0.0037	$f\sigma_8(0.61)$	0.46858	0.4684 ± 0.0039
A_{100}^{dustTT}	8.84	8.9 ± 1.8	Y_{P}	0.245427	$0.245417^{+0.000054}_{-0.000047}$	$\sigma_8(0.61)$	0.59167	0.5911 ± 0.0043
A_{143}^{dustTT}	11.02	10.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.246753	$0.246744^{+0.000054}_{-0.000048}$	$f\sigma_8(2.33)$	0.29839	0.2981 ± 0.0022
$A_{143 \times 217}^{\text{dustTT}}$	19.94	18.5 ± 3.3	$10^5 D/H$	2.5706	2.575 ± 0.025	$\sigma_8(2.33)$	0.30771	0.3074 ± 0.0023
A_{217}^{dustTT}	95.2	93.5 ± 7.3	Age/Gyr	13.7827	13.785 ± 0.020	f_{2000}^{143}	28.47	29.3 ± 2.7
A_{100}^{dustTE}	0.1140	0.114 ± 0.037	z_*	1089.742	1089.78 ± 0.21	$f_{2000}^{143 \times 217}$	31.78	32.0 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.135 ± 0.030	r_*	144.595	144.59 ± 0.21	f_{2000}^{217}	106.41	106.9 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.484	0.482 ± 0.084	$100\theta_*$	1.041196	1.04120 ± 0.00029	χ_{lensing}^2	8.719	9.10 ± 0.60
A_{143}^{dustTE}	0.224	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8874	13.887 ± 0.021	χ_{small}^2	396.52	397.2 ± 1.9
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.668 ± 0.081	z_{drag}	1060.047	1060.02 ± 0.29	χ_{lowl}^2	22.88	23.20 ± 0.81
A_{217}^{dustTE}	2.079	2.08 ± 0.27	r_{drag}	147.233	147.23 ± 0.23	χ_{plik}^2	2345.3	2359.7 ± 5.8
c_{100}	0.99971	0.99967 ± 0.00062	k_{D}	0.140780	0.14076 ± 0.00028	χ_{JLA}^2	1034.974	1035.06 ± 0.26
c_{217}	0.99819	0.99818 ± 0.00063	$100\theta_{\text{D}}$	0.160690	0.16072 ± 0.00017	$\chi_{6\text{DF}}^2$	0.0218	0.046 ± 0.053
H_0	67.761	67.72 ± 0.40	z_{eq}	3383.3	3385 ± 20	χ_{MGS}^2	1.279	1.29 ± 0.38
Ω_{Λ}	0.6902	0.6896 ± 0.0054	k_{eq}	0.010326	0.010331 ± 0.000062	χ_{DR12BAO}^2	4.24	4.7 ± 1.2
Ω_{m}	0.3098	0.3104 ± 0.0054	$100\theta_{\text{eq}}$	0.81699	0.8167 ± 0.0038	χ_{prior}^2	1.77	11.5 ± 4.5
$\Omega_{\text{m}} h^2$	0.14222	0.14229 ± 0.00084	$100\theta_{\text{s,eq}}$	0.45125	0.4511 ± 0.0019	χ_{CMB}^2	2773.4	2789.3 ± 5.9
$\Omega_{\text{m}} h^3$	0.096371	0.09635 ± 0.00029	$H(0.15)$	73.027	72.99 ± 0.35	χ_{BAO}^2	5.55	6.00 ± 0.92
σ_8	0.8106	0.8100 ± 0.0060	$D_M(0.15)$	639.92	640.3 ± 3.4			

Best-fit $\chi_{\text{eff}}^2 = 3815.67$; $\bar{\chi}_{\text{eff}}^2 = 3841.86$; $R - 1 = 0.01667$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.24 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.72 small_100x143.offlike5_EE_Aplanck_B: 396.52 commander_dx12.v3.2.29: 22.88 plik_rd12_HM_v22b_TTTEEE: 2345.27 SN - JLA Pantheon18: 1034.97

2.104 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022510	0.02250 ± 0.00013	S_8	0.8183	0.817 ± 0.010	$H(0.38)$	83.292	83.29 ± 0.26
$\Omega_c h^2$	0.11858	0.11856 ± 0.00087	$\sigma_8 \Omega_m^{0.5}$	0.4482	0.4476 ± 0.0056	$D_M(0.38)$	1521.9	1521.9 ± 6.8
$100\theta_{MC}$	1.041117	1.04113 ± 0.00028	$\sigma_8 \Omega_m^{0.25}$	0.6025	0.6018 ± 0.0056	$H(0.51)$	89.962	89.96 ± 0.21
τ	0.0586	0.0580 ± 0.0072	$\sigma_8/h^{0.5}$	0.9819	0.9808 ± 0.0084	$D_M(0.51)$	1972.3	1972.3 ± 8.0
$\ln(10^{10} A_s)$	3.0505	3.049 ± 0.014	$r_{\text{drag}} h$	100.22	100.24 ± 0.68	$H(0.61)$	95.544	95.54 ± 0.18
n_s	0.96970	0.9684 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.4281	2.429 ± 0.021	$D_M(0.61)$	2295.7	2295.7 ± 8.6
y_{cal}	1.00076	1.0008 ± 0.0024	z_{re}	8.06	7.99 ± 0.71	$H(2.33)$	235.78	235.76 ± 0.54
A_{217}^{CIB}	46.0	47 ± 7	$10^9 A_s$	2.1126	2.110 ± 0.030	$D_M(2.33)$	5751.9	5752.1 ± 8.5
$\xi^{\text{tSZ} \times \text{CIB}}$	0.619	> 0.387	$10^9 A_s e^{-2\tau}$	1.8790	1.878 ± 0.010	$f\sigma_8(0.15)$	0.4532	0.4526 ± 0.0053
A_{143}^{tSZ}	7.13	5.5 ± 2.0	D_{40}	1223.1	1226 ± 12	$\sigma_8(0.15)$	0.7490	0.7481 ± 0.0055
A_{100}^{PS}	248.1	258 ± 28	D_{220}	5742.4	5747 ± 38	$f\sigma_8(0.38)$	0.47271	0.4721 ± 0.0046
A_{143}^{PS}	48.9	45 ± 8	D_{810}	2541.7	2540 ± 13	$\sigma_8(0.38)$	0.66448	0.6637 ± 0.0048
$A_{143 \times 217}^{\text{PS}}$	51.5	42 ± 9	D_{1420}	819.85	818.7 ± 4.6	$f\sigma_8(0.51)$	0.47194	0.4714 ± 0.0042
A_{217}^{PS}	121.2	$115^{+11}_{-9.5}$	D_{2000}	231.96	231.5 ± 1.5	$\sigma_8(0.51)$	0.62208	0.6214 ± 0.0045
A^{kSZ}	0.00	< 4.17	$n_{s,0.002}$	0.96970	0.9684 ± 0.0038	$f\sigma_8(0.61)$	0.46740	0.4668 ± 0.0039
A_{100}^{dustTT}	8.81	8.8 ± 1.8	Y_P	0.2454479	0.245443 ± 0.000050	$\sigma_8(0.61)$	0.59207	0.5914 ± 0.0043
A_{143}^{dustTT}	11.03	10.9 ± 1.8	Y_P^{BBN}	0.2467746	0.246770 ± 0.000050	$f\sigma_8(2.33)$	0.29874	0.2984 ± 0.0022
$A_{143 \times 217}^{\text{dustTT}}$	20.01	18.5 ± 3.3	$10^5 D/H$	2.5602	2.562 ± 0.024	$\sigma_8(2.33)$	0.30822	0.3079 ± 0.0023
A_{217}^{dustTT}	95.3	93.4 ± 7.4	Age/Gyr	13.7716	13.772 ± 0.019	f_{2000}^{143}	28.06	28.9 ± 2.7
A_{100}^{dustTE}	0.1151	0.113 ± 0.038	z_*	1089.621	1089.63 ± 0.21	$f_{2000}^{143 \times 217}$	31.51	31.7 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1353	0.135 ± 0.029	r_*	144.693	144.71 ± 0.21	f_{2000}^{217}	106.16	106.7 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.478	0.483 ± 0.082	$100\theta_*$	1.041283	1.04130 ± 0.00028	χ_{lensing}^2	8.738	9.16 ± 0.74
A_{143}^{dustTE}	0.224	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8957	13.897 ± 0.020	χ_{simall}^2	396.92	397.6 ± 2.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.667 ± 0.083	z_{drag}	1060.162	1060.13 ± 0.29	χ_{lowl}^2	22.67	22.95 ± 0.79
A_{217}^{dustTE}	2.072	2.06 ± 0.27	r_{drag}	147.313	147.33 ± 0.22	χ_{plik}^2	2346.2	2360.6 ± 6.0
c_{100}	0.99975	0.99969 ± 0.00062	k_D	0.140738	0.14071 ± 0.00028	χ_{H073p45}^2	10.64	10.7 ± 1.6
c_{217}	0.99818	0.99818 ± 0.00063	$100\theta_D$	0.160642	0.16066 ± 0.00017	χ_{JLA}^2	1034.843	1034.90 ± 0.17
H_0	68.035	68.04 ± 0.40	z_{eq}	3371.5	3371 ± 20	$\chi_{6\text{DF}}^2$	0.0029	0.022 ± 0.031
Ω_Λ	0.6938	0.6938 ± 0.0052	k_{eq}	0.010290	0.010288 ± 0.000061	χ_{MGS}^2	1.540	1.60 ± 0.41
Ω_m	0.3062	0.3062 ± 0.0052	$100\theta_{\text{eq}}$	0.81936	0.8195 ± 0.0038	χ_{DR12BAO}^2	3.692	3.98 ± 0.73
$\Omega_m h^2$	0.14173	0.14170 ± 0.00083	$100\theta_{s,\text{eq}}$	0.45245	0.4525 ± 0.0019	χ_{prior}^2	1.60	11.6 ± 4.6
$\Omega_m h^3$	0.096427	0.09641 ± 0.00029	$H(0.15)$	73.264	73.27 ± 0.34	χ_{CMB}^2	2774.5	2790.3 ± 6.1
σ_8	0.8099	0.8090 ± 0.0060	$D_M(0.15)$	637.59	637.6 ± 3.3	χ_{BAO}^2	5.235	5.60 ± 0.53

Best-fit $\chi_{\text{eff}}^2 = 3826.83$; $\bar{\chi}_{\text{eff}}^2 = 3853.09$; $R - 1 = 0.04098$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.69 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.74 simall_100x143.offlike5_EE_Aplanck_B: 396.92 commander_dx12.v3.2.29: 22.68 plik_rd12_HM_v22b_TTTEEE: 2346.18 Hubble - H073p45: 10.64 SN - JLA Pantheon18: 1034.84

2.105 base_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02238 ± 0.00015	$\Omega_{\text{m}}h^3$	0.09633 ± 0.00030	$100\theta_{\text{eq}}$	0.8136 ± 0.0049
$\Omega_{\text{c}}h^2$	0.1199 ± 0.0012	σ_8	0.8116 ± 0.0057	$100\theta_{\text{s,eq}}$	0.4495 ± 0.0025
$100\theta_{\text{MC}}$	1.04092 ± 0.00031	S_8	0.832 ± 0.013	$H(0.15)$	72.70 ± 0.45
τ	$0.0552^{+0.0053}_{-0.0077}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4555 ± 0.0070	$D_{\text{M}}(0.15)$	643.2 ± 4.5
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.011}_{-0.015}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6080 ± 0.0064	$H(0.38)$	82.88 ± 0.33
n_{s}	0.9650 ± 0.0041	$\sigma_8/h^{0.5}$	0.9888 ± 0.0090	$D_{\text{M}}(0.38)$	1533.1 ± 9.1
y_{cal}	1.0006 ± 0.0024	$r_{\text{drag}}h$	99.12 ± 0.91	$H(0.51)$	89.64 ± 0.27
A_{217}^{CIB}	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.447 ± 0.022	$D_{\text{M}}(0.51)$	1985 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.76^{+0.58}_{-0.75}$	$H(0.61)$	95.29 ± 0.22
A_{143}^{tSZ}	5.4 ± 2.0	$10^9 A_{\text{s}}$	$2.103^{+0.023}_{-0.031}$	$D_{\text{M}}(0.61)$	2310 ± 11
A_{100}^{PS}	259 ± 28	$10^9 A_{\text{s}}e^{-2\tau}$	1.883 ± 0.011	$H(2.33)$	236.53 ± 0.69
A_{143}^{PS}	46 ± 8	D_{40}	1232 ± 12	$D_{\text{M}}(2.33)$	5763 ± 10
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{220}	5735 ± 38	$f\sigma_8(0.15)$	0.4598 ± 0.0065
A_{217}^{PS}	115 ± 10	D_{810}	2539 ± 13	$\sigma_8(0.15)$	$0.7496^{+0.0047}_{-0.0054}$
A^{kSZ}	< 4.30	D_{1420}	817.2 ± 4.8	$f\sigma_8(0.38)$	0.4774 ± 0.0052
A_{100}^{dustTT}	8.9 ± 1.8	D_{2000}	230.9 ± 1.6	$\sigma_8(0.38)$	$0.6641^{+0.0039}_{-0.0048}$
A_{143}^{dustTT}	10.9 ± 1.8	$n_{\text{s},0.002}$	0.9650 ± 0.0041	$f\sigma_8(0.51)$	0.4755 ± 0.0046
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	Y_{P}	$0.245396^{+0.000060}_{-0.000053}$	$\sigma_8(0.51)$	$0.6214^{+0.0037}_{-0.0045}$
A_{217}^{dustTT}	93.5 ± 7.2	$Y_{\text{P}}^{\text{BBN}}$	$0.246723^{+0.000060}_{-0.000053}$	$f\sigma_8(0.61)$	0.4703 ± 0.0041
A_{100}^{dustTE}	0.114 ± 0.038	10^5D/H	2.585 ± 0.027	$\sigma_8(0.61)$	$0.5912^{+0.0035}_{-0.0043}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.029	Age/Gyr	13.796 ± 0.023	$f\sigma_8(2.33)$	$0.2979^{+0.0018}_{-0.0022}$
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.085	z_*	1089.91 ± 0.25	$\sigma_8(2.33)$	$0.3070^{+0.0019}_{-0.0024}$
A_{143}^{dustTE}	0.225 ± 0.054	r_*	144.44 ± 0.26	f_{2000}^{143}	29.6 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.667 ± 0.080	$100\theta_*$	1.04110 ± 0.00031	$f_{2000}^{143 \times 217}$	32.2 ± 1.9
A_{217}^{dustTE}	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.874 ± 0.024	f_{2000}^{217}	107.0 ± 1.8
c_{100}	0.99967 ± 0.00061	z_{drag}	1059.95 ± 0.30	χ_{lensing}^2	9.22 ± 0.68
c_{217}	0.99819 ± 0.00062	r_{drag}	147.10 ± 0.26	χ_{small}^2	397.0 ± 1.7
H_0	67.38 ± 0.53	k_{D}	0.14086 ± 0.00030	χ_{lowl}^2	23.53 ± 0.90
Ω_{Λ}	0.6850 ± 0.0072	$100\theta_{\text{D}}$	0.16075 ± 0.00017	χ_{plik}^2	2359.3 ± 5.7
Ω_{m}	0.3150 ± 0.0072	z_{eq}	3401 ± 26	χ_{prior}^2	11.5 ± 4.5
$\Omega_{\text{m}}h^2$	0.1430 ± 0.0011	k_{eq}	0.010380 ± 0.000080	χ_{CMB}^2	2789.0 ± 5.8

 $\bar{\chi}_{\text{eff}}^2 = 2800.50; R - 1 = 0.01006$

2.106 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02242 ± 0.00013	S_8	0.825 ± 0.011	$H(0.38)$	83.06 ± 0.27
$\Omega_c h^2$	0.11931 ± 0.00091	$\sigma_8 \Omega_m^{0.5}$	0.4520 ± 0.0058	$D_M(0.38)$	1528.1 ± 7.1
$100\theta_{MC}$	1.04101 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6052 ± 0.0057	$H(0.51)$	89.78 ± 0.22
τ	$0.0566^{+0.0058}_{-0.0075}$	$\sigma_8/h^{0.5}$	0.9853 ± 0.0083	$D_M(0.51)$	1979.6 ± 8.3
$\ln(10^{10} A_s)$	$3.048^{+0.012}_{-0.014}$	$r_{\text{drag}} h$	99.62 ± 0.70	$H(0.61)$	95.39 ± 0.18
n_s	0.9666 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.020	$D_M(0.61)$	2303.7 ± 9.0
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.87^{+0.61}_{-0.74}$	$H(2.33)$	236.17 ± 0.56
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.106^{+0.026}_{-0.031}$	$D_M(2.33)$	5758.6 ± 8.8
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.375	$10^9 A_s e^{-2\tau}$	1.881 ± 0.010	$f\sigma_8(0.15)$	0.4566 ± 0.0054
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9}$	D_{40}	1229 ± 12	$\sigma_8(0.15)$	0.7490 ± 0.0052
A_{100}^{PS}	259 ± 28	D_{220}	5740 ± 38	$f\sigma_8(0.38)$	0.4751 ± 0.0046
A_{143}^{PS}	46 ± 8	D_{810}	2540 ± 13	$\sigma_8(0.38)$	$0.6640^{+0.0042}_{-0.0048}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.8 ± 4.7	$f\sigma_8(0.51)$	0.4737 ± 0.0042
A_{217}^{PS}	115 ± 10	D_{2000}	231.1 ± 1.5	$\sigma_8(0.51)$	$0.6214^{+0.0039}_{-0.0045}$
A^{kSZ}	< 4.25	$n_{s,0.002}$	0.9666 ± 0.0038	$f\sigma_8(0.61)$	0.4688 ± 0.0039
A_{100}^{dustTT}	8.9 ± 1.8	Y_P	$0.245414^{+0.000054}_{-0.000048}$	$\sigma_8(0.61)$	$0.5913^{+0.0037}_{-0.0043}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.246741^{+0.000055}_{-0.000048}$	$f\sigma_8(2.33)$	$0.2982^{+0.0019}_{-0.0022}$
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.3	10^5D/H	2.576 ± 0.025	$\sigma_8(2.33)$	$0.3074^{+0.0020}_{-0.0024}$
A_{217}^{dustTT}	93.5 ± 7.3	Age/Gyr	13.786 ± 0.020	f_{2000}^{143}	29.4 ± 2.7
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.79 ± 0.21	$f_{2000}^{143 \times 217}$	32.1 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	144.57 ± 0.22	f_{2000}^{217}	106.9 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.084	$100\theta_*$	1.04119 ± 0.00029	χ_{lensing}^2	9.08 ± 0.55
A_{143}^{dustTE}	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.885 ± 0.021	χ_{simall}^2	397.2 ± 1.9
$A_{143 \times 217}^{\text{dustTE}}$	0.668 ± 0.081	z_{drag}	1060.01 ± 0.29	χ_{lowl}^2	23.25 ± 0.82
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	147.22 ± 0.23	χ_{plik}^2	2359.5 ± 5.8
c_{100}	0.99967 ± 0.00062	k_D	0.14078 ± 0.00028	$\chi_{6\text{DF}}^2$	0.052 ± 0.058
c_{217}	0.99819 ± 0.00063	$100\theta_D$	0.16072 ± 0.00017	χ_{MGS}^2	1.25 ± 0.38
H_0	67.67 ± 0.41	z_{eq}	3387 ± 21	χ_{DR12BAO}^2	4.8 ± 1.3
Ω_Λ	0.6890 ± 0.0055	k_{eq}	0.010337 ± 0.000063	χ_{prior}^2	11.5 ± 4.5
Ω_m	0.3110 ± 0.0055	$100\theta_{\text{eq}}$	0.8163 ± 0.0039	χ_{CMB}^2	2789.1 ± 5.8
$\Omega_m h^2$	0.14238 ± 0.00086	$100\theta_{s,\text{eq}}$	0.4509 ± 0.0020	χ_{BAO}^2	6.1 ± 1.0
$\Omega_m h^3$	0.09635 ± 0.00030	$H(0.15)$	72.95 ± 0.36		
σ_8	0.8105 ± 0.0058	$D_M(0.15)$	640.7 ± 3.5		

$$\bar{\chi}_{\text{eff}}^2 = 2806.72; R - 1 = 0.01624$$

2.107 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014	σ_8	0.8097 ± 0.0059	$H(0.15)$	73.18 ± 0.44
$\Omega_c h^2$	0.1188 ± 0.0011	S_8	0.820 ± 0.012	$D_M(0.15)$	638.4 ± 4.3
$100\theta_{MC}$	1.04110 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4490 ± 0.0066	$H(0.38)$	83.23 ± 0.32
τ	$0.0579^{+0.0063}_{-0.0079}$	$\sigma_8 \Omega_m^{0.25}$	0.6030 ± 0.0062	$D_M(0.38)$	1523.6 ± 8.6
$\ln(10^{10} A_s)$	$3.049^{+0.013}_{-0.015}$	$\sigma_8/h^{0.5}$	0.9824 ± 0.0089	$H(0.51)$	89.91 ± 0.26
n_s	0.9679 ± 0.0041	$r_{\text{drag}} h$	100.06 ± 0.87	$D_M(0.51)$	$1974^{+10}_{-9.2}$
y_{cal}	1.0008 ± 0.0024	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.022	$H(0.61)$	95.51 ± 0.21
A_{217}^{CIB}	47 ± 7	z_{re}	$7.98^{+0.65}_{-0.77}$	$D_M(0.61)$	$2298^{+11}_{-9.9}$
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.380	$10^9 A_s$	$2.110^{+0.027}_{-0.032}$	$H(2.33)$	235.89 ± 0.66
A_{143}^{tSZ}	$5.5^{+2.2}_{-2.0}$	$10^9 A_s e^{-2\tau}$	1.879 ± 0.011	$D_M(2.33)$	5754 ± 10
A_{100}^{PS}	258 ± 28	D_{40}	1227 ± 12	$f\sigma_8(0.15)$	0.4539 ± 0.0062
A_{143}^{PS}	45 ± 8	D_{220}	5746 ± 38	$\sigma_8(0.15)$	0.7486 ± 0.0053
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{810}	2540 ± 13	$f\sigma_8(0.38)$	0.4731 ± 0.0051
A_{217}^{PS}	115 ± 10	D_{1420}	818.6 ± 4.7	$\sigma_8(0.38)$	0.6640 ± 0.0046
A^{kSZ}	< 4.19	D_{2000}	231.5 ± 1.6	$f\sigma_8(0.51)$	0.4722 ± 0.0045
$A_{100}^{\text{dust}TT}$	8.8 ± 1.8	$n_{s,0.002}$	0.9679 ± 0.0041	$\sigma_8(0.51)$	0.6216 ± 0.0043
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P	0.245437 ± 0.000054	$f\sigma_8(0.61)$	0.4675 ± 0.0041
$A_{143 \times 217}^{\text{dust}TT}$	18.5 ± 3.3	Y_P^{BBN}	0.246764 ± 0.000055	$\sigma_8(0.61)$	0.5916 ± 0.0041
$A_{217}^{\text{dust}TT}$	93.5 ± 7.4	$10^5 \text{D}/\text{H}$	2.565 ± 0.026	$f\sigma_8(2.33)$	0.2984 ± 0.0021
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	Age/Gyr	13.776 ± 0.022	$\sigma_8(2.33)$	$0.3078^{+0.0021}_{-0.0025}$
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.029	z_*	1089.67 ± 0.24	f_{2000}^{143}	29.0 ± 2.8
$A_{100 \times 217}^{\text{dust}TE}$	0.482 ± 0.083	r_*	144.66 ± 0.25	$f_{2000}^{143 \times 217}$	31.8 ± 1.9
$A_{143}^{\text{dust}TE}$	0.225 ± 0.054	$100\theta_*$	1.04127 ± 0.00030	f_{2000}^{217}	106.7 ± 1.8
$A_{143 \times 217}^{\text{dust}TE}$	0.667 ± 0.083	$D_M(z_*)/\text{Gpc}$	13.893 ± 0.023	χ_{lensing}^2	9.15 ± 0.68
$A_{217}^{\text{dust}TE}$	2.06 ± 0.27	z_{drag}	1060.11 ± 0.30	χ_{simall}^2	397.5 ± 2.1
c_{100}	0.99968 ± 0.00062	r_{drag}	147.29 ± 0.25	χ_{lowl}^2	23.05 ± 0.84
c_{217}	0.99818 ± 0.00064	k_D	0.14075 ± 0.00029	χ_{plik}^2	2360.4 ± 6.1
H_0	67.94 ± 0.51	$100\theta_D$	0.16067 ± 0.00017	χ_{H073p45}^2	11.1 ± 2.0
Ω_Λ	0.6924 ± 0.0067	z_{eq}	3376 ± 25	χ_{prior}^2	11.6 ± 4.6
Ω_m	0.3076 ± 0.0067	k_{eq}	0.010304 ± 0.000075	χ_{CMB}^2	2790.1 ± 6.1
$\Omega_m h^2$	0.1419 ± 0.0010	$100\theta_{\text{eq}}$	0.8185 ± 0.0047		
$\Omega_m h^3$	0.09641 ± 0.00029	$100\theta_{s,\text{eq}}$	0.4520 ± 0.0024		

$$\bar{\chi}_{\text{eff}}^2 = 2812.87; R - 1 = 0.03339$$

2.108 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02249 ± 0.00013	S_8	0.818 ± 0.010	$H(0.38)$	83.28 ± 0.26
$\Omega_c h^2$	0.11862 ± 0.00089	$\sigma_8 \Omega_m^{0.5}$	0.4481 ± 0.0057	$D_M(0.38)$	1522.3 ± 6.9
$100\theta_{MC}$	1.04112 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6022 ± 0.0056	$H(0.51)$	89.95 ± 0.21
τ	$0.0582^{+0.0064}_{-0.0077}$	$\sigma_8/h^{0.5}$	0.9814 ± 0.0083	$D_M(0.51)$	1972.8 ± 8.2
$\ln(10^{10} A_s)$	3.050 ± 0.014	$r_{\text{drag}} h$	100.19 ± 0.70	$H(0.61)$	95.53 ± 0.18
n_s	0.9683 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.021	$D_M(0.61)$	2296.3 ± 8.8
y_{cal}	1.0008 ± 0.0024	z_{re}	$8.01^{+0.65}_{-0.75}$	$H(2.33)$	235.79 ± 0.55
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	2.111 ± 0.029	$D_M(2.33)$	5752.5 ± 8.6
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.386	$10^9 A_s e^{-2\tau}$	1.879 ± 0.010	$f\sigma_8(0.15)$	0.4531 ± 0.0054
A_{143}^{tSZ}	$5.5^{+2.2}_{-2.0}$	D_{40}	1226 ± 12	$\sigma_8(0.15)$	0.7484 ± 0.0053
A_{100}^{PS}	258 ± 28	D_{220}	5747 ± 38	$f\sigma_8(0.38)$	0.4725 ± 0.0046
A_{143}^{PS}	45 ± 8	D_{810}	2540 ± 13	$\sigma_8(0.38)$	0.6639 ± 0.0046
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.7 ± 4.6	$f\sigma_8(0.51)$	0.4717 ± 0.0042
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.5	$\sigma_8(0.51)$	0.6215 ± 0.0043
A^{kSZ}	< 4.17	$n_{s,0.002}$	0.9683 ± 0.0038	$f\sigma_8(0.61)$	0.4671 ± 0.0039
$A_{100}^{\text{dust}TT}$	8.8 ± 1.8	Y_P	0.245441 ± 0.000050	$\sigma_8(0.61)$	0.5915 ± 0.0041
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	0.246768 ± 0.000051	$f\sigma_8(2.33)$	0.2985 ± 0.0021
$A_{143 \times 217}^{\text{dust}TT}$	18.5 ± 3.4	$10^5 D/H$	2.563 ± 0.024	$\sigma_8(2.33)$	$0.3079^{+0.0021}_{-0.0024}$
$A_{217}^{\text{dust}TT}$	93.5 ± 7.4	Age/Gyr	13.773 ± 0.019	f_{2000}^{143}	29.0 ± 2.7
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.65 ± 0.21	$f_{2000}^{143 \times 217}$	31.8 ± 1.9
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.029	r_*	144.69 ± 0.22	f_{2000}^{217}	106.7 ± 1.8
$A_{100 \times 217}^{\text{dust}TE}$	0.483 ± 0.082	$100\theta_*$	1.04129 ± 0.00028	χ_{lensing}^2	9.13 ± 0.68
$A_{143}^{\text{dust}TE}$	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.896 ± 0.021	χ_{simall}^2	397.6 ± 2.1
$A_{143 \times 217}^{\text{dust}TE}$	0.667 ± 0.083	z_{drag}	1060.12 ± 0.29	χ_{lowl}^2	22.98 ± 0.79
$A_{217}^{\text{dust}TE}$	2.06 ± 0.27	r_{drag}	147.32 ± 0.23	χ_{plik}^2	2360.5 ± 6.0
c_{100}	0.99968 ± 0.00062	k_D	0.14072 ± 0.00028	χ_{H073p45}^2	10.8 ± 1.6
c_{217}	0.99818 ± 0.00063	$100\theta_D$	0.16066 ± 0.00017	$\chi_{6\text{DF}}^2$	0.024 ± 0.033
H_0	68.01 ± 0.41	z_{eq}	3372 ± 20	χ_{MGS}^2	1.57 ± 0.41
Ω_Λ	0.6935 ± 0.0053	k_{eq}	0.010292 ± 0.000062	χ_{DR12BAO}^2	4.04 ± 0.79
Ω_m	0.3065 ± 0.0053	$100\theta_{\text{eq}}$	0.8192 ± 0.0038	χ_{prior}^2	11.6 ± 4.6
$\Omega_m h^2$	0.14176 ± 0.00085	$100\theta_{s,\text{eq}}$	0.4524 ± 0.0020	χ_{CMB}^2	2790.1 ± 6.0
$\Omega_m h^3$	0.09641 ± 0.00029	$H(0.15)$	73.24 ± 0.35	χ_{BAO}^2	5.64 ± 0.58
σ_8	0.8093 ± 0.0058	$D_M(0.15)$	637.8 ± 3.4		

$\bar{\chi}_{\text{eff}}^2 = 2818.15$; $R - 1 = 0.03902$

2.109 base_plikHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02240 ± 0.00014	σ_8	0.8112 ± 0.0057	$H(0.15)$	72.80 ± 0.43
$\Omega_c h^2$	0.1197 ± 0.0011	S_8	0.829 ± 0.012	$D_M(0.15)$	642.2 ± 4.2
$100\theta_{MC}$	1.04095 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4541 ± 0.0067	$H(0.38)$	82.95 ± 0.31
τ	$0.0558^{+0.0055}_{-0.0076}$	$\sigma_8 \Omega_m^{0.25}$	0.6069 ± 0.0062	$D_M(0.38)$	1531.1 ± 8.5
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.015}$	$\sigma_8/h^{0.5}$	0.9874 ± 0.0088	$H(0.51)$	89.69 ± 0.25
n_s	0.9656 ± 0.0040	$r_{\text{drag}} h$	99.32 ± 0.85	$D_M(0.51)$	1983 ± 10
y_{cal}	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.444 ± 0.021	$H(0.61)$	95.33 ± 0.21
A_{217}^{CIB}	47 ± 7	z_{re}	$7.81^{+0.59}_{-0.75}$	$D_M(0.61)$	2307 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.375	$10^9 A_s$	$2.105^{+0.024}_{-0.031}$	$H(2.33)$	236.39 ± 0.65
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9}$	$10^9 A_s e^{-2\tau}$	1.882 ± 0.011	$D_M(2.33)$	5761.4 ± 9.8
A_{100}^{PS}	259 ± 28	D_{40}	1231 ± 12	$f\sigma_8(0.15)$	0.4585 ± 0.0062
A_{143}^{PS}	46 ± 8	D_{220}	5737 ± 38	$\sigma_8(0.15)$	0.7494 ± 0.0051
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{810}	2539 ± 13	$f\sigma_8(0.38)$	0.4765 ± 0.0050
A_{217}^{PS}	115 ± 10	D_{1420}	817.4 ± 4.7	$\sigma_8(0.38)$	$0.6641^{+0.0041}_{-0.0047}$
A^{kSZ}	< 4.29	D_{2000}	231.0 ± 1.6	$f\sigma_8(0.51)$	0.4748 ± 0.0044
A_{100}^{dustTT}	8.9 ± 1.8	$n_{s,0.002}$	0.9656 ± 0.0040	$\sigma_8(0.51)$	$0.6214^{+0.0038}_{-0.0045}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P	$0.245404^{+0.000058}_{-0.000051}$	$f\sigma_8(0.61)$	0.4697 ± 0.0041
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.3	Y_P^{BBN}	$0.246730^{+0.000058}_{-0.000052}$	$\sigma_8(0.61)$	$0.5912^{+0.0036}_{-0.0043}$
A_{217}^{dustTT}	93.5 ± 7.3	10^5D/H	2.581 ± 0.026	$f\sigma_8(2.33)$	$0.2980^{+0.0018}_{-0.0022}$
A_{100}^{dustTE}	0.114 ± 0.038	Age/Gyr	13.793 ± 0.022	$\sigma_8(2.33)$	$0.3072^{+0.0019}_{-0.0024}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	z_*	1089.86 ± 0.24	f_{2000}^{143}	29.5 ± 2.7
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.085	r_*	144.49 ± 0.25	$f_{2000}^{143 \times 217}$	32.2 ± 1.9
A_{143}^{dustTE}	0.225 ± 0.054	$100\theta_*$	1.04113 ± 0.00030	f_{2000}^{217}	107.0 ± 1.8
$A_{143 \times 217}^{\text{dustTE}}$	0.668 ± 0.081	$D_M(z_*)/\text{Gpc}$	13.878 ± 0.023	χ_{lensing}^2	9.16 ± 0.62
A_{217}^{dustTE}	2.08 ± 0.27	z_{drag}	1059.97 ± 0.30	χ_{simall}^2	397.1 ± 1.8
c_{100}	0.99967 ± 0.00061	r_{drag}	147.14 ± 0.25	χ_{lowl}^2	23.42 ± 0.87
c_{217}	0.99820 ± 0.00063	k_D	0.14083 ± 0.00029	χ_{plik}^2	2359.4 ± 5.8
H_0	67.50 ± 0.50	$100\theta_D$	0.16074 ± 0.00017	χ_{JLA}^2	1035.25 ± 0.42
Ω_Λ	0.6866 ± 0.0067	z_{eq}	3396 ± 25	χ_{prior}^2	11.5 ± 4.5
Ω_m	0.3134 ± 0.0067	k_{eq}	0.010364 ± 0.000075	χ_{CMB}^2	2789.0 ± 5.8
$\Omega_m h^2$	0.1427 ± 0.0010	$100\theta_{\text{eq}}$	0.8146 ± 0.0046		
$\Omega_m h^3$	0.09634 ± 0.00030	$100\theta_{s,\text{eq}}$	0.4501 ± 0.0024		

$$\bar{\chi}_{\text{eff}}^2 = 3835.82; R - 1 = 0.01272$$

2.110 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_JLA_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02250 ± 0.00013	S_8	0.818 ± 0.010	$H(0.38)$	83.29 ± 0.26
$\Omega_c h^2$	0.11857 ± 0.00088	$\sigma_8 \Omega_m^{0.5}$	0.4478 ± 0.0056	$D_M(0.38)$	1522.0 ± 6.9
$100\theta_{MC}$	1.04112 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6020 ± 0.0056	$H(0.51)$	89.96 ± 0.21
τ	$0.0583^{+0.0064}_{-0.0077}$	$\sigma_8/h^{0.5}$	0.9811 ± 0.0082	$D_M(0.51)$	1972.4 ± 8.1
$\ln(10^{10} A_s)$	3.050 ± 0.014	$r_{\text{drag}} h$	100.23 ± 0.69	$H(0.61)$	95.54 ± 0.18
n_s	0.9684 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.020	$D_M(0.61)$	2295.9 ± 8.7
y_{cal}	1.0008 ± 0.0024	z_{re}	$8.02^{+0.66}_{-0.75}$	$H(2.33)$	235.77 ± 0.54
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	2.111 ± 0.029	$D_M(2.33)$	5752.2 ± 8.5
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.387	$10^9 A_s e^{-2\tau}$	1.878 ± 0.010	$f\sigma_8(0.15)$	0.4528 ± 0.0053
A_{143}^{tSZ}	$5.5^{+2.2}_{-2.0}$	D_{40}	1226 ± 12	$\sigma_8(0.15)$	0.7483 ± 0.0053
A_{100}^{PS}	258 ± 28	D_{220}	5747 ± 38	$f\sigma_8(0.38)$	0.4723 ± 0.0045
A_{143}^{PS}	45 ± 8	D_{810}	2540 ± 13	$\sigma_8(0.38)$	0.6639 ± 0.0046
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.7 ± 4.6	$f\sigma_8(0.51)$	0.4715 ± 0.0041
A_{217}^{PS}	$115^{+10}_{-9.5}$	D_{2000}	231.5 ± 1.5	$\sigma_8(0.51)$	0.6215 ± 0.0043
A^{kSZ}	< 4.17	$n_{s,0.002}$	0.9684 ± 0.0038	$f\sigma_8(0.61)$	0.4670 ± 0.0039
$A_{100}^{\text{dust}TT}$	8.8 ± 1.8	Y_P	0.245443 ± 0.000050	$\sigma_8(0.61)$	0.5916 ± 0.0041
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	0.246769 ± 0.000050	$f\sigma_8(2.33)$	0.2985 ± 0.0021
$A_{143 \times 217}^{\text{dust}TT}$	18.5 ± 3.4	$10^5 D/H$	2.563 ± 0.024	$\sigma_8(2.33)$	0.3080 ± 0.0022
$A_{217}^{\text{dust}TT}$	93.4 ± 7.4	Age/Gyr	13.772 ± 0.019	f_{2000}^{143}	28.9 ± 2.7
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.64 ± 0.21	$f_{2000}^{143 \times 217}$	31.7 ± 1.9
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.029	r_*	144.70 ± 0.21	f_{2000}^{217}	106.6 ± 1.8
$A_{100 \times 217}^{\text{dust}TE}$	0.483 ± 0.082	$100\theta_*$	1.04130 ± 0.00028	χ_{lensing}^2	9.13 ± 0.69
$A_{143}^{\text{dust}TE}$	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.896 ± 0.021	χ_{simall}^2	397.6 ± 2.1
$A_{143 \times 217}^{\text{dust}TE}$	0.667 ± 0.083	z_{drag}	1060.13 ± 0.29	χ_{lowl}^2	22.96 ± 0.79
$A_{217}^{\text{dust}TE}$	2.06 ± 0.27	r_{drag}	147.33 ± 0.23	χ_{plik}^2	2360.5 ± 6.0
c_{100}	0.99969 ± 0.00062	k_D	0.14071 ± 0.00028	χ_{H073p45}^2	10.7 ± 1.6
c_{217}	0.99818 ± 0.00064	$100\theta_D$	0.16066 ± 0.00017	χ_{JLA}^2	706.64 ± 0.11
H_0	68.03 ± 0.40	z_{eq}	3371 ± 20	$\chi_{6\text{DF}}^2$	0.023 ± 0.031
Ω_Λ	0.6938 ± 0.0053	k_{eq}	0.010289 ± 0.000062	χ_{MGS}^2	1.60 ± 0.41
Ω_m	0.3062 ± 0.0053	$100\theta_{\text{eq}}$	0.8194 ± 0.0038	χ_{DR12BAO}^2	4.00 ± 0.75
$\Omega_m h^2$	0.14172 ± 0.00084	$100\theta_{s,\text{eq}}$	0.4525 ± 0.0020	χ_{prior}^2	11.6 ± 4.6
$\Omega_m h^3$	0.09641 ± 0.00029	$H(0.15)$	73.26 ± 0.35	χ_{CMB}^2	2790.2 ± 6.0
σ_8	0.8092 ± 0.0058	$D_M(0.15)$	637.6 ± 3.4	χ_{BAO}^2	5.62 ± 0.55

$\bar{\chi}_{\text{eff}}^2 = 3524.78$; $R - 1 = 0.04178$

2.111 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02243 ± 0.00013	S_8	0.824 ± 0.010	$H(0.38)$	83.09 ± 0.26
$\Omega_c h^2$	0.11920 ± 0.00088	$\sigma_8 \Omega_m^{0.5}$	0.4513 ± 0.0057	$D_M(0.38)$	1527.3 ± 6.9
$100\theta_{MC}$	1.04103 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6048 ± 0.0056	$H(0.51)$	89.80 ± 0.21
τ	$0.0568^{+0.0058}_{-0.0075}$	$\sigma_8/h^{0.5}$	0.9847 ± 0.0082	$D_M(0.51)$	1978.6 ± 8.1
$\ln(10^{10} A_s)$	$3.048^{+0.012}_{-0.014}$	$r_{\text{drag}} h$	99.71 ± 0.68	$H(0.61)$	95.41 ± 0.18
n_s	0.9668 ± 0.0037	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.020	$D_M(0.61)$	2302.6 ± 8.8
y_{cal}	1.0008 ± 0.0025	z_{re}	$7.89^{+0.61}_{-0.74}$	$H(2.33)$	236.10 ± 0.54
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.107^{+0.026}_{-0.031}$	$D_M(2.33)$	5757.7 ± 8.6
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.377	$10^9 A_s e^{-2\tau}$	1.881 ± 0.010	$f\sigma_8(0.15)$	0.4560 ± 0.0054
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9}$	D_{40}	1229 ± 12	$\sigma_8(0.15)$	0.7489 ± 0.0052
A_{100}^{PS}	259 ± 28	D_{220}	5741 ± 38	$f\sigma_8(0.38)$	0.4746 ± 0.0046
A_{143}^{PS}	46 ± 8	D_{810}	2540 ± 13	$\sigma_8(0.38)$	$0.6640^{+0.0043}_{-0.0048}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.9 ± 4.7	$f\sigma_8(0.51)$	0.4734 ± 0.0041
A_{217}^{PS}	115 ± 10	D_{2000}	231.2 ± 1.5	$\sigma_8(0.51)$	$0.6214^{+0.0040}_{-0.0045}$
A^{kSZ}	< 4.23	$n_{s,0.002}$	0.9668 ± 0.0037	$f\sigma_8(0.61)$	0.4685 ± 0.0038
A_{100}^{dustTT}	8.9 ± 1.8	Y_P	$0.245418^{+0.000054}_{-0.000047}$	$\sigma_8(0.61)$	$0.5913^{+0.0038}_{-0.0043}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.246744^{+0.000054}_{-0.000048}$	$f\sigma_8(2.33)$	$0.2982^{+0.0019}_{-0.0022}$
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.3	$10^5 D/H$	2.575 ± 0.024	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0024}$
A_{217}^{dustTT}	93.5 ± 7.3	Age/Gyr	13.785 ± 0.020	f_{2000}^{143}	29.3 ± 2.7
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.77 ± 0.21	$f_{2000}^{143 \times 217}$	32.0 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	144.59 ± 0.21	f_{2000}^{217}	106.9 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.084	$100\theta_*$	1.04120 ± 0.00029	χ_{lensing}^2	9.07 ± 0.56
A_{143}^{dustTE}	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.887 ± 0.020	χ_{simall}^2	397.2 ± 1.9
$A_{143 \times 217}^{\text{dustTE}}$	0.667 ± 0.081	z_{drag}	1060.02 ± 0.29	χ_{lowl}^2	23.21 ± 0.81
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	147.23 ± 0.22	χ_{plik}^2	2359.6 ± 5.8
c_{100}	0.99967 ± 0.00062	k_D	0.14076 ± 0.00028	χ_{JLA}^2	1035.05 ± 0.26
c_{217}	0.99818 ± 0.00063	$100\theta_D$	0.16072 ± 0.00017	$\chi_{6\text{DF}}^2$	0.045 ± 0.052
H_0	67.72 ± 0.40	z_{eq}	3385 ± 20	χ_{MGS}^2	1.30 ± 0.38
Ω_Λ	0.6897 ± 0.0053	k_{eq}	0.010330 ± 0.000061	χ_{DR12BAO}^2	4.6 ± 1.2
Ω_m	0.3103 ± 0.0053	$100\theta_{\text{eq}}$	0.8167 ± 0.0038	χ_{prior}^2	11.5 ± 4.5
$\Omega_m h^2$	0.14228 ± 0.00084	$100\theta_{s,\text{eq}}$	0.4511 ± 0.0019	χ_{CMB}^2	2789.2 ± 5.8
$\Omega_m h^3$	0.09635 ± 0.00030	$H(0.15)$	72.99 ± 0.35	χ_{BAO}^2	5.98 ± 0.90
σ_8	0.8103 ± 0.0058	$D_M(0.15)$	640.3 ± 3.4		

$\bar{\chi}_{\text{eff}}^2 = 3841.74$; $R - 1 = 0.01810$

2.112 base_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02250 ± 0.00013	S_8	0.817 ± 0.010	$H(0.38)$	83.29 ± 0.26
$\Omega_c h^2$	0.11855 ± 0.00087	$\sigma_8 \Omega_m^{0.5}$	0.4477 ± 0.0056	$D_M(0.38)$	1521.8 ± 6.8
$100\theta_{MC}$	1.04113 ± 0.00029	$\sigma_8 \Omega_m^{0.25}$	0.6019 ± 0.0056	$H(0.51)$	89.96 ± 0.21
τ	$0.0584^{+0.0064}_{-0.0077}$	$\sigma_8/h^{0.5}$	0.9810 ± 0.0082	$D_M(0.51)$	1972.2 ± 7.9
$\ln(10^{10} A_s)$	3.050 ± 0.014	$r_{\text{drag}} h$	100.25 ± 0.68	$H(0.61)$	95.54 ± 0.18
n_s	0.9684 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.020	$D_M(0.61)$	2295.7 ± 8.6
y_{cal}	1.0008 ± 0.0024	z_{re}	$8.02^{+0.66}_{-0.75}$	$H(2.33)$	235.75 ± 0.54
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	2.111 ± 0.029	$D_M(2.33)$	5752.0 ± 8.5
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.387	$10^9 A_s e^{-2\tau}$	1.878 ± 0.010	$f\sigma_8(0.15)$	0.4527 ± 0.0053
A_{143}^{tSZ}	5.5 ± 2.0	D_{40}	1226 ± 12	$\sigma_8(0.15)$	0.7483 ± 0.0053
A_{100}^{PS}	258 ± 28	D_{220}	5747 ± 38	$f\sigma_8(0.38)$	0.4722 ± 0.0045
A_{143}^{PS}	45 ± 8	D_{810}	2540 ± 13	$\sigma_8(0.38)$	0.6639 ± 0.0046
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.7 ± 4.6	$f\sigma_8(0.51)$	0.4715 ± 0.0041
A_{217}^{PS}	$115^{+10}_{-9.5}$	D_{2000}	231.5 ± 1.5	$\sigma_8(0.51)$	0.6215 ± 0.0043
A^{kSZ}	< 4.17	$n_{s,0.002}$	0.9684 ± 0.0038	$f\sigma_8(0.61)$	0.4669 ± 0.0038
A_{100}^{dustTT}	8.8 ± 1.8	Y_P	0.245443 ± 0.000050	$\sigma_8(0.61)$	0.5916 ± 0.0041
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	0.246770 ± 0.000050	$f\sigma_8(2.33)$	0.2985 ± 0.0021
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.4	$10^5 D/H$	2.562 ± 0.024	$\sigma_8(2.33)$	0.3080 ± 0.0022
A_{217}^{dustTT}	93.4 ± 7.4	Age/Gyr	13.772 ± 0.019	f_{2000}^{143}	28.9 ± 2.7
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.63 ± 0.21	$f_{2000}^{143 \times 217}$	31.7 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.029	r_*	144.71 ± 0.21	f_{2000}^{217}	106.6 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.483 ± 0.082	$100\theta_*$	1.04130 ± 0.00028	χ_{lensing}^2	9.13 ± 0.69
A_{143}^{dustTE}	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.897 ± 0.020	χ_{simall}^2	397.6 ± 2.1
$A_{143 \times 217}^{\text{dustTE}}$	0.667 ± 0.083	z_{drag}	1060.13 ± 0.29	χ_{lowl}^2	22.95 ± 0.79
A_{217}^{dustTE}	2.06 ± 0.27	r_{drag}	147.33 ± 0.23	χ_{plik}^2	2360.6 ± 6.0
c_{100}	0.99969 ± 0.00062	k_D	0.14071 ± 0.00028	χ_{H073p45}^2	10.7 ± 1.5
c_{217}	0.99818 ± 0.00064	$100\theta_D$	0.16066 ± 0.00017	χ_{JLA}^2	1034.89 ± 0.17
H_0	68.04 ± 0.40	z_{eq}	3371 ± 20	$\chi_{6\text{DF}}^2$	0.022 ± 0.030
Ω_Λ	0.6939 ± 0.0052	k_{eq}	0.010288 ± 0.000061	χ_{MGS}^2	1.60 ± 0.41
Ω_m	0.3061 ± 0.0052	$100\theta_{\text{eq}}$	0.8195 ± 0.0038	χ_{DR12BAO}^2	3.97 ± 0.72
$\Omega_m h^2$	0.14170 ± 0.00083	$100\theta_{s,\text{eq}}$	0.4525 ± 0.0019	χ_{prior}^2	11.6 ± 4.6
$\Omega_m h^3$	0.09641 ± 0.00029	$H(0.15)$	73.27 ± 0.34	χ_{CMB}^2	2790.2 ± 6.0
σ_8	0.8092 ± 0.0058	$D_M(0.15)$	637.6 ± 3.3	χ_{BAO}^2	5.60 ± 0.53

$$\bar{\chi}_{\text{eff}}^2 = 3853.01; R - 1 = 0.04302$$

2.113 base_CamSpecHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022129	0.02215 ± 0.00020	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6087	0.6088 ± 0.0078	$D_{\mathrm{M}}(0.15)$	646.2	646.1 ± 6.1
$\Omega_{\mathrm{c}}h^2$	0.12025	0.1203 ± 0.0016	$\sigma_8/h^{0.5}$	0.9897	0.990 ± 0.011	$H(0.38)$	82.611	82.63 ± 0.45
$100\theta_{\mathrm{MC}}$	1.040846	1.04085 ± 0.00045	$r_{\mathrm{drag}}h$	98.75	98.8 ± 1.2	$D_{\mathrm{M}}(0.38)$	1539.4	1539 ± 12
τ	0.0525	0.0527 ± 0.0078	$\langle d^2 \rangle^{1/2}$	2.4456	2.446 ± 0.025	$H(0.51)$	89.391	89.41 ± 0.36
$\ln(10^{10}A_{\mathrm{s}})$	3.0388	3.039 ± 0.015	z_{re}	7.55	7.55 ± 0.79	$D_{\mathrm{M}}(0.51)$	1993.1	1993 ± 14
n_{s}	0.96381	0.9639 ± 0.0049	$10^9 A_{\mathrm{s}}$	2.0881	2.090 ± 0.031	$H(0.61)$	95.057	95.08 ± 0.29
y_{cal}	1.00036	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8799	1.880 ± 0.011	$D_{\mathrm{M}}(0.61)$	2318.4	2318 ± 15
A_{100}^{PS}	242.2	243 ± 25	D_{40}	1228.9	1229 ± 13	$H(2.33)$	236.48	236.50 ± 0.95
A_{143}^{PS}	39.7	41 ± 8	D_{220}	5703.6	5706 ± 41	$D_{\mathrm{M}}(2.33)$	5775.5	5775 ± 14
A_{217}^{PS}	99.6	101 ± 10	D_{810}	2532.9	2533 ± 14	$f\sigma_8(0.15)$	0.4612	0.4612 ± 0.0082
A_{217}^{CIB}	44.4	41 ± 7	D_{1420}	813.7	814.0 ± 5.2	$\sigma_8(0.15)$	0.7482	0.7483 ± 0.0057
A_{143}^{tSZ}	5.12	$3.7_{-2.6}^{+1.7}$	D_{2000}	229.35	229.5 ± 1.8	$f\sigma_8(0.38)$	0.4780	0.4781 ± 0.0064
$r_{143 \times 217}^{\mathrm{PS}}$	0.571	0.65 ± 0.13	$n_{\mathrm{s},0.002}$	0.96381	0.9639 ± 0.0049	$\sigma_8(0.38)$	0.66249	0.6626 ± 0.0049
$r_{143 \times 217}^{\mathrm{CIB}}$	0.713	$0.58_{-0.12}^{+0.42}$	Y_{P}	0.245296	$0.245300_{-0.000078}^{+0.000097}$	$f\sigma_8(0.51)$	0.4758	0.4759 ± 0.0054
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.06	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246622	$0.246626_{-0.000078}^{+0.000098}$	$\sigma_8(0.51)$	0.61968	0.6198 ± 0.0046
A^{kSZ}	2.5	—	$10^5 D/H$	2.6315	2.628 ± 0.039	$f\sigma_8(0.61)$	0.47031	0.4704 ± 0.0048
A_{100}^{dust}	1.011	1.01 ± 0.20	Age/Gyr	13.8250	13.823 ± 0.032	$\sigma_8(0.61)$	0.58945	0.5896 ± 0.0045
A_{143}^{dust}	0.989	0.98 ± 0.17	z_*	1090.248	1090.23 ± 0.34	$f\sigma_8(2.33)$	0.29694	0.2970 ± 0.0023
A_{217}^{dust}	0.962	0.97 ± 0.10	r_*	144.550	144.54 ± 0.36	$\sigma_8(2.33)$	0.30585	0.3059 ± 0.0026
$A_{143 \times 217}^{\mathrm{dust}}$	1.008	1.03 ± 0.16	$100\theta_*$	1.041058	1.04105 ± 0.00045	f_{2000}^{143}	31.37	30.9 ± 3.0
c_{100}	0.99746	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8849	13.884 ± 0.034	f_{2000}^{217}	107.78	107.6 ± 2.0
c_{217}	1.00134	1.0012 ± 0.0016	z_{drag}	1059.399	1059.44 ± 0.44	$f_{2000}^{143 \times 217}$	33.18	33.0 ± 2.1
H_0	67.04	67.06 ± 0.71	r_{drag}	147.293	147.27 ± 0.37	$\chi_{\mathrm{lensing}}^2$	8.91	9.52 ± 0.88
Ω_{Λ}	0.6818	0.6817 ± 0.0098	k_{D}	0.140467	0.14050 ± 0.00044	χ_{small}^2	395.87	396.9 ± 1.6
Ω_{m}	0.3182	0.3183 ± 0.0098	$100\theta_{\mathrm{D}}$	0.161077	0.16105 ± 0.00026	χ_{lowl}^2	23.42	23.5 ± 1.0
$\Omega_{\mathrm{m}}h^2$	0.14303	0.1431 ± 0.0015	z_{eq}	3402.5	3403 ± 35	$\chi_{\mathrm{CamSpec}}^2$	7050.18	7062.7 ± 5.1
$\Omega_{\mathrm{m}}h^3$	0.095890	0.09592 ± 0.00044	k_{eq}	0.010385	0.01039 ± 0.00011	χ_{prior}^2	2.28	7.6 ± 3.5
σ_8	0.8104	0.8106 ± 0.0064	$100\theta_{\mathrm{eq}}$	0.8125	0.8125 ± 0.0066	χ_{CMB}^2	7478.4	7492.6 ± 5.3
S_8	0.8346	0.835 ± 0.016	$100\theta_{\mathrm{s,eq}}$	0.44916	0.4491 ± 0.0034			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4571	0.4572 ± 0.0089	$H(0.15)$	72.39	72.41 ± 0.61			

Best-fit $\chi_{\mathrm{eff}}^2 = 7480.67$; $\bar{\chi}_{\mathrm{eff}}^2 = 7500.24$; $R - 1 = 0.00500$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.91 small_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2_29: 23.42 CamSpec like_10.7HM: 7050.18

2.114 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00019	$\sigma_8/h^{0.5}$	0.9842 ± 0.0090	$D_{\mathrm{M}}(0.38)$	1530.4 ± 8.6
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0011	$r_{\mathrm{drag}}h$	99.65 ± 0.84	$H(0.51)$	89.65 ± 0.27
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.021	$D_{\mathrm{M}}(0.51)$	1983 ± 10
τ	0.0554 ± 0.0075	z_{re}	7.80 ± 0.75	$H(0.61)$	95.26 ± 0.23
$\ln(10^{10}A_{\mathrm{s}})$	3.043 ± 0.015	$10^9 A_{\mathrm{s}}$	2.097 ± 0.031	$D_{\mathrm{M}}(0.61)$	2307 ± 11
n_{s}	0.9665 ± 0.0041	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.877 ± 0.011	$H(2.33)$	235.86 ± 0.70
y_{cal}	1.0006 ± 0.0025	D_{40}	1225 ± 12	$D_{\mathrm{M}}(2.33)$	5767 ± 12
A_{100}^{PS}	242 ± 25	D_{220}	5714 ± 40	$f\sigma_8(0.15)$	0.4558 ± 0.0061
A_{143}^{PS}	41 ± 8	D_{810}	2534 ± 14	$\sigma_8(0.15)$	0.7476 ± 0.0057
A_{217}^{PS}	101 ± 10	D_{1420}	815.1 ± 5.0	$f\sigma_8(0.38)$	0.4742 ± 0.0051
A_{217}^{CIB}	41 ± 7	D_{2000}	229.9 ± 1.8	$\sigma_8(0.38)$	0.6627 ± 0.0050
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.9665 ± 0.0041	$f\sigma_8(0.51)$	0.4729 ± 0.0046
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245332^{+0.000086}_{-0.000071}$	$\sigma_8(0.51)$	0.6202 ± 0.0047
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.457	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246659^{+0.000086}_{-0.000071}$	$f\sigma_8(0.61)$	0.4679 ± 0.0042
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.614 ± 0.036	$\sigma_8(0.61)$	0.5902 ± 0.0045
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	13.806 ± 0.027	$f\sigma_8(2.33)$	0.2976 ± 0.0023
A_{100}^{dust}	1.01 ± 0.20	z_*	1090.03 ± 0.28	$\sigma_8(2.33)$	0.3068 ± 0.0025
A_{143}^{dust}	0.97 ± 0.18	r_*	144.77 ± 0.28	f_{2000}^{143}	30.5 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04122 ± 0.00041	f_{2000}^{217}	107.4 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.903 ± 0.028	$f_{2000}^{143 \times 217}$	32.8 ± 2.1
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.53 ± 0.43	$\chi_{\mathrm{lensing}}^2$	9.39 ± 0.82
c_{217}	1.0012 ± 0.0015	r_{drag}	147.48 ± 0.31	χ_{simall}^2	397.2 ± 1.9
H_0	67.57 ± 0.49	k_{D}	0.14034 ± 0.00041	χ_{lowl}^2	23.04 ± 0.84
Ω_{Λ}	0.6888 ± 0.0066	$100\theta_{\mathrm{D}}$	0.16101 ± 0.00025	$\chi_{\mathrm{CamSpec}}^2$	7063.1 ± 5.2
Ω_{m}	0.3112 ± 0.0066	z_{eq}	3378 ± 25	$\chi_{6\mathrm{DF}}^2$	0.059 ± 0.072
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0011	k_{eq}	0.010311 ± 0.000077	χ_{MGS}^2	1.28 ± 0.46
$\Omega_{\mathrm{m}}h^3$	0.09595 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8173 ± 0.0047	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
σ_8	0.8090 ± 0.0063	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0024	χ_{prior}^2	7.6 ± 3.5
S_8	0.824 ± 0.012	$H(0.15)$	72.84 ± 0.43	χ_{CMB}^2	7492.7 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512 ± 0.0065	$D_{\mathrm{M}}(0.15)$	641.7 ± 4.2	χ_{BAO}^2	6.2 ± 1.3
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042 ± 0.0063	$H(0.38)$	82.94 ± 0.32		

$\bar{\chi}_{\mathrm{eff}}^2 = 7506.48$; $R - 1 = 0.00781$

2.115 base_CamSpecHM_TT_lowl_lowE_lensing_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02233^{+0.00021}_{-0.00018}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6001 ± 0.0077	$D_{\mathrm{M}}(0.15)$	637.4 ± 5.8
$\Omega_{\mathrm{c}} h^2$	0.1182 ± 0.0015	$\sigma_8 / h^{0.5}$	0.979 ± 0.011	$H(0.38)$	83.27 ± 0.44
$100\theta_{\mathrm{MC}}$	1.04121 ± 0.00045	$r_{\mathrm{drag}} h$	100.5 ± 1.2	$D_{\mathrm{M}}(0.38)$	1522 ± 12
τ	$0.0584^{+0.0074}_{-0.0087}$	$\langle d^2 \rangle^{1/2}$	2.422 ± 0.025	$H(0.51)$	89.91 ± 0.36
$\ln(10^{10} A_{\mathrm{s}})$	3.047 ± 0.016	z_{re}	8.05 ± 0.80	$D_{\mathrm{M}}(0.51)$	1972 ± 14
n_{s}	0.9691 ± 0.0049	$10^9 A_{\mathrm{s}}$	$2.106^{+0.031}_{-0.035}$	$H(0.61)$	95.48 ± 0.29
y_{cal}	1.0008 ± 0.0025	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.873^{+0.012}_{-0.011}$	$D_{\mathrm{M}}(0.61)$	2296 ± 15
A_{100}^{PS}	241 ± 25	D_{40}	1221 ± 13	$H(2.33)$	235.34 ± 0.93
A_{143}^{PS}	40 ± 8	D_{220}	5724 ± 40	$D_{\mathrm{M}}(2.33)$	5757 ± 14
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$f\sigma_8(0.15)$	$0.4510^{+0.0081}_{-0.0074}$
A_{217}^{CIB}	40 ± 7	D_{1420}	816.4 ± 5.0	$\sigma_8(0.15)$	0.7471 ± 0.0059
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.5}$	D_{2000}	230.5 ± 1.8	$f\sigma_8(0.38)$	$0.4707^{+0.0066}_{-0.0059}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.12	$n_{\mathrm{s},0.002}$	0.9691 ± 0.0049	$\sigma_8(0.38)$	0.6630 ± 0.0052
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15}$	Y_{P}	$0.245378^{+0.000086}_{-0.000068}$	$f\sigma_8(0.51)$	0.4701 ± 0.0055
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246704^{+0.000086}_{-0.000068}$	$\sigma_8(0.51)$	0.6207 ± 0.0049
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.593^{+0.033}_{-0.039}$	$f\sigma_8(0.61)$	0.4657 ± 0.0050
A_{100}^{dust}	1.02 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.785 ± 0.031	$\sigma_8(0.61)$	0.5908 ± 0.0047
A_{143}^{dust}	0.97 ± 0.17	z_*	1089.81 ± 0.32	$f\sigma_8(2.33)$	$0.2982^{+0.0023}_{-0.0026}$
A_{217}^{dust}	0.97 ± 0.10	r_*	144.94 ± 0.36	$\sigma_8(2.33)$	$0.3077^{+0.0025}_{-0.0028}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04140 ± 0.00045	f_{2000}^{143}	29.9 ± 2.9
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.918 ± 0.034	f_{2000}^{217}	107.0 ± 2.0
c_{217}	1.0012 ± 0.0015	z_{drag}	1059.72 ± 0.42	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
H_0	68.07 ± 0.69	r_{drag}	147.62 ± 0.38	$\chi_{\mathrm{lensing}}^2$	9.8 ± 1.4
Ω_{Λ}	0.6953 ± 0.0091	k_{D}	0.14028 ± 0.00045	χ_{simall}^2	397.8 ± 2.6
Ω_{m}	0.3047 ± 0.0091	$100\theta_{\mathrm{D}}$	0.16092 ± 0.00024	χ_{lowl}^2	22.68 ± 0.88
$\Omega_{\mathrm{m}} h^2$	0.1411 ± 0.0014	z_{eq}	3357 ± 35	$\chi_{\mathrm{CamSpec}}^2$	7064.4 ± 5.5
$\Omega_{\mathrm{m}} h^3$	0.09607 ± 0.00042	k_{eq}	0.01025 ± 0.00011	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 2.7
σ_8	0.8077 ± 0.0067	$100\theta_{\mathrm{eq}}$	0.8216 ± 0.0066	χ_{prior}^2	7.4 ± 3.4
S_8	$0.814^{+0.016}_{-0.014}$	$100\theta_{\mathrm{s,eq}}$	0.4537 ± 0.0034	χ_{CMB}^2	7494.8 ± 6.3
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4459^{+0.0087}_{-0.0079}$	$H(0.15)$	73.28 ± 0.60		
$\bar{\chi}_{\mathrm{eff}}^2 = 7512.86; R - 1 = 0.03322$					

2.116 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00019	$\sigma_8/h^{0.5}$	0.9794 ± 0.0090	$D_{\mathrm{M}}(0.38)$	1522.2 ± 8.1
$\Omega_{\mathrm{c}}h^2$	0.1182 ± 0.0010	$r_{\mathrm{drag}}h$	100.44 ± 0.80	$H(0.51)$	89.90 ± 0.26
$100\theta_{\mathrm{MC}}$	1.04119 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.021	$D_{\mathrm{M}}(0.51)$	1972.9 ± 9.5
τ	0.0582 ± 0.0075	z_{re}	8.04 ± 0.74	$H(0.61)$	95.46 ± 0.23
$\ln(10^{10}A_{\mathrm{s}})$	3.047 ± 0.015	$10^9 A_{\mathrm{s}}$	2.106 ± 0.032	$D_{\mathrm{M}}(0.61)$	2297 ± 10
n_{s}	0.9690 ± 0.0040	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.874 ± 0.011	$H(2.33)$	235.37 ± 0.67
y_{cal}	1.0008 ± 0.0025	D_{40}	1222 ± 12	$D_{\mathrm{M}}(2.33)$	5758 ± 11
A_{100}^{PS}	241 ± 25	D_{220}	5725 ± 40	$f\sigma_8(0.15)$	0.4513 ± 0.0060
A_{143}^{PS}	40 ± 8	D_{810}	2535 ± 13	$\sigma_8(0.15)$	0.7472 ± 0.0058
A_{217}^{PS}	102 ± 10	D_{1420}	816.5 ± 5.0	$f\sigma_8(0.38)$	0.4710 ± 0.0051
A_{217}^{CIB}	40 ± 7	D_{2000}	230.5 ± 1.7	$\sigma_8(0.38)$	0.6631 ± 0.0051
A_{143}^{tSZ}	$3.8_{-2.6}^{+1.8}$	$n_{\mathrm{s},0.002}$	0.9690 ± 0.0040	$f\sigma_8(0.51)$	0.4704 ± 0.0046
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	Y_{P}	$0.245377_{-0.000068}^{+0.000081}$	$\sigma_8(0.51)$	0.6208 ± 0.0048
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57_{-0.16}^{+0.40}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246704_{-0.000068}^{+0.000081}$	$f\sigma_8(0.61)$	0.4659 ± 0.0043
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.593_{-0.037}^{+0.033}$	$\sigma_8(0.61)$	0.5909 ± 0.0046
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	13.786 ± 0.026	$f\sigma_8(2.33)$	0.2982 ± 0.0024
A_{100}^{dust}	1.02 ± 0.19	z_*	1089.81 ± 0.27	$\sigma_8(2.33)$	0.3077 ± 0.0025
A_{143}^{dust}	0.97 ± 0.17	r_*	144.92 ± 0.27	f_{2000}^{143}	29.9 ± 2.9
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04138 ± 0.00040	f_{2000}^{217}	107.0 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.917 ± 0.027	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
c_{100}	0.9976 ± 0.0010	z_{drag}	1059.72 ± 0.42	$\chi_{\mathrm{lensing}}^2$	9.6 ± 1.1
c_{217}	1.0012 ± 0.0015	r_{drag}	147.61 ± 0.30	χ_{simall}^2	397.7 ± 2.3
H_0	68.04 ± 0.47	k_{D}	0.14029 ± 0.00041	χ_{lowl}^2	22.69 ± 0.79
Ω_{Λ}	0.6950 ± 0.0061	$100\theta_{\mathrm{D}}$	0.16091 ± 0.00025	$\chi_{\mathrm{CamSpec}}^2$	7064.2 ± 5.4
Ω_{m}	0.3050 ± 0.0061	z_{eq}	3359 ± 24	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 1.8
$\Omega_{\mathrm{m}}h^2$	0.1412 ± 0.0010	k_{eq}	0.010251 ± 0.000074	$\chi_{6\mathrm{DF}}^2$	0.027 ± 0.038
$\Omega_{\mathrm{m}}h^3$	0.09607 ± 0.00043	$100\theta_{\mathrm{eq}}$	0.8213 ± 0.0045	χ_{MGS}^2	1.73 ± 0.49
σ_8	0.8079 ± 0.0064	$100\theta_{\mathrm{s,eq}}$	0.4536 ± 0.0023	$\chi_{\mathrm{DR12BAO}}^2$	3.91 ± 0.78
S_8	0.815 ± 0.012	$H(0.15)$	73.25 ± 0.41	χ_{prior}^2	7.5 ± 3.5
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4462 ± 0.0063	$D_{\mathrm{M}}(0.15)$	637.6 ± 4.0	χ_{CMB}^2	7494.2 ± 5.6
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6004 ± 0.0062	$H(0.38)$	83.25 ± 0.31	χ_{BAO}^2	5.67 ± 0.68

$\bar{\chi}_{\mathrm{eff}}^2 = 7518.00$; $R - 1 = 0.02714$

2.117 base_CamSpecHM_TT_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022170	0.02218 ± 0.00020	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6073	0.6068 ± 0.0074	$D_{\text{M}}(0.15)$	644.4	644.2 ± 5.6
$\Omega_{\text{c}}h^2$	0.11983	0.1198 ± 0.0014	$\sigma_8/h^{0.5}$	0.9882	0.987 ± 0.010	$H(0.38)$	82.738	82.76 ± 0.42
$100\theta_{\text{MC}}$	1.040912	1.04092 ± 0.00044	$r_{\text{drag}}h$	99.09	99.1 ± 1.1	$D_{\text{M}}(0.38)$	1535.9	1535 ± 11
τ	0.0541	0.0539 ± 0.0077	$\langle d^2 \rangle^{1/2}$	2.4421	2.441 ± 0.024	$H(0.51)$	89.490	89.51 ± 0.34
$\ln(10^{10}A_{\text{s}})$	3.0416	3.041 ± 0.015	z_{re}	7.70	7.66 ± 0.78	$D_{\text{M}}(0.51)$	1989.0	1988 ± 13
n_{s}	0.96498	0.9651 ± 0.0047	$10^9 A_{\text{s}}$	2.0939	2.093 ± 0.031	$H(0.61)$	95.136	95.16 ± 0.28
y_{cal}	1.00058	1.0005 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.8792	1.879 ± 0.011	$D_{\text{M}}(0.61)$	2314.0	2313 ± 14
A_{100}^{PS}	239.9	243 ± 25	D_{40}	1227.5	1228 ± 12	$H(2.33)$	236.25	236.23 ± 0.88
A_{143}^{PS}	40.1	41 ± 8	D_{220}	5708.8	5710 ± 41	$D_{\text{M}}(2.33)$	5771.9	5771 ± 14
A_{217}^{PS}	100.0	101 ± 10	D_{810}	2534.1	2534 ± 14	$f\sigma_8(0.15)$	0.4594	0.4589 ± 0.0077
A_{217}^{CIB}	45.1	41 ± 7	D_{1420}	814.6	814.5 ± 5.1	$\sigma_8(0.15)$	0.7484	0.7480 ± 0.0057
A_{143}^{tSZ}	5.90	$3.8_{-2.6}^{+1.7}$	D_{2000}	229.69	229.7 ± 1.8	$f\sigma_8(0.38)$	0.4769	0.4764 ± 0.0060
$r_{143 \times 217}^{\text{PS}}$	0.569	0.65 ± 0.13	$n_{\text{s},0.002}$	0.96498	0.9651 ± 0.0047	$\sigma_8(0.38)$	0.66301	0.6627 ± 0.0050
$r_{143 \times 217}^{\text{CIB}}$	0.776	> 0.463	Y_{P}	0.245314	$0.245315_{-0.000075}^{+0.000094}$	$f\sigma_8(0.51)$	0.4750	0.4746 ± 0.0052
$\xi^{\text{tSZ} \times \text{CIB}}$	0.07	—	$Y_{\text{P}}^{\text{BBN}}$	0.246640	$0.246641_{-0.000075}^{+0.000094}$	$\sigma_8(0.51)$	0.62029	0.6200 ± 0.0047
A^{kSZ}	1.3	—	$10^5 \text{D}/\text{H}$	2.6236	2.621 ± 0.038	$f\sigma_8(0.61)$	0.46972	0.4693 ± 0.0047
A_{100}^{dust}	1.012	1.01 ± 0.20	Age/Gyr	13.8172	13.815 ± 0.031	$\sigma_8(0.61)$	0.59011	0.5898 ± 0.0045
A_{143}^{dust}	0.991	0.98 ± 0.18	z_*	1090.158	1090.14 ± 0.33	$f\sigma_8(2.33)$	0.29738	0.2973 ± 0.0023
A_{217}^{dust}	0.967	0.97 ± 0.10	r_*	144.627	144.63 ± 0.34	$\sigma_8(2.33)$	0.30642	0.3063 ± 0.0026
$A_{143 \times 217}^{\text{dust}}$	1.000	1.03 ± 0.16	$100\theta_*$	1.041115	1.04112 ± 0.00044	f_{2000}^{143}	31.15	30.7 ± 3.0
c_{100}	0.99756	0.9975 ± 0.0011	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8915	13.892 ± 0.032	f_{2000}^{217}	107.63	107.5 ± 2.0
c_{217}	1.00139	1.0012 ± 0.0015	z_{drag}	1059.475	1059.48 ± 0.43	$f_{2000}^{143 \times 217}$	32.95	32.9 ± 2.1
H_0	67.24	67.28 ± 0.65	r_{drag}	147.357	147.36 ± 0.36	χ_{lensing}^2	8.879	9.45 ± 0.83
Ω_{Λ}	0.6845	0.6848 ± 0.0089	k_{D}	0.140431	0.14044 ± 0.00044	χ_{small}^2	396.05	397.0 ± 1.7
Ω_{m}	0.3155	0.3152 ± 0.0089	$100\theta_{\text{D}}$	0.161041	0.16103 ± 0.00025	χ_{lowl}^2	23.24	23.30 ± 0.95
$\Omega_{\text{m}}h^2$	0.14265	0.1426 ± 0.0014	z_{eq}	3393.4	3392 ± 33	χ_{CamSpec}^2	7050.35	7062.8 ± 5.2
$\Omega_{\text{m}}h^3$	0.095923	0.09594 ± 0.00044	k_{eq}	0.010357	0.01035 ± 0.00010	χ_{JLA}^2	1035.290	1035.43 ± 0.63
σ_8	0.8104	0.8099 ± 0.0064	$100\theta_{\text{eq}}$	0.8143	0.8146 ± 0.0061	χ_{prior}^2	2.22	7.6 ± 3.5
S_8	0.8310	0.830 ± 0.015	$100\theta_{\text{s,eq}}$	0.45006	0.4502 ± 0.0032	χ_{CMB}^2	7478.5	7492.6 ± 5.4
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4552	0.4546 ± 0.0083	$H(0.15)$	72.56	72.60 ± 0.56			

Best-fit $\chi_{\text{eff}}^2 = 8516.03$; $\bar{\chi}_{\text{eff}}^2 = 8535.63$; $R - 1 = 0.00582$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 small_100x143_offlike5_EE_Aplanck_B: 396.05 commander_dx12_v3.2.29: 23.24 CamSpec like_10.7HM: 7050.35 SN - JLA Pantheon18: 1035.29

2.118 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_JLA_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02234 ± 0.00019	$r_{\text{drag}} h$	100.53 ± 0.79	$D_{\text{M}}(0.51)$	1971.9 ± 9.5
$\Omega_c h^2$	0.1181 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.421 ± 0.022	$H(0.61)$	95.48 ± 0.23
$100\theta_{\text{MC}}$	1.04120 ± 0.00041	z_{re}	8.04 ± 0.75	$D_{\text{M}}(0.61)$	2296 ± 10
τ	0.0583 ± 0.0076	$10^9 A_{\text{s}}$	2.105 ± 0.032	$H(2.33)$	235.30 ± 0.66
$\ln(10^{10} A_{\text{s}})$	3.047 ± 0.015	$10^9 A_{\text{s}} e^{-2\tau}$	1.874 ± 0.011	$D_{\text{M}}(2.33)$	5757 ± 11
n_{s}	0.9692 ± 0.0039	D_{40}	1221 ± 12	$f\sigma_8(0.15)$	0.4506 ± 0.0060
y_{cal}	1.0008 ± 0.0026	D_{220}	5726 ± 40	$\sigma_8(0.15)$	0.7469 ± 0.0058
A_{100}^{PS}	242 ± 25	D_{810}	2535 ± 14	$f\sigma_8(0.38)$	0.4704 ± 0.0051
A_{143}^{PS}	40 ± 8	D_{1420}	816.6 ± 5.1	$\sigma_8(0.38)$	0.6628 ± 0.0051
A_{217}^{PS}	102 ± 10	D_{2000}	230.6 ± 1.7	$f\sigma_8(0.51)$	0.4699 ± 0.0046
A_{217}^{CIB}	40 ± 7	$n_{\text{s},0.002}$	0.9692 ± 0.0039	$\sigma_8(0.51)$	0.6206 ± 0.0048
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	Y_{P}	0.245381 ± 0.000076	$f\sigma_8(0.61)$	0.4655 ± 0.0043
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.13	$Y_{\text{P}}^{\text{BBN}}$	0.246707 ± 0.000076	$\sigma_8(0.61)$	0.5908 ± 0.0046
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.39}_{-0.18}$	10^5D/H	2.592 ± 0.035	$f\sigma_8(2.33)$	0.2982 ± 0.0023
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Age/Gyr	13.784 ± 0.026	$\sigma_8(2.33)$	0.3077 ± 0.0025
A^{kSZ}	—	z_*	1089.79 ± 0.27	f_{2000}^{143}	29.9 ± 2.9
A_{100}^{dust}	1.02 ± 0.19	r_*	144.95 ± 0.27	f_{2000}^{217}	107.0 ± 2.1
A_{143}^{dust}	0.96 ± 0.17	$100\theta_*$	1.04139 ± 0.00040	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_{\text{M}}(z_*)/\text{Gpc}$	13.919 ± 0.027	χ_{lensing}^2	9.7 ± 1.2
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	z_{drag}	1059.73 ± 0.43	χ_{simall}^2	397.7 ± 2.3
c_{100}	0.9976 ± 0.0010	r_{drag}	147.63 ± 0.30	χ_{lowl}^2	22.66 ± 0.76
c_{217}	$1.0012^{+0.0015}_{-0.0017}$	k_{D}	0.14027 ± 0.00041	χ_{CamSpec}^2	7064.4 ± 5.4
H_0	68.10 ± 0.47	$100\theta_{\text{D}}$	0.16091 ± 0.00025	χ_{H073p45}^2	10.5 ± 1.8
Ω_{Λ}	0.6957 ± 0.0060	z_{eq}	3356 ± 24	χ_{JLA}^2	706.61 ± 0.11
Ω_{m}	0.3043 ± 0.0060	k_{eq}	0.010243 ± 0.000072	$\chi_{6\text{DF}}^2$	0.026 ± 0.038
$\Omega_{\text{m}} h^2$	0.14108 ± 0.00099	$100\theta_{\text{eq}}$	0.8218 ± 0.0044	χ_{MGS}^2	1.79 ± 0.49
$\Omega_{\text{m}} h^3$	0.09607 ± 0.00043	$100\theta_{\text{s,eq}}$	0.4538 ± 0.0023	χ_{DR12BAO}^2	3.85 ± 0.72
σ_8	0.8075 ± 0.0065	$H(0.15)$	73.30 ± 0.41	χ_{prior}^2	7.5 ± 3.6
S_8	0.813 ± 0.012	$D_{\text{M}}(0.15)$	637.2 ± 4.0	χ_{CMB}^2	7494.5 ± 5.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4454 ± 0.0063	$H(0.38)$	83.28 ± 0.31	χ_{BAO}^2	5.67 ± 0.69
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5997 ± 0.0063	$D_{\text{M}}(0.38)$	1521.4 ± 8.0		
$\sigma_8/h^{0.5}$	0.9786 ± 0.0092	$H(0.51)$	89.92 ± 0.26		

$$\bar{\chi}_{\text{eff}}^2 = 8224.73; R - 1 = 0.08459$$

2.119 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022236	0.02224 ± 0.00019	$\sigma_8/h^{0.5}$	0.9832	0.9834 ± 0.0089	$D_M(0.38)$	1529.2	1529.2 ± 8.2
$\Omega_c h^2$	0.11903	0.1190 ± 0.0011	$r_{\text{drag}} h$	99.76	99.78 ± 0.81	$H(0.51)$	89.684	89.68 ± 0.26
$100\theta_{\text{MC}}$	1.041075	1.04104 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.4301	2.432 ± 0.021	$D_M(0.51)$	1981.2	1981.2 ± 9.7
τ	0.0552	0.0559 ± 0.0075	z_{re}	7.79	7.84 ± 0.75	$H(0.61)$	95.290	95.29 ± 0.23
$\ln(10^{10} A_s)$	3.0426	3.044 ± 0.015	$10^9 A_s$	2.0960	2.098 ± 0.031	$D_M(0.61)$	2305.5	2306 ± 11
n_s	0.96715	0.9669 ± 0.0041	$10^9 A_s e^{-2\tau}$	1.8768	1.876 ± 0.011	$H(2.33)$	235.80	235.77 ± 0.67
y_{cal}	1.00072	1.0007 ± 0.0025	D_{40}	1223.7	1224 ± 12	$D_M(2.33)$	5765.2	5765 ± 12
A_{100}^{PS}	237.4	242 ± 25	D_{220}	5715.1	5716 ± 40	$f\sigma_8(0.15)$	0.4551	0.4551 ± 0.0059
A_{143}^{PS}	40.1	41 ± 8	D_{810}	2535.2	2534 ± 13	$\sigma_8(0.15)$	0.7473	0.7475 ± 0.0057
A_{217}^{PS}	100.8	101 ± 10	D_{1420}	815.7	815.3 ± 5.0	$f\sigma_8(0.38)$	0.4736	0.4737 ± 0.0050
A_{217}^{CIB}	45.8	41 ± 7	D_{2000}	230.13	230.0 ± 1.8	$\sigma_8(0.38)$	0.6626	0.6627 ± 0.0051
A_{143}^{tSZ}	6.62	$3.8^{+1.7}_{-2.6}$	$n_{s,0.002}$	0.96715	0.9669 ± 0.0041	$f\sigma_8(0.51)$	0.47240	0.4724 ± 0.0045
$r_{143 \times 217}^{\text{PS}}$	0.572	0.65 ± 0.13	Y_{P}	0.245341	$0.245338^{+0.000085}_{-0.000071}$	$\sigma_8(0.51)$	0.62014	0.6203 ± 0.0048
$r_{143 \times 217}^{\text{CIB}}$	0.802	> 0.456	$Y_{\text{P}}^{\text{BBN}}$	0.246667	$0.246664^{+0.000085}_{-0.000071}$	$f\sigma_8(0.61)$	0.46754	0.4676 ± 0.0042
$\xi^{\text{tSZ} \times \text{CIB}}$	0.04	—	$10^5 D/H$	2.6109	2.612 ± 0.036	$\sigma_8(0.61)$	0.59011	0.5903 ± 0.0045
A^{kSZ}	0.0	—	Age/Gyr	13.8024	13.803 ± 0.026	$f\sigma_8(2.33)$	0.29759	0.2977 ± 0.0023
A_{100}^{dust}	1.007	1.01 ± 0.20	z_*	1090.004	1090.00 ± 0.28	$\sigma_8(2.33)$	0.30686	0.3069 ± 0.0025
A_{143}^{dust}	0.988	0.97 ± 0.17	r_*	144.785	144.80 ± 0.28	f_{2000}^{143}	30.79	30.5 ± 3.0
A_{217}^{dust}	0.965	0.97 ± 0.10	$100\theta_*$	1.041269	1.04124 ± 0.00041	f_{2000}^{217}	107.35	107.3 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.000	1.03 ± 0.16	$D_M(z_*)/\text{Gpc}$	13.9047	13.906 ± 0.027	$f_{2000}^{143 \times 217}$	32.66	32.7 ± 2.1
c_{100}	0.99763	0.9975 ± 0.0011	z_{drag}	1059.551	1059.55 ± 0.43	χ_{lensing}^2	9.020	9.41 ± 0.85
c_{217}	1.00136	1.0012 ± 0.0015	r_{drag}	147.499	147.51 ± 0.31	χ_{small}^2	396.23	397.3 ± 1.9
H_0	67.636	67.64 ± 0.48	k_{D}	0.140336	0.14032 ± 0.00041	χ_{lowl}^2	22.86	22.98 ± 0.83
Ω_{Λ}	0.6898	0.6898 ± 0.0063	$100\theta_{\text{D}}$	0.160998	0.16100 ± 0.00025	χ_{CamSpec}^2	7051.17	7063.2 ± 5.2
Ω_{m}	0.3102	0.3102 ± 0.0063	z_{eq}	3375.7	3375 ± 24	χ_{JLA}^2	1034.995	1035.07 ± 0.31
$\Omega_{\text{m}} h^2$	0.14191	0.1419 ± 0.0010	k_{eq}	0.010303	0.010300 ± 0.000074	$\chi_{6\text{DF}}^2$	0.0217	0.048 ± 0.061
$\Omega_{\text{m}} h^3$	0.095981	0.09596 ± 0.00044	$100\theta_{\text{eq}}$	0.81780	0.8180 ± 0.0045	χ_{MGS}^2	1.279	1.35 ± 0.45
σ_8	0.8086	0.8088 ± 0.0063	$100\theta_{s,\text{eq}}$	0.45183	0.4519 ± 0.0023	χ_{DR12BAO}^2	4.18	4.6 ± 1.3
S_8	0.8223	0.822 ± 0.012	$H(0.15)$	72.900	72.90 ± 0.41	χ_{prior}^2	2.12	7.6 ± 3.5
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4504	0.4504 ± 0.0063	$D_M(0.15)$	641.06	641.1 ± 4.1	χ_{CMB}^2	7479.3	7492.9 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6035	0.6035 ± 0.0061	$H(0.38)$	82.984	82.98 ± 0.31	χ_{BAO}^2	5.484	6.0 ± 1.1

Best-fit $\chi_{\text{eff}}^2 = 8521.87$; $\bar{\chi}_{\text{eff}}^2 = 8541.50$; $R - 1 = 0.00920$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.18 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p_teb_consext8: 9.02 small_100x143.offlike5_EE_Aplanck_B: 396.23 commander_dx12.v3.2.29: 22.86 CamSpec like_10.7HM: 7051.17 SN - JLA Pantheon18: 1034.99

2.120 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022336	0.02234 ± 0.00018	$r_{\text{drag}} h$	100.44	100.50 ± 0.77	$D_M(0.51)$	1972.8	1972.3 ± 9.2
$\Omega_c h^2$	0.11821	0.1181 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.4226	2.422 ± 0.021	$H(0.61)$	95.465	95.48 ± 0.22
$100\theta_{\text{MC}}$	1.041192	1.04120 ± 0.00041	z_{re}	8.05	8.05 ± 0.74	$D_M(0.61)$	2296.4	2296 ± 10
τ	0.0582	0.0584 ± 0.0075	$10^9 A_s$	2.1058	2.106 ± 0.032	$H(2.33)$	235.37	235.33 ± 0.65
$\ln(10^{10} A_s)$	3.0473	3.047 ± 0.015	$10^9 A_s e^{-2\tau}$	1.8744	1.874 ± 0.011	$D_M(2.33)$	5757.3	5757 ± 11
n_s	0.96919	0.9692 ± 0.0040	D_{40}	1221.3	1221 ± 12	$f\sigma_8(0.15)$	0.4513	0.4509 ± 0.0058
y_{cal}	1.00087	1.0009 ± 0.0025	D_{220}	5725.7	5726 ± 39	$\sigma_8(0.15)$	0.7473	0.7472 ± 0.0058
A_{100}^{PS}	235.2	241 ± 25	D_{810}	2536.3	2535 ± 13	$f\sigma_8(0.38)$	0.47104	0.4707 ± 0.0050
A_{143}^{PS}	39.5	40 ± 8	D_{1420}	816.9	816.6 ± 5.0	$\sigma_8(0.38)$	0.6632	0.6631 ± 0.0051
A_{217}^{PS}	101.5	102 ± 10	D_{2000}	230.67	230.6 ± 1.7	$f\sigma_8(0.51)$	0.47043	0.4702 ± 0.0045
A_{217}^{CIB}	44.8	40 ± 7	$n_{s,0.002}$	0.96919	0.9692 ± 0.0040	$\sigma_8(0.51)$	0.62092	0.6208 ± 0.0048
A_{143}^{tSZ}	6.49	$3.8^{+1.8}_{-2.6}$	Y_{P}	0.245382	$0.245379^{+0.000080}_{-0.000067}$	$f\sigma_8(0.61)$	0.46600	0.4658 ± 0.0042
$r_{143 \times 217}^{\text{PS}}$	0.590	0.66 ± 0.13	$Y_{\text{P}}^{\text{BBN}}$	0.246708	$0.246706^{+0.000080}_{-0.000067}$	$\sigma_8(0.61)$	0.59101	0.5909 ± 0.0046
$r_{143 \times 217}^{\text{CIB}}$	0.781	$0.57^{+0.40}_{-0.17}$	$10^5 D/H$	2.5918	$2.592^{+0.033}_{-0.037}$	$f\sigma_8(2.33)$	0.29826	0.2982 ± 0.0024
$\xi^{\text{tSZ} \times \text{CIB}}$	0.09	—	Age/Gyr	13.7851	13.784 ± 0.026	$\sigma_8(2.33)$	0.30778	0.3078 ± 0.0025
A^{kSZ}	0.2	—	z_*	1089.806	1089.80 ± 0.26	f_{2000}^{143}	30.11	29.9 ± 2.9
A_{100}^{dust}	1.007	1.02 ± 0.19	r_*	144.922	144.94 ± 0.27	f_{2000}^{217}	107.00	107.0 ± 2.1
A_{143}^{dust}	0.980	0.97 ± 0.17	$100\theta_*$	1.041380	1.04139 ± 0.00040	$f_{2000}^{143 \times 217}$	32.22	32.2 ± 2.1
A_{217}^{dust}	0.968	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.9163	13.918 ± 0.027	χ_{lensing}^2	9.17	9.6 ± 1.1
$A_{143 \times 217}^{\text{dust}}$	1.002	1.02 ± 0.16	z_{drag}	1059.742	1059.73 ± 0.42	χ_{small}^2	396.83	397.7 ± 2.3
c_{100}	0.99765	0.9976 ± 0.0010	r_{drag}	147.604	147.62 ± 0.30	χ_{lowl}^2	22.60	22.66 ± 0.78
c_{217}	1.00136	1.0012 ± 0.0015	k_{D}	0.140301	0.14028 ± 0.00040	χ_{CamSpec}^2	7052.0	7064.2 ± 5.4
H_0	68.050	68.08 ± 0.45	$100\theta_{\text{D}}$	0.160903	0.16091 ± 0.00024	χ_{H073p45}^2	10.58	10.5 ± 1.8
Ω_{Λ}	0.6951	0.6954 ± 0.0059	z_{eq}	3358.5	3357 ± 23	χ_{JLA}^2	1034.807	1034.87 ± 0.17
Ω_{m}	0.3049	0.3046 ± 0.0059	k_{eq}	0.010251	0.010246 ± 0.000071	$\chi_{6\text{DF}}^2$	0.0001	0.025 ± 0.035
$\Omega_{\text{m}} h^2$	0.14119	0.14113 ± 0.00098	$100\theta_{\text{eq}}$	0.82130	0.8216 ± 0.0043	χ_{MGS}^2	1.677	1.77 ± 0.47
$\Omega_{\text{m}} h^3$	0.096079	0.09607 ± 0.00043	$100\theta_{\text{s,eq}}$	0.45359	0.4538 ± 0.0022	χ_{DR12BAO}^2	3.487	3.85 ± 0.69
σ_8	0.8080	0.8078 ± 0.0064	$H(0.15)$	73.259	73.28 ± 0.39	χ_{prior}^2	2.13	7.5 ± 3.5
S_8	0.8146	0.814 ± 0.011	$D_M(0.15)$	637.54	637.3 ± 3.8	χ_{CMB}^2	7480.6	7494.3 ± 5.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4462	0.4458 ± 0.0062	$H(0.38)$	83.251	83.27 ± 0.30	χ_{BAO}^2	5.164	5.64 ± 0.63
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6004	0.6001 ± 0.0061	$D_M(0.38)$	1522.1	1521.6 ± 7.8			
$\sigma_8/h^{0.5}$	0.9795	0.9791 ± 0.0090	$H(0.51)$	89.899	89.91 ± 0.25			

Best-fit $\chi_{\text{eff}}^2 = 8533.26$; $\bar{\chi}_{\text{eff}}^2 = 8552.81$; $R - 1 = 0.02978$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.49 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p_teb_consext8: 9.17 small_100x143_offlike5_EE_Aplanck_B: 396.83 commander_dx12_v3_2_29: 22.60 CamSpec like_10.7HM: 7051.98 Hubble - H073p45: 10.58 SN - JLA Pantheon18: 1034.81

2.121 base_CamSpecHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02216 ± 0.00020	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6089 ± 0.0078	$D_{\text{M}}(0.15)$	645.6 ± 6.0
$\Omega_{\text{c}}h^2$	0.1201 ± 0.0015	$\sigma_8/h^{0.5}$	0.990 ± 0.011	$H(0.38)$	82.66 ± 0.44
$100\theta_{\text{MC}}$	1.04086 ± 0.00045	$r_{\text{drag}}h$	98.9 ± 1.2	$D_{\text{M}}(0.38)$	1538 ± 12
τ	$0.0541^{+0.0048}_{-0.0083}$	$\langle d^2 \rangle^{1/2}$	2.447 ± 0.025	$H(0.51)$	89.43 ± 0.35
$\ln(10^{10}A_{\text{s}})$	$3.042^{+0.011}_{-0.015}$	z_{re}	$7.69^{+0.54}_{-0.80}$	$D_{\text{M}}(0.51)$	1992 ± 14
n_{s}	0.9643 ± 0.0048	$10^9 A_{\text{s}}$	$2.095^{+0.022}_{-0.032}$	$H(0.61)$	95.09 ± 0.29
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.880 ± 0.011	$D_{\text{M}}(0.61)$	2317 ± 15
A_{100}^{PS}	243 ± 25	D_{40}	1229 ± 13	$H(2.33)$	236.44 ± 0.93
A_{143}^{PS}	41 ± 8	D_{220}	5706 ± 41	$D_{\text{M}}(2.33)$	5774 ± 14
A_{217}^{PS}	101 ± 10	D_{810}	2533 ± 14	$f\sigma_8(0.15)$	0.4612 ± 0.0082
A_{217}^{CIB}	41 ± 7	D_{1420}	814.0 ± 5.2	$\sigma_8(0.15)$	$0.7490^{+0.0049}_{-0.0055}$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	D_{2000}	229.5 ± 1.8	$f\sigma_8(0.38)$	0.4782 ± 0.0064
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{\text{s},0.002}$	0.9643 ± 0.0048	$\sigma_8(0.38)$	$0.6633^{+0.0040}_{-0.0049}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.41}_{-0.13}$	Y_{P}	$0.245304^{+0.000096}_{-0.000077}$	$f\sigma_8(0.51)$	0.4760 ± 0.0054
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246630^{+0.000096}_{-0.000078}$	$\sigma_8(0.51)$	$0.6205^{+0.0037}_{-0.0046}$
A^{kSZ}	—	$10^5 D/H$	2.627 ± 0.038	$f\sigma_8(0.61)$	0.4706 ± 0.0048
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	13.821 ± 0.032	$\sigma_8(0.61)$	$0.5902^{+0.0035}_{-0.0045}$
A_{143}^{dust}	0.98 ± 0.17	z_*	1090.21 ± 0.34	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0024}$
A_{217}^{dust}	0.97 ± 0.10	r_*	144.56 ± 0.36	$\sigma_8(2.33)$	$0.3063^{+0.0019}_{-0.0026}$
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04107 ± 0.00045	f_{2000}^{143}	30.8 ± 3.0
c_{100}	0.9975 ± 0.0011	$D_{\text{M}}(z_*)/\text{Gpc}$	13.886 ± 0.034	f_{2000}^{217}	107.6 ± 2.0
c_{217}	1.0012 ± 0.0016	z_{drag}	1059.45 ± 0.44	$f_{2000}^{143 \times 217}$	33.0 ± 2.1
H_0	67.11 ± 0.69	r_{drag}	147.29 ± 0.37	χ_{lensing}^2	9.49 ± 0.88
Ω_{Λ}	0.6825 ± 0.0095	k_{D}	0.14049 ± 0.00044	χ_{simall}^2	396.8 ± 1.6
Ω_{m}	0.3175 ± 0.0095	$100\theta_{\text{D}}$	0.16105 ± 0.00025	χ_{lowl}^2	23.5 ± 1.0
$\Omega_{\text{m}}h^2$	0.1429 ± 0.0014	z_{eq}	3401 ± 35	χ_{CamSpec}^2	7062.6 ± 5.1
$\Omega_{\text{m}}h^3$	0.09593 ± 0.00044	k_{eq}	0.01038 ± 0.00011	χ_{prior}^2	7.6 ± 3.5
σ_8	0.8112 ± 0.0061	$100\theta_{\text{eq}}$	0.8130 ± 0.0065	χ_{CMB}^2	7492.4 ± 5.3
S_8	0.835 ± 0.016	$100\theta_{\text{s,eq}}$	0.4494 ± 0.0033		
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4571 ± 0.0089	$H(0.15)$	72.45 ± 0.59		

$$\bar{\chi}_{\text{eff}}^2 = 7500.01; R - 1 = 0.00502$$

2.122 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00019	$\sigma_8/h^{0.5}$	0.9846 ± 0.0089	$D_{\mathrm{M}}(0.38)$	1530.2 ± 8.5
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0011	$r_{\mathrm{drag}}h$	99.68 ± 0.84	$H(0.51)$	89.66 ± 0.27
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00042	$\langle d^2 \rangle^{1/2}$	2.434 ± 0.021	$D_{\mathrm{M}}(0.51)$	1982 ± 10
τ	$0.0562^{+0.0058}_{-0.0078}$	z_{re}	$7.87^{+0.63}_{-0.76}$	$H(0.61)$	95.27 ± 0.23
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.025}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	2307 ± 11
n_{s}	0.9667 ± 0.0041	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$H(2.33)$	235.84 ± 0.69
y_{cal}	1.0006 ± 0.0025	D_{40}	1225 ± 12	$D_{\mathrm{M}}(2.33)$	5766 ± 12
A_{100}^{PS}	242 ± 25	D_{220}	5714 ± 40	$f\sigma_8(0.15)$	0.4560 ± 0.0061
A_{143}^{PS}	41 ± 8	D_{810}	2534 ± 14	$\sigma_8(0.15)$	0.7480 ± 0.0054
A_{217}^{PS}	101 ± 10	D_{1420}	815.1 ± 5.1	$f\sigma_8(0.38)$	0.4744 ± 0.0051
A_{217}^{CIB}	41 ± 7	D_{2000}	229.9 ± 1.8	$\sigma_8(0.38)$	$0.6631^{+0.0044}_{-0.0051}$
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.9667 ± 0.0041	$f\sigma_8(0.51)$	0.4731 ± 0.0045
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245334^{+0.000085}_{-0.000071}$	$\sigma_8(0.51)$	$0.6206^{+0.0040}_{-0.0048}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.42}_{-0.13}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246660^{+0.000086}_{-0.000071}$	$f\sigma_8(0.61)$	0.4681 ± 0.0041
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.613 ± 0.036	$\sigma_8(0.61)$	$0.5905^{+0.0038}_{-0.0046}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	13.805 ± 0.027	$f\sigma_8(2.33)$	$0.2978^{+0.0019}_{-0.0024}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1090.03 ± 0.28	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0026}$
A_{143}^{dust}	0.97 ± 0.17	r_*	144.77 ± 0.28	f_{2000}^{143}	30.5 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04122 ± 0.00041	f_{2000}^{217}	107.4 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.904 ± 0.028	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.54 ± 0.43	$\chi_{\mathrm{lensing}}^2$	9.35 ± 0.77
c_{217}	1.0012 ± 0.0015	r_{drag}	147.49 ± 0.31	χ_{simall}^2	397.2 ± 1.9
H_0	67.58 ± 0.49	k_{D}	0.14034 ± 0.00041	χ_{lowl}^2	23.04 ± 0.84
Ω_{Λ}	0.6891 ± 0.0065	$100\theta_{\mathrm{D}}$	0.16101 ± 0.00025	$\chi_{\mathrm{CamSpec}}^2$	7063.0 ± 5.2
Ω_{m}	0.3109 ± 0.0065	z_{eq}	3378 ± 25	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.070
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0011	k_{eq}	0.010309 ± 0.000077	χ_{MGS}^2	1.29 ± 0.46
$\Omega_{\mathrm{m}}h^3$	0.09595 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8174 ± 0.0047	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
σ_8	0.8094 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0024	χ_{prior}^2	7.6 ± 3.5
S_8	0.824 ± 0.012	$H(0.15)$	72.85 ± 0.43	χ_{CMB}^2	7492.6 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4513 ± 0.0066	$D_{\mathrm{M}}(0.15)$	641.5 ± 4.2	χ_{BAO}^2	6.1 ± 1.2
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6044 ± 0.0062	$H(0.38)$	82.95 ± 0.32		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7506.32; R - 1 = 0.00854$$

2.123 base_CamSpecHM_TT_lowl_lowE_lensing_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02234^{+0.00020}_{-0.00018}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6001 ± 0.0077	$D_{\text{M}}(0.15)$	637.3 ± 5.8
$\Omega_{\text{c}}h^2$	0.1181 ± 0.0015	$\sigma_8/h^{0.5}$	0.979 ± 0.011	$H(0.38)$	83.28 ± 0.44
$100\theta_{\text{MC}}$	1.04121 ± 0.00045	$r_{\text{drag}}h$	100.5 ± 1.2	$D_{\text{M}}(0.38)$	1521 ± 12
τ	$0.0588^{+0.0066}_{-0.0088}$	$\langle d^2 \rangle^{1/2}$	2.422 ± 0.025	$H(0.51)$	89.92 ± 0.35
$\ln(10^{10}A_{\text{s}})$	$3.048^{+0.013}_{-0.016}$	z_{re}	$8.09^{+0.67}_{-0.85}$	$D_{\text{M}}(0.51)$	1972 ± 14
n_{s}	0.9692 ± 0.0048	$10^9 A_{\text{s}}$	$2.107^{+0.028}_{-0.035}$	$H(0.61)$	95.48 ± 0.29
y_{cal}	1.0008 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	$1.873^{+0.012}_{-0.011}$	$D_{\text{M}}(0.61)$	2296 ± 15
A_{100}^{PS}	241 ± 25	D_{40}	1221 ± 13	$H(2.33)$	235.32 ± 0.92
A_{143}^{PS}	40 ± 8	D_{220}	5724 ± 40	$D_{\text{M}}(2.33)$	5757 ± 14
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$f\sigma_8(0.15)$	$0.4509^{+0.0082}_{-0.0074}$
A_{217}^{CIB}	40 ± 7	D_{1420}	816.4 ± 5.0	$\sigma_8(0.15)$	0.7473 ± 0.0058
A_{143}^{tSZ}	$3.9^{+1.7}_{-2.5}$	D_{2000}	230.5 ± 1.8	$f\sigma_8(0.38)$	$0.4708^{+0.0066}_{-0.0059}$
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.12	$n_{\text{s},0.002}$	0.9692 ± 0.0048	$\sigma_8(0.38)$	0.6632 ± 0.0050
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.41}_{-0.15}$	Y_{P}	$0.245379^{+0.000086}_{-0.000068}$	$f\sigma_8(0.51)$	$0.4702^{+0.0057}_{-0.0052}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246705^{+0.000086}_{-0.000068}$	$\sigma_8(0.51)$	$0.6210^{+0.0044}_{-0.0051}$
A^{ksZ}	—	10^5D/H	$2.593^{+0.033}_{-0.039}$	$f\sigma_8(0.61)$	0.4658 ± 0.0050
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	13.784 ± 0.030	$\sigma_8(0.61)$	$0.5911^{+0.0041}_{-0.0049}$
A_{143}^{dust}	0.97 ± 0.17	z_*	1089.80 ± 0.32	$f\sigma_8(2.33)$	$0.2983^{+0.0021}_{-0.0026}$
A_{217}^{dust}	0.97 ± 0.10	r_*	144.95 ± 0.36	$\sigma_8(2.33)$	$0.3079^{+0.0023}_{-0.0028}$
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04140 ± 0.00045	f_{2000}^{143}	29.9 ± 2.9
c_{100}	0.9976 ± 0.0010	$D_{\text{M}}(z_*)/\text{Gpc}$	13.918 ± 0.034	f_{2000}^{217}	107.0 ± 2.0
c_{217}	1.0012 ± 0.0015	z_{drag}	1059.72 ± 0.42	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
H_0	68.09 ± 0.69	r_{drag}	147.63 ± 0.38	χ_{lensing}^2	9.8 ± 1.4
Ω_{Λ}	0.6955 ± 0.0090	k_{D}	$0.14027^{+0.00046}_{-0.00042}$	χ_{simall}^2	397.9 ± 2.6
Ω_{m}	0.3045 ± 0.0090	$100\theta_{\text{D}}$	0.16091 ± 0.00024	χ_{lowl}^2	22.67 ± 0.87
$\Omega_{\text{m}}h^2$	0.1411 ± 0.0014	z_{eq}	3357 ± 34	χ_{CamSpec}^2	7064.4 ± 5.5
$\Omega_{\text{m}}h^3$	0.09607 ± 0.00042	k_{eq}	0.01024 ± 0.00010	χ_{H073p45}^2	10.6 ± 2.6
σ_8	0.8079 ± 0.0066	$100\theta_{\text{eq}}$	0.8217 ± 0.0066	χ_{prior}^2	7.4 ± 3.4
S_8	$0.814^{+0.016}_{-0.014}$	$100\theta_{\text{s,eq}}$	0.4538 ± 0.0034	χ_{CMB}^2	7494.7 ± 6.3
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4458^{+0.0088}_{-0.0079}$	$H(0.15)$	73.29 ± 0.59		

$$\bar{\chi}_{\text{eff}}^2 = 7512.76; R - 1 = 0.03489$$

2.124 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02233 ± 0.00019	$\sigma_8/h^{0.5}$	0.9796 ± 0.0090	$D_{\text{M}}(0.38)$	1522.1 ± 8.0
$\Omega_{\text{c}}h^2$	0.1182 ± 0.0010	$r_{\text{drag}}h$	100.46 ± 0.80	$H(0.51)$	89.90 ± 0.26
$100\theta_{\text{MC}}$	1.04119 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.021	$D_{\text{M}}(0.51)$	1972.8 ± 9.5
τ	$0.0586^{+0.0066}_{-0.0078}$	z_{re}	8.07 ± 0.70	$H(0.61)$	95.47 ± 0.22
$\ln(10^{10}A_{\text{s}})$	$3.048^{+0.013}_{-0.016}$	$10^9 A_{\text{s}}$	$2.107^{+0.028}_{-0.033}$	$D_{\text{M}}(0.61)$	2296 ± 10
n_{s}	0.9690 ± 0.0040	$10^9 A_{\text{s}} e^{-2\tau}$	1.874 ± 0.011	$H(2.33)$	235.36 ± 0.66
y_{cal}	1.0008 ± 0.0025	D_{40}	1222 ± 12	$D_{\text{M}}(2.33)$	5757 ± 11
A_{100}^{PS}	241 ± 25	D_{220}	5725 ± 40	$f\sigma_8(0.15)$	0.4513 ± 0.0060
A_{143}^{PS}	40 ± 8	D_{810}	2535 ± 13	$\sigma_8(0.15)$	0.7474 ± 0.0057
A_{217}^{PS}	102 ± 10	D_{1420}	816.5 ± 5.0	$f\sigma_8(0.38)$	0.4711 ± 0.0050
A_{217}^{CIB}	40 ± 7	D_{2000}	230.5 ± 1.7	$\sigma_8(0.38)$	$0.6632^{+0.0047}_{-0.0053}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$n_{\text{s},0.002}$	0.9690 ± 0.0040	$f\sigma_8(0.51)$	0.4705 ± 0.0046
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.12	Y_{P}	$0.245378^{+0.000080}_{-0.000068}$	$\sigma_8(0.51)$	$0.6210^{+0.0044}_{-0.0050}$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.40}_{-0.16}$	$Y_{\text{P}}^{\text{BBN}}$	$0.246704^{+0.000081}_{-0.000068}$	$f\sigma_8(0.61)$	0.4660 ± 0.0042
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 \text{D}/\text{H}$	$2.593^{+0.033}_{-0.037}$	$\sigma_8(0.61)$	$0.5911^{+0.0042}_{-0.0048}$
A^{kSZ}	—	Age/Gyr	13.785 ± 0.026	$f\sigma_8(2.33)$	$0.2983^{+0.0021}_{-0.0024}$
A_{100}^{dust}	1.02 ± 0.19	z_*	1089.81 ± 0.27	$\sigma_8(2.33)$	$0.3078^{+0.0023}_{-0.0026}$
A_{143}^{dust}	0.97 ± 0.17	r_*	144.93 ± 0.27	f_{2000}^{143}	29.9 ± 2.9
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04138 ± 0.00040	f_{2000}^{217}	107.0 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$D_{\text{M}}(z_*)/\text{Gpc}$	13.917 ± 0.027	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
c_{100}	0.9976 ± 0.0010	z_{drag}	1059.72 ± 0.42	χ_{lensing}^2	9.6 ± 1.1
c_{217}	1.0012 ± 0.0015	r_{drag}	147.61 ± 0.30	χ_{simall}^2	397.7 ± 2.3
H_0	68.05 ± 0.47	k_{D}	0.14029 ± 0.00041	χ_{lowl}^2	22.69 ± 0.79
Ω_{Λ}	0.6951 ± 0.0061	$100\theta_{\text{D}}$	0.16091 ± 0.00024	χ_{CamSpec}^2	7064.1 ± 5.4
Ω_{m}	0.3049 ± 0.0061	z_{eq}	3358 ± 24	χ_{H073p45}^2	10.6 ± 1.8
$\Omega_{\text{m}}h^2$	0.1412 ± 0.0010	k_{eq}	0.010250 ± 0.000073	$\chi_{6\text{DF}}^2$	0.027 ± 0.038
$\Omega_{\text{m}}h^3$	0.09607 ± 0.00043	$100\theta_{\text{eq}}$	0.8214 ± 0.0045	χ_{MGS}^2	1.74 ± 0.49
σ_8	0.8081 ± 0.0063	$100\theta_{\text{s,eq}}$	0.4536 ± 0.0023	χ_{DR12BAO}^2	3.90 ± 0.76
S_8	0.815 ± 0.012	$H(0.15)$	73.26 ± 0.41	χ_{prior}^2	7.5 ± 3.5
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4462 ± 0.0063	$D_{\text{M}}(0.15)$	637.5 ± 4.0	χ_{CMB}^2	7494.1 ± 5.6
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6005 ± 0.0062	$H(0.38)$	83.25 ± 0.31	χ_{BAO}^2	5.67 ± 0.67

$\bar{\chi}_{\text{eff}}^2 = 7517.92$; $R - 1 = 0.02825$

2.125 base_CamSpecHM_TT_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00020	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6070 ± 0.0074	$D_{\mathrm{M}}(0.15)$	643.9 ± 5.5
$\Omega_{\mathrm{c}}h^2$	0.1197 ± 0.0014	$\sigma_8/h^{0.5}$	0.988 ± 0.010	$H(0.38)$	82.79 ± 0.41
$100\theta_{\mathrm{MC}}$	1.04093 ± 0.00044	$r_{\mathrm{drag}}h$	99.2 ± 1.1	$D_{\mathrm{M}}(0.38)$	1535 ± 11
τ	$0.0550^{+0.0053}_{-0.0082}$	$\langle d^2 \rangle^{1/2}$	2.442 ± 0.024	$H(0.51)$	89.53 ± 0.33
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015}$	z_{re}	$7.77^{+0.58}_{-0.79}$	$D_{\mathrm{M}}(0.51)$	1988 ± 13
n_{s}	0.9653 ± 0.0046	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.032}$	$H(0.61)$	95.17 ± 0.28
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$D_{\mathrm{M}}(0.61)$	2312 ± 14
A_{100}^{PS}	242 ± 25	D_{40}	1227 ± 12	$H(2.33)$	236.18 ± 0.87
A_{143}^{PS}	41 ± 8	D_{220}	5710 ± 41	$D_{\mathrm{M}}(2.33)$	5771 ± 13
A_{217}^{PS}	101 ± 10	D_{810}	2534 ± 14	$f\sigma_8(0.15)$	0.4589 ± 0.0077
A_{217}^{CIB}	41 ± 7	D_{1420}	814.5 ± 5.1	$\sigma_8(0.15)$	0.7486 ± 0.0054
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.6}$	D_{2000}	229.7 ± 1.8	$f\sigma_8(0.38)$	0.4765 ± 0.0060
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$n_{\mathrm{s},0.002}$	0.9653 ± 0.0046	$\sigma_8(0.38)$	$0.6632^{+0.0042}_{-0.0050}$
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.461	Y_{P}	$0.245318^{+0.000093}_{-0.000074}$	$f\sigma_8(0.51)$	0.4748 ± 0.0052
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246644^{+0.000093}_{-0.000074}$	$\sigma_8(0.51)$	$0.6205^{+0.0038}_{-0.0047}$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	2.620 ± 0.038	$f\sigma_8(0.61)$	0.4695 ± 0.0046
A_{100}^{dust}	1.01 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.814 ± 0.030	$\sigma_8(0.61)$	$0.5904^{+0.0036}_{-0.0045}$
A_{143}^{dust}	0.97 ± 0.18	z_*	1090.12 ± 0.32	$f\sigma_8(2.33)$	$0.2975^{+0.0018}_{-0.0024}$
A_{217}^{dust}	0.97 ± 0.10	r_*	144.65 ± 0.34	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0026}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04113 ± 0.00044	f_{2000}^{143}	30.7 ± 3.0
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.893 ± 0.032	f_{2000}^{217}	107.5 ± 2.0
c_{217}	1.0012 ± 0.0015	z_{drag}	1059.49 ± 0.43	$f_{2000}^{143 \times 217}$	32.9 ± 2.1
H_0	67.32 ± 0.64	r_{drag}	147.37 ± 0.36	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.81
Ω_{Λ}	0.6853 ± 0.0088	k_{D}	0.14043 ± 0.00043	χ_{simall}^2	397.0 ± 1.8
Ω_{m}	0.3147 ± 0.0088	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00025	χ_{lowl}^2	23.29 ± 0.95
$\Omega_{\mathrm{m}}h^2$	0.1425 ± 0.0014	z_{eq}	3391 ± 32	$\chi_{\mathrm{CamSpec}}^2$	7062.8 ± 5.2
$\Omega_{\mathrm{m}}h^3$	0.09594 ± 0.00044	k_{eq}	0.010349 ± 0.000099	χ_{JLA}^2	1035.39 ± 0.60
σ_8	0.8104 ± 0.0061	$100\theta_{\mathrm{eq}}$	0.8149 ± 0.0061	χ_{prior}^2	7.6 ± 3.5
S_8	0.830 ± 0.015	$100\theta_{\mathrm{s,eq}}$	0.4504 ± 0.0031	χ_{CMB}^2	7492.5 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4546 ± 0.0083	$H(0.15)$	72.63 ± 0.55		
$\bar{\chi}_{\mathrm{eff}}^2 = 8535.44$; $R - 1 = 0.00636$					

2.126 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_JLA_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00019	$r_{\mathrm{drag}}h$	100.55 ± 0.79	$D_{\mathrm{M}}(0.51)$	1971.8 ± 9.5
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0010	$\langle d^2 \rangle^{1/2}$	2.422 ± 0.021	$H(0.61)$	95.48 ± 0.23
$100\theta_{\mathrm{MC}}$	1.04120 ± 0.00041	z_{re}	8.08 ± 0.70	$D_{\mathrm{M}}(0.61)$	2295 ± 10
τ	$0.0587^{+0.0067}_{-0.0078}$	$10^9 A_{\mathrm{s}}$	2.107 ± 0.030	$H(2.33)$	235.29 ± 0.65
$\ln(10^{10} A_{\mathrm{s}})$	3.048 ± 0.014	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.874 ± 0.011	$D_{\mathrm{M}}(2.33)$	5757 ± 11
n_{s}	0.9692 ± 0.0039	D_{40}	1221 ± 12	$f\sigma_8(0.15)$	0.4507 ± 0.0060
y_{cal}	1.0008 ± 0.0026	D_{220}	5726 ± 40	$\sigma_8(0.15)$	0.7471 ± 0.0056
A_{100}^{PS}	242 ± 25	D_{810}	2535 ± 14	$f\sigma_8(0.38)$	0.4706 ± 0.0051
A_{143}^{PS}	40 ± 8	D_{1420}	816.6 ± 5.1	$\sigma_8(0.38)$	0.6631 ± 0.0049
A_{217}^{PS}	102 ± 10	D_{2000}	230.6 ± 1.7	$f\sigma_8(0.51)$	0.4700 ± 0.0046
A_{217}^{CIB}	40 ± 7	$n_{\mathrm{s},0.002}$	0.9692 ± 0.0039	$\sigma_8(0.51)$	0.6209 ± 0.0046
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.6}$	Y_{P}	0.245381 ± 0.000075	$f\sigma_8(0.61)$	0.4657 ± 0.0042
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246707 ± 0.000075	$\sigma_8(0.61)$	0.5910 ± 0.0044
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.39}_{-0.18}$	$10^5 \mathrm{D}/\mathrm{H}$	2.592 ± 0.035	$f\sigma_8(2.33)$	0.2983 ± 0.0022
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	13.784 ± 0.026	$\sigma_8(2.33)$	0.3078 ± 0.0023
A^{kSZ}	—	z_*	1089.79 ± 0.27	f_{2000}^{143}	29.9 ± 2.9
A_{100}^{dust}	1.02 ± 0.19	r_*	144.95 ± 0.27	f_{2000}^{217}	107.0 ± 2.1
A_{143}^{dust}	0.96 ± 0.17	$100\theta_*$	1.04139 ± 0.00040	$f_{2000}^{143 \times 217}$	32.3 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.919 ± 0.027	$\chi_{\mathrm{lensing}}^2$	9.6 ± 1.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	z_{drag}	1059.73 ± 0.42	χ_{simall}^2	397.7 ± 2.3
c_{100}	0.9976 ± 0.0010	r_{drag}	147.64 ± 0.30	χ_{lowl}^2	22.66 ± 0.77
c_{217}	$1.0012^{+0.0015}_{-0.0016}$	k_{D}	0.14027 ± 0.00040	$\chi_{\mathrm{CamSpec}}^2$	7064.4 ± 5.4
H_0	68.10 ± 0.46	$100\theta_{\mathrm{D}}$	0.16091 ± 0.00025	$\chi_{\mathrm{H073p45}}^2$	10.4 ± 1.8
Ω_{Λ}	0.6958 ± 0.0060	z_{eq}	3356 ± 24	χ_{JLA}^2	706.61 ± 0.11
Ω_{m}	0.3042 ± 0.0060	k_{eq}	0.010242 ± 0.000072	$\chi_{6\mathrm{DF}}^2$	0.026 ± 0.038
$\Omega_{\mathrm{m}}h^2$	0.14107 ± 0.00099	$100\theta_{\mathrm{eq}}$	0.8219 ± 0.0044	χ_{MGS}^2	1.80 ± 0.49
$\Omega_{\mathrm{m}}h^3$	0.09607 ± 0.00043	$100\theta_{\mathrm{s,eq}}$	0.4539 ± 0.0023	$\chi_{\mathrm{DR12BAO}}^2$	3.84 ± 0.70
σ_8	0.8077 ± 0.0063	$H(0.15)$	73.31 ± 0.40	χ_{prior}^2	7.5 ± 3.6
S_8	0.813 ± 0.012	$D_{\mathrm{M}}(0.15)$	637.1 ± 3.9	χ_{CMB}^2	7494.4 ± 5.7
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4455 ± 0.0063	$H(0.38)$	83.28 ± 0.31	χ_{BAO}^2	5.67 ± 0.68
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5999 ± 0.0062	$D_{\mathrm{M}}(0.38)$	1521.2 ± 8.0		
$\sigma_8/h^{0.5}$	0.9788 ± 0.0090	$H(0.51)$	89.92 ± 0.26		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8224.63; R - 1 = 0.08788$$

2.127 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02224 ± 0.00019	$\sigma_8/h^{0.5}$	0.9838 ± 0.0088	$D_{\mathrm{M}}(0.38)$	1529.0 ± 8.2
$\Omega_{\mathrm{c}}h^2$	0.1190 ± 0.0010	$r_{\mathrm{drag}}h$	99.80 ± 0.80	$H(0.51)$	89.69 ± 0.26
$100\theta_{\mathrm{MC}}$	1.04104 ± 0.00041	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.021	$D_{\mathrm{M}}(0.51)$	1980.9 ± 9.7
τ	$0.0565^{+0.0059}_{-0.0078}$	z_{re}	$7.90^{+0.63}_{-0.76}$	$H(0.61)$	95.29 ± 0.23
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.012}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.025}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	2305 ± 10
n_{s}	0.9670 ± 0.0041	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.876 ± 0.011	$H(2.33)$	235.75 ± 0.67
y_{cal}	1.0007 ± 0.0025	D_{40}	1224 ± 12	$D_{\mathrm{M}}(2.33)$	5765 ± 11
A_{100}^{PS}	242 ± 25	D_{220}	5715 ± 40	$f\sigma_8(0.15)$	0.4552 ± 0.0059
A_{143}^{PS}	41 ± 8	D_{810}	2534 ± 13	$\sigma_8(0.15)$	0.7479 ± 0.0055
A_{217}^{PS}	101 ± 10	D_{1420}	815.3 ± 5.0	$f\sigma_8(0.38)$	0.4738 ± 0.0050
A_{217}^{CIB}	41 ± 7	D_{2000}	230.0 ± 1.8	$\sigma_8(0.38)$	$0.6631^{+0.0044}_{-0.0052}$
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.9670 ± 0.0041	$f\sigma_8(0.51)$	0.4726 ± 0.0044
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245339^{+0.000084}_{-0.000070}$	$\sigma_8(0.51)$	$0.6206^{+0.0041}_{-0.0049}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.42}_{-0.13}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246665^{+0.000084}_{-0.000071}$	$f\sigma_8(0.61)$	0.4678 ± 0.0041
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.611 ± 0.035	$\sigma_8(0.61)$	$0.5906^{+0.0039}_{-0.0047}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	13.803 ± 0.026	$f\sigma_8(2.33)$	$0.2978^{+0.0020}_{-0.0024}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1090.00 ± 0.27	$\sigma_8(2.33)$	$0.3071^{+0.0021}_{-0.0026}$
A_{143}^{dust}	0.97 ± 0.17	r_*	144.80 ± 0.28	f_{2000}^{143}	30.4 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04124 ± 0.00041	f_{2000}^{217}	107.3 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.907 ± 0.027	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.55 ± 0.42	$\chi_{\mathrm{lensing}}^2$	9.36 ± 0.80
c_{217}	1.0012 ± 0.0015	r_{drag}	147.52 ± 0.31	χ_{simall}^2	397.2 ± 2.0
H_0	67.65 ± 0.47	k_{D}	0.14032 ± 0.00041	χ_{lowl}^2	22.98 ± 0.83
Ω_{Λ}	0.6900 ± 0.0062	$100\theta_{\mathrm{D}}$	0.16100 ± 0.00025	$\chi_{\mathrm{CamSpec}}^2$	7063.2 ± 5.2
Ω_{m}	0.3100 ± 0.0062	z_{eq}	3374 ± 24	χ_{JLA}^2	1035.06 ± 0.30
$\Omega_{\mathrm{m}}h^2$	0.1418 ± 0.0010	k_{eq}	0.010298 ± 0.000074	$\chi_{6\mathrm{DF}}^2$	0.046 ± 0.059
$\Omega_{\mathrm{m}}h^3$	0.09596 ± 0.00044	$100\theta_{\mathrm{eq}}$	0.8181 ± 0.0045	χ_{MGS}^2	1.36 ± 0.45
σ_8	0.8092 ± 0.0061	$100\theta_{\mathrm{s,eq}}$	0.4520 ± 0.0023	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
S_8	0.822 ± 0.012	$H(0.15)$	72.91 ± 0.41	χ_{prior}^2	7.6 ± 3.5
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4505 ± 0.0063	$D_{\mathrm{M}}(0.15)$	640.9 ± 4.0	χ_{CMB}^2	7492.8 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6038 ± 0.0061	$H(0.38)$	82.99 ± 0.31	χ_{BAO}^2	6.0 ± 1.0

$\bar{\chi}_{\mathrm{eff}}^2 = 8541.35$; $R - 1 = 0.00983$

2.128 base_CamSpecHM_TT_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02234 ± 0.00018	$r_{\text{drag}} h$	100.51 ± 0.77	$D_{\text{M}}(0.51)$	1972.1 ± 9.2
$\Omega_c h^2$	0.11813 ± 0.00099	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.021	$H(0.61)$	95.48 ± 0.22
$100\theta_{\text{MC}}$	1.04120 ± 0.00041	z_{re}	8.09 ± 0.70	$D_{\text{M}}(0.61)$	2296 ± 10
τ	$0.0587^{+0.0066}_{-0.0078}$	$10^9 A_{\text{s}}$	$2.107^{+0.028}_{-0.033}$	$H(2.33)$	235.32 ± 0.65
$\ln(10^{10} A_{\text{s}})$	$3.048^{+0.014}_{-0.016}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.874 ± 0.011	$D_{\text{M}}(2.33)$	5757 ± 11
n_{s}	0.9692 ± 0.0040	D_{40}	1221 ± 12	$f\sigma_8(0.15)$	0.4510 ± 0.0058
y_{cal}	1.0009 ± 0.0025	D_{220}	5726 ± 40	$\sigma_8(0.15)$	0.7473 ± 0.0057
A_{100}^{PS}	241 ± 25	D_{810}	2535 ± 13	$f\sigma_8(0.38)$	0.4708 ± 0.0050
A_{143}^{PS}	40 ± 8	D_{1420}	816.6 ± 5.0	$\sigma_8(0.38)$	$0.6632^{+0.0048}_{-0.0053}$
A_{217}^{PS}	102 ± 10	D_{2000}	230.6 ± 1.7	$f\sigma_8(0.51)$	0.4703 ± 0.0045
A_{217}^{CIB}	40 ± 7	$n_{\text{s},0.002}$	0.9692 ± 0.0040	$\sigma_8(0.51)$	$0.6210^{+0.0044}_{-0.0050}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	Y_{P}	$0.245380^{+0.000080}_{-0.000067}$	$f\sigma_8(0.61)$	0.4659 ± 0.0042
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.12	$Y_{\text{P}}^{\text{BBN}}$	$0.246706^{+0.000080}_{-0.000067}$	$\sigma_8(0.61)$	$0.5911^{+0.0042}_{-0.0048}$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.40}_{-0.17}$	$10^5 \text{D}/\text{H}$	$2.592^{+0.033}_{-0.037}$	$f\sigma_8(2.33)$	$0.2983^{+0.0021}_{-0.0024}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Age/Gyr	13.784 ± 0.025	$\sigma_8(2.33)$	$0.3079^{+0.0023}_{-0.0026}$
A^{kSZ}	—	z_*	1089.80 ± 0.26	f_{2000}^{143}	29.9 ± 2.9
A_{100}^{dust}	1.02 ± 0.19	r_*	144.94 ± 0.27	f_{2000}^{217}	107.0 ± 2.1
A_{143}^{dust}	0.97 ± 0.17	$100\theta_*$	1.04139 ± 0.00040	$f_{2000}^{143 \times 217}$	32.2 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_{\text{M}}(z_*)/\text{Gpc}$	13.918 ± 0.027	χ_{lensing}^2	9.6 ± 1.1
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	z_{drag}	1059.73 ± 0.42	χ_{simall}^2	397.7 ± 2.3
c_{100}	0.9976 ± 0.0010	r_{drag}	147.63 ± 0.30	χ_{lowl}^2	22.66 ± 0.78
c_{217}	1.0012 ± 0.0015	k_{D}	0.14028 ± 0.00040	χ_{CamSpec}^2	7064.2 ± 5.4
H_0	68.09 ± 0.45	$100\theta_{\text{D}}$	0.16091 ± 0.00024	χ_{H073p45}^2	10.5 ± 1.8
Ω_{Λ}	0.6955 ± 0.0058	z_{eq}	3357 ± 23	χ_{JLA}^2	1034.87 ± 0.17
Ω_{m}	0.3045 ± 0.0058	k_{eq}	0.010245 ± 0.000071	$\chi_{6\text{DF}}^2$	0.025 ± 0.035
$\Omega_{\text{m}} h^2$	0.14111 ± 0.00097	$100\theta_{\text{eq}}$	0.8217 ± 0.0043	χ_{MGS}^2	1.77 ± 0.47
$\Omega_{\text{m}} h^3$	0.09607 ± 0.00043	$100\theta_{\text{s,eq}}$	0.4538 ± 0.0022	χ_{DR12BAO}^2	3.84 ± 0.68
σ_8	0.8080 ± 0.0063	$H(0.15)$	73.29 ± 0.39	χ_{prior}^2	7.5 ± 3.5
S_8	0.814 ± 0.011	$D_{\text{M}}(0.15)$	637.3 ± 3.8	χ_{CMB}^2	7494.2 ± 5.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4458 ± 0.0062	$H(0.38)$	83.27 ± 0.30	χ_{BAO}^2	5.64 ± 0.62
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6002 ± 0.0061	$D_{\text{M}}(0.38)$	1521.5 ± 7.8		
$\sigma_8/h^{0.5}$	0.9793 ± 0.0089	$H(0.51)$	89.92 ± 0.25		

$$\bar{\chi}_{\text{eff}}^2 = 8552.73; R - 1 = 0.03088$$

2.129 base_CamSpecHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022277	0.02229 ± 0.00015	S_8	0.8292	0.828 ± 0.013	$100\theta_{s,eq}$	0.44992	0.4502 ± 0.0026
$\Omega_c h^2$	0.11981	0.1197 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4542	0.4535 ± 0.0070	$H(0.15)$	72.638	72.70 ± 0.47
$100\theta_{MC}$	1.040847	1.04087 ± 0.00031	$\sigma_8 \Omega_m^{0.25}$	0.6063	0.6058 ± 0.0064	$D_M(0.15)$	643.73	643.2 ± 4.7
τ	0.0529	$0.0536^{+0.0069}_{-0.0077}$	$\sigma_8/h^{0.5}$	0.9864	0.9857 ± 0.0091	$H(0.38)$	82.808	82.85 ± 0.34
$\ln(10^{10} A_s)$	3.0402	3.041 ± 0.015	$r_{drag} h$	99.13	99.24 ± 0.94	$D_M(0.38)$	1534.4	1533.3 ± 9.3
n_s	0.96531	0.9656 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.4388	2.438 ± 0.022	$H(0.51)$	89.559	89.60 ± 0.27
y_{cal}	1.00062	1.0005 ± 0.0025	z_{re}	7.56	7.61 ± 0.75	$D_M(0.51)$	1987.1	1986 ± 11
A_{100}^{PS}	234.9	239 ± 25	$10^9 A_s$	2.0910	$2.092^{+0.028}_{-0.031}$	$H(0.61)$	95.204	95.23 ± 0.22
A_{143}^{PS}	46.5	39 ± 8	$10^9 A_s e^{-2\tau}$	1.8810	1.879 ± 0.011	$D_M(0.61)$	2311.9	2310 ± 12
A_{217}^{PS}	103.1	102 ± 10	D_{40}	1228.3	1227 ± 12	$H(2.33)$	236.34	236.27 ± 0.73
A_{217}^{CIB}	43.3	40 ± 7	D_{220}	5722.0	5720 ± 39	$D_M(2.33)$	5768.1	5767 ± 10
A_{143}^{tSZ}	6.16	$3.9^{+1.9}_{-2.5}$	D_{810}	2537.0	2535 ± 13	$f\sigma_8(0.15)$	0.4585	0.4579 ± 0.0065
$r_{143 \times 217}^{PS}$	0.667	0.66 ± 0.13	D_{1420}	816.14	815.7 ± 4.9	$\sigma_8(0.15)$	0.7475	0.7474 ± 0.0054
$r_{143 \times 217}^{CIB}$	0.849	$0.55^{+0.39}_{-0.18}$	D_{2000}	230.34	230.3 ± 1.6	$f\sigma_8(0.38)$	0.4760	0.4756 ± 0.0053
$\xi^{tSZ \times CIB}$	0.52	—	$n_{s,0.002}$	0.96531	0.9656 ± 0.0042	$\sigma_8(0.38)$	0.66226	0.6622 ± 0.0048
A^{kSZ}	0.78	$4.7^{+2.4}_{-3.8}$	Y_P	0.245358	$0.245363^{+0.000066}_{-0.000057}$	$f\sigma_8(0.51)$	0.47423	0.4738 ± 0.0046
A_{100}^{dust}	1.003	1.01 ± 0.20	Y_P^{BBN}	0.246684	$0.246690^{+0.000066}_{-0.000058}$	$\sigma_8(0.51)$	0.61961	0.6196 ± 0.0045
A_{143}^{dust}	0.978	0.96 ± 0.18	$10^5 D/H$	2.6031	2.600 ± 0.029	$f\sigma_8(0.61)$	0.46899	0.4687 ± 0.0042
A_{217}^{dust}	0.975	0.97 ± 0.11	Age/Gyr	13.8081	13.805 ± 0.023	$\sigma_8(0.61)$	0.58948	0.5895 ± 0.0043
$A_{143 \times 217}^{dust}$	0.996	1.03 ± 0.16	z_*	1090.021	1089.99 ± 0.26	$f\sigma_8(2.33)$	0.29708	$0.2971^{+0.0021}_{-0.0023}$
c_{100}	0.99777	0.9975 ± 0.0011	r_*	144.551	144.57 ± 0.28	$\sigma_8(2.33)$	0.30613	$0.3062^{+0.0022}_{-0.0025}$
c_{217}	1.00133	1.0011 ± 0.0016	$100\theta_*$	1.041044	1.04106 ± 0.00031	f_{2000}^{143}	30.38	29.7 ± 2.8
c_{TE}	0.99671	0.9966 ± 0.0049	$D_M(z_*)/\text{Gpc}$	13.8852	13.887 ± 0.026	f_{2000}^{217}	106.92	106.9 ± 1.9
c_{EE}	0.99246	0.9921 ± 0.0049	z_{drag}	1059.704	1059.74 ± 0.32	$f_{2000}^{143 \times 217}$	32.31	32.2 ± 2.0
H_0	67.32	67.39 ± 0.54	r_{drag}	147.246	147.26 ± 0.28	$\chi^2_{lensing}$	8.831	9.30 ± 0.69
Ω_Λ	0.6851	0.6858 ± 0.0074	k_D	0.140634	0.14063 ± 0.00033	χ^2_{small}	395.87	396.9 ± 1.6
Ω_m	0.3149	0.3142 ± 0.0074	$100\theta_D$	0.160882	0.16087 ± 0.00019	χ^2_{lowl}	23.22	23.22 ± 0.86
$\Omega_m h^2$	0.14273	0.1426 ± 0.0011	z_{eq}	3395.4	3393 ± 27	$\chi^2_{CamSpec}$	11499.6	11514.1 ± 5.5
$\Omega_m h^3$	0.096088	0.09610 ± 0.00031	k_{eq}	0.010363	0.010355 ± 0.000083	χ^2_{prior}	2.08	7.9 ± 3.5
σ_8	0.8093	0.8091 ± 0.0060	$100\theta_{eq}$	0.8142	0.8148 ± 0.0051	χ^2_{CMB}	11927.6	11943.6 ± 5.7

Best-fit $\chi^2_{eff} = 11929.66$; $\bar{\chi}^2_{eff} = 11951.44$; $R - 1 = 0.00801$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.83 small_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2_29: 23.22 CamSpec like_10.7HM_1400_unified: 11499.65

2.130 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6033 ± 0.0057	$D_{\mathrm{M}}(0.38)$	1528.6 ± 7.3
$\Omega_{\mathrm{c}}h^2$	0.11907 ± 0.00094	$\sigma_8/h^{0.5}$	0.9827 ± 0.0083	$H(0.51)$	89.73 ± 0.22
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00030	$r_{\mathrm{drag}}h$	99.72 ± 0.73	$D_{\mathrm{M}}(0.51)$	1980.3 ± 8.6
τ	$0.0552^{+0.0067}_{-0.0076}$	$\langle d^2 \rangle^{1/2}$	2.431 ± 0.020	$H(0.61)$	95.33 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.013}_{-0.015}$	z_{re}	7.75 ± 0.73	$D_{\mathrm{M}}(0.61)$	2304.5 ± 9.3
n_{s}	0.9671 ± 0.0038	$10^9 A_{\mathrm{s}}$	$2.097^{+0.028}_{-0.032}$	$H(2.33)$	235.92 ± 0.59
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$D_{\mathrm{M}}(2.33)$	5762.5 ± 9.0
A_{100}^{PS}	239 ± 25	D_{40}	1225 ± 11	$f\sigma_8(0.15)$	0.4549 ± 0.0054
A_{143}^{PS}	39 ± 8	D_{220}	5725 ± 39	$\sigma_8(0.15)$	$0.7470^{+0.0051}_{-0.0057}$
A_{217}^{PS}	103 ± 10	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4735 ± 0.0046
A_{217}^{CIB}	40 ± 7	D_{1420}	816.3 ± 4.8	$\sigma_8(0.38)$	$0.6623^{+0.0044}_{-0.0050}$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	D_{2000}	230.5 ± 1.6	$f\sigma_8(0.51)$	0.4722 ± 0.0042
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9671 ± 0.0038	$\sigma_8(0.51)$	$0.6199^{+0.0042}_{-0.0047}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.18}$	Y_{P}	$0.245380^{+0.000061}_{-0.000052}$	$f\sigma_8(0.61)$	0.4674 ± 0.0039
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246706^{+0.000061}_{-0.000052}$	$\sigma_8(0.61)$	$0.5899^{+0.0040}_{-0.0045}$
A^{kSZ}	$4.6^{+1.8}_{-4.4}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.592^{+0.025}_{-0.028}$	$f\sigma_8(2.33)$	$0.2975^{+0.0020}_{-0.0023}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.796 ± 0.020	$\sigma_8(2.33)$	$0.3067^{+0.0022}_{-0.0025}$
A_{143}^{dust}	0.96 ± 0.17	z_*	1089.88 ± 0.22	f_{2000}^{143}	29.5 ± 2.8
A_{217}^{dust}	0.97 ± 0.11	r_*	144.70 ± 0.23	f_{2000}^{217}	106.8 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04114 ± 0.00030	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.898 ± 0.022	$\chi_{\mathrm{lensing}}^2$	9.31 ± 0.76
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.79 ± 0.32	χ_{simall}^2	397.1 ± 1.8
c_{TE}	0.9966 ± 0.0050	r_{drag}	147.38 ± 0.25	χ_{lowl}^2	22.98 ± 0.78
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14054 ± 0.00031	$\chi_{\mathrm{CamSpec}}^2$	11514.2 ± 5.6
H_0	67.66 ± 0.42	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.047 ± 0.057
Ω_{Λ}	0.6897 ± 0.0057	z_{eq}	3379 ± 22	χ_{MGS}^2	1.31 ± 0.40
Ω_{m}	0.3103 ± 0.0057	k_{eq}	0.010314 ± 0.000066	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
$\Omega_{\mathrm{m}}h^2$	0.14205 ± 0.00090	$100\theta_{\mathrm{eq}}$	0.8174 ± 0.0040	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.09611 ± 0.00031	$100\theta_{\mathrm{s,eq}}$	0.4515 ± 0.0021	χ_{CMB}^2	11943.6 ± 5.8
σ_8	0.8083 ± 0.0060	$H(0.15)$	72.93 ± 0.37	χ_{BAO}^2	6.00 ± 0.99
S_8	0.822 ± 0.011	$D_{\mathrm{M}}(0.15)$	640.8 ± 3.6		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4503 ± 0.0058	$H(0.38)$	83.02 ± 0.27		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.40; R - 1 = 0.01372$$

2.131 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4471 ± 0.0066	$D_{\mathrm{M}}(0.15)$	638.3 ± 4.3
$\Omega_{\mathrm{c}}h^2$	0.1185 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6009 ± 0.0061	$H(0.38)$	83.21 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04105 ± 0.00032	$\sigma_8/h^{0.5}$	0.9798 ± 0.0088	$D_{\mathrm{M}}(0.38)$	1523.5 ± 8.7
τ	$0.0571^{+0.0070}_{-0.0081}$	$r_{\mathrm{drag}}h$	100.22 ± 0.89	$H(0.51)$	89.88 ± 0.26
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.015	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.021	$D_{\mathrm{M}}(0.51)$	1974 ± 10
n_{s}	0.9685 ± 0.0040	z_{re}	7.92 ± 0.75	$H(0.61)$	95.46 ± 0.21
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.103^{+0.029}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	2298 ± 11
A_{100}^{PS}	238 ± 24	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.010	$H(2.33)$	235.59 ± 0.69
A_{143}^{PS}	39 ± 8	D_{40}	1223 ± 11	$D_{\mathrm{M}}(2.33)$	5757.1 ± 9.9
A_{217}^{PS}	103 ± 10	D_{220}	5732 ± 39	$f\sigma_8(0.15)$	0.4521 ± 0.0061
A_{217}^{CIB}	39 ± 7	D_{810}	2537 ± 13	$\sigma_8(0.15)$	$0.7469^{+0.0051}_{-0.0057}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{1420}	817.2 ± 4.7	$f\sigma_8(0.38)$	0.4715 ± 0.0050
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	D_{2000}	230.9 ± 1.6	$\sigma_8(0.38)$	$0.6626^{+0.0045}_{-0.0050}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.19}$	$n_{\mathrm{s},0.002}$	0.9685 ± 0.0040	$f\sigma_8(0.51)$	0.4707 ± 0.0045
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245405^{+0.000060}_{-0.000051}$	$\sigma_8(0.51)$	$0.6203^{+0.0043}_{-0.0048}$
A^{kSZ}	< 6.13	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246731^{+0.000060}_{-0.000051}$	$f\sigma_8(0.61)$	0.4661 ± 0.0041
A_{100}^{dust}	1.01 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	$2.581^{+0.025}_{-0.028}$	$\sigma_8(0.61)$	0.5904 ± 0.0044
A_{143}^{dust}	0.95 ± 0.17	$\mathrm{Age}/\mathrm{Gyr}$	13.784 ± 0.022	$f\sigma_8(2.33)$	0.2979 ± 0.0023
A_{217}^{dust}	0.97 ± 0.11	z_*	1089.75 ± 0.24	$\sigma_8(2.33)$	$0.3073^{+0.0023}_{-0.0026}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.17	r_*	144.81 ± 0.27	f_{2000}^{143}	29.2 ± 2.8
c_{100}	0.9976 ± 0.0010	$100\theta_*$	1.04123 ± 0.00032	f_{2000}^{217}	106.6 ± 1.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.907 ± 0.025	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
c_{TE}	0.9965 ± 0.0050	z_{drag}	1059.89 ± 0.31	$\chi_{\mathrm{lensing}}^2$	9.46 ± 0.93
c_{EE}	0.9922 ± 0.0049	r_{drag}	147.47 ± 0.28	χ_{simall}^2	397.4 ± 2.1
H_0	67.96 ± 0.51	k_{D}	0.14049 ± 0.00033	χ_{lowl}^2	22.78 ± 0.78
Ω_{Λ}	$0.6935^{+0.0069}_{-0.0062}$	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00018	$\chi_{\mathrm{CamSpec}}^2$	11515.1 ± 5.8
Ω_{m}	0.3065 ± 0.0068	z_{eq}	3366 ± 26	$\chi_{\mathrm{H073p45}}^2$	11.0 ± 2.0
$\Omega_{\mathrm{m}}h^2$	0.1415 ± 0.0011	k_{eq}	0.010274 ± 0.000079	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00031	$100\theta_{\mathrm{eq}}$	0.8200 ± 0.0049	χ_{CMB}^2	11944.8 ± 6.3
σ_8	0.8077 ± 0.0061	$100\theta_{\mathrm{s,eq}}$	0.4529 ± 0.0025		
S_8	0.816 ± 0.012	$H(0.15)$	73.19 ± 0.44		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11963.63; R - 1 = 0.02452$$

2.132 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6005 ± 0.0056	$D_{\mathrm{M}}(0.38)$	1522.7 ± 6.8
$\Omega_{\mathrm{c}}h^2$	0.11836 ± 0.00089	$\sigma_8/h^{0.5}$	0.9792 ± 0.0082	$H(0.51)$	89.90 ± 0.21
$100\theta_{\mathrm{MC}}$	1.04106 ± 0.00030	$r_{\mathrm{drag}}h$	100.30 ± 0.69	$D_{\mathrm{M}}(0.51)$	1973.4 ± 8.0
τ	0.0573 ± 0.0074	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.020	$H(0.61)$	95.47 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.015	z_{re}	7.93 ± 0.73	$D_{\mathrm{M}}(0.61)$	2297.1 ± 8.6
n_{s}	0.9688 ± 0.0037	$10^9 A_{\mathrm{s}}$	$2.103^{+0.029}_{-0.032}$	$H(2.33)$	235.53 ± 0.56
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\mathrm{M}}(2.33)$	5756.4 ± 8.6
A_{100}^{PS}	238 ± 24	D_{40}	1223 ± 11	$f\sigma_8(0.15)$	0.4516 ± 0.0052
A_{143}^{PS}	39 ± 8	D_{220}	5733 ± 39	$\sigma_8(0.15)$	$0.7468^{+0.0052}_{-0.0057}$
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	0.4711 ± 0.0045
A_{217}^{CIB}	39 ± 7	D_{1420}	817.3 ± 4.7	$\sigma_8(0.38)$	$0.6626^{+0.0046}_{-0.0051}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	230.9 ± 1.6	$f\sigma_8(0.51)$	0.4704 ± 0.0041
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9688 ± 0.0037	$\sigma_8(0.51)$	$0.6203^{+0.0043}_{-0.0048}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18}$	Y_{P}	$0.245407^{+0.000056}_{-0.000048}$	$f\sigma_8(0.61)$	0.4659 ± 0.0039
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246734^{+0.000056}_{-0.000049}$	$\sigma_8(0.61)$	$0.5904^{+0.0041}_{-0.0046}$
A^{kSZ}	< 6.07	$10^5 \mathrm{D}/\mathrm{H}$	2.580 ± 0.025	$f\sigma_8(2.33)$	$0.2979^{+0.0021}_{-0.0023}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.783 ± 0.019	$\sigma_8(2.33)$	$0.3074^{+0.0022}_{-0.0025}$
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.73 ± 0.21	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.98 ± 0.11	r_*	144.83 ± 0.22	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.17	$100\theta_*$	1.04124 ± 0.00030	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.909 ± 0.021	$\chi_{\mathrm{lensing}}^2$	9.45 ± 0.92
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.90 ± 0.30	χ_{simall}^2	397.4 ± 2.1
c_{TE}	0.9965 ± 0.0050	r_{drag}	147.49 ± 0.24	χ_{lowl}^2	22.72 ± 0.74
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14048 ± 0.00030	$\chi_{\mathrm{CamSpec}}^2$	11515.0 ± 5.7
H_0	68.01 ± 0.40	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00018	$\chi_{\mathrm{H073p45}}^2$	10.8 ± 1.6
Ω_{Λ}	0.6942 ± 0.0053	z_{eq}	3364 ± 20	$\chi_{6\mathrm{DF}}^2$	0.021 ± 0.031
Ω_{m}	0.3058 ± 0.0053	k_{eq}	0.010267 ± 0.000062	χ_{MGS}^2	1.64 ± 0.41
$\Omega_{\mathrm{m}}h^2$	0.14141 ± 0.00085	$100\theta_{\mathrm{eq}}$	0.8204 ± 0.0038	$\chi_{\mathrm{DR12BAO}}^2$	3.92 ± 0.73
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00030	$100\theta_{\mathrm{s,eq}}$	0.4531 ± 0.0020	χ_{prior}^2	7.8 ± 3.4
σ_8	0.8075 ± 0.0060	$H(0.15)$	73.23 ± 0.34	χ_{CMB}^2	11944.6 ± 6.0
S_8	0.815 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.9 ± 3.4	χ_{BAO}^2	5.58 ± 0.54
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4465 ± 0.0055	$H(0.38)$	83.24 ± 0.26		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11968.81; R - 1 = 0.02105$$

2.133 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022311	0.02231 ± 0.00015	$\sigma_8 \Omega_m^{0.5}$	0.4521	0.4522 ± 0.0067	$D_M(0.15)$	642.16	642.3 ± 4.4
$\Omega_c h^2$	0.11940	0.1194 ± 0.0011	$\sigma_8 \Omega_m^{0.25}$	0.6047	0.6048 ± 0.0062	$H(0.38)$	82.920	82.92 ± 0.32
$100\theta_{MC}$	1.040884	1.04090 ± 0.00031	$\sigma_8/h^{0.5}$	0.9844	0.9845 ± 0.0089	$D_M(0.38)$	1531.3	1531.4 ± 8.8
τ	0.0544	$0.0543^{+0.0068}_{-0.0077}$	$r_{drag}h$	99.45	99.43 ± 0.89	$H(0.51)$	89.646	89.65 ± 0.26
$\ln(10^{10} A_s)$	3.0418	$3.042^{+0.013}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	2.4343	2.435 ± 0.021	$D_M(0.51)$	1983.5	1984 ± 10
n_s	0.96639	0.9662 ± 0.0041	z_{re}	7.69	7.66 ± 0.74	$H(0.61)$	95.271	95.27 ± 0.21
y_{cal}	1.00056	1.0006 ± 0.0025	$10^9 A_s$	2.0944	$2.094^{+0.028}_{-0.032}$	$D_M(0.61)$	2308.0	2308 ± 11
A_{100}^{PS}	234.0	239 ± 24	$10^9 A_s e^{-2\tau}$	1.8785	1.878 ± 0.011	$H(2.33)$	236.10	236.13 ± 0.69
A_{143}^{PS}	41.2	39 ± 8	D_{40}	1225.9	1226 ± 12	$D_M(2.33)$	5765.3	5765 ± 10
A_{217}^{PS}	102.2	103 ± 10	D_{220}	5721.9	5722 ± 40	$f\sigma_8(0.15)$	0.4566	0.4567 ± 0.0062
A_{217}^{CIB}	44.3	40 ± 7	D_{810}	2535.9	2535 ± 14	$\sigma_8(0.15)$	0.7473	0.7472 ± 0.0054
A_{143}^{tSZ}	6.54	$3.9^{+2.0}_{-2.5}$	D_{1420}	816.17	816.0 ± 4.9	$f\sigma_8(0.38)$	0.4747	0.4747 ± 0.0051
$r_{143 \times 217}^{PS}$	0.612	0.66 ± 0.13	D_{2000}	230.41	230.3 ± 1.6	$\sigma_8(0.38)$	0.66234	$0.6623^{+0.0044}_{-0.0050}$
$r_{143 \times 217}^{CIB}$	0.792	$0.55^{+0.40}_{-0.18}$	$n_{s,0.002}$	0.96639	0.9662 ± 0.0041	$f\sigma_8(0.51)$	0.47318	0.4732 ± 0.0045
$\xi^{tSZ \times CIB}$	0.18	—	Y_P	0.245372	$0.245370^{+0.000065}_{-0.000055}$	$\sigma_8(0.51)$	0.61980	$0.6197^{+0.0041}_{-0.0047}$
A^{kSZ}	0.05	$4.7^{+2.1}_{-4.1}$	Y_P^{BBN}	0.246698	$0.246697^{+0.000065}_{-0.000055}$	$f\sigma_8(0.61)$	0.46814	0.4681 ± 0.0041
A_{100}^{dust}	1.004	1.01 ± 0.20	$10^5 D/H$	2.5966	$2.597^{+0.027}_{-0.030}$	$\sigma_8(0.61)$	0.58973	$0.5896^{+0.0040}_{-0.0045}$
A_{143}^{dust}	0.969	0.96 ± 0.17	Age/Gyr	13.8020	13.802 ± 0.023	$f\sigma_8(2.33)$	0.29731	$0.2973^{+0.0020}_{-0.0023}$
A_{217}^{dust}	0.972	0.97 ± 0.11	z_*	1089.941	1089.95 ± 0.25	$\sigma_8(2.33)$	0.30647	$0.3064^{+0.0022}_{-0.0025}$
$A_{143 \times 217}^{dust}$	1.006	1.03 ± 0.16	r_*	144.632	144.62 ± 0.27	f_{2000}^{143}	30.04	29.6 ± 2.8
c_{100}	0.99767	0.9976 ± 0.0010	$100\theta_*$	1.041072	1.04109 ± 0.00031	f_{2000}^{217}	106.79	106.8 ± 1.9
c_{217}	1.00131	1.0011 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.8926	13.891 ± 0.025	$f_{2000}^{143 \times 217}$	32.12	32.1 ± 2.0
c_{TE}	0.99666	0.9966 ± 0.0049	z_{drag}	1059.742	1059.76 ± 0.32	$\chi^2_{lensing}$	8.858	9.30 ± 0.71
c_{EE}	0.99231	0.9921 ± 0.0049	r_{drag}	147.318	147.31 ± 0.27	χ^2_{small}	396.07	397.0 ± 1.7
H_0	67.50	67.50 ± 0.51	k_D	0.140585	0.14060 ± 0.00032	χ^2_{lowl}	23.03	23.13 ± 0.83
Ω_Λ	0.6876	0.6873 ± 0.0070	$100\theta_D$	0.160852	0.16086 ± 0.00019	$\chi^2_{CamSpec}$	11499.5	11514.2 ± 5.6
Ω_m	0.3124	0.3127 ± 0.0070	z_{eq}	3386.4	3387 ± 26	χ^2_{JLA}	1035.104	1035.21 ± 0.42
$\Omega_m h^2$	0.14235	0.1424 ± 0.0011	k_{eq}	0.010336	0.010339 ± 0.000079	χ^2_{prior}	2.17	7.8 ± 3.5
$\Omega_m h^3$	0.096094	0.09611 ± 0.00031	$100\theta_{eq}$	0.81594	0.8158 ± 0.0049	χ^2_{CMB}	11927.5	11943.6 ± 5.8
σ_8	0.8088	0.8088 ± 0.0060	$100\theta_{s,eq}$	0.45080	0.4507 ± 0.0025			
S_8	0.8254	0.826 ± 0.012	$H(0.15)$	72.794	72.79 ± 0.44			

Best-fit $\chi^2_{eff} = 12964.78$; $\bar{\chi}^2_{eff} = 12986.66$; $R - 1 = 0.01285$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.86 small_100x143_offlike5_EE_Aplanck_B: 396.07 commander_dx12_v3.2_29: 23.03 CamSpec like_10.7HM_1400_unified: 11499.55 SN - JLA Pantheon18: 1035.10

2.134 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_JLA_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02241 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6005 ± 0.0056	$D_{\mathrm{M}}(0.38)$	1522.4 ± 6.7
$\Omega_{\mathrm{c}}h^2$	0.11833 ± 0.00089	$\sigma_8/h^{0.5}$	0.9792 ± 0.0083	$H(0.51)$	89.91 ± 0.21
$100\theta_{\mathrm{MC}}$	$1.04107^{+0.00031}_{-0.00028}$	$r_{\mathrm{drag}}h$	100.34 ± 0.68	$D_{\mathrm{M}}(0.51)$	1973.1 ± 7.9
τ	$0.0576^{+0.0069}_{-0.0078}$	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.020	$H(0.61)$	95.48 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.015	z_{re}	7.96 ± 0.73	$D_{\mathrm{M}}(0.61)$	2296.7 ± 8.6
n_{s}	0.9690 ± 0.0037	$10^9 A_{\mathrm{s}}$	2.104 ± 0.031	$H(2.33)$	235.51 ± 0.56
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\mathrm{M}}(2.33)$	5756.2 ± 8.6
A_{100}^{PS}	237 ± 25	D_{40}	1222 ± 11	$f\sigma_8(0.15)$	0.4515 ± 0.0053
A_{143}^{PS}	39 ± 8	D_{220}	5732 ± 38	$\sigma_8(0.15)$	$0.7469^{+0.0052}_{-0.0058}$
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	0.4711 ± 0.0045
A_{217}^{CIB}	39 ± 7	D_{1420}	817.5 ± 4.7	$\sigma_8(0.38)$	0.6627 ± 0.0049
A_{143}^{tSZ}	$4.0^{+2.1}_{-2.6}$	D_{2000}	231.0 ± 1.6	$f\sigma_8(0.51)$	0.4704 ± 0.0042
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9690 ± 0.0037	$\sigma_8(0.51)$	0.6205 ± 0.0046
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.41}_{-0.18}$	Y_{P}	0.245407 ± 0.000054	$f\sigma_8(0.61)$	0.4659 ± 0.0039
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246734 ± 0.000054	$\sigma_8(0.61)$	0.5906 ± 0.0044
A^{kSZ}	< 5.91	$10^5 \mathrm{D}/\mathrm{H}$	2.579 ± 0.026	$f\sigma_8(2.33)$	0.2980 ± 0.0023
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.782 ± 0.020	$\sigma_8(2.33)$	0.3075 ± 0.0024
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.73 ± 0.21	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.98 ± 0.10	r_*	144.84 ± 0.23	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	$1.04125^{+0.00031}_{-0.00027}$	$f_{2000}^{143 \times 217}$	31.7 ± 1.9
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.022	$\chi_{\mathrm{lensing}}^2$	9.46 ± 0.91
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.90 ± 0.31	χ_{simall}^2	397.5 ± 2.1
c_{TE}	0.9964 ± 0.0051	r_{drag}	147.50 ± 0.25	χ_{lowl}^2	22.68 ± 0.74
c_{EE}	0.9923 ± 0.0050	k_{D}	0.14047 ± 0.00031	$\chi_{\mathrm{CamSpec}}^2$	11515.3 ± 6.0
H_0	68.03 ± 0.39	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00018	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 1.6
Ω_{Λ}	0.6944 ± 0.0052	z_{eq}	3363 ± 21	χ_{JLA}^2	706.63 ± 0.11
Ω_{m}	0.3056 ± 0.0052	k_{eq}	0.010264 ± 0.000063	$\chi_{6\mathrm{DF}}^2$	0.021 ± 0.030
$\Omega_{\mathrm{m}}h^2$	0.14138 ± 0.00086	$100\theta_{\mathrm{eq}}$	0.8206 ± 0.0038	χ_{MGS}^2	1.66 ± 0.42
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00032	$100\theta_{\mathrm{s,eq}}$	0.4532 ± 0.0020	$\chi_{\mathrm{DR12BAO}}^2$	3.89 ± 0.69
σ_8	0.8076 ± 0.0061	$H(0.15)$	73.24 ± 0.34	χ_{prior}^2	7.7 ± 3.4
S_8	0.815 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.7 ± 3.3	χ_{CMB}^2	11944.9 ± 6.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4464 ± 0.0055	$H(0.38)$	83.25 ± 0.26	χ_{BAO}^2	5.57 ± 0.52
$\bar{\chi}_{\mathrm{eff}}^2 = 12675.57; R - 1 = 0.05190$					

2.135 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022352	0.02234 ± 0.00014	$\sigma_8 \Omega_m^{0.25}$	0.6027	0.6028 ± 0.0056	$D_M(0.38)$	1528.0	1527.7 ± 7.0
$\Omega_c h^2$	0.11901	0.11895 ± 0.00091	$\sigma_8/h^{0.5}$	0.9818	0.9821 ± 0.0083	$H(0.51)$	89.742	89.75 ± 0.22
$100\theta_{MC}$	1.040940	1.04096 ± 0.00030	$r_{drag}h$	99.76	99.81 ± 0.70	$D_M(0.51)$	1979.7	1979.3 ± 8.3
τ	0.0546	$0.0555^{+0.0067}_{-0.0076}$	$\langle d^2 \rangle^{1/2}$	2.4271	2.429 ± 0.020	$H(0.61)$	95.348	95.35 ± 0.18
$\ln(10^{10} A_s)$	3.0417	$3.043^{+0.013}_{-0.015}$	z_{re}	7.70	7.78 ± 0.72	$D_M(0.61)$	2303.8	2303.4 ± 9.0
n_s	0.96781	0.9673 ± 0.0038	$10^9 A_s$	2.0942	$2.098^{+0.028}_{-0.032}$	$H(2.33)$	235.89	235.85 ± 0.57
y_{cal}	1.00063	1.0007 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8776	1.877 ± 0.011	$D_M(2.33)$	5761.8	5761.7 ± 8.8
A_{100}^{PS}	231.5	239 ± 25	D_{40}	1223.2	1225 ± 11	$f\sigma_8(0.15)$	0.4544	0.4544 ± 0.0053
A_{143}^{PS}	47.8	39 ± 8	D_{220}	5724.2	5726 ± 39	$\sigma_8(0.15)$	0.7466	$0.7470^{+0.0051}_{-0.0057}$
A_{217}^{PS}	104.1	103 ± 10	D_{810}	2537.0	2536 ± 14	$f\sigma_8(0.38)$	0.47304	0.4731 ± 0.0046
A_{217}^{CIB}	42.7	40 ± 7	D_{1420}	817.13	816.5 ± 4.8	$\sigma_8(0.38)$	0.66200	$0.6623^{+0.0045}_{-0.0050}$
A_{143}^{tSZ}	6.37	$3.9^{+2.0}_{-2.5}$	D_{2000}	230.78	230.5 ± 1.6	$f\sigma_8(0.51)$	0.47183	0.4719 ± 0.0041
$r_{143 \times 217}^{PS}$	0.695	0.66 ± 0.13	$n_{s,0.002}$	0.96781	0.9673 ± 0.0038	$\sigma_8(0.51)$	0.61959	$0.6199^{+0.0042}_{-0.0047}$
$r_{143 \times 217}^{CIB}$	0.875	$0.55^{+0.39}_{-0.18}$	Y_P	0.245389	$0.245383^{+0.000060}_{-0.000051}$	$f\sigma_8(0.61)$	0.46700	0.4671 ± 0.0039
$\xi^{tSZ \times CIB}$	0.64	—	Y_P^{BBN}	0.246715	$0.246710^{+0.000060}_{-0.000051}$	$\sigma_8(0.61)$	0.58960	$0.5899^{+0.0040}_{-0.0045}$
A^{kSZ}	0.27	$4.6^{+1.6}_{-4.6}$	$10^5 D/H$	2.5888	$2.591^{+0.025}_{-0.028}$	$f\sigma_8(2.33)$	0.29735	$0.2975^{+0.0020}_{-0.0023}$
A_{100}^{dust}	1.013	1.01 ± 0.19	Age/Gyr	13.7944	13.794 ± 0.020	$\sigma_8(2.33)$	0.30662	$0.3068^{+0.0022}_{-0.0025}$
A_{143}^{dust}	0.980	0.95 ± 0.17	z_*	1089.855	1089.86 ± 0.22	f_{2000}^{143}	29.79	29.4 ± 2.8
A_{217}^{dust}	0.979	0.97 ± 0.11	r_*	144.701	144.72 ± 0.23	f_{2000}^{217}	106.48	106.7 ± 1.9
$A_{143 \times 217}^{dust}$	0.995	1.03 ± 0.16	$100\theta_*$	1.041131	1.04115 ± 0.00029	$f_{2000}^{143 \times 217}$	31.90	32.0 ± 2.0
c_{100}	0.99779	0.9976 ± 0.0010	$D_M(z_*)/\text{Gpc}$	13.8984	13.900 ± 0.022	$\chi^2_{lensing}$	8.966	9.32 ± 0.78
c_{217}	1.00131	1.0011 ± 0.0016	z_{drag}	1059.818	1059.80 ± 0.31	χ^2_{small}	396.05	397.1 ± 1.8
c_{TE}	0.99664	0.9966 ± 0.0050	r_{drag}	147.374	147.40 ± 0.24	χ^2_{lowl}	22.77	22.94 ± 0.77
c_{EE}	0.99239	0.9923 ± 0.0049	k_D	0.140556	0.14052 ± 0.00031	$\chi^2_{CamSpec}$	11500.2	11514.3 ± 5.6
H_0	67.695	67.72 ± 0.41	$100\theta_D$	0.160819	0.16084 ± 0.00019	χ^2_{JLA}	1034.980	1035.03 ± 0.26
Ω_Λ	0.6901	0.6904 ± 0.0055	z_{eq}	3378.1	3377 ± 21	χ^2_{6DF}	0.0218	0.040 ± 0.050
Ω_m	0.3099	0.3096 ± 0.0055	k_{eq}	0.010310	0.010306 ± 0.000064	χ^2_{MGS}	1.279	1.36 ± 0.40
$\Omega_m h^2$	0.14201	0.14194 ± 0.00088	$100\theta_{eq}$	0.81759	0.8179 ± 0.0039	$\chi^2_{DR12BAO}$	4.23	4.5 ± 1.1
$\Omega_m h^3$	0.096132	0.09612 ± 0.00031	$100\theta_{s,eq}$	0.45163	0.4518 ± 0.0020	χ^2_{prior}	2.02	7.8 ± 3.4
σ_8	0.8078	0.8082 ± 0.0060	$H(0.15)$	72.958	72.98 ± 0.35	χ^2_{CMB}	11928.0	11943.7 ± 5.8
S_8	0.8210	0.821 ± 0.010	$D_M(0.15)$	640.53	640.4 ± 3.5	χ^2_{BAO}	5.530	5.88 ± 0.87
$\sigma_8 \Omega_m^{0.5}$	0.4497	0.4497 ± 0.0057	$H(0.38)$	83.041	83.05 ± 0.26			

Best-fit $\chi^2_{eff} = 12970.49$; $\bar{\chi}^2_{eff} = 12992.39$; $R - 1 = 0.01438$
 χ^2_{eff} : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.23 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p_teb_consext8: 8.97 small_100x143.offlike5_EE_Aplanck_B: 396.05 comman-
der_dx12_v3_2_29: 22.77 CamSpec like_10.7HM_1400_unified: 11500.17 SN - JLA Pantheon18: 1034.98

2.136 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02241 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6002 ± 0.0055	$D_{\mathrm{M}}(0.38)$	1522.2 ± 6.6
$\Omega_{\mathrm{c}}h^2$	0.11830 ± 0.00086	$\sigma_8/h^{0.5}$	0.9789 ± 0.0082	$H(0.51)$	89.91 ± 0.20
$100\theta_{\mathrm{MC}}$	1.04107 ± 0.00030	$r_{\mathrm{drag}}h$	100.35 ± 0.67	$D_{\mathrm{M}}(0.51)$	1972.9 ± 7.8
τ	0.0575 ± 0.0074	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.020	$H(0.61)$	95.48 ± 0.17
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.015	z_{re}	7.95 ± 0.72	$D_{\mathrm{M}}(0.61)$	2296.5 ± 8.4
n_{s}	0.9689 ± 0.0037	$10^9 A_{\mathrm{s}}$	$2.104^{+0.029}_{-0.032}$	$H(2.33)$	235.49 ± 0.54
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\mathrm{M}}(2.33)$	5756.0 ± 8.4
A_{100}^{PS}	237 ± 24	D_{40}	1223 ± 11	$f\sigma_8(0.15)$	0.4513 ± 0.0051
A_{143}^{PS}	39 ± 8	D_{220}	5733 ± 38	$\sigma_8(0.15)$	0.7467 ± 0.0055
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	0.4709 ± 0.0044
A_{217}^{CIB}	39 ± 7	D_{1420}	817.4 ± 4.7	$\sigma_8(0.38)$	$0.6626^{+0.0046}_{-0.0051}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	230.9 ± 1.6	$f\sigma_8(0.51)$	0.4702 ± 0.0041
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9689 ± 0.0037	$\sigma_8(0.51)$	$0.6203^{+0.0043}_{-0.0048}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18}$	Y_{P}	$0.245409^{+0.000055}_{-0.000048}$	$f\sigma_8(0.61)$	0.4658 ± 0.0039
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246736^{+0.000056}_{-0.000048}$	$\sigma_8(0.61)$	$0.5904^{+0.0041}_{-0.0046}$
A^{kSZ}	< 6.06	$10^5 \mathrm{D}/\mathrm{H}$	2.579 ± 0.025	$f\sigma_8(2.33)$	$0.2980^{+0.0021}_{-0.0023}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.782 ± 0.019	$\sigma_8(2.33)$	$0.3074^{+0.0022}_{-0.0025}$
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.72 ± 0.20	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.98 ± 0.11	r_*	144.84 ± 0.22	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.17	$100\theta_*$	1.04125 ± 0.00030	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.021	$\chi_{\mathrm{lensing}}^2$	9.47 ± 0.93
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.90 ± 0.30	χ_{simall}^2	397.5 ± 2.1
c_{TE}	0.9965 ± 0.0050	r_{drag}	147.50 ± 0.24	χ_{lowl}^2	22.70 ± 0.73
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14047 ± 0.00030	$\chi_{\mathrm{CamSpec}}^2$	11515.1 ± 5.7
H_0	68.04 ± 0.39	$100\theta_{\mathrm{D}}$	0.16078 ± 0.00018	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 1.5
Ω_{Λ}	0.6946 ± 0.0051	z_{eq}	3363 ± 20	χ_{JLA}^2	1034.87 ± 0.16
Ω_{m}	0.3054 ± 0.0051	k_{eq}	0.010263 ± 0.000061	$\chi_{6\mathrm{DF}}^2$	0.019 ± 0.028
$\Omega_{\mathrm{m}}h^2$	0.14136 ± 0.00083	$100\theta_{\mathrm{eq}}$	0.8207 ± 0.0037	χ_{MGS}^2	1.67 ± 0.40
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00030	$100\theta_{\mathrm{s,eq}}$	0.4532 ± 0.0019	$\chi_{\mathrm{DR12BAO}}^2$	3.87 ± 0.66
σ_8	0.8074 ± 0.0061	$H(0.15)$	73.25 ± 0.33	χ_{prior}^2	7.8 ± 3.4
S_8	0.8147 ± 0.0099	$D_{\mathrm{M}}(0.15)$	637.7 ± 3.3	χ_{CMB}^2	11944.7 ± 6.0
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4462 ± 0.0054	$H(0.38)$	83.26 ± 0.25	χ_{BAO}^2	5.56 ± 0.49

$$\bar{\chi}_{\mathrm{eff}}^2 = 13003.64; R - 1 = 0.02217$$

2.137 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00015	S_8	0.828 ± 0.013	$100\theta_{s,eq}$	0.4503 ± 0.0026
$\Omega_c h^2$	0.1196 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4535 ± 0.0070	$H(0.15)$	72.72 ± 0.46
$100\theta_{MC}$	1.04087 ± 0.00031	$\sigma_8 \Omega_m^{0.25}$	0.6060 ± 0.0064	$D_M(0.15)$	642.9 ± 4.6
τ	$0.0547^{+0.0050}_{-0.0080}$	$\sigma_8/h^{0.5}$	0.9862 ± 0.0090	$H(0.38)$	82.87 ± 0.34
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.015}$	$r_{drag} h$	99.29 ± 0.92	$D_M(0.38)$	1532.8 ± 9.2
n_s	0.9658 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.021	$H(0.51)$	89.61 ± 0.27
y_{cal}	1.0005 ± 0.0025	z_{re}	$7.71^{+0.55}_{-0.78}$	$D_M(0.51)$	1985 ± 11
A_{100}^{PS}	239 ± 24	$10^9 A_s$	$2.096^{+0.023}_{-0.031}$	$H(0.61)$	95.24 ± 0.22
A_{143}^{PS}	39 ± 8	$10^9 A_s e^{-2\tau}$	1.879 ± 0.011	$D_M(0.61)$	2310 ± 12
A_{217}^{PS}	102 ± 10	D_{40}	1227 ± 12	$H(2.33)$	236.23 ± 0.72
A_{217}^{CIB}	40 ± 7	D_{220}	5720 ± 40	$D_M(2.33)$	5766 ± 10
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{810}	2535 ± 13	$f\sigma_8(0.15)$	0.4579 ± 0.0065
$r_{143 \times 217}^{PS}$	0.66 ± 0.13	D_{1420}	815.7 ± 4.9	$\sigma_8(0.15)$	$0.7480^{+0.0047}_{-0.0055}$
$r_{143 \times 217}^{CIB}$	$0.55^{+0.39}_{-0.18}$	D_{2000}	230.3 ± 1.6	$f\sigma_8(0.38)$	0.4757 ± 0.0052
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	0.9658 ± 0.0042	$\sigma_8(0.38)$	$0.6628^{+0.0039}_{-0.0049}$
A^{kSZ}	$4.7^{+2.3}_{-3.9}$	Y_P	$0.245365^{+0.000066}_{-0.000057}$	$f\sigma_8(0.51)$	0.4741 ± 0.0046
A_{100}^{dust}	1.01 ± 0.20	Y_P^{BBN}	$0.246691^{+0.000066}_{-0.000057}$	$\sigma_8(0.51)$	$0.6202^{+0.0036}_{-0.0046}$
A_{143}^{dust}	0.96 ± 0.18	$10^5 D/H$	2.599 ± 0.029	$f\sigma_8(0.61)$	0.4689 ± 0.0041
A_{217}^{dust}	0.97 ± 0.11	Age/Gyr	13.804 ± 0.023	$\sigma_8(0.61)$	$0.5900^{+0.0034}_{-0.0044}$
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	z_*	1089.98 ± 0.26	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0023}$
c_{100}	0.9975 ± 0.0011	r_*	144.58 ± 0.27	$\sigma_8(2.33)$	$0.3065^{+0.0018}_{-0.0025}$
c_{217}	1.0011 ± 0.0016	$100\theta_*$	1.04107 ± 0.00031	f_{2000}^{143}	29.7 ± 2.8
c_{TE}	0.9965 ± 0.0049	$D_M(z_*)/Gpc$	13.888 ± 0.026	f_{2000}^{217}	106.9 ± 1.9
c_{EE}	0.9921 ± 0.0049	z_{drag}	1059.74 ± 0.32	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
H_0	67.42 ± 0.53	r_{drag}	147.27 ± 0.28	$\chi_{lensing}^2$	9.26 ± 0.65
Ω_Λ	0.6862 ± 0.0073	k_D	0.14062 ± 0.00033	χ_{simall}^2	396.9 ± 1.7
Ω_m	0.3138 ± 0.0073	$100\theta_D$	0.16086 ± 0.00019	χ_{lowl}^2	23.21 ± 0.86
$\Omega_m h^2$	0.1426 ± 0.0011	z_{eq}	3391 ± 27	$\chi_{CamSpec}^2$	11514.0 ± 5.5
$\Omega_m h^3$	0.09611 ± 0.00031	k_{eq}	0.010351 ± 0.000082	χ_{prior}^2	7.9 ± 3.5
σ_8	$0.8097^{+0.0054}_{-0.0060}$	$100\theta_{eq}$	0.8150 ± 0.0051	χ_{CMB}^2	11943.4 ± 5.7

$\bar{\chi}_{eff}^2 = 11951.25; R - 1 = 0.00847$

2.138 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6035 ± 0.0056	$D_{\mathrm{M}}(0.38)$	1528.4 ± 7.2
$\Omega_{\mathrm{c}}h^2$	0.11904 ± 0.00093	$\sigma_8/h^{0.5}$	0.9831 ± 0.0081	$H(0.51)$	89.73 ± 0.22
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00030	$r_{\mathrm{drag}}h$	99.74 ± 0.72	$D_{\mathrm{M}}(0.51)$	1980.1 ± 8.5
τ	$0.0559^{+0.0055}_{-0.0077}$	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.020	$H(0.61)$	95.34 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	z_{re}	$7.82^{+0.58}_{-0.76}$	$D_{\mathrm{M}}(0.61)$	2304.3 ± 9.2
n_{s}	0.9671 ± 0.0038	$10^9 A_{\mathrm{s}}$	$2.099^{+0.024}_{-0.032}$	$H(2.33)$	235.90 ± 0.58
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$D_{\mathrm{M}}(2.33)$	5762.4 ± 9.0
A_{100}^{PS}	239 ± 24	D_{40}	1225 ± 11	$f\sigma_8(0.15)$	0.4551 ± 0.0054
A_{143}^{PS}	39 ± 8	D_{220}	5725 ± 40	$\sigma_8(0.15)$	$0.7474^{+0.0046}_{-0.0056}$
A_{217}^{PS}	103 ± 10	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4737 ± 0.0045
A_{217}^{CIB}	40 ± 7	D_{1420}	816.3 ± 4.9	$\sigma_8(0.38)$	$0.6627^{+0.0039}_{-0.0050}$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	D_{2000}	230.5 ± 1.6	$f\sigma_8(0.51)$	0.4724 ± 0.0041
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9671 ± 0.0038	$\sigma_8(0.51)$	$0.6202^{+0.0037}_{-0.0047}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	Y_{P}	$0.245381^{+0.000061}_{-0.000052}$	$f\sigma_8(0.61)$	0.4676 ± 0.0038
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707^{+0.000061}_{-0.000052}$	$\sigma_8(0.61)$	$0.5902^{+0.0035}_{-0.0045}$
A^{kSZ}	$4.6^{+1.7}_{-4.5}$	$10^5 \mathrm{D}/\mathrm{H}$	$2.592^{+0.025}_{-0.028}$	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0023}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.796 ± 0.020	$\sigma_8(2.33)$	$0.3069^{+0.0019}_{-0.0025}$
A_{143}^{dust}	0.96 ± 0.17	z_*	1089.88 ± 0.22	f_{2000}^{143}	29.5 ± 2.8
A_{217}^{dust}	0.97 ± 0.11	r_*	144.70 ± 0.23	f_{2000}^{217}	106.7 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04114 ± 0.00030	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.899 ± 0.022	$\chi_{\mathrm{lensing}}^2$	9.26 ± 0.68
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.79 ± 0.32	χ_{simall}^2	397.1 ± 1.8
c_{TE}	0.9966 ± 0.0050	r_{drag}	147.38 ± 0.24	χ_{lowl}^2	22.98 ± 0.78
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14054 ± 0.00031	$\chi_{\mathrm{CamSpec}}^2$	11514.2 ± 5.5
H_0	67.68 ± 0.42	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.045 ± 0.055
Ω_{Λ}	0.6898 ± 0.0056	z_{eq}	3379 ± 21	χ_{MGS}^2	1.32 ± 0.40
Ω_{m}	0.3102 ± 0.0056	k_{eq}	0.010312 ± 0.000065	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.2
$\Omega_{\mathrm{m}}h^2$	0.14203 ± 0.00089	$100\theta_{\mathrm{eq}}$	0.8175 ± 0.0040	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.09611 ± 0.00031	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0021	χ_{CMB}^2	11943.5 ± 5.7
σ_8	$0.8087^{+0.0052}_{-0.0062}$	$H(0.15)$	72.94 ± 0.36	χ_{BAO}^2	5.97 ± 0.95
S_8	0.822 ± 0.010	$D_{\mathrm{M}}(0.15)$	640.7 ± 3.6		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4504 ± 0.0057	$H(0.38)$	83.03 ± 0.27		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.26; R - 1 = 0.01434$$

2.139 **base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_Riess18_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4472 ± 0.0065	$D_{\mathrm{M}}(0.15)$	638.2 ± 4.3
$\Omega_{\mathrm{c}}h^2$	0.1184 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6011 ± 0.0061	$H(0.38)$	83.22 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04105 ± 0.00032	$\sigma_8/h^{0.5}$	0.9801 ± 0.0086	$D_{\mathrm{M}}(0.38)$	1523.3 ± 8.6
τ	$0.0576^{+0.0061}_{-0.0082}$	$r_{\mathrm{drag}}h$	100.24 ± 0.88	$H(0.51)$	89.88 ± 0.26
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	$2.425^{+0.019}_{-0.022}$	$D_{\mathrm{M}}(0.51)$	1974 ± 10
n_{s}	0.9686 ± 0.0040	z_{re}	$7.97^{+0.63}_{-0.79}$	$H(0.61)$	95.46 ± 0.21
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.105^{+0.026}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	2298 ± 11
A_{100}^{PS}	238 ± 24	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.010	$H(2.33)$	235.58 ± 0.69
A_{143}^{PS}	39 ± 8	D_{40}	1223 ± 11	$D_{\mathrm{M}}(2.33)$	5756.9 ± 9.9
A_{217}^{PS}	103 ± 10	D_{220}	5732 ± 39	$f\sigma_8(0.15)$	0.4522 ± 0.0061
A_{217}^{CIB}	39 ± 7	D_{810}	2537 ± 13	$\sigma_8(0.15)$	$0.7472^{+0.0047}_{-0.0057}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{1420}	817.2 ± 4.8	$f\sigma_8(0.38)$	0.4716 ± 0.0050
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.9 ± 1.6	$\sigma_8(0.38)$	$0.6629^{+0.0041}_{-0.0051}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.19}$	$n_{\mathrm{s},0.002}$	0.9686 ± 0.0040	$f\sigma_8(0.51)$	0.4708 ± 0.0044
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245405^{+0.000059}_{-0.000050}$	$\sigma_8(0.51)$	$0.6206^{+0.0038}_{-0.0048}$
A^{kSZ}	< 6.14	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246732^{+0.000060}_{-0.000051}$	$f\sigma_8(0.61)$	0.4663 ± 0.0040
A_{100}^{dust}	1.01 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	$2.580^{+0.025}_{-0.028}$	$\sigma_8(0.61)$	$0.5906^{+0.0037}_{-0.0046}$
A_{143}^{dust}	0.95 ± 0.17	$\mathrm{Age}/\mathrm{Gyr}$	13.784 ± 0.022	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0024}$
A_{217}^{dust}	0.97 ± 0.11	z_*	1089.75 ± 0.24	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0026}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.17	r_*	144.81 ± 0.27	f_{2000}^{143}	29.2 ± 2.8
c_{100}	0.9976 ± 0.0010	$100\theta_*$	1.04123 ± 0.00032	f_{2000}^{217}	106.5 ± 1.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.908 ± 0.025	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
c_{TE}	0.9965 ± 0.0051	z_{drag}	1059.89 ± 0.31	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.85
c_{EE}	0.9922 ± 0.0049	r_{drag}	147.47 ± 0.28	χ_{simall}^2	397.5 ± 2.2
H_0	67.97 ± 0.51	k_{D}	0.14049 ± 0.00032	χ_{lowl}^2	22.78 ± 0.78
Ω_{Λ}	0.6937 ± 0.0067	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00018	$\chi_{\mathrm{CamSpec}}^2$	11515.1 ± 5.8
Ω_{m}	0.3063 ± 0.0067	z_{eq}	3366 ± 26	$\chi_{\mathrm{H073p45}}^2$	11.0 ± 2.0
$\Omega_{\mathrm{m}}h^2$	0.1415 ± 0.0011	k_{eq}	0.010273 ± 0.000078	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00031	$100\theta_{\mathrm{eq}}$	0.8201 ± 0.0049	χ_{CMB}^2	11944.7 ± 6.2
σ_8	$0.8080^{+0.0053}_{-0.0063}$	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4529 ± 0.0025		
S_8	0.816 ± 0.012	$H(0.15)$	73.20 ± 0.44		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11963.51; R - 1 = 0.02593$$

2.140 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02241 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6007^{+0.0051}_{-0.0058}$	$D_{\mathrm{M}}(0.38)$	1522.6 ± 6.8
$\Omega_{\mathrm{c}}h^2$	0.11835 ± 0.00088	$\sigma_8/h^{0.5}$	$0.9795^{+0.0075}_{-0.0085}$	$H(0.51)$	89.90 ± 0.21
$100\theta_{\mathrm{MC}}$	1.04106 ± 0.00030	$r_{\mathrm{drag}}h$	100.31 ± 0.68	$D_{\mathrm{M}}(0.51)$	1973.3 ± 8.0
τ	$0.0577^{+0.0060}_{-0.0078}$	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.019	$H(0.61)$	95.48 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.015}$	z_{re}	$7.98^{+0.63}_{-0.75}$	$D_{\mathrm{M}}(0.61)$	2297.0 ± 8.6
n_{s}	0.9688 ± 0.0037	$10^9 A_{\mathrm{s}}$	$2.105^{+0.026}_{-0.032}$	$H(2.33)$	235.52 ± 0.55
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\mathrm{M}}(2.33)$	5756.3 ± 8.6
A_{100}^{PS}	237 ± 24	D_{40}	1223 ± 11	$f\sigma_8(0.15)$	0.4517 ± 0.0051
A_{143}^{PS}	39 ± 8	D_{220}	5733 ± 39	$\sigma_8(0.15)$	$0.7470^{+0.0047}_{-0.0058}$
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	$0.4712^{+0.0042}_{-0.0047}$
A_{217}^{CIB}	39 ± 7	D_{1420}	817.3 ± 4.7	$\sigma_8(0.38)$	$0.6628^{+0.0042}_{-0.0051}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	230.9 ± 1.6	$f\sigma_8(0.51)$	$0.4705^{+0.0038}_{-0.0043}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9688 ± 0.0037	$\sigma_8(0.51)$	$0.6206^{+0.0039}_{-0.0048}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18}$	Y_{P}	$0.245408^{+0.000056}_{-0.000048}$	$f\sigma_8(0.61)$	$0.4660^{+0.0035}_{-0.0040}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246734^{+0.000056}_{-0.000048}$	$\sigma_8(0.61)$	$0.5906^{+0.0037}_{-0.0046}$
A^{kSZ}	< 6.07	$10^5 \mathrm{D}/\mathrm{H}$	2.579 ± 0.025	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0024}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.783 ± 0.019	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0025}$
A_{143}^{dust}	0.95 ± 0.17	z_*	$1089.73^{+0.19}_{-0.22}$	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.97 ± 0.11	r_*	144.83 ± 0.22	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.17	$100\theta_*$	1.04124 ± 0.00030	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.909 ± 0.021	$\chi_{\mathrm{lensing}}^2$	9.40 ± 0.83
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.90 ± 0.30	χ_{simall}^2	397.4 ± 2.1
c_{TE}	0.9965 ± 0.0050	r_{drag}	147.49 ± 0.24	χ_{lowl}^2	22.73 ± 0.74
c_{EE}	0.9922 ± 0.0049	k_{D}	0.14048 ± 0.00030	$\chi_{\mathrm{CamSpec}}^2$	11515.0 ± 5.7
H_0	68.01 ± 0.40	$100\theta_{\mathrm{D}}$	0.16078 ± 0.00018	$\chi_{\mathrm{H073p45}}^2$	10.8 ± 1.6
Ω_{Λ}	0.6943 ± 0.0052	z_{eq}	3364 ± 20	$\chi_{6\mathrm{DF}}^2$	0.021 ± 0.030
Ω_{m}	0.3057 ± 0.0052	k_{eq}	0.010266 ± 0.000062	χ_{MGS}^2	1.65 ± 0.41
$\Omega_{\mathrm{m}}h^2$	0.14140 ± 0.00085	$100\theta_{\mathrm{eq}}$	0.8205 ± 0.0038	$\chi_{\mathrm{DR12BAO}}^2$	3.91 ± 0.71
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00030	$100\theta_{\mathrm{s,eq}}$	0.4531 ± 0.0020	χ_{prior}^2	7.8 ± 3.4
σ_8	$0.8078^{+0.0053}_{-0.0063}$	$H(0.15)$	73.23 ± 0.34	χ_{CMB}^2	11944.5 ± 5.9
S_8	0.815 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.8 ± 3.3	χ_{BAO}^2	5.58 ± 0.53
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4466 ± 0.0055	$H(0.38)$	83.24 ± 0.26		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11968.71; R - 1 = 0.02252$$

2.141 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4523 ± 0.0067	$D_{\mathrm{M}}(0.15)$	642.1 ± 4.3
$\Omega_{\mathrm{c}}h^2$	0.1194 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6050 ± 0.0062	$H(0.38)$	82.93 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00031	$\sigma_8/h^{0.5}$	0.9849 ± 0.0087	$D_{\mathrm{M}}(0.38)$	1531.1 ± 8.7
τ	$0.0551^{+0.0052}_{-0.0079}$	$r_{\mathrm{drag}}h$	99.46 ± 0.88	$H(0.51)$	89.66 ± 0.26
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	2.436 ± 0.021	$D_{\mathrm{M}}(0.51)$	1983 ± 10
n_{s}	0.9663 ± 0.0041	z_{re}	$7.75^{+0.56}_{-0.78}$	$H(0.61)$	95.28 ± 0.21
y_{cal}	1.0006 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.032}$	$D_{\mathrm{M}}(0.61)$	2308 ± 11
A_{100}^{PS}	239 ± 24	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$H(2.33)$	236.10 ± 0.68
A_{143}^{PS}	39 ± 8	D_{40}	1226 ± 12	$D_{\mathrm{M}}(2.33)$	5765 ± 10
A_{217}^{PS}	102 ± 10	D_{220}	5722 ± 40	$f\sigma_8(0.15)$	0.4568 ± 0.0062
A_{217}^{CIB}	40 ± 7	D_{810}	2535 ± 14	$\sigma_8(0.15)$	$0.7478^{+0.0046}_{-0.0055}$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	D_{1420}	816.0 ± 4.9	$f\sigma_8(0.38)$	0.4749 ± 0.0050
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.4 ± 1.6	$\sigma_8(0.38)$	$0.6627^{+0.0038}_{-0.0049}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.18}$	$n_{\mathrm{s},0.002}$	0.9663 ± 0.0041	$f\sigma_8(0.51)$	0.4734 ± 0.0044
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245372^{+0.000065}_{-0.000055}$	$\sigma_8(0.51)$	$0.6202^{+0.0036}_{-0.0046}$
A^{kSZ}	$4.7^{+1.9}_{-4.3}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246698^{+0.000065}_{-0.000055}$	$f\sigma_8(0.61)$	0.4684 ± 0.0040
A_{100}^{dust}	1.01 ± 0.20	$10^5 \mathrm{D}/\mathrm{H}$	$2.596^{+0.027}_{-0.030}$	$\sigma_8(0.61)$	$0.5901^{+0.0034}_{-0.0044}$
A_{143}^{dust}	0.96 ± 0.17	$\mathrm{Age}/\mathrm{Gyr}$	13.801 ± 0.023	$f\sigma_8(2.33)$	$0.2975^{+0.0017}_{-0.0023}$
A_{217}^{dust}	0.97 ± 0.11	z_*	1089.94 ± 0.25	$\sigma_8(2.33)$	$0.3067^{+0.0018}_{-0.0025}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	144.63 ± 0.26	f_{2000}^{143}	29.6 ± 2.8
c_{100}	0.9975 ± 0.0010	$100\theta_*$	1.04109 ± 0.00031	f_{2000}^{217}	106.8 ± 1.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.892 ± 0.025	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
c_{TE}	0.9966 ± 0.0050	z_{drag}	1059.76 ± 0.32	$\chi_{\mathrm{lensing}}^2$	9.25 ± 0.65
c_{EE}	0.9921 ± 0.0049	r_{drag}	147.31 ± 0.27	χ_{simall}^2	396.9 ± 1.7
H_0	67.52 ± 0.51	k_{D}	0.14059 ± 0.00032	χ_{lowl}^2	23.12 ± 0.84
Ω_{Λ}	0.6876 ± 0.0069	$100\theta_{\mathrm{D}}$	0.16085 ± 0.00019	$\chi_{\mathrm{CamSpec}}^2$	11514.1 ± 5.5
Ω_{m}	0.3124 ± 0.0069	z_{eq}	3386 ± 26	χ_{JLA}^2	1035.20 ± 0.40
$\Omega_{\mathrm{m}}h^2$	0.1424 ± 0.0011	k_{eq}	0.010336 ± 0.000078	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.09611 ± 0.00031	$100\theta_{\mathrm{eq}}$	0.8160 ± 0.0048	χ_{CMB}^2	11943.5 ± 5.7
σ_8	$0.8093^{+0.0052}_{-0.0061}$	$100\theta_{\mathrm{s,eq}}$	0.4508 ± 0.0025		
S_8	0.826 ± 0.012	$H(0.15)$	72.81 ± 0.44		

$\bar{\chi}_{\mathrm{eff}}^2 = 12986.49$; $R - 1 = 0.01335$

2.142 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_JLA_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02241 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6007 ± 0.0055	$D_{\mathrm{M}}(0.38)$	1522.3 ± 6.7
$\Omega_{\mathrm{c}}h^2$	0.11832 ± 0.00088	$\sigma_8/h^{0.5}$	0.9796 ± 0.0081	$H(0.51)$	89.91 ± 0.21
$100\theta_{\mathrm{MC}}$	$1.04107^{+0.00031}_{-0.00028}$	$r_{\mathrm{drag}}h$	100.34 ± 0.68	$D_{\mathrm{M}}(0.51)$	1973.0 ± 7.9
τ	$0.0580^{+0.0062}_{-0.0079}$	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.019	$H(0.61)$	95.48 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.015}$	z_{re}	$8.00^{+0.63}_{-0.77}$	$D_{\mathrm{M}}(0.61)$	2296.6 ± 8.6
n_{s}	0.9691 ± 0.0037	$10^9 A_{\mathrm{s}}$	$2.106^{+0.026}_{-0.032}$	$H(2.33)$	235.50 ± 0.56
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\mathrm{M}}(2.33)$	5756.1 ± 8.6
A_{100}^{PS}	237 ± 25	D_{40}	1222 ± 11	$f\sigma_8(0.15)$	0.4516 ± 0.0052
A_{143}^{PS}	39 ± 8	D_{220}	5732 ± 38	$\sigma_8(0.15)$	$0.7472^{+0.0048}_{-0.0059}$
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	0.4712 ± 0.0044
A_{217}^{CIB}	39 ± 7	D_{1420}	817.5 ± 4.7	$\sigma_8(0.38)$	$0.6630^{+0.0042}_{-0.0052}$
A_{143}^{tSZ}	$4.0^{+2.1}_{-2.6}$	D_{2000}	231.0 ± 1.6	$f\sigma_8(0.51)$	0.4705 ± 0.0041
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9691 ± 0.0037	$\sigma_8(0.51)$	$0.6207^{+0.0040}_{-0.0049}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.42}_{-0.17}$	Y_{P}	0.245408 ± 0.000054	$f\sigma_8(0.61)$	0.4661 ± 0.0038
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246734 ± 0.000054	$\sigma_8(0.61)$	$0.5908^{+0.0038}_{-0.0046}$
A^{kSZ}	< 5.91	$10^5 \mathrm{D}/\mathrm{H}$	2.579 ± 0.026	$f\sigma_8(2.33)$	$0.2981^{+0.0020}_{-0.0024}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.782 ± 0.020	$\sigma_8(2.33)$	$0.3076^{+0.0021}_{-0.0025}$
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.73 ± 0.21	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.97 ± 0.10	r_*	144.84 ± 0.23	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	$1.04125^{+0.00031}_{-0.00028}$	$f_{2000}^{143 \times 217}$	31.7 ± 1.9
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.022	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.83
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.90 ± 0.31	χ_{simall}^2	397.5 ± 2.1
c_{TE}	0.9964 ± 0.0051	r_{drag}	147.50 ± 0.25	χ_{lowl}^2	22.69 ± 0.74
c_{EE}	0.9922 ± 0.0050	k_{D}	0.14047 ± 0.00031	$\chi_{\mathrm{CamSpec}}^2$	11515.3 ± 6.0
H_0	68.03 ± 0.39	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00018	$\chi_{\mathrm{H073p45}}^2$	10.7 ± 1.6
Ω_{Λ}	0.6945 ± 0.0052	z_{eq}	3363 ± 20	χ_{JLA}^2	706.63 ± 0.11
Ω_{m}	0.3055 ± 0.0052	k_{eq}	0.010264 ± 0.000062	$\chi_{6\mathrm{DF}}^2$	0.020 ± 0.029
$\Omega_{\mathrm{m}}h^2$	0.14137 ± 0.00086	$100\theta_{\mathrm{eq}}$	0.8206 ± 0.0038	χ_{MGS}^2	1.66 ± 0.41
$\Omega_{\mathrm{m}}h^3$	0.09617 ± 0.00032	$100\theta_{\mathrm{s,eq}}$	0.4532 ± 0.0020	$\chi_{\mathrm{DR12BAO}}^2$	3.89 ± 0.67
σ_8	$0.8079^{+0.0053}_{-0.0065}$	$H(0.15)$	73.25 ± 0.34	χ_{prior}^2	7.7 ± 3.4
S_8	0.815 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.7 ± 3.3	χ_{CMB}^2	11944.9 ± 6.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4466 ± 0.0055	$H(0.38)$	83.25 ± 0.25	χ_{BAO}^2	5.57 ± 0.51
$\bar{\chi}_{\mathrm{eff}}^2 = 12675.50; R - 1 = 0.05354$					

2.143 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02235 ± 0.00014	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6030 ± 0.0055	$D_{\mathrm{M}}(0.38)$	1527.5 ± 7.0
$\Omega_{\mathrm{c}}h^2$	0.11893 ± 0.00090	$\sigma_8/h^{0.5}$	0.9825 ± 0.0080	$H(0.51)$	89.75 ± 0.21
$100\theta_{\mathrm{MC}}$	1.04096 ± 0.00030	$r_{\mathrm{drag}}h$	99.83 ± 0.70	$D_{\mathrm{M}}(0.51)$	1979.1 ± 8.2
τ	$0.0561^{+0.0056}_{-0.0077}$	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.019	$H(0.61)$	95.36 ± 0.18
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	z_{re}	$7.84^{+0.59}_{-0.76}$	$D_{\mathrm{M}}(0.61)$	2303.2 ± 8.9
n_{s}	0.9674 ± 0.0038	$10^9 A_{\mathrm{s}}$	$2.100^{+0.024}_{-0.032}$	$H(2.33)$	235.84 ± 0.56
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$D_{\mathrm{M}}(2.33)$	5761.6 ± 8.8
A_{100}^{PS}	239 ± 24	D_{40}	1225 ± 11	$f\sigma_8(0.15)$	0.4545 ± 0.0053
A_{143}^{PS}	39 ± 8	D_{220}	5726 ± 39	$\sigma_8(0.15)$	$0.7473^{+0.0046}_{-0.0057}$
A_{217}^{PS}	103 ± 10	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4733 ± 0.0045
A_{217}^{CIB}	40 ± 7	D_{1420}	816.4 ± 4.8	$\sigma_8(0.38)$	$0.6627^{+0.0040}_{-0.0050}$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	D_{2000}	230.6 ± 1.6	$f\sigma_8(0.51)$	0.4721 ± 0.0040
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9674 ± 0.0038	$\sigma_8(0.51)$	$0.6203^{+0.0037}_{-0.0047}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	Y_{P}	$0.245384^{+0.000060}_{-0.000051}$	$f\sigma_8(0.61)$	$0.4673^{+0.0036}_{-0.0040}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246711^{+0.000060}_{-0.000051}$	$\sigma_8(0.61)$	$0.5902^{+0.0035}_{-0.0045}$
A^{kSZ}	< 6.21	$10^5 \mathrm{D}/\mathrm{H}$	$2.590^{+0.025}_{-0.028}$	$f\sigma_8(2.33)$	$0.2977^{+0.0018}_{-0.0023}$
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.794 ± 0.020	$\sigma_8(2.33)$	$0.3070^{+0.0019}_{-0.0025}$
A_{143}^{dust}	0.96 ± 0.17	z_*	1089.86 ± 0.22	f_{2000}^{143}	29.4 ± 2.8
A_{217}^{dust}	0.97 ± 0.11	r_*	144.73 ± 0.22	f_{2000}^{217}	106.7 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04115 ± 0.00029	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.901 ± 0.022	$\chi_{\mathrm{lensing}}^2$	9.27 ± 0.70
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.80 ± 0.31	χ_{simall}^2	397.1 ± 1.9
c_{TE}	0.9966 ± 0.0050	r_{drag}	147.40 ± 0.24	χ_{lowl}^2	22.94 ± 0.77
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14052 ± 0.00031	$\chi_{\mathrm{CamSpec}}^2$	11514.3 ± 5.5
H_0	67.73 ± 0.41	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00019	χ_{JLA}^2	1035.02 ± 0.25
Ω_{Λ}	0.6905 ± 0.0054	z_{eq}	3376 ± 21	$\chi_{6\mathrm{DF}}^2$	0.038 ± 0.049
Ω_{m}	0.3095 ± 0.0054	k_{eq}	0.010304 ± 0.000063	χ_{MGS}^2	1.37 ± 0.39
$\Omega_{\mathrm{m}}h^2$	0.14192 ± 0.00087	$100\theta_{\mathrm{eq}}$	0.8180 ± 0.0039	$\chi_{\mathrm{DR12BAO}}^2$	4.5 ± 1.1
$\Omega_{\mathrm{m}}h^3$	0.09612 ± 0.00031	$100\theta_{\mathrm{s,eq}}$	0.4518 ± 0.0020	χ_{prior}^2	7.8 ± 3.4
σ_8	$0.8085^{+0.0052}_{-0.0062}$	$H(0.15)$	72.98 ± 0.35	χ_{CMB}^2	11943.6 ± 5.7
S_8	0.821 ± 0.010	$D_{\mathrm{M}}(0.15)$	640.3 ± 3.5	χ_{BAO}^2	5.86 ± 0.84
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4498 ± 0.0056	$H(0.38)$	83.06 ± 0.26		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.25; R - 1 = 0.01504$$

2.144 base_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_Pantheon18_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02241 ± 0.00014	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6004^{+0.0050}_{-0.0057}$	$D_{\text{M}}(0.38)$	1522.1 ± 6.6
$\Omega_{\text{c}}h^2$	0.11829 ± 0.00085	$\sigma_8/h^{0.5}$	$0.9792^{+0.0074}_{-0.0084}$	$H(0.51)$	89.91 ± 0.20
$100\theta_{\text{MC}}$	1.04107 ± 0.00030	$r_{\text{drag}}h$	100.36 ± 0.66	$D_{\text{M}}(0.51)$	1972.8 ± 7.7
τ	$0.0579^{+0.0060}_{-0.0077}$	$\langle d^2 \rangle^{1/2}$	$2.423^{+0.018}_{-0.020}$	$H(0.61)$	95.49 ± 0.17
$\ln(10^{10}A_{\text{s}})$	$3.047^{+0.013}_{-0.015}$	z_{re}	$7.99^{+0.63}_{-0.75}$	$D_{\text{M}}(0.61)$	2296.4 ± 8.4
n_{s}	0.9690 ± 0.0037	$10^9 A_{\text{s}}$	$2.106^{+0.026}_{-0.032}$	$H(2.33)$	235.49 ± 0.54
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.875 ± 0.010	$D_{\text{M}}(2.33)$	5755.9 ± 8.4
A_{100}^{PS}	237 ± 24	D_{40}	1223 ± 11	$f\sigma_8(0.15)$	0.4514 ± 0.0050
A_{143}^{PS}	38 ± 8	D_{220}	5733 ± 38	$\sigma_8(0.15)$	$0.7470^{+0.0048}_{-0.0058}$
A_{217}^{PS}	103 ± 10	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	$0.4710^{+0.0041}_{-0.0046}$
A_{217}^{CIB}	39 ± 7	D_{1420}	817.4 ± 4.7	$\sigma_8(0.38)$	$0.6628^{+0.0042}_{-0.0051}$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	230.9 ± 1.6	$f\sigma_8(0.51)$	$0.4704^{+0.0037}_{-0.0042}$
$r_{143 \times 217}^{\text{PS}}$	0.67 ± 0.13	$n_{\text{s},0.002}$	0.9690 ± 0.0037	$\sigma_8(0.51)$	$0.6206^{+0.0039}_{-0.0048}$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.41}_{-0.18}$	Y_{P}	$0.245409^{+0.000055}_{-0.000048}$	$f\sigma_8(0.61)$	$0.4659^{+0.0035}_{-0.0040}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246736^{+0.000055}_{-0.000048}$	$\sigma_8(0.61)$	$0.5907^{+0.0037}_{-0.0046}$
A^{kSZ}	< 6.06	$10^5 \text{D}/\text{H}$	2.578 ± 0.025	$f\sigma_8(2.33)$	$0.2981^{+0.0019}_{-0.0024}$
A_{100}^{dust}	1.01 ± 0.19	Age/Gyr	13.782 ± 0.019	$\sigma_8(2.33)$	$0.3076^{+0.0020}_{-0.0025}$
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.72 ± 0.20	f_{2000}^{143}	29.1 ± 2.8
A_{217}^{dust}	0.98 ± 0.11	r_*	144.84 ± 0.22	f_{2000}^{217}	106.5 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.17	$100\theta_*$	1.04125 ± 0.00030	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
c_{100}	0.9976 ± 0.0010	$D_{\text{M}}(z_*)/\text{Gpc}$	13.911 ± 0.021	χ_{lensing}^2	9.42 ± 0.85
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.91 ± 0.30	χ_{simall}^2	397.5 ± 2.2
c_{TE}	0.9965 ± 0.0050	r_{drag}	147.50 ± 0.24	χ_{lowl}^2	22.71 ± 0.74
c_{EE}	0.9923 ± 0.0049	k_{D}	0.14047 ± 0.00030	χ_{CamSpec}^2	11515.0 ± 5.7
H_0	68.04 ± 0.38	$100\theta_{\text{D}}$	0.16078 ± 0.00018	χ_{H073p45}^2	10.7 ± 1.5
Ω_{Λ}	0.6946 ± 0.0051	z_{eq}	3362 ± 20	χ_{JLA}^2	1034.87 ± 0.16
Ω_{m}	0.3054 ± 0.0051	k_{eq}	0.010262 ± 0.000060	$\chi_{6\text{DF}}^2$	0.019 ± 0.028
$\Omega_{\text{m}}h^2$	0.14135 ± 0.00083	$100\theta_{\text{eq}}$	0.8207 ± 0.0037	χ_{MGS}^2	1.67 ± 0.40
$\Omega_{\text{m}}h^3$	0.09617 ± 0.00030	$100\theta_{\text{s,eq}}$	0.4532 ± 0.0019	χ_{DR12BAO}^2	3.86 ± 0.65
σ_8	$0.8077^{+0.0053}_{-0.0063}$	$H(0.15)$	73.26 ± 0.33	χ_{prior}^2	7.8 ± 3.4
S_8	0.8149 ± 0.0097	$D_{\text{M}}(0.15)$	637.6 ± 3.2	χ_{CMB}^2	11944.6 ± 5.9
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4463 ± 0.0053	$H(0.38)$	83.26 ± 0.25	χ_{BAO}^2	5.55 ± 0.48

$$\bar{\chi}_{\text{eff}}^2 = 13003.54; R - 1 = 0.02380$$

2.145 base_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022083	0.02210 ± 0.00022	$\sigma_8/h^{0.5}$	0.9900	0.990 ± 0.016	$H(0.15)$	72.29	72.31 ± 0.78
$\Omega_c h^2$	0.12045	0.1204 ± 0.0021	$r_{\text{drag}} h$	98.58	98.6 ± 1.6	$D_M(0.15)$	647.2	647.1 ± 7.9
$100\theta_{\text{MC}}$	1.040815	1.04079 ± 0.00047	$\langle d^2 \rangle^{1/2}$	2.4483	2.449 ± 0.038	$H(0.38)$	82.53	82.55 ± 0.56
τ	0.0511	0.0518 ± 0.0080	z_{re}	7.41	7.47 ± 0.82	$D_M(0.38)$	1541.5	1541 ± 16
$\ln(10^{10} A_s)$	3.0368	3.038 ± 0.016	$10^9 A_s$	2.0839	2.086 ± 0.034	$H(0.51)$	89.324	89.34 ± 0.44
n_s	0.9623	0.9624 ± 0.0058	$10^9 A_s e^{-2\tau}$	1.8816	1.880 ± 0.014	$D_M(0.51)$	1995.6	1995 ± 18
y_{cal}	1.00048	1.0004 ± 0.0025	D_{40}	1232.5	1232 ± 15	$H(0.61)$	95.000	95.02 ± 0.35
A_{100}^{PS}	252.2	255 ± 27	D_{220}	5707.8	5705 ± 40	$D_M(0.61)$	2321.1	2321 ± 20
A_{143}^{tSZ}	6.20	$3.7_{-2.7}^{+1.7}$	D_{810}	2533.2	2531 ± 14	$H(2.33)$	236.56	236.6 ± 1.3
A^{kSZ}	0.33	$5.3_{-1.9}^{+4.2}$	D_{1420}	813.1	812.5 ± 5.2	$D_M(2.33)$	5778.3	5778 ± 16
A_{100}^{dust}	0.988	1.00 ± 0.19	D_{2000}	229.01	228.9 ± 1.8	$f\sigma_8(0.15)$	0.4618	0.462 ± 0.012
A_{143}^{power}	12.31	$10.4_{-2.5}^{+2.1}$	$n_{s,0.002}$	0.9623	0.9624 ± 0.0058	$\sigma_8(0.15)$	0.7476	0.7477 ± 0.0075
A_{217}^{power}	11.80	$8.2_{-2.9}^{+1.7}$	Y_{P}	0.245277	$0.24528_{-0.000087}^{+0.00011}$	$f\sigma_8(0.38)$	0.4783	0.4783 ± 0.0095
$A_{143 \times 217}^{\text{power}}$	8.03	$4.3_{-2.9}^{+1.7}$	$Y_{\text{P}}^{\text{BBN}}$	0.246603	$0.24660_{-0.000087}^{+0.00011}$	$\sigma_8(0.38)$	0.6618	0.6619 ± 0.0061
$\gamma_{143}^{\text{power}}$	1.325	$1.34_{-0.55}^{+0.40}$	$10^5 D/H$	2.6404	2.637 ± 0.042	$f\sigma_8(0.51)$	0.4760	0.4759 ± 0.0082
$\gamma_{217}^{\text{power}}$	1.23	$1.37_{-0.61}^{+0.73}$	Age/Gyr	13.8314	13.830 ± 0.036	$\sigma_8(0.51)$	0.6190	0.6190 ± 0.0055
$\gamma_{143 \times 217}^{\text{power}}$	1.17	1.33 ± 0.59	z_*	1090.327	1090.30 ± 0.40	$f\sigma_8(0.61)$	0.4703	0.4703 ± 0.0073
c_{100}	0.99810	0.9978 ± 0.0011	r_*	144.534	144.53 ± 0.47	$\sigma_8(0.61)$	0.5888	0.5888 ± 0.0051
c_{217}	0.99914	$0.9994_{-0.0017}^{+0.0013}$	$100\theta_*$	1.041028	1.04100 ± 0.00046	$f\sigma_8(2.33)$	0.29654	0.2966 ± 0.0025
H_0	66.93	66.95 ± 0.91	$D_M(z_*)/\text{Gpc}$	13.8838	13.884 ± 0.044	$\sigma_8(2.33)$	0.30537	0.3054 ± 0.0027
Ω_Λ	0.6803	$0.680_{-0.012}^{+0.013}$	z_{drag}	1059.284	1059.34 ± 0.45	f_{2000}^{143}	23.77	24 ± 3
Ω_m	0.3197	$0.320_{-0.013}^{+0.012}$	r_{drag}	147.295	147.28 ± 0.47	f_{2000}^{217}	17.10	16.9 ± 2.0
$\Omega_m h^2$	0.14318	0.1432 ± 0.0020	k_D	0.14043	0.14046 ± 0.00052	$f_{2000}^{143 \times 217}$	11.55	11.2 ± 2.2
$\Omega_m h^3$	0.095823	0.09584 ± 0.00045	$100\theta_D$	0.161130	0.16111 ± 0.00026	χ_{small}^2	395.79	396.9 ± 1.7
σ_8	0.8099	0.8100 ± 0.0090	z_{eq}	3406.1	3406 ± 47	χ_{lowl}^2	23.70	23.8 ± 1.3
S_8	0.8360	0.836 ± 0.024	k_{eq}	0.010396	0.01040 ± 0.00014	χ_{CamSpec}^2	6704.43	6716.2 ± 5.2
$\sigma_8 \Omega_m^{0.5}$	0.4579	0.458 ± 0.013	$100\theta_{\text{eq}}$	0.8117	0.8119 ± 0.0088	χ_{prior}^2	1.19	5.3 ± 2.9
$\sigma_8 \Omega_m^{0.25}$	0.6090	0.609 ± 0.012	$100\theta_{s,\text{eq}}$	0.44878	0.4488 ± 0.0045	χ_{CMB}^2	7123.92	7137.0 ± 5.2

Best-fit $\chi_{\text{eff}}^2 = 7125.11$; $\bar{\chi}_{\text{eff}}^2 = 7142.20$; $R - 1 = 0.00552$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.79 commander_dx12_v3.2_29: 23.70 CamSpec like_10.7cleaned: 6704.43

2.146 base_lensing_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022210	0.02220 ± 0.00049	D_{810}	2788	2628^{+400}_{-500}	$H(0.38)$	107.7	84^{+10}_{-20}
$\Omega_c h^2$	0.1163	$0.111^{+0.010}_{-0.013}$	D_{1420}	756	819^{+100}_{-200}	$D_M(0.38)$	1121	1585^{+200}_{-500}
$100\theta_{MC}$	1.118	$1.032^{+0.077}_{-0.055}$	D_{2000}	215	264^{+40}_{-60}	$H(0.51)$	112.9	$90.0^{+9.9}_{-20}$
$\ln(10^{10} A_s)$	3.262	3.13 ± 0.13	$n_{s,0.002}$	0.9607	0.960 ± 0.020	$D_M(0.51)$	1475	2047^{+200}_{-600}
n_s	0.9607	0.960 ± 0.020	Y_P	0.245330	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	117.3	$95.4^{+9.8}_{-19}$
H_0	96.6	—	Y_P^{BBN}	0.246656	$0.24664^{+0.00022}_{-0.00020}$	$D_M(0.61)$	1736	2378^{+300}_{-700}
Ω_Λ	0.851	$0.657^{+0.21}_{-0.063}$	$10^5 D/H$	2.616	2.621 ± 0.093	$H(2.33)$	243.6	230^{+11}_{-13}
Ω_m	0.149	$0.343^{+0.063}_{-0.21}$	Age/Gyr	11.74	$14.2^{+1.2}_{-2.5}$	$D_M(2.33)$	4847	5909^{+530}_{-1100}
$\Omega_m h^2$	0.1391	$0.134^{+0.010}_{-0.013}$	z_*	1089.79	$1089.4^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	0.3739	$0.439^{+0.054}_{-0.041}$
$\Omega_m h^3$	0.1344	$0.093^{+0.020}_{-0.039}$	r_*	145.53	147.0 ± 3.2	$\sigma_8(0.15)$	0.890	$0.741^{+0.15}_{-0.080}$
σ_8	0.939	$0.800^{+0.14}_{-0.077}$	$100\theta_*$	1.118	$1.032^{+0.077}_{-0.055}$	$f\sigma_8(0.38)$	0.4315	$0.453^{+0.020}_{-0.017}$
S_8	0.662	$0.804^{+0.088}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	13.01	$14.29^{+0.93}_{-1.2}$	$\sigma_8(0.38)$	0.817	$0.659^{+0.16}_{-0.082}$
$\sigma_8 \Omega_m^{0.5}$	0.362	$0.440^{+0.048}_{-0.075}$	z_{drag}	1059.28	1058.9 ± 1.5	$f\sigma_8(0.51)$	0.4535	$0.453^{+0.025}_{-0.017}$
$\sigma_8 \Omega_m^{0.25}$	0.5834	0.589 ± 0.020	r_{drag}	148.27	149.8 ± 3.3	$\sigma_8(0.51)$	0.777	$0.619^{+0.16}_{-0.082}$
$\sigma_8/h^{0.5}$	0.9553	$0.974^{+0.023}_{-0.020}$	k_D	0.13951	$0.1380^{+0.0033}_{-0.0037}$	$f\sigma_8(0.61)$	0.4655	$0.449^{+0.035}_{-0.018}$
$r_{\text{drag}} h$	143.3	103^{+20}_{-40}	$100\theta_D$	0.1731	$0.160^{+0.012}_{-0.0081}$	$\sigma_8(0.61)$	0.748	$0.590^{+0.16}_{-0.082}$
$\langle d^2 \rangle^{1/2}$	2.492	2.504 ± 0.054	z_{eq}	3309	3189^{+240}_{-310}	$f\sigma_8(2.33)$	0.388	$0.299^{+0.087}_{-0.046}$
z_{re}	7.890	7.63 ± 0.29	k_{eq}	0.01010	$0.00973^{+0.00074}_{-0.00093}$	$\sigma_8(2.33)$	0.419	0.312 ± 0.069
$10^9 A_s$	2.610	$2.32^{+0.27}_{-0.34}$	$100\theta_{\text{eq}}$	0.8916	0.849 ± 0.048	χ^2_{lensing}	7.49	9.6 ± 2.0
$10^9 A_s e^{-2\tau}$	2.338	$2.07^{+0.25}_{-0.31}$	$100\theta_{s,\text{eq}}$	0.4922	0.468 ± 0.026	χ^2_{prior}	0.00	2.0 ± 2.0
D_{40}	1641	1400^{+200}_{-200}	$H(0.15)$	100.3	74 ± 20			
D_{220}	7133	6564^{+900}_{-1000}	$D_M(0.15)$	457	670^{+90}_{-200}			

Best-fit $\chi^2_{\text{eff}} = 7.49$; $\bar{\chi}^2_{\text{eff}} = 11.58$; $R - 1 = 0.00149$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.49

2.147 base_lensing_lenspriors_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022201	0.02221 ± 0.00049	D_{810}	2815	2748^{+300}_{-240}	$H(0.38)$	81.05	$81.9^{+3.7}_{-4.4}$
$\Omega_c h^2$	0.1091	$0.1115^{+0.0096}_{-0.013}$	D_{1420}	892	866^{+95}_{-67}	$D_M(0.38)$	1561	1547 ± 84
$100\theta_{MC}$	1.0266	1.031 ± 0.023	D_{2000}	253.0	253^{+25}_{-37}	$H(0.51)$	87.43	$88.4^{+3.9}_{-4.6}$
$\ln(10^{10} A_s)$	3.147	3.130 ± 0.098	$n_{s,0.002}$	0.9609	0.959 ± 0.021	$D_M(0.51)$	2024	2007 ± 110
n_s	0.9609	0.959 ± 0.021	Y_P	0.245326	$0.24532^{+0.00022}_{-0.00019}$	$H(0.61)$	92.78	$93.7^{+4.0}_{-4.8}$
H_0	66.48	$67.3^{+3.5}_{-4.2}$	Y_P^{BBN}	0.246652	$0.24664^{+0.00022}_{-0.00019}$	$D_M(0.61)$	2357	2337 ± 120
Ω_Λ	0.7016	0.702 ± 0.022	$10^5 D/H$	2.618	2.619 ± 0.092	$H(2.33)$	227.7	$229.7^{+8.7}_{-11}$
Ω_m	0.2984	0.298 ± 0.022	Age/Gyr	14.19	14.09 ± 0.65	$D_M(2.33)$	5928	5881 ± 270
$\Omega_m h^2$	0.1319	$0.1344^{+0.0096}_{-0.013}$	z_*	1089.15	$1089.4^{+1.0}_{-1.3}$	$f\sigma_8(0.15)$	0.4428	0.443 ± 0.015
$\Omega_m h^3$	0.0877	$0.0908^{+0.0098}_{-0.014}$	r_*	147.49	$146.9^{+3.3}_{-2.9}$	$\sigma_8(0.15)$	0.7408	0.744 ± 0.028
σ_8	0.8003	0.804 ± 0.029	$100\theta_*$	1.0268	1.031 ± 0.023	$f\sigma_8(0.38)$	0.4638	0.465 ± 0.015
S_8	0.7982	0.799 ± 0.029	$D_M(z_*)/\text{Gpc}$	14.36	14.26 ± 0.61	$\sigma_8(0.38)$	0.6581	0.661 ± 0.027
$\sigma_8 \Omega_m^{0.5}$	0.4372	0.438 ± 0.016	z_{drag}	1058.75	1058.9 ± 1.5	$f\sigma_8(0.51)$	0.4640	0.465 ± 0.015
$\sigma_8 \Omega_m^{0.25}$	0.5915	0.593 ± 0.019	r_{drag}	150.28	$149.7^{+3.4}_{-3.1}$	$\sigma_8(0.51)$	0.6165	0.619 ± 0.026
$\sigma_8/h^{0.5}$	0.9815	0.980 ± 0.019	k_D	0.13743	$0.1381^{+0.0031}_{-0.0036}$	$f\sigma_8(0.61)$	0.4601	0.461 ± 0.015
$r_{\text{drag}} h$	99.91	$100.6^{+4.1}_{-4.6}$	$100\theta_D$	0.15915	0.1598 ± 0.0033	$\sigma_8(0.61)$	0.5870	0.590 ± 0.025
$\langle d^2 \rangle^{1/2}$	2.508	2.502 ± 0.054	z_{eq}	3136	3196^{+230}_{-300}	$f\sigma_8(2.33)$	0.2966	0.298 ± 0.013
z_{re}	7.582	$7.63^{+0.23}_{-0.27}$	k_{eq}	0.00957	$0.00975^{+0.00070}_{-0.00092}$	$\sigma_8(2.33)$	0.3063	0.308 ± 0.014
$10^9 A_s$	2.326	$2.30^{+0.21}_{-0.24}$	$100\theta_{\text{eq}}$	0.8521	0.847 ± 0.037	χ^2_{lensing}	7.59	9.6 ± 2.0
$10^9 A_s e^{-2\tau}$	2.084	$2.06^{+0.19}_{-0.21}$	$100\theta_{s,\text{eq}}$	0.4693	0.467 ± 0.019	χ^2_{JLA}	1034.73	1035.7 ± 1.4
D_{40}	1400	1387^{+130}_{-140}	$H(0.15)$	71.47	$72.3^{+3.6}_{-4.2}$	χ^2_{prior}	0.00	2.0 ± 2.0
D_{220}	6666	6566^{+800}_{-1000}	$D_M(0.15)$	653.0	647 ± 37			

Best-fit $\chi^2_{\text{eff}} = 1042.33$; $\bar{\chi}^2_{\text{eff}} = 1047.30$; $R - 1 = 0.00566$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.59 SN - JLA Pantheon18: 1034.73

2.148 base_lensing_lenspriors_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00049	D_{810}	2732^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_c h^2$	$0.1070^{+0.0090}_{-0.011}$	D_{1420}	854^{+100}_{-100}	$D_M(0.38)$	1572^{+200}_{-500}
$100\theta_{MC}$	$1.030^{+0.080}_{-0.050}$	D_{2000}	276^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10} A_s)$	3.17 ± 0.13	$n_{s,0.002}$	0.959 ± 0.020	$D_M(0.51)$	2033^{+230}_{-590}
n_s	0.959 ± 0.020	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$H(0.61)$	95 ± 10
H_0	—	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2364^{+260}_{-670}
Ω_Λ	$0.678^{+0.19}_{-0.054}$	$10^5 D/H$	$2.623^{+0.088}_{-0.097}$	$H(2.33)$	227^{+11}_{-12}
Ω_m	$0.322^{+0.054}_{-0.19}$	Age/Gyr	$14.2^{+1.2}_{-2.5}$	$D_M(2.33)$	5925^{+520}_{-1100}
$\Omega_m h^2$	$0.1298^{+0.0090}_{-0.011}$	z_*	$1089.0^{+1.0}_{-1.1}$	$f\sigma_8(0.15)$	$0.426^{+0.051}_{-0.043}$
$\Omega_m h^3$	$0.091^{+0.021}_{-0.037}$	r_*	148.2 ± 2.9	$\sigma_8(0.15)$	$0.739^{+0.14}_{-0.073}$
σ_8	$0.796^{+0.13}_{-0.070}$	$100\theta_*$	$1.030^{+0.080}_{-0.050}$	$f\sigma_8(0.38)$	$0.444^{+0.019}_{-0.014}$
S_8	$0.777^{+0.076}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	$14.44^{+0.88}_{-1.3}$	$\sigma_8(0.38)$	$0.659^{+0.15}_{-0.076}$
$\sigma_8 \Omega_m^{0.5}$	$0.425^{+0.042}_{-0.072}$	z_{drag}	1058.5 ± 1.4	$f\sigma_8(0.51)$	$0.445^{+0.022}_{-0.013}$
$\sigma_8 \Omega_m^{0.25}$	0.578 ± 0.016	r_{drag}	151.0 ± 3.0	$\sigma_8(0.51)$	$0.619^{+0.15}_{-0.076}$
$\sigma_8/h^{0.5}$	$0.963^{+0.021}_{-0.018}$	k_D	$0.1367^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.443^{+0.031}_{-0.013}$
$r_{\text{drag}} h$	105 ± 30	$100\theta_D$	$0.160^{+0.012}_{-0.0074}$	$\sigma_8(0.61)$	$0.591^{+0.15}_{-0.076}$
$\langle d^2 \rangle^{1/2}$	2.510 ± 0.053	z_{eq}	3086^{+220}_{-260}	$f\sigma_8(2.33)$	$0.300^{+0.085}_{-0.043}$
z_{re}	7.56 ± 0.28	k_{eq}	$0.00942^{+0.00066}_{-0.00080}$	$\sigma_8(2.33)$	$0.314^{+0.10}_{-0.055}$
$10^9 A_s$	$2.40^{+0.27}_{-0.33}$	$100\theta_{\text{eq}}$	0.867 ± 0.044	χ^2_{lensing}	11.9 ± 2.0
$10^9 A_s e^{-2\tau}$	$2.15^{+0.24}_{-0.30}$	$100\theta_{s,\text{eq}}$	0.477 ± 0.024	χ^2_{prior}	2.0 ± 2.0
D_{40}	1464^{+200}_{-200}	$H(0.15)$	75 ± 20		
D_{220}	6917^{+900}_{-1000}	$D_M(0.15)$	663^{+80}_{-200}		

$\bar{\chi}^2_{\text{eff}} = 13.89$; $R - 1 = 0.00196$

2.149 base_lensing_lenspriors_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049	D_{810}	2642^{+400}_{-600}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.111^{+0.011}_{-0.015}$	D_{1420}	825^{+100}_{-200}	$D_{\mathrm{M}}(0.38)$	1584^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.032^{+0.075}_{-0.057}$	D_{2000}	267^{+40}_{-70}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.14 ± 0.15	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	2046^{+200}_{-600}
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	95 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2377^{+300}_{-700}
Ω_{Λ}	$0.659^{+0.21}_{-0.063}$	$10^5\mathrm{D}/\mathrm{H}$	2.622 ± 0.094	$H(2.33)$	230^{+13}_{-14}
Ω_{m}	$0.341^{+0.063}_{-0.21}$	Age/Gyr	$14.2^{+1.3}_{-2.6}$	$D_{\mathrm{M}}(2.33)$	5912^{+540}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.134^{+0.011}_{-0.015}$	z_*	$1089.3^{+1.2}_{-1.4}$	$f\sigma_8(0.15)$	$0.438^{+0.053}_{-0.042}$
$\Omega_{\mathrm{m}}h^3$	$0.093^{+0.020}_{-0.039}$	r_*	147.1 ± 3.6	$\sigma_8(0.15)$	$0.741^{+0.15}_{-0.081}$
σ_8	$0.800^{+0.14}_{-0.078}$	$100\theta_*$	$1.032^{+0.075}_{-0.057}$	$f\sigma_8(0.38)$	$0.453^{+0.021}_{-0.019}$
S_8	$0.802^{+0.089}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.31^{+0.97}_{-1.3}$	$\sigma_8(0.38)$	$0.659^{+0.16}_{-0.083}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.439^{+0.049}_{-0.074}$	z_{drag}	1058.8 ± 1.6	$f\sigma_8(0.51)$	$0.452^{+0.025}_{-0.019}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.588 ± 0.021	r_{drag}	149.9 ± 3.8	$\sigma_8(0.51)$	$0.619^{+0.16}_{-0.083}$
$\sigma_8/h^{0.5}$	$0.973^{+0.023}_{-0.019}$	k_{D}	$0.1379^{+0.0037}_{-0.0042}$	$f\sigma_8(0.61)$	$0.449^{+0.035}_{-0.020}$
$r_{\mathrm{drag}}h$	103^{+20}_{-40}	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0083}$	$\sigma_8(0.61)$	$0.590^{+0.16}_{-0.084}$
$\langle d^2 \rangle^{1/2}$	2.508 ± 0.066	z_{eq}	3183^{+270}_{-350}	$f\sigma_8(2.33)$	$0.299^{+0.087}_{-0.049}$
z_{re}	7.62 ± 0.32	k_{eq}	$0.00971^{+0.00083}_{-0.0011}$	$\sigma_8(2.33)$	0.312 ± 0.069
10^9A_{s}	$2.33^{+0.30}_{-0.39}$	$100\theta_{\mathrm{eq}}$	0.851 ± 0.053	$\chi^2_{\mathrm{lensing}}$	9.6 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.09^{+0.26}_{-0.35}$	$100\theta_{\mathrm{s,eq}}$	0.469 ± 0.028	χ^2_{prior}	2.0 ± 2.0
D_{40}	1413^{+200}_{-300}	$H(0.15)$	74 ± 20		
D_{220}	6635^{+1000}_{-1000}	$D_{\mathrm{M}}(0.15)$	670^{+80}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 11.55; R - 1 = 0.00268$$

2.150 base_lensing_lenspriors_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049	D_{810}	2593^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.113^{+0.010}_{-0.013}$	D_{1420}	806^{+100}_{-200}	$D_{\mathrm{M}}(0.38)$	1585^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.034^{+0.077}_{-0.063}$	D_{2000}	259^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.12 ± 0.14	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	2047^{+200}_{-600}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	96 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2377^{+300}_{-700}
Ω_{Λ}	$0.653^{+0.21}_{-0.063}$	$10^5\mathrm{D}/\mathrm{H}$	2.622 ± 0.094	$H(2.33)$	231^{+12}_{-13}
Ω_{m}	$0.347^{+0.063}_{-0.21}$	Age/Gyr	$14.1^{+1.2}_{-2.6}$	$D_{\mathrm{M}}(2.33)$	5896^{+520}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.135^{+0.010}_{-0.013}$	z_*	$1089.5^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.441^{+0.054}_{-0.040}$
$\Omega_{\mathrm{m}}h^3$	$0.094^{+0.020}_{-0.039}$	r_*	146.7 ± 3.2	$\sigma_8(0.15)$	$0.741^{+0.15}_{-0.079}$
σ_8	$0.801^{+0.14}_{-0.077}$	$100\theta_*$	$1.034^{+0.077}_{-0.063}$	$f\sigma_8(0.38)$	$0.455^{+0.020}_{-0.018}$
S_8	$0.810^{+0.088}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.24^{+0.93}_{-1.2}$	$\sigma_8(0.38)$	$0.659^{+0.16}_{-0.081}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.443^{+0.048}_{-0.075}$	z_{drag}	1059.0 ± 1.5	$f\sigma_8(0.51)$	$0.454^{+0.026}_{-0.017}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.591 ± 0.019	r_{drag}	149.4 ± 3.3	$\sigma_8(0.51)$	$0.619^{+0.16}_{-0.082}$
$\sigma_8/h^{0.5}$	$0.976^{+0.022}_{-0.019}$	k_{D}	$0.1383^{+0.0033}_{-0.0038}$	$f\sigma_8(0.61)$	$0.451^{+0.036}_{-0.018}$
$r_{\mathrm{drag}}h$	102 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0081}$	$\sigma_8(0.61)$	$0.590^{+0.16}_{-0.081}$
$\langle d^2 \rangle^{1/2}$	2.500 ± 0.055	z_{eq}	3220^{+250}_{-310}	$f\sigma_8(2.33)$	$0.299^{+0.089}_{-0.046}$
z_{re}	7.66 ± 0.30	k_{eq}	$0.00983^{+0.00075}_{-0.00095}$	$\sigma_8(2.33)$	0.311 ± 0.069
10^9A_{s}	$2.29^{+0.28}_{-0.34}$	$100\theta_{\mathrm{eq}}$	0.844 ± 0.048	$\chi^2_{\mathrm{lensing}}$	7.5 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.05^{+0.25}_{-0.31}$	$100\theta_{\mathrm{s,eq}}$	0.465 ± 0.026	χ^2_{prior}	2.0 ± 2.0
D_{40}	1381^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6452^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	671^{+80}_{-200}		

$\bar{\chi}^2_{\mathrm{eff}} = 9.48$; $R - 1 = 0.00229$

2.151 base_lensing_lenspriors_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02218 ± 0.00051	D_{s10}	3025 ± 500	$H(0.38)$	82^{+10}_{-20}
$\Omega_{\mathrm{c}}h^2$	$0.099^{+0.010}_{-0.012}$	D_{1420}	964 ± 200	$D_{\mathrm{M}}(0.38)$	1600^{+300}_{-500}
$100\theta_{\mathrm{MC}}$	1.017 ± 0.058	D_{2000}	324^{+40}_{-90}	$H(0.51)$	88^{+10}_{-20}
$\ln(10^{10}A_{\mathrm{s}})$	$3.27^{+0.16}_{-0.12}$	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	2071^{+400}_{-600}
n_{s}	0.960 ± 0.020	Y_{P}	$0.24530^{+0.00023}_{-0.00020}$	$H(0.61)$	93^{+10}_{-20}
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00021}$	$D_{\mathrm{M}}(0.61)$	2410^{+500}_{-600}
Ω_{Λ}	$0.689^{+0.18}_{-0.069}$	$10^5\mathrm{D}/\mathrm{H}$	2.625 ± 0.098	$H(2.33)$	221 ± 12
Ω_{m}	$0.311^{+0.069}_{-0.18}$	Age/Gyr	$14.6^{+2.0}_{-2.3}$	$D_{\mathrm{M}}(2.33)$	6070^{+900}_{-1000}
$\Omega_{\mathrm{m}}h^2$	$0.122^{+0.010}_{-0.012}$	z_{*}	1088.3 ± 1.2	$f\sigma_{\mathrm{s}}(0.15)$	0.419 ± 0.044
$\Omega_{\mathrm{m}}h^3$	$0.084^{+0.020}_{-0.033}$	r_{*}	150.4 ± 3.4	$\sigma_{\mathrm{s}}(0.15)$	$0.737^{+0.11}_{-0.098}$
σ_{s}	$0.794^{+0.11}_{-0.093}$	$100\theta_{*}$	1.017 ± 0.058	$f\sigma_{\mathrm{s}}(0.38)$	$0.440^{+0.023}_{-0.018}$
S_{s}	$0.763^{+0.086}_{-0.12}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.8^{+1.1}_{-1.3}$	$\sigma_{\mathrm{s}}(0.38)$	$0.66^{+0.12}_{-0.10}$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	$0.418^{+0.047}_{-0.067}$	z_{drag}	1057.9 ± 1.6	$f\sigma_{\mathrm{s}}(0.51)$	0.442 ± 0.020
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.572 ± 0.022	r_{drag}	153.3 ± 3.5	$\sigma_{\mathrm{s}}(0.51)$	$0.62^{+0.12}_{-0.10}$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.968^{+0.028}_{-0.022}$	k_{D}	0.1344 ± 0.0036	$f\sigma_{\mathrm{s}}(0.61)$	$0.440^{+0.028}_{-0.021}$
$r_{\mathrm{drag}}h$	105^{+20}_{-30}	$100\theta_{\mathrm{D}}$	0.1581 ± 0.0088	$\sigma_{\mathrm{s}}(0.61)$	0.59 ± 0.10
$\langle d^2 \rangle^{1/2}$	2.584 ± 0.066	z_{eq}	2904^{+250}_{-290}	$f\sigma_{\mathrm{s}}(2.33)$	0.301 ± 0.057
z_{re}	7.40 ± 0.30	k_{eq}	$0.00886^{+0.00076}_{-0.00088}$	$\sigma_{\mathrm{s}}(2.33)$	0.315 ± 0.067
10^9A_{s}	2.65 ± 0.36	$100\theta_{\mathrm{eq}}$	0.898 ± 0.051	$\chi^2_{\mathrm{lensing}}$	11.0 ± 1.9
$10^9A_{\mathrm{s}}e^{-2\tau}$	2.38 ± 0.32	$100\theta_{\mathrm{s,eq}}$	0.493 ± 0.027	χ^2_{prior}	2.0 ± 2.1
D_{40}	1645 ± 300	$H(0.15)$	73^{+10}_{-20}		
D_{220}	7958 ± 1000	$D_{\mathrm{M}}(0.15)$	673^{+200}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 13.04; R - 1 = 0.02912$$

2.152 base_lensing_lenspriors_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00049	D_{810}	2552^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_c h^2$	$0.113^{+0.010}_{-0.013}$	D_{1420}	793^{+100}_{-100}	$D_M(0.38)$	1582^{+200}_{-500}
$100\theta_{MC}$	$1.034^{+0.076}_{-0.062}$	D_{2000}	254^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10} A_s)$	3.11 ± 0.13	$n_{s,0.002}$	0.959 ± 0.020	$D_M(0.51)$	2043^{+200}_{-600}
n_s	0.959 ± 0.020	Y_P	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	96 ± 10
H_0	—	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00019}$	$D_M(0.61)$	2372^{+300}_{-700}
Ω_Λ	$0.655^{+0.21}_{-0.062}$	$10^5 D/H$	$2.623^{+0.086}_{-0.097}$	$H(2.33)$	231^{+12}_{-13}
Ω_m	$0.345^{+0.062}_{-0.21}$	Age/Gyr	$14.1^{+1.2}_{-2.5}$	$D_M(2.33)$	5890^{+530}_{-1100}
$\Omega_m h^2$	$0.135^{+0.010}_{-0.013}$	z_*	$1089.5^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.437^{+0.053}_{-0.041}$
$\Omega_m h^3$	$0.094^{+0.021}_{-0.039}$	r_*	146.7 ± 3.3	$\sigma_8(0.15)$	$0.736^{+0.15}_{-0.079}$
σ_8	$0.795^{+0.14}_{-0.077}$	$100\theta_*$	$1.034^{+0.076}_{-0.062}$	$f\sigma_8(0.38)$	$0.451^{+0.020}_{-0.018}$
S_8	$0.801^{+0.086}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$14.24^{+0.93}_{-1.2}$	$\sigma_8(0.38)$	$0.655^{+0.16}_{-0.081}$
$\sigma_8 \Omega_m^{0.5}$	$0.439^{+0.047}_{-0.075}$	z_{drag}	1058.9 ± 1.5	$f\sigma_8(0.51)$	$0.450^{+0.025}_{-0.017}$
$\sigma_8 \Omega_m^{0.25}$	0.586 ± 0.020	r_{drag}	149.5 ± 3.4	$\sigma_8(0.51)$	$0.614^{+0.16}_{-0.081}$
$\sigma_8/h^{0.5}$	$0.967^{+0.022}_{-0.019}$	k_D	$0.1383^{+0.0033}_{-0.0038}$	$f\sigma_8(0.61)$	$0.447^{+0.035}_{-0.018}$
$r_{\text{drag}} h$	103 ± 30	$100\theta_D$	$0.160^{+0.012}_{-0.0089}$	$\sigma_8(0.61)$	$0.586^{+0.16}_{-0.081}$
$\langle d^2 \rangle^{1/2}$	2.478 ± 0.052	z_{eq}	3219^{+250}_{-310}	$f\sigma_8(2.33)$	$0.297^{+0.087}_{-0.046}$
z_{re}	7.66 ± 0.30	k_{eq}	$0.00982^{+0.00076}_{-0.00096}$	$\sigma_8(2.33)$	0.309 ± 0.068
$10^9 A_s$	$2.25^{+0.27}_{-0.33}$	$100\theta_{\text{eq}}$	0.844 ± 0.049	χ^2_{lensing}	9.8 ± 2.0
$10^9 A_s e^{-2\tau}$	$2.02^{+0.24}_{-0.30}$	$100\theta_{s,\text{eq}}$	0.465 ± 0.026	χ^2_{prior}	1.9 ± 1.9
D_{40}	1359^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6347^{+900}_{-1000}	$D_M(0.15)$	669^{+80}_{-200}		

$$\bar{\chi}^2_{\text{eff}} = 11.76; R - 1 = 0.00271$$

2.153 base_lensing_lenspriors_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02218 ± 0.00049	D_{810}	2653^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.1082^{+0.0091}_{-0.011}$	D_{1420}	828^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1570^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.032^{+0.078}_{-0.050}$	D_{2000}	266^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.14 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	2030^{+230}_{-590}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24530^{+0.00023}_{-0.00019}$	$H(0.61)$	96 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2360^{+260}_{-660}
Ω_{Λ}	$0.675^{+0.19}_{-0.078}$	$10^5\mathrm{D}/\mathrm{H}$	$2.625^{+0.086}_{-0.099}$	$H(2.33)$	228 ± 11
Ω_{m}	$0.325^{+0.055}_{-0.19}$	$\mathrm{Age}/\mathrm{Gyr}$	$14.2^{+1.2}_{-2.5}$	$D_{\mathrm{M}}(2.33)$	5907^{+520}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.1311^{+0.0091}_{-0.011}$	z_{*}	$1089.1^{+1.0}_{-1.2}$	$f\sigma_8(0.15)$	$0.425^{+0.049}_{-0.042}$
$\Omega_{\mathrm{m}}h^3$	$0.092^{+0.022}_{-0.037}$	r_{*}	147.8 ± 2.9	$\sigma_8(0.15)$	$0.734^{+0.14}_{-0.074}$
σ_8	$0.791^{+0.13}_{-0.071}$	$100\theta_{*}$	$1.032^{+0.078}_{-0.050}$	$f\sigma_8(0.38)$	$0.442^{+0.019}_{-0.014}$
S_8	$0.775^{+0.077}_{-0.13}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.38^{+0.87}_{-1.2}$	$\sigma_8(0.38)$	$0.655^{+0.15}_{-0.076}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.424^{+0.042}_{-0.071}$	z_{drag}	1058.6 ± 1.4	$f\sigma_8(0.51)$	$0.443^{+0.022}_{-0.014}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.575 ± 0.016	r_{drag}	150.6 ± 3.0	$\sigma_8(0.51)$	$0.615^{+0.15}_{-0.077}$
$\sigma_8/h^{0.5}$	$0.957^{+0.021}_{-0.017}$	k_{D}	$0.1371^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.441^{+0.031}_{-0.013}$
$r_{\mathrm{drag}}h$	105 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0075}$	$\sigma_8(0.61)$	$0.587^{+0.15}_{-0.077}$
$\langle d^2 \rangle^{1/2}$	2.484 ± 0.050	z_{eq}	3117^{+220}_{-270}	$f\sigma_8(2.33)$	$0.298^{+0.083}_{-0.043}$
z_{re}	7.58 ± 0.28	k_{eq}	$0.00951^{+0.00067}_{-0.00082}$	$\sigma_8(2.33)$	$0.311^{+0.096}_{-0.055}$
10^9A_{s}	$2.33^{+0.26}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.862 ± 0.044	$\chi^2_{\mathrm{lensing}}$	12.1 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.08^{+0.23}_{-0.29}$	$100\theta_{\mathrm{s,eq}}$	0.475 ± 0.024	χ^2_{prior}	2.0 ± 1.9
D_{40}	1420^{+200}_{-200}	$H(0.15)$	75 ± 20		
D_{220}	6682^{+800}_{-1000}	$D_{\mathrm{M}}(0.15)$	662^{+80}_{-200}		

$\bar{\chi}^2_{\mathrm{eff}} = 14.06$; $R - 1 = 0.00285$

2.154 base_lensing_lenspriors_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00049	D_{810}	2557^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.115^{+0.011}_{-0.013}$	D_{1420}	793^{+100}_{-200}	$D_{\mathrm{M}}(0.38)$	1582^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.036^{+0.076}_{-0.054}$	D_{2000}	252^{+40}_{-60}	$H(0.51)$	91 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.11 ± 0.14	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	2041^{+200}_{-600}
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	96 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2370^{+300}_{-700}
Ω_{Λ}	$0.647^{+0.22}_{-0.065}$	$10^5\mathrm{D}/\mathrm{H}$	2.621 ± 0.094	$H(2.33)$	233^{+12}_{-13}
Ω_{m}	$0.353^{+0.065}_{-0.22}$	Age/Gyr	$14.1^{+1.2}_{-2.5}$	$D_{\mathrm{M}}(2.33)$	5866^{+520}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.138^{+0.011}_{-0.013}$	z_*	$1089.7^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.447^{+0.057}_{-0.041}$
$\Omega_{\mathrm{m}}h^3$	$0.095^{+0.021}_{-0.039}$	r_*	146.0 ± 3.3	$\sigma_8(0.15)$	$0.745^{+0.15}_{-0.080}$
σ_8	$0.806^{+0.14}_{-0.077}$	$100\theta_*$	$1.036^{+0.076}_{-0.056}$	$f\sigma_8(0.38)$	$0.460^{+0.021}_{-0.018}$
S_8	$0.821^{+0.093}_{-0.14}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.15^{+0.92}_{-1.2}$	$\sigma_8(0.38)$	$0.662^{+0.16}_{-0.082}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.450^{+0.051}_{-0.077}$	z_{drag}	1059.1 ± 1.5	$f\sigma_8(0.51)$	$0.458^{+0.026}_{-0.018}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.597 ± 0.020	r_{drag}	148.8 ± 3.4	$\sigma_8(0.51)$	$0.621^{+0.16}_{-0.082}$
$\sigma_8/h^{0.5}$	$0.981^{+0.024}_{-0.020}$	k_{D}	0.1390 ± 0.0036	$f\sigma_8(0.61)$	$0.454^{+0.036}_{-0.018}$
$r_{\mathrm{drag}}h$	102 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0080}$	$\sigma_8(0.61)$	$0.592^{+0.16}_{-0.081}$
$\langle d^2 \rangle^{1/2}$	2.495 ± 0.055	z_{eq}	3274^{+260}_{-320}	$f\sigma_8(2.33)$	$0.300^{+0.088}_{-0.046}$
z_{re}	7.70 ± 0.29	k_{eq}	$0.00999^{+0.00078}_{-0.00097}$	$\sigma_8(2.33)$	0.312 ± 0.069
10^9A_{s}	$2.26^{+0.27}_{-0.34}$	$100\theta_{\mathrm{eq}}$	0.836 ± 0.050	$\chi^2_{\mathrm{lensing}}$	10.1 ± 1.9
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.02^{+0.24}_{-0.31}$	$100\theta_{\mathrm{s,eq}}$	0.461 ± 0.027	χ^2_{prior}	2.0 ± 2.0
D_{40}	1357^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6306^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	670^{+80}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 12.03; R - 1 = 0.00429$$

2.155 base_lensing_lenspriors_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{810}	2618^{+400}_{-500}	$H(0.38)$	83 ± 10
$\Omega_c h^2$	$0.1111^{+0.010}_{-0.013}$	D_{1420}	816^{+100}_{-200}	$D_M(0.38)$	1592^{+200}_{-500}
$100\theta_{MC}$	1.031 ± 0.059	D_{2000}	264^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10} A_s)$	3.13 ± 0.13	$n_{s,0.002}$	0.959 ± 0.020	$D_M(0.51)$	2055^{+200}_{-600}
n_s	0.959 ± 0.020	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$H(0.61)$	95 ± 10
H_0	—	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2387^{+300}_{-700}
Ω_Λ	$0.654^{+0.21}_{-0.063}$	$10^5 D/H$	2.622 ± 0.094	$H(2.33)$	230^{+12}_{-13}
Ω_m	$0.346^{+0.063}_{-0.21}$	Age/Gyr	$14.2^{+1.3}_{-2.6}$	$D_M(2.33)$	5923^{+600}_{-1100}
$\Omega_m h^2$	$0.134^{+0.010}_{-0.013}$	z_*	$1089.4^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.439^{+0.053}_{-0.041}$
$\Omega_m h^3$	$0.092^{+0.020}_{-0.039}$	r_*	147.0 ± 3.2	$\sigma_8(0.15)$	$0.738^{+0.15}_{-0.081}$
σ_8	$0.798^{+0.14}_{-0.079}$	$100\theta_*$	1.031 ± 0.059	$f\sigma_8(0.38)$	$0.453^{+0.020}_{-0.017}$
S_8	$0.805^{+0.088}_{-0.14}$	$D_M(z_*)/\text{Gpc}$	$14.31^{+0.95}_{-1.2}$	$\sigma_8(0.38)$	$0.657^{+0.16}_{-0.083}$
$\sigma_8 \Omega_m^{0.5}$	$0.441^{+0.048}_{-0.074}$	z_{drag}	1058.8 ± 1.5	$f\sigma_8(0.51)$	$0.452^{+0.025}_{-0.017}$
$\sigma_8 \Omega_m^{0.25}$	0.589 ± 0.019	r_{drag}	149.8 ± 3.3	$\sigma_8(0.51)$	$0.616^{+0.16}_{-0.083}$
$\sigma_8/h^{0.5}$	$0.973^{+0.022}_{-0.020}$	k_D	$0.1379^{+0.0033}_{-0.0037}$	$f\sigma_8(0.61)$	$0.448^{+0.036}_{-0.018}$
$r_{\text{drag}} h$	102 ± 30	$100\theta_D$	0.1599 ± 0.0089	$\sigma_8(0.61)$	$0.587^{+0.16}_{-0.083}$
$\langle d^2 \rangle^{1/2}$	2.504 ± 0.055	z_{eq}	3187^{+250}_{-310}	$f\sigma_8(2.33)$	$0.298^{+0.088}_{-0.046}$
z_{re}	7.63 ± 0.30	k_{eq}	$0.00973^{+0.00075}_{-0.00094}$	$\sigma_8(2.33)$	0.310 ± 0.069
$10^9 A_s$	$2.31^{+0.28}_{-0.34}$	$100\theta_{\text{eq}}$	0.848 ± 0.048	χ^2_{lensing}	9.6 ± 2.0
$10^9 A_s e^{-2\tau}$	$2.07^{+0.25}_{-0.31}$	$100\theta_{s,\text{eq}}$	0.467 ± 0.026	χ^2_{prior}	2.0 ± 2.0
D_{40}	1396^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6548^{+900}_{-1000}	$D_M(0.15)$	673^{+80}_{-200}		

$$\bar{\chi}^2_{\text{eff}} = 11.57; R - 1 = 0.00392$$

2.156 base_lensing_lenspriors_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02218 ± 0.00050	D_{810}	2731^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.1066^{+0.0090}_{-0.011}$	D_{1420}	855^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1579^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.029^{+0.078}_{-0.052}$	D_{2000}	277^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.17 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	2041^{+200}_{-600}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$	$H(0.61)$	95 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2373^{+260}_{-670}
Ω_{Λ}	$0.676^{+0.19}_{-0.070}$	$10^5\mathrm{D}/\mathrm{H}$	2.624 ± 0.095	$H(2.33)$	227 ± 11
Ω_{m}	$0.324^{+0.069}_{-0.19}$	Age/Gyr	$14.3^{+1.2}_{-2.5}$	$D_{\mathrm{M}}(2.33)$	5943^{+530}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.1294^{+0.0091}_{-0.011}$	z_*	$1088.9^{+1.0}_{-1.1}$	$f\sigma_8(0.15)$	$0.425^{+0.050}_{-0.041}$
$\Omega_{\mathrm{m}}h^3$	$0.090^{+0.021}_{-0.037}$	r_*	148.3 ± 2.9	$\sigma_8(0.15)$	$0.736^{+0.14}_{-0.075}$
σ_8	$0.793^{+0.13}_{-0.072}$	$100\theta_*$	$1.029^{+0.078}_{-0.051}$	$f\sigma_8(0.38)$	$0.443^{+0.018}_{-0.014}$
S_8	$0.776^{+0.076}_{-0.13}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.47^{+0.89}_{-1.3}$	$\sigma_8(0.38)$	$0.657^{+0.15}_{-0.077}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.425^{+0.042}_{-0.072}$	z_{drag}	1058.5 ± 1.4	$f\sigma_8(0.51)$	$0.445^{+0.022}_{-0.013}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.577 ± 0.016	r_{drag}	151.1 ± 3.0	$\sigma_8(0.51)$	$0.617^{+0.15}_{-0.078}$
$\sigma_8/h^{0.5}$	$0.962^{+0.021}_{-0.018}$	k_{D}	$0.1366^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.442^{+0.031}_{-0.014}$
$r_{\mathrm{drag}}h$	104 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0079}$	$\sigma_8(0.61)$	$0.589^{+0.15}_{-0.078}$
$\langle d^2 \rangle^{1/2}$	2.511 ± 0.053	z_{eq}	3077^{+220}_{-260}	$f\sigma_8(2.33)$	$0.299^{+0.085}_{-0.044}$
z_{re}	7.55 ± 0.28	k_{eq}	$0.00939^{+0.00066}_{-0.00080}$	$\sigma_8(2.33)$	$0.313^{+0.099}_{-0.057}$
10^9A_{s}	$2.40^{+0.27}_{-0.33}$	$100\theta_{\mathrm{eq}}$	0.868 ± 0.044	$\chi^2_{\mathrm{lensing}}$	12.0 ± 2.1
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.15^{+0.24}_{-0.30}$	$100\theta_{\mathrm{s,eq}}$	0.478 ± 0.023	χ^2_{prior}	2.0 ± 2.0
D_{40}	1466^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6931^{+800}_{-1000}	$D_{\mathrm{M}}(0.15)$	665^{+80}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 13.97; R - 1 = 0.00539$$

2.157 base_lensing_lenspriors_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049	D_{810}	2645^{+400}_{-500}	$H(0.38)$	83 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.1104^{+0.0099}_{-0.013}$	D_{1420}	825^{+100}_{-200}	$D_{\mathrm{M}}(0.38)$	1588^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.031^{+0.075}_{-0.056}$	D_{2000}	266^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.14 ± 0.13	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	2051^{+200}_{-600}
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	95 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2382^{+300}_{-700}
Ω_{Λ}	$0.658^{+0.21}_{-0.063}$	$10^5\mathrm{D}/\mathrm{H}$	2.622 ± 0.094	$H(2.33)$	230^{+11}_{-13}
Ω_{m}	$0.342^{+0.062}_{-0.21}$	Age/Gyr	$14.2^{+1.2}_{-2.6}$	$D_{\mathrm{M}}(2.33)$	5923^{+530}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.133^{+0.010}_{-0.013}$	z_{*}	$1089.3^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.437^{+0.055}_{-0.042}$
$\Omega_{\mathrm{m}}h^3$	$0.092^{+0.020}_{-0.038}$	r_{*}	147.3 ± 3.2	$\sigma_8(0.15)$	$0.738^{+0.15}_{-0.079}$
σ_8	$0.797^{+0.14}_{-0.076}$	$100\theta_{*}$	$1.031^{+0.075}_{-0.057}$	$f\sigma_8(0.38)$	$0.452^{+0.021}_{-0.018}$
S_8	$0.800^{+0.089}_{-0.14}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.34^{+0.94}_{-1.2}$	$\sigma_8(0.38)$	$0.657^{+0.16}_{-0.081}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.438^{+0.049}_{-0.076}$	z_{drag}	1058.8 ± 1.5	$f\sigma_8(0.51)$	$0.451^{+0.024}_{-0.018}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.587 ± 0.020	r_{drag}	150.0 ± 3.3	$\sigma_8(0.51)$	$0.617^{+0.16}_{-0.081}$
$\sigma_8/h^{0.5}$	$0.972^{+0.024}_{-0.020}$	k_{D}	$0.1377^{+0.0032}_{-0.0037}$	$f\sigma_8(0.61)$	$0.448^{+0.034}_{-0.018}$
$r_{\mathrm{drag}}h$	103 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0082}$	$\sigma_8(0.61)$	$0.588^{+0.16}_{-0.081}$
$\langle d^2 \rangle^{1/2}$	2.506 ± 0.054	z_{eq}	3168^{+240}_{-300}	$f\sigma_8(2.33)$	$0.298^{+0.087}_{-0.046}$
z_{re}	7.61 ± 0.29	k_{eq}	$0.00967^{+0.00073}_{-0.00093}$	$\sigma_8(2.33)$	0.311 ± 0.069
10^9A_{s}	$2.33^{+0.28}_{-0.35}$	$100\theta_{\mathrm{eq}}$	0.852 ± 0.049	$\chi^2_{\mathrm{lensing}}$	9.6 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.09^{+0.25}_{-0.31}$	$100\theta_{\mathrm{s,eq}}$	0.469 ± 0.026	χ^2_{prior}	2.0 ± 2.0
D_{40}	1410^{+200}_{-300}	$H(0.15)$	74 ± 20		
D_{220}	6626^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	671^{+80}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 11.52; R - 1 = 0.00192$$

2.158 base_lensing_lenspriors_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00050	D_{810}	2761 ± 500	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.1057^{+0.0088}_{-0.011}$	D_{1420}	865^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1572^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.029^{+0.079}_{-0.049}$	D_{2000}	280^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.18 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	2034^{+200}_{-600}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$	$H(0.61)$	95 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2365^{+260}_{-660}
Ω_{Λ}	$0.681^{+0.19}_{-0.054}$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.098}$	$H(2.33)$	226 ± 11
Ω_{m}	$0.319^{+0.054}_{-0.19}$	$\mathrm{Age}/\mathrm{Gyr}$	$14.3^{+1.2}_{-2.5}$	$D_{\mathrm{M}}(2.33)$	5937^{+510}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.1286^{+0.0088}_{-0.011}$	z_{*}	$1088.9^{+1.0}_{-1.1}$	$f\sigma_{\mathrm{s}}(0.15)$	$0.422^{+0.050}_{-0.044}$
$\Omega_{\mathrm{m}}h^3$	$0.090^{+0.024}_{-0.037}$	r_{*}	148.5 ± 2.8	$\sigma_{\mathrm{s}}(0.15)$	$0.737^{+0.14}_{-0.072}$
σ_{s}	$0.794^{+0.13}_{-0.070}$	$100\theta_{*}$	$1.029^{+0.079}_{-0.049}$	$f\sigma_{\mathrm{s}}(0.38)$	$0.441^{+0.020}_{-0.014}$
S_{s}	$0.770^{+0.078}_{-0.13}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.49^{+0.87}_{-1.3}$	$\sigma_{\mathrm{s}}(0.38)$	$0.658^{+0.15}_{-0.075}$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	$0.422^{+0.043}_{-0.073}$	z_{drag}	1058.4 ± 1.4	$f\sigma_{\mathrm{s}}(0.51)$	$0.443^{+0.021}_{-0.014}$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.574 ± 0.017	r_{drag}	151.3 ± 3.0	$\sigma_{\mathrm{s}}(0.51)$	$0.618^{+0.15}_{-0.076}$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.960^{+0.023}_{-0.019}$	k_{D}	0.1364 ± 0.0031	$f\sigma_{\mathrm{s}}(0.61)$	$0.441^{+0.030}_{-0.014}$
$r_{\mathrm{drag}}h$	105 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0074}$	$\sigma_{\mathrm{s}}(0.61)$	$0.590^{+0.15}_{-0.075}$
$\langle d^2 \rangle^{1/2}$	2.512 ± 0.053	z_{eq}	3057^{+210}_{-260}	$f\sigma_{\mathrm{s}}(2.33)$	$0.300^{+0.084}_{-0.043}$
z_{re}	7.53 ± 0.28	k_{eq}	$0.00933^{+0.00064}_{-0.00078}$	$\sigma_{\mathrm{s}}(2.33)$	$0.314^{+0.098}_{-0.057}$
10^9A_{s}	$2.42^{+0.27}_{-0.34}$	$100\theta_{\mathrm{eq}}$	0.873 ± 0.045	$\chi^2_{\mathrm{lensing}}$	11.9 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.16^{+0.24}_{-0.30}$	$100\theta_{\mathrm{s,eq}}$	0.480 ± 0.024	χ^2_{prior}	2.0 ± 2.0
D_{40}	1481^{+200}_{-200}	$H(0.15)$	75 ± 20		
D_{220}	7017^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	662^{+80}_{-200}		
$\bar{\chi}^2_{\mathrm{eff}} = 13.92; R - 1 = 0.00257$					

2.159 base_lensing_lenspriors_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049	D_{810}	2562^{+400}_{-500}	$H(0.38)$	84 ± 10
$\Omega_{\mathrm{c}}h^2$	$0.113^{+0.010}_{-0.013}$	D_{1420}	796^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1586^{+200}_{-500}
$100\theta_{\mathrm{MC}}$	$1.034^{+0.076}_{-0.065}$	D_{2000}	255^{+40}_{-60}	$H(0.51)$	90 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.11 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	2047^{+200}_{-600}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00019}$	$H(0.61)$	96 ± 10
H_0	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2377^{+300}_{-700}
Ω_{Λ}	$0.650^{+0.21}_{-0.063}$	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.086}_{-0.096}$	$H(2.33)$	232^{+12}_{-13}
Ω_{m}	$0.350^{+0.064}_{-0.21}$	Age/Gyr	$14.1^{+1.2}_{-2.6}$	$D_{\mathrm{M}}(2.33)$	5891^{+530}_{-1100}
$\Omega_{\mathrm{m}}h^2$	$0.136^{+0.010}_{-0.013}$	z_{*}	$1089.5^{+1.1}_{-1.3}$	$f\sigma_8(0.15)$	$0.442^{+0.054}_{-0.040}$
$\Omega_{\mathrm{m}}h^3$	$0.094^{+0.020}_{-0.039}$	r_{*}	146.5 ± 3.2	$\sigma_8(0.15)$	$0.739^{+0.15}_{-0.080}$
σ_8	$0.799^{+0.14}_{-0.077}$	$100\theta_{*}$	$1.034^{+0.076}_{-0.065}$	$f\sigma_8(0.38)$	$0.455^{+0.020}_{-0.018}$
S_8	$0.811^{+0.088}_{-0.14}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.22^{+0.93}_{-1.2}$	$\sigma_8(0.38)$	$0.658^{+0.16}_{-0.082}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.048}_{-0.075}$	z_{drag}	1059.0 ± 1.5	$f\sigma_8(0.51)$	$0.454^{+0.026}_{-0.017}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.591 ± 0.020	r_{drag}	149.3 ± 3.3	$\sigma_8(0.51)$	$0.617^{+0.16}_{-0.082}$
$\sigma_8/h^{0.5}$	$0.974^{+0.022}_{-0.019}$	k_{D}	$0.1385^{+0.0033}_{-0.0038}$	$f\sigma_8(0.61)$	$0.450^{+0.036}_{-0.018}$
$r_{\mathrm{drag}}h$	102 ± 30	$100\theta_{\mathrm{D}}$	$0.160^{+0.012}_{-0.0086}$	$\sigma_8(0.61)$	$0.588^{+0.16}_{-0.082}$
$\langle d^2 \rangle^{1/2}$	2.492 ± 0.054	z_{eq}	3236^{+250}_{-310}	$f\sigma_8(2.33)$	0.298 ± 0.060
z_{re}	7.67 ± 0.30	k_{eq}	$0.00988^{+0.00076}_{-0.00096}$	$\sigma_8(2.33)$	0.310 ± 0.069
10^9A_{s}	$2.26^{+0.27}_{-0.34}$	$100\theta_{\mathrm{eq}}$	0.841 ± 0.048	$\chi^2_{\mathrm{lensing}}$	8.4 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.03^{+0.24}_{-0.30}$	$100\theta_{\mathrm{s,eq}}$	0.464 ± 0.026	χ^2_{prior}	2.0 ± 2.0
D_{40}	1364^{+200}_{-200}	$H(0.15)$	74 ± 20		
D_{220}	6361^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	671^{+80}_{-200}		

$$\bar{\chi}^2_{\mathrm{eff}} = 10.40; R - 1 = 0.00244$$

2.160 base_lensing_lenspriors_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022202	0.02221 ± 0.00050	D_{810}	2895	2857^{+400}_{-400}	$H(0.38)$	84.80	$84.6^{+2.0}_{-2.3}$
$\Omega_c h^2$	0.1100	$0.1120^{+0.0085}_{-0.011}$	D_{1420}	921	909^{+100}_{-100}	$D_M(0.38)$	1477	1487^{+55}_{-63}
$100\theta_{MC}$	1.04090	1.04090 ± 0.00060	D_{2000}	258.3	255^{+30}_{-40}	$H(0.51)$	90.97	$90.9^{+1.4}_{-1.8}$
$\ln(10^{10} A_s)$	3.168	3.15 ± 0.13	$n_{s,0.002}$	0.9606	0.960 ± 0.020	$D_M(0.51)$	1921	1932 ± 69
n_s	0.9606	0.960 ± 0.020	Y_P	0.245327	$0.24532^{+0.00022}_{-0.00020}$	$H(0.61)$	96.15	$96.14^{+0.86}_{-1.4}$
H_0	70.90	70.3 ± 3.7	Y_P^{BBN}	0.246653	$0.24664^{+0.00022}_{-0.00020}$	$D_M(0.61)$	2242	2253 ± 73
Ω_Λ	0.7357	$0.723^{+0.059}_{-0.036}$	$10^5 D/H$	2.618	2.619 ± 0.094	$H(2.33)$	229.8	$231.1^{+5.6}_{-7.3}$
Ω_m	0.2643	$0.277^{+0.036}_{-0.059}$	Age/Gyr	13.765	$13.767^{+0.077}_{-0.068}$	$D_M(2.33)$	5742.2	5742^{+42}_{-32}
$\Omega_m h^2$	0.1329	$0.1349^{+0.0085}_{-0.011}$	z_*	1089.24	$1089.41^{+0.96}_{-1.1}$	$f\sigma_8(0.15)$	0.4315	0.435 ± 0.029
$\Omega_m h^3$	0.09420	0.0945 ± 0.0021	r_*	147.22	$146.8^{+2.9}_{-2.5}$	$\sigma_8(0.15)$	0.7662	$0.761^{+0.024}_{-0.021}$
σ_8	0.8237	$0.819^{+0.021}_{-0.019}$	$100\theta_*$	1.04112	1.04112 ± 0.00061	$f\sigma_8(0.38)$	0.4607	$0.462^{+0.021}_{-0.017}$
S_8	0.773	$0.783^{+0.055}_{-0.063}$	$D_M(z_*)/\text{Gpc}$	14.141	$14.10^{+0.28}_{-0.24}$	$\sigma_8(0.38)$	0.6848	$0.679^{+0.028}_{-0.022}$
$\sigma_8 \Omega_m^{0.5}$	0.4235	$0.429^{+0.030}_{-0.035}$	z_{drag}	1058.83	1058.9 ± 1.4	$f\sigma_8(0.51)$	0.4652	$0.465^{+0.015}_{-0.012}$
$\sigma_8 \Omega_m^{0.25}$	0.5906	0.592 ± 0.020	r_{drag}	150.00	$149.5^{+3.0}_{-2.7}$	$\sigma_8(0.51)$	0.6433	$0.638^{+0.028}_{-0.023}$
$\sigma_8/h^{0.5}$	0.9783	0.978 ± 0.021	k_D	0.13771	$0.1382^{+0.0028}_{-0.0033}$	$f\sigma_8(0.61)$	0.4642	$0.463^{+0.012}_{-0.0096}$
$r_{\text{drag}} h$	106.4	105.3 ± 7.5	$100\theta_D$	0.16133	0.16129 ± 0.00081	$\sigma_8(0.61)$	0.6136	$0.608^{+0.029}_{-0.023}$
$\langle d^2 \rangle^{1/2}$	2.506	2.500 ± 0.051	z_{eq}	3160	3207^{+200}_{-260}	$f\sigma_8(2.33)$	0.3115	$0.308^{+0.017}_{-0.014}$
z_{re}	7.625	$7.66^{+0.17}_{-0.20}$	k_{eq}	0.00964	$0.00979^{+0.00062}_{-0.00081}$	$\sigma_8(2.33)$	0.3237	$0.320^{+0.020}_{-0.018}$
$10^9 A_s$	2.375	$2.35^{+0.27}_{-0.32}$	$100\theta_{\text{eq}}$	0.8592	0.853 ± 0.047	χ^2_{lensing}	7.57	9.6 ± 2.0
$10^9 A_s e^{-2\tau}$	2.128	$2.10^{+0.24}_{-0.28}$	$100\theta_{s,\text{eq}}$	0.4734	0.470 ± 0.024	χ^2_{prior}	0.00	3.0 ± 2.5
D_{40}	1441	1422^{+200}_{-200}	$H(0.15)$	75.63	75.2 ± 3.2			
D_{220}	6780	6683^{+900}_{-1000}	$D_M(0.15)$	614.7	620^{+27}_{-32}			

Best-fit $\chi^2_{\text{eff}} = 7.57$; $\bar{\chi}^2_{\text{eff}} = 12.61$; $R - 1 = 0.00164$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.57

2.161 base_lensing_lenspriors_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022210	0.02221 ± 0.00050	D_{810}	2676	2678^{+150}_{-180}	$H(0.38)$	83.55	$83.58^{+0.80}_{-0.91}$
$\Omega_c h^2$	0.11581	0.1158 ± 0.0040	D_{1420}	853	854^{+50}_{-58}	$D_M(0.38)$	1512.0	1512 ± 24
$100\theta_{MC}$	1.04089	1.04090 ± 0.00061	D_{2000}	239.7	240^{+15}_{-17}	$H(0.51)$	90.06	$90.10^{+0.61}_{-0.70}$
$\ln(10^{10} A_s)$	3.096	3.095 ± 0.056	$n_{s,0.002}$	0.9562	0.956 ± 0.018	$D_M(0.51)$	1961.5	1961 ± 28
n_s	0.9562	0.956 ± 0.018	Y_P	0.245330	0.24532 ± 0.00022	$H(0.61)$	95.52	$95.56^{+0.48}_{-0.56}$
H_0	68.71	68.7 ± 1.5	Y_P^{BBN}	0.246656	0.24665 ± 0.00022	$D_M(0.61)$	2284.8	2284 ± 30
Ω_Λ	0.7063	0.706 ± 0.021	$10^5 D/H$	2.616	2.618 ± 0.095	$H(2.33)$	233.63	233.6 ± 2.8
Ω_m	0.2937	0.294 ± 0.021	Age/Gyr	13.796	13.794 ± 0.054	$D_M(2.33)$	5760.3	5759 ± 24
$\Omega_m h^2$	0.13866	0.1387 ± 0.0041	z_*	1089.75	1089.76 ± 0.68	$f\sigma_8(0.15)$	0.4481	0.448 ± 0.014
$\Omega_m h^3$	0.09528	0.0953 ± 0.0013	r_*	145.65	145.7 ± 1.2	$\sigma_8(0.15)$	0.7556	0.755 ± 0.016
σ_8	0.8157	0.815 ± 0.016	$100\theta_*$	1.04110	1.04110 ± 0.00061	$f\sigma_8(0.38)$	0.4705	0.470 ± 0.011
S_8	0.8071	0.806 ± 0.027	$D_M(z_*)/\text{Gpc}$	13.990	13.99 ± 0.11	$\sigma_8(0.38)$	0.6718	0.671 ± 0.015
$\sigma_8 \Omega_m^{0.5}$	0.4420	0.442 ± 0.015	z_{drag}	1059.25	1059.3 ± 1.2	$f\sigma_8(0.51)$	0.4713	0.4706 ± 0.0094
$\sigma_8 \Omega_m^{0.25}$	0.6005	0.600 ± 0.013	r_{drag}	148.40	148.4 ± 1.3	$\sigma_8(0.51)$	0.6295	0.629 ± 0.015
$\sigma_8/h^{0.5}$	0.9840	0.983 ± 0.019	k_D	0.13938	0.1394 ± 0.0016	$f\sigma_8(0.61)$	0.4677	0.4671 ± 0.0088
$r_{\text{drag}} h$	101.97	102.0 ± 2.9	$100\theta_D$	0.16111	0.16113 ± 0.00073	$\sigma_8(0.61)$	0.5995	0.599 ± 0.015
$\langle d^2 \rangle^{1/2}$	2.4867	2.486 ± 0.041	z_{eq}	3298	3299 ± 98	$f\sigma_8(2.33)$	0.3030	0.3028 ± 0.0081
z_{re}	7.719	7.72 ± 0.12	k_{eq}	0.010066	0.01007 ± 0.00030	$\sigma_8(2.33)$	0.3132	0.3131 ± 0.0091
$10^9 A_s$	2.212	$2.21^{+0.11}_{-0.13}$	$100\theta_{\text{eq}}$	0.8319	0.832 ± 0.018	χ^2_{lensing}	7.88	9.2 ± 1.6
$10^9 A_s e^{-2\tau}$	1.981	$1.98^{+0.10}_{-0.12}$	$100\theta_{s,\text{eq}}$	0.4592	0.4594 ± 0.0095	χ^2_{JLA}	1034.79	1035.7 ± 1.3
D_{40}	1333	1335^{+80}_{-90}	$H(0.15)$	73.79	73.8 ± 1.2	χ^2_{prior}	0.04	2.9 ± 2.4
D_{220}	6178	6189^{+380}_{-450}	$D_M(0.15)$	632.2	632 ± 12			

Best-fit $\chi^2_{\text{eff}} = 1042.71$; $\bar{\chi}^2_{\text{eff}} = 1047.77$; $R - 1 = 0.00295$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.88 SN - JLA Pantheon18: 1034.79

2.162 base_lensing_lenspriors_theta_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	2982^{+300}_{-400}	$H(0.38)$	85.5 ± 2.0
$\Omega_{\mathrm{c}}h^2$	$0.1077^{+0.0070}_{-0.0091}$	D_{1420}	945^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1462^{+47}_{-54}
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	D_{2000}	265^{+30}_{-30}	$H(0.51)$	$91.5^{+1.4}_{-1.7}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.19^{+0.12}_{-0.11}$	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	1902^{+56}_{-63}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.62^{+0.94}_{-1.3}$
H_0	72.0 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2221 ± 64
Ω_{Λ}	$0.745^{+0.046}_{-0.030}$	$10^5\mathrm{D}/\mathrm{H}$	2.621 ± 0.094	$H(2.33)$	$228.3^{+4.7}_{-6.1}$
Ω_{m}	$0.255^{+0.030}_{-0.046}$	Age/Gyr	13.744 ± 0.071	$D_{\mathrm{M}}(2.33)$	5729^{+40}_{-34}
$\Omega_{\mathrm{m}}h^2$	$0.1305^{+0.0071}_{-0.0091}$	z_{*}	$1089.03^{+0.87}_{-0.99}$	$f\sigma_8(0.15)$	0.420 ± 0.024
$\Omega_{\mathrm{m}}h^3$	$0.0937^{+0.0018}_{-0.0020}$	r_{*}	$147.9^{+2.5}_{-2.2}$	$\sigma_8(0.15)$	$0.763^{+0.022}_{-0.020}$
σ_8	0.819 ± 0.020	$100\theta_{*}$	1.04113 ± 0.00061	$f\sigma_8(0.38)$	$0.451^{+0.018}_{-0.015}$
S_8	$0.752^{+0.045}_{-0.050}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.21^{+0.24}_{-0.21}$	$\sigma_8(0.38)$	$0.683^{+0.025}_{-0.021}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.412^{+0.025}_{-0.028}$	z_{drag}	1058.6 ± 1.4	$f\sigma_8(0.51)$	$0.456^{+0.013}_{-0.011}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.580 ± 0.017	r_{drag}	$150.7^{+2.6}_{-2.3}$	$\sigma_8(0.51)$	$0.643^{+0.025}_{-0.021}$
$\sigma_8/h^{0.5}$	0.965 ± 0.019	k_{D}	$0.1370^{+0.0024}_{-0.0028}$	$f\sigma_8(0.61)$	$0.456^{+0.011}_{-0.0088}$
$r_{\mathrm{drag}}h$	108.6 ± 6.6	$100\theta_{\mathrm{D}}$	0.16146 ± 0.00079	$\sigma_8(0.61)$	$0.614^{+0.025}_{-0.022}$
$\langle d^2 \rangle^{1/2}$	2.506 ± 0.050	z_{eq}	3104^{+170}_{-220}	$f\sigma_8(2.33)$	$0.312^{+0.015}_{-0.013}$
z_{re}	$7.59^{+0.15}_{-0.18}$	k_{eq}	$0.00947^{+0.00052}_{-0.00067}$	$\sigma_8(2.33)$	$0.326^{+0.018}_{-0.016}$
10^9A_{s}	2.44 ± 0.28	$100\theta_{\mathrm{eq}}$	0.873 ± 0.041	$\chi^2_{\mathrm{lensing}}$	11.9 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	2.18 ± 0.25	$100\theta_{\mathrm{s,eq}}$	0.481 ± 0.022	χ^2_{prior}	3.0 ± 2.5
D_{40}	1497^{+200}_{-200}	$H(0.15)$	76.6 ± 2.8		
D_{220}	7076^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	607^{+22}_{-27}		

$\bar{\chi}^2_{\mathrm{eff}} = 14.87$; $R - 1 = 0.00258$

2.163 base_lensing_lenspriors_theta_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	2872^{+400}_{-500}	$H(0.38)$	$84.7^{+2.2}_{-2.8}$
$\Omega_{\mathrm{c}}h^2$	$0.1120^{+0.0096}_{-0.013}$	D_{1420}	913^{+100}_{-200}	$D_{\mathrm{M}}(0.38)$	1487^{+64}_{-72}
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00061	D_{2000}	256^{+30}_{-40}	$H(0.51)$	$90.9^{+1.5}_{-2.1}$
$\ln(10^{10}A_{\mathrm{s}})$	3.15 ± 0.14	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	1931 ± 78
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.21^{+0.90}_{-1.6}$
H_0	70.4 ± 4.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2252 ± 83
Ω_{Λ}	$0.722^{+0.069}_{-0.040}$	$10^5\mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$231.1^{+6.4}_{-8.5}$
Ω_{m}	$0.278^{+0.040}_{-0.069}$	Age/Gyr	$13.764^{+0.086}_{-0.071}$	$D_{\mathrm{M}}(2.33)$	5741^{+48}_{-34}
$\Omega_{\mathrm{m}}h^2$	$0.1348^{+0.0096}_{-0.013}$	z_{*}	$1089.4^{+1.1}_{-1.2}$	$f\sigma_8(0.15)$	0.435 ± 0.033
$\Omega_{\mathrm{m}}h^3$	0.0945 ± 0.0023	r_{*}	$146.8^{+3.3}_{-2.9}$	$\sigma_8(0.15)$	$0.761^{+0.027}_{-0.022}$
σ_8	$0.819^{+0.023}_{-0.020}$	$100\theta_{*}$	1.04112 ± 0.00061	$f\sigma_8(0.38)$	$0.461^{+0.024}_{-0.017}$
S_8	$0.782^{+0.062}_{-0.072}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.10^{+0.32}_{-0.28}$	$\sigma_8(0.38)$	$0.679^{+0.031}_{-0.025}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.428^{+0.034}_{-0.039}$	z_{drag}	1058.9 ± 1.5	$f\sigma_8(0.51)$	$0.464^{+0.017}_{-0.012}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.592^{+0.024}_{-0.021}$	r_{drag}	$149.6^{+3.4}_{-3.0}$	$\sigma_8(0.51)$	$0.638^{+0.032}_{-0.026}$
$\sigma_8/h^{0.5}$	$0.977^{+0.023}_{-0.020}$	k_{D}	$0.1382^{+0.0031}_{-0.0037}$	$f\sigma_8(0.61)$	$0.462^{+0.013}_{-0.0096}$
$r_{\mathrm{drag}}h$	105.5 ± 8.6	$100\theta_{\mathrm{D}}$	0.16131 ± 0.00083	$\sigma_8(0.61)$	$0.608^{+0.032}_{-0.026}$
$\langle d^2 \rangle^{1/2}$	2.502 ± 0.062	z_{eq}	3206^{+230}_{-300}	$f\sigma_8(2.33)$	$0.309^{+0.019}_{-0.016}$
z_{re}	$7.66^{+0.19}_{-0.23}$	k_{eq}	$0.00979^{+0.00070}_{-0.00093}$	$\sigma_8(2.33)$	$0.321^{+0.023}_{-0.020}$
10^9A_{s}	$2.36^{+0.30}_{-0.37}$	$100\theta_{\mathrm{eq}}$	0.854 ± 0.053	$\chi^2_{\mathrm{lensing}}$	9.5 ± 1.9
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.11^{+0.27}_{-0.33}$	$100\theta_{\mathrm{s,eq}}$	0.471 ± 0.028	χ^2_{prior}	3.0 ± 2.5
D_{40}	1432^{+200}_{-300}	$H(0.15)$	75.3 ± 3.6		
D_{220}	6733^{+1000}_{-1000}	$D_{\mathrm{M}}(0.15)$	620^{+30}_{-37}		

$$\bar{\chi}^2_{\mathrm{eff}} = 12.57; R - 1 = 0.00195$$

2.164 base_lensing_lenspriors_theta_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	2814^{+400}_{-400}	$H(0.38)$	$84.3^{+2.0}_{-2.4}$
$\Omega_{\mathrm{c}}h^2$	$0.1132^{+0.0089}_{-0.011}$	D_{1420}	896^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1495 ± 60
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00061	D_{2000}	252^{+30}_{-40}	$H(0.51)$	$90.7^{+1.3}_{-1.8}$
$\ln(10^{10}A_{\mathrm{s}})$	3.13 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	1941 ± 69
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.01^{+0.82}_{-1.4}$
H_0	69.9 ± 3.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2262 ± 74
Ω_{Λ}	$0.717^{+0.061}_{-0.038}$	$10^5\mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$231.9^{+5.9}_{-7.4}$
Ω_{m}	$0.283^{+0.038}_{-0.061}$	Age/Gyr	$13.774^{+0.077}_{-0.067}$	$D_{\mathrm{M}}(2.33)$	5746^{+42}_{-32}
$\Omega_{\mathrm{m}}h^2$	$0.1361^{+0.0089}_{-0.011}$	z_{*}	$1089.53^{+0.99}_{-1.1}$	$f\sigma_8(0.15)$	0.439 ± 0.029
$\Omega_{\mathrm{m}}h^3$	0.0947 ± 0.0021	r_{*}	$146.4^{+2.9}_{-2.6}$	$\sigma_8(0.15)$	$0.760^{+0.025}_{-0.021}$
σ_8	$0.818^{+0.022}_{-0.020}$	$100\theta_{*}$	1.04112 ± 0.00061	$f\sigma_8(0.38)$	$0.464^{+0.021}_{-0.016}$
S_8	$0.791^{+0.056}_{-0.063}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.07^{+0.28}_{-0.25}$	$\sigma_8(0.38)$	$0.677^{+0.028}_{-0.023}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.433^{+0.031}_{-0.035}$	z_{drag}	1059.0 ± 1.4	$f\sigma_8(0.51)$	$0.466^{+0.015}_{-0.011}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.595^{+0.021}_{-0.019}$	r_{drag}	149.2 ± 2.9	$\sigma_8(0.51)$	$0.635^{+0.029}_{-0.024}$
$\sigma_8/h^{0.5}$	0.980 ± 0.021	k_{D}	$0.1386^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.464^{+0.012}_{-0.0094}$
$r_{\mathrm{drag}}h$	104.4 ± 7.6	$100\theta_{\mathrm{D}}$	0.16126 ± 0.00081	$\sigma_8(0.61)$	$0.606^{+0.029}_{-0.024}$
$\langle d^2 \rangle^{1/2}$	2.496 ± 0.052	z_{eq}	3236^{+210}_{-270}	$f\sigma_8(2.33)$	$0.307^{+0.017}_{-0.014}$
z_{re}	$7.68^{+0.18}_{-0.20}$	k_{eq}	$0.00988^{+0.00065}_{-0.00082}$	$\sigma_8(2.33)$	$0.319^{+0.020}_{-0.018}$
10^9A_{s}	$2.31^{+0.26}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.847 ± 0.047	$\chi^2_{\mathrm{lensing}}$	7.5 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.07^{+0.24}_{-0.29}$	$100\theta_{\mathrm{s,eq}}$	0.467 ± 0.025	χ^2_{prior}	3.0 ± 2.5
D_{40}	1400^{+200}_{-200}	$H(0.15)$	74.8 ± 3.2		
D_{220}	6561^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	624^{+28}_{-33}		

$\bar{\chi}^2_{\mathrm{eff}} = 10.53$; $R - 1 = 0.00161$

2.165 base_lensing_lenspriors_theta_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00051	D_{810}	3350^{+400}_{-500}	$H(0.38)$	87.2 ± 2.5
$\Omega_c h^2$	$0.1017^{+0.0077}_{-0.010}$	D_{1420}	1056^{+100}_{-200}	$D_M(0.38)$	1423^{+52}_{-64}
$100\theta_{MC}$	1.04090 ± 0.00060	D_{2000}	295^{+30}_{-50}	$H(0.51)$	92.8 ± 1.9
$\ln(10^{10} A_s)$	3.29 ± 0.13	$n_{s,0.002}$	0.961 ± 0.021	$D_M(0.51)$	1857^{+63}_{-76}
n_s	0.961 ± 0.021	Y_P	0.24531 ± 0.00022	$H(0.61)$	$97.6^{+1.4}_{-1.7}$
H_0	74.6 ± 3.9	Y_P^{BBN}	0.24664 ± 0.00022	$D_M(0.61)$	2172^{+69}_{-81}
Ω_Λ	$0.772^{+0.048}_{-0.030}$	$10^5 D/H$	2.622 ± 0.097	$H(2.33)$	$224.3^{+5.2}_{-6.7}$
Ω_m	$0.228^{+0.030}_{-0.048}$	Age/Gyr	13.699 ± 0.082	$D_M(2.33)$	5701 ± 46
$\Omega_m h^2$	$0.1245^{+0.0078}_{-0.010}$	z_*	$1088.48^{+0.88}_{-1.1}$	$f\sigma_8(0.15)$	$0.405^{+0.026}_{-0.033}$
$\Omega_m h^3$	0.0925 ± 0.0022	r_*	$149.7^{+2.8}_{-2.5}$	$\sigma_8(0.15)$	0.781 ± 0.023
σ_8	$0.834^{+0.020}_{-0.022}$	$100\theta_*$	1.04114 ± 0.00061	$f\sigma_8(0.38)$	0.442 ± 0.022
S_8	$0.723^{+0.048}_{-0.065}$	$D_M(z_*)/\text{Gpc}$	$14.38^{+0.27}_{-0.24}$	$\sigma_8(0.38)$	0.703 ± 0.025
$\sigma_8 \Omega_m^{0.5}$	$0.396^{+0.026}_{-0.035}$	z_{drag}	1058.1 ± 1.5	$f\sigma_8(0.51)$	0.452 ± 0.017
$\sigma_8 \Omega_m^{0.25}$	$0.574^{+0.021}_{-0.023}$	r_{drag}	152.5 ± 2.8	$\sigma_8(0.51)$	0.663 ± 0.026
$\sigma_8/h^{0.5}$	0.967 ± 0.025	k_D	0.1352 ± 0.0030	$f\sigma_8(0.61)$	0.455 ± 0.014
$r_{\text{drag}} h$	113.8 ± 7.9	$100\theta_D$	0.16171 ± 0.00085	$\sigma_8(0.61)$	0.634 ± 0.026
$\langle d^2 \rangle^{1/2}$	$2.570^{+0.063}_{-0.055}$	z_{eq}	2960^{+190}_{-240}	$f\sigma_8(2.33)$	0.324 ± 0.016
z_{re}	$7.49^{+0.16}_{-0.20}$	k_{eq}	$0.00903^{+0.00057}_{-0.00074}$	$\sigma_8(2.33)$	0.341 ± 0.019
$10^9 A_s$	$2.72^{+0.31}_{-0.39}$	$100\theta_{\text{eq}}$	0.906 ± 0.050	χ^2_{lensing}	10.7 ± 1.9
$10^9 A_s e^{-2\tau}$	$2.44^{+0.28}_{-0.35}$	$100\theta_{s,\text{eq}}$	0.498 ± 0.026	χ^2_{prior}	3.1 ± 2.5
D_{40}	1698 ± 200	$H(0.15)$	78.8 ± 3.4		
D_{220}	8124^{+1000}_{-1000}	$D_M(0.15)$	588^{+25}_{-32}		

$$\bar{\chi}^2_{\text{eff}} = 13.85; R - 1 = 0.02914$$

2.166 base_lensing_lenspriors_theta_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02220 ± 0.00049	D_{810}	2768^{+300}_{-400}	$H(0.38)$	$84.3^{+2.0}_{-2.4}$
$\Omega_{\mathrm{c}} h^2$	$0.1132^{+0.0090}_{-0.011}$	D_{1420}	882^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1494 ± 60
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	D_{2000}	247^{+30}_{-40}	$H(0.51)$	$90.7^{+1.3}_{-1.9}$
$\ln(10^{10} A_{\mathrm{s}})$	3.12 ± 0.13	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	1940 ± 70
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.02^{+0.81}_{-1.4}$
H_0	69.9 ± 3.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2262 ± 75
Ω_{Λ}	$0.717^{+0.061}_{-0.039}$	$10^5 \mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$231.9^{+6.0}_{-7.4}$
Ω_{m}	$0.283^{+0.039}_{-0.061}$	Age/Gyr	$13.773^{+0.078}_{-0.067}$	$D_{\mathrm{M}}(2.33)$	5746^{+42}_{-31}
$\Omega_{\mathrm{m}} h^2$	$0.1360^{+0.0091}_{-0.011}$	z_{*}	$1089.5^{+1.0}_{-1.1}$	$f\sigma_8(0.15)$	0.435 ± 0.029
$\Omega_{\mathrm{m}} h^3$	0.0947 ± 0.0021	r_{*}	146.5 ± 2.8	$\sigma_8(0.15)$	$0.753^{+0.024}_{-0.021}$
σ_8	$0.811^{+0.021}_{-0.019}$	$100\theta_{*}$	1.04112 ± 0.00061	$f\sigma_8(0.38)$	$0.460^{+0.021}_{-0.016}$
S_8	0.783 ± 0.060	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	14.07 ± 0.27	$\sigma_8(0.38)$	$0.671^{+0.028}_{-0.023}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.429 ± 0.033	z_{drag}	1059.0 ± 1.4	$f\sigma_8(0.51)$	$0.462^{+0.015}_{-0.011}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.589^{+0.021}_{-0.019}$	r_{drag}	149.2 ± 2.9	$\sigma_8(0.51)$	$0.630^{+0.028}_{-0.024}$
$\sigma_8/h^{0.5}$	$0.971^{+0.022}_{-0.019}$	k_{D}	$0.1385^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.460^{+0.012}_{-0.0092}$
$r_{\mathrm{drag}} h$	104.4 ± 7.6	$100\theta_{\mathrm{D}}$	0.16126 ± 0.00080	$\sigma_8(0.61)$	$0.601^{+0.029}_{-0.024}$
$\langle d^2 \rangle^{1/2}$	2.474 ± 0.049	z_{eq}	3235^{+220}_{-270}	$f\sigma_8(2.33)$	$0.304^{+0.017}_{-0.014}$
z_{re}	$7.68^{+0.18}_{-0.20}$	k_{eq}	$0.00987^{+0.00066}_{-0.00081}$	$\sigma_8(2.33)$	0.316 ± 0.019
$10^9 A_{\mathrm{s}}$	$2.27^{+0.25}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.847 ± 0.047	$\chi^2_{\mathrm{lensing}}$	9.8 ± 2.0
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$2.04^{+0.23}_{-0.28}$	$100\theta_{\mathrm{s,eq}}$	0.467 ± 0.025	χ^2_{prior}	3.0 ± 2.5
D_{40}	1375^{+200}_{-200}	$H(0.15)$	74.8 ± 3.2		
D_{220}	6450^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	624^{+28}_{-33}		

$$\bar{\chi}^2_{\mathrm{eff}} = 12.85; R - 1 = 0.00230$$

2.167 base_lensing_lenspriors_theta_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	2887^{+300}_{-400}	$H(0.38)$	$85.2^{+1.9}_{-2.2}$
$\Omega_{\mathrm{c}}h^2$	$0.1089^{+0.0075}_{-0.0092}$	D_{1420}	916^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1469 ± 52
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	D_{2000}	256^{+30}_{-30}	$H(0.51)$	$91.3^{+1.3}_{-1.7}$
$\ln(10^{10}A_{\mathrm{s}})$	3.16 ± 0.11	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	1911 ± 61
n_{s}	0.959 ± 0.020	Y_{P}	0.24531 ± 0.00021	$H(0.61)$	$96.47^{+0.91}_{-1.3}$
H_0	71.5 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24664 ± 0.00021	$D_{\mathrm{M}}(0.61)$	2230 ± 65
Ω_{Λ}	$0.739^{+0.048}_{-0.032}$	$10^5\mathrm{D}/\mathrm{H}$	2.621 ± 0.094	$H(2.33)$	$229.0^{+5.0}_{-6.2}$
Ω_{m}	$0.261^{+0.032}_{-0.048}$	Age/Gyr	$13.751^{+0.075}_{-0.068}$	$D_{\mathrm{M}}(2.33)$	5733^{+41}_{-33}
$\Omega_{\mathrm{m}}h^2$	$0.1317^{+0.0075}_{-0.0093}$	z_*	1089.14 ± 0.94	$f\sigma_8(0.15)$	0.420 ± 0.024
$\Omega_{\mathrm{m}}h^3$	$0.0939^{+0.0018}_{-0.0020}$	r_*	$147.6^{+2.5}_{-2.2}$	$\sigma_8(0.15)$	$0.755^{+0.022}_{-0.019}$
σ_8	$0.811^{+0.020}_{-0.018}$	$100\theta_*$	1.04112 ± 0.00060	$f\sigma_8(0.38)$	$0.449^{+0.018}_{-0.014}$
S_8	0.753 ± 0.049	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.18^{+0.24}_{-0.22}$	$\sigma_8(0.38)$	$0.676^{+0.025}_{-0.021}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.412 ± 0.027	z_{drag}	1058.7 ± 1.4	$f\sigma_8(0.51)$	$0.454^{+0.013}_{-0.010}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.578^{+0.018}_{-0.016}$	r_{drag}	$150.4^{+2.7}_{-2.3}$	$\sigma_8(0.51)$	$0.635^{+0.025}_{-0.022}$
$\sigma_8/h^{0.5}$	0.959 ± 0.018	k_{D}	$0.1373^{+0.0024}_{-0.0029}$	$f\sigma_8(0.61)$	$0.454^{+0.011}_{-0.0084}$
$r_{\mathrm{drag}}h$	107.6 ± 6.7	$100\theta_{\mathrm{D}}$	0.16141 ± 0.00078	$\sigma_8(0.61)$	$0.606^{+0.026}_{-0.022}$
$\langle d^2 \rangle^{1/2}$	2.479 ± 0.047	z_{eq}	3132^{+180}_{-220}	$f\sigma_8(2.33)$	$0.308^{+0.015}_{-0.013}$
z_{re}	$7.61^{+0.16}_{-0.18}$	k_{eq}	$0.00956^{+0.00055}_{-0.00068}$	$\sigma_8(2.33)$	0.321 ± 0.017
10^9A_{s}	$2.36^{+0.25}_{-0.29}$	$100\theta_{\mathrm{eq}}$	0.867 ± 0.042	$\chi^2_{\mathrm{lensing}}$	12.1 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.12^{+0.22}_{-0.26}$	$100\theta_{\mathrm{s,eq}}$	0.478 ± 0.022	χ^2_{prior}	3.0 ± 2.5
D_{40}	1445^{+160}_{-190}	$H(0.15)$	76.2 ± 2.8		
D_{220}	6820^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	611^{+24}_{-28}		

$\bar{\chi}^2_{\mathrm{eff}} = 15.12$; $R - 1 = 0.00542$

2.168 base_lensing_lenspriors_theta_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02221 ± 0.00049	D_{810}	2761^{+300}_{-400}	$H(0.38)$	$83.9^{+1.9}_{-2.4}$
$\Omega_{\mathrm{c}} h^2$	$0.1154^{+0.0096}_{-0.012}$	D_{1420}	881^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1507 ± 62
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00061	D_{2000}	247^{+30}_{-40}	$H(0.51)$	$90.4^{+1.2}_{-1.8}$
$\ln(10^{10} A_{\mathrm{s}})$	3.12 ± 0.13	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	1955 ± 72
n_{s}	0.960 ± 0.020	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$H(0.61)$	$95.80^{+0.75}_{-1.3}$
H_0	69.1 ± 3.9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2277 ± 76
Ω_{Λ}	$0.705^{+0.065}_{-0.043}$	$10^5 \mathrm{D}/\mathrm{H}$	2.619 ± 0.093	$H(2.33)$	$233.3^{+6.4}_{-7.7}$
Ω_{m}	$0.295^{+0.043}_{-0.065}$	Age/Gyr	$13.783^{+0.078}_{-0.065}$	$D_{\mathrm{M}}(2.33)$	5752^{+41}_{-30}
$\Omega_{\mathrm{m}} h^2$	$0.1382^{+0.0097}_{-0.012}$	z_*	1089.7 ± 1.1	$f\sigma_8(0.15)$	0.447 ± 0.031
$\Omega_{\mathrm{m}} h^3$	0.0951 ± 0.0022	r_*	145.9 ± 2.9	$\sigma_8(0.15)$	$0.759^{+0.025}_{-0.022}$
σ_8	$0.819^{+0.022}_{-0.020}$	$100\theta_*$	1.04111 ± 0.00061	$f\sigma_8(0.38)$	$0.470^{+0.022}_{-0.017}$
S_8	0.807 ± 0.064	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.01 ± 0.28	$\sigma_8(0.38)$	$0.675^{+0.029}_{-0.024}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.442 ± 0.035	z_{drag}	1059.2 ± 1.4	$f\sigma_8(0.51)$	$0.470^{+0.015}_{-0.011}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.601^{+0.022}_{-0.020}$	r_{drag}	148.6 ± 3.0	$\sigma_8(0.51)$	$0.633^{+0.029}_{-0.025}$
$\sigma_8/h^{0.5}$	0.986 ± 0.022	k_{D}	0.1392 ± 0.0032	$f\sigma_8(0.61)$	$0.467^{+0.012}_{-0.0096}$
$r_{\mathrm{drag}} h$	102.8 ± 7.8	$100\theta_{\mathrm{D}}$	0.16118 ± 0.00081	$\sigma_8(0.61)$	$0.603^{+0.030}_{-0.025}$
$\langle d^2 \rangle^{1/2}$	2.492 ± 0.051	z_{eq}	3287^{+230}_{-280}	$f\sigma_8(2.33)$	$0.305^{+0.017}_{-0.015}$
z_{re}	7.71 ± 0.20	k_{eq}	$0.01003^{+0.00071}_{-0.00085}$	$\sigma_8(2.33)$	0.316 ± 0.019
$10^9 A_{\mathrm{s}}$	$2.27^{+0.26}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.837 ± 0.048	$\chi^2_{\mathrm{lensing}}$	10.1 ± 2.0
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$2.04^{+0.23}_{-0.29}$	$100\theta_{\mathrm{s,eq}}$	0.462 ± 0.025	χ^2_{prior}	3.0 ± 2.5
D_{40}	1367^{+200}_{-200}	$H(0.15)$	74.2 ± 3.2		
D_{220}	6389^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	630^{+30}_{-34}		

$$\bar{\chi}^2_{\mathrm{eff}} = 13.09; R - 1 = 0.00194$$

2.169 base_lensing_lenspriors_theta_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	2862^{+400}_{-400}	$H(0.38)$	$84.6^{+2.0}_{-2.4}$
$\Omega_{\mathrm{c}}h^2$	$0.1118^{+0.0085}_{-0.011}$	D_{1420}	910^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1486^{+56}_{-63}
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00061	D_{2000}	256^{+30}_{-40}	$H(0.51)$	$90.9^{+1.4}_{-1.8}$
$\ln(10^{10}A_{\mathrm{s}})$	3.15 ± 0.13	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	1931 ± 69
n_{s}	0.960 ± 0.020	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.16^{+0.87}_{-1.4}$
H_0	70.4 ± 3.7	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2252 ± 73
Ω_{Λ}	$0.724^{+0.059}_{-0.036}$	$10^5\mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$231.0^{+5.7}_{-7.3}$
Ω_{m}	$0.276^{+0.036}_{-0.059}$	Age/Gyr	$13.766^{+0.078}_{-0.068}$	$D_{\mathrm{M}}(2.33)$	5742^{+43}_{-32}
$\Omega_{\mathrm{m}}h^2$	$0.1347^{+0.0086}_{-0.011}$	z_{*}	$1089.40^{+0.97}_{-1.1}$	$f\sigma_8(0.15)$	0.435 ± 0.029
$\Omega_{\mathrm{m}}h^3$	0.0945 ± 0.0021	r_{*}	$146.8^{+2.9}_{-2.6}$	$\sigma_8(0.15)$	$0.761^{+0.024}_{-0.021}$
σ_8	0.819 ± 0.021	$100\theta_{*}$	1.04113 ± 0.00061	$f\sigma_8(0.38)$	$0.461^{+0.021}_{-0.017}$
S_8	$0.782^{+0.055}_{-0.063}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.10^{+0.28}_{-0.25}$	$\sigma_8(0.38)$	$0.679^{+0.028}_{-0.023}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.428^{+0.030}_{-0.035}$	z_{drag}	1058.9 ± 1.4	$f\sigma_8(0.51)$	$0.464^{+0.016}_{-0.011}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.592 ± 0.020	r_{drag}	$149.6^{+3.0}_{-2.7}$	$\sigma_8(0.51)$	$0.638^{+0.028}_{-0.024}$
$\sigma_8/h^{0.5}$	0.977 ± 0.021	k_{D}	$0.1382^{+0.0028}_{-0.0033}$	$f\sigma_8(0.61)$	$0.463^{+0.012}_{-0.0096}$
$r_{\mathrm{drag}}h$	105.4 ± 7.5	$100\theta_{\mathrm{D}}$	0.16130 ± 0.00081	$\sigma_8(0.61)$	$0.608^{+0.029}_{-0.024}$
$\langle d^2 \rangle^{1/2}$	2.501 ± 0.051	z_{eq}	3203^{+210}_{-260}	$f\sigma_8(2.33)$	$0.309^{+0.017}_{-0.014}$
z_{re}	$7.66^{+0.17}_{-0.20}$	k_{eq}	$0.00978^{+0.00063}_{-0.00080}$	$\sigma_8(2.33)$	$0.321^{+0.020}_{-0.018}$
10^9A_{s}	$2.35^{+0.27}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.854 ± 0.047	$\chi^2_{\mathrm{lensing}}$	9.6 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.10^{+0.24}_{-0.28}$	$100\theta_{\mathrm{s,eq}}$	0.470 ± 0.024	χ^2_{prior}	3.0 ± 2.6
D_{40}	1425^{+200}_{-200}	$H(0.15)$	75.3 ± 3.2		
D_{220}	6697^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	620^{+27}_{-32}		

$$\bar{\chi}^2_{\mathrm{eff}} = 12.59; R - 1 = 0.00106$$

2.170 base_lensing_lenspriors_theta_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02220 ± 0.00050	D_{810}	2998^{+300}_{-400}	$H(0.38)$	85.6 ± 2.0
$\Omega_c h^2$	$0.1072^{+0.0070}_{-0.0090}$	D_{1420}	950^{+100}_{-100}	$D_M(0.38)$	1459^{+46}_{-54}
$100\theta_{MC}$	1.04091 ± 0.00060	D_{2000}	266^{+30}_{-30}	$H(0.51)$	$91.6^{+1.4}_{-1.7}$
$\ln(10^{10} A_s)$	$3.19^{+0.12}_{-0.11}$	$n_{s,0.002}$	0.959 ± 0.020	$D_M(0.51)$	1899^{+55}_{-62}
n_s	0.959 ± 0.020	Y_P	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.68^{+0.97}_{-1.3}$
H_0	72.2 ± 3.3	Y_P^{BBN}	$0.24664^{+0.00022}_{-0.00020}$	$D_M(0.61)$	2218 ± 63
Ω_Λ	$0.747^{+0.045}_{-0.029}$	$10^5 D/H$	2.621 ± 0.094	$H(2.33)$	$228.0^{+4.6}_{-6.0}$
Ω_m	$0.253^{+0.029}_{-0.045}$	Age/Gyr	13.741 ± 0.071	$D_M(2.33)$	5727^{+41}_{-34}
$\Omega_m h^2$	$0.1301^{+0.0070}_{-0.0090}$	z_*	$1088.99^{+0.86}_{-0.99}$	$f\sigma_8(0.15)$	0.418 ± 0.024
$\Omega_m h^3$	0.0936 ± 0.0019	r_*	$148.1^{+2.5}_{-2.1}$	$\sigma_8(0.15)$	$0.763^{+0.022}_{-0.020}$
σ_8	0.819 ± 0.020	$100\theta_*$	1.04113 ± 0.00061	$f\sigma_8(0.38)$	$0.449^{+0.017}_{-0.015}$
S_8	$0.748^{+0.044}_{-0.050}$	$D_M(z_*)/\text{Gpc}$	$14.22^{+0.24}_{-0.20}$	$\sigma_8(0.38)$	$0.684^{+0.024}_{-0.021}$
$\sigma_8 \Omega_m^{0.5}$	$0.410^{+0.024}_{-0.027}$	z_{drag}	1058.6 ± 1.4	$f\sigma_8(0.51)$	$0.455^{+0.013}_{-0.011}$
$\sigma_8 \Omega_m^{0.25}$	0.579 ± 0.016	r_{drag}	$150.9^{+2.6}_{-2.2}$	$\sigma_8(0.51)$	$0.643^{+0.025}_{-0.022}$
$\sigma_8/h^{0.5}$	0.964 ± 0.018	k_D	$0.1369^{+0.0024}_{-0.0028}$	$f\sigma_8(0.61)$	$0.456^{+0.011}_{-0.0089}$
$r_{\text{drag}} h$	108.9 ± 6.6	$100\theta_D$	0.16147 ± 0.00079	$\sigma_8(0.61)$	$0.614^{+0.025}_{-0.022}$
$\langle d^2 \rangle^{1/2}$	2.508 ± 0.049	z_{eq}	3093^{+170}_{-220}	$f\sigma_8(2.33)$	$0.313^{+0.015}_{-0.013}$
z_{re}	$7.58^{+0.15}_{-0.18}$	k_{eq}	$0.00944^{+0.00051}_{-0.00066}$	$\sigma_8(2.33)$	$0.326^{+0.018}_{-0.016}$
$10^9 A_s$	2.45 ± 0.28	$100\theta_{\text{eq}}$	0.875 ± 0.041	χ^2_{lensing}	11.9 ± 2.0
$10^9 A_s e^{-2\tau}$	2.19 ± 0.25	$100\theta_{s,\text{eq}}$	0.482 ± 0.021	χ^2_{prior}	3.0 ± 2.6
D_{40}	1506^{+170}_{-190}	$H(0.15)$	76.7 ± 2.8		
D_{220}	7122^{+900}_{-1000}	$D_M(0.15)$	606^{+22}_{-27}		

$\bar{\chi}^2_{\text{eff}} = 14.92; R - 1 = 0.00317$

2.171 base_lensing_lenspriors_theta_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02220 ± 0.00050	D_{810}	2878^{+400}_{-400}	$H(0.38)$	$84.8^{+2.0}_{-2.4}$
$\Omega_{\mathrm{c}} h^2$	$0.1112^{+0.0085}_{-0.011}$	D_{1420}	915^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1483^{+56}_{-64}
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00061	D_{2000}	257^{+30}_{-40}	$H(0.51)$	$91.0^{+1.4}_{-1.9}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.15^{+0.13}_{-0.12}$	$n_{\mathrm{s},0.002}$	0.960 ± 0.020	$D_{\mathrm{M}}(0.51)$	1927 ± 69
n_{s}	0.960 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.24^{+0.89}_{-1.4}$
H_0	70.7 ± 3.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2247 ± 74
Ω_{Λ}	$0.727^{+0.059}_{-0.036}$	$10^5 \mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$230.6^{+5.6}_{-7.4}$
Ω_{m}	$0.273^{+0.036}_{-0.059}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.762^{+0.079}_{-0.069}$	$D_{\mathrm{M}}(2.33)$	5740^{+44}_{-33}
$\Omega_{\mathrm{m}} h^2$	$0.1341^{+0.0085}_{-0.011}$	z_{*}	$1089.34^{+0.97}_{-1.1}$	$f\sigma_8(0.15)$	0.432 ± 0.030
$\Omega_{\mathrm{m}} h^3$	0.0943 ± 0.0021	r_{*}	$147.0^{+2.9}_{-2.6}$	$\sigma_8(0.15)$	$0.761^{+0.024}_{-0.021}$
σ_8	0.819 ± 0.021	$100\theta_{*}$	1.04112 ± 0.00061	$f\sigma_8(0.38)$	$0.459^{+0.022}_{-0.017}$
S_8	$0.777^{+0.056}_{-0.065}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.12^{+0.28}_{-0.25}$	$\sigma_8(0.38)$	$0.680^{+0.027}_{-0.022}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.426^{+0.031}_{-0.035}$	z_{drag}	1058.9 ± 1.4	$f\sigma_8(0.51)$	$0.463^{+0.017}_{-0.012}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.590^{+0.022}_{-0.020}$	r_{drag}	$149.8^{+3.1}_{-2.7}$	$\sigma_8(0.51)$	$0.638^{+0.028}_{-0.023}$
$\sigma_8/h^{0.5}$	$0.975^{+0.023}_{-0.021}$	k_{D}	$0.1380^{+0.0028}_{-0.0033}$	$f\sigma_8(0.61)$	$0.461^{+0.013}_{-0.010}$
$r_{\mathrm{drag}} h$	105.9 ± 7.6	$100\theta_{\mathrm{D}}$	0.16133 ± 0.00081	$\sigma_8(0.61)$	$0.609^{+0.028}_{-0.023}$
$\langle d^2 \rangle^{1/2}$	2.501 ± 0.051	z_{eq}	3188^{+200}_{-270}	$f\sigma_8(2.33)$	$0.309^{+0.017}_{-0.014}$
z_{re}	$7.65^{+0.17}_{-0.20}$	k_{eq}	$0.00973^{+0.00062}_{-0.00082}$	$\sigma_8(2.33)$	$0.321^{+0.020}_{-0.017}$
$10^9 A_{\mathrm{s}}$	$2.36^{+0.27}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.857 ± 0.047	$\chi^2_{\mathrm{lensing}}$	9.5 ± 2.0
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$2.12^{+0.24}_{-0.28}$	$100\theta_{\mathrm{s,eq}}$	0.472 ± 0.025	χ^2_{prior}	3.0 ± 2.5
D_{40}	1436^{+200}_{-200}	$H(0.15)$	75.5 ± 3.2		
D_{220}	6754^{+1000}_{-1000}	$D_{\mathrm{M}}(0.15)$	618^{+27}_{-33}		

$$\bar{\chi}^2_{\mathrm{eff}} = 12.55; R - 1 = 0.00157$$

2.172 base_lensing_lenspriors_theta_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050	D_{810}	3015 ± 400	$H(0.38)$	85.8 ± 2.0
$\Omega_{\mathrm{c}}h^2$	$0.1066^{+0.0070}_{-0.0090}$	D_{1420}	955^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1455^{+47}_{-54}
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	D_{2000}	267^{+30}_{-30}	$H(0.51)$	$91.8^{+1.4}_{-1.7}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.20^{+0.12}_{-0.11}$	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	1894^{+56}_{-63}
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$96.8^{+1.0}_{-1.3}$
H_0	72.4 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2212 ± 64
Ω_{Λ}	$0.750^{+0.045}_{-0.029}$	$10^5\mathrm{D}/\mathrm{H}$	2.621 ± 0.094	$H(2.33)$	$227.5^{+4.6}_{-6.0}$
Ω_{m}	$0.250^{+0.029}_{-0.045}$	Age/Gyr	13.737 ± 0.072	$D_{\mathrm{M}}(2.33)$	5724^{+41}_{-35}
$\Omega_{\mathrm{m}}h^2$	$0.1294^{+0.0070}_{-0.0090}$	z_{*}	$1088.93^{+0.86}_{-0.99}$	$f\sigma_8(0.15)$	0.415 ± 0.024
$\Omega_{\mathrm{m}}h^3$	0.0935 ± 0.0019	r_{*}	$148.2^{+2.5}_{-2.2}$	$\sigma_8(0.15)$	$0.763^{+0.022}_{-0.019}$
σ_8	0.818 ± 0.019	$100\theta_{*}$	1.04113 ± 0.00061	$f\sigma_8(0.38)$	$0.447^{+0.018}_{-0.016}$
S_8	$0.743^{+0.045}_{-0.051}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.24^{+0.24}_{-0.21}$	$\sigma_8(0.38)$	$0.684^{+0.024}_{-0.021}$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.407^{+0.025}_{-0.028}$	z_{drag}	1058.5 ± 1.4	$f\sigma_8(0.51)$	$0.454^{+0.014}_{-0.011}$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.576 ± 0.017	r_{drag}	$151.1^{+2.6}_{-2.3}$	$\sigma_8(0.51)$	$0.644^{+0.025}_{-0.021}$
$\sigma_8/h^{0.5}$	0.961 ± 0.020	k_{D}	$0.1367^{+0.0024}_{-0.0028}$	$f\sigma_8(0.61)$	$0.454^{+0.011}_{-0.0094}$
$r_{\mathrm{drag}}h$	109.5 ± 6.7	$100\theta_{\mathrm{D}}$	0.16150 ± 0.00079	$\sigma_8(0.61)$	$0.615^{+0.025}_{-0.021}$
$\langle d^2 \rangle^{1/2}$	2.508 ± 0.050	z_{eq}	3077^{+170}_{-220}	$f\sigma_8(2.33)$	$0.313^{+0.015}_{-0.012}$
z_{re}	$7.57^{+0.15}_{-0.18}$	k_{eq}	$0.00939^{+0.00051}_{-0.00066}$	$\sigma_8(2.33)$	$0.327^{+0.018}_{-0.016}$
10^9A_{s}	2.46 ± 0.28	$100\theta_{\mathrm{eq}}$	0.879 ± 0.042	$\chi^2_{\mathrm{lensing}}$	11.9 ± 2.0
$10^9A_{\mathrm{s}}e^{-2\tau}$	2.21 ± 0.25	$100\theta_{\mathrm{s,eq}}$	0.484 ± 0.022	χ^2_{prior}	3.0 ± 2.5
D_{40}	1517^{+200}_{-200}	$H(0.15)$	77.0 ± 2.8		
D_{220}	7184^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	604^{+22}_{-27}		
$\bar{\chi}^2_{\mathrm{eff}} = 14.89; R - 1 = 0.00293$					

2.173 base_lensing_lenspriors_theta_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02220 ± 0.00050	D_{810}	2779^{+300}_{-400}	$H(0.38)$	$84.2^{+1.9}_{-2.4}$
$\Omega_{\mathrm{c}} h^2$	$0.1139^{+0.0090}_{-0.011}$	D_{1420}	886^{+100}_{-100}	$D_{\mathrm{M}}(0.38)$	1498 ± 60
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00061	D_{2000}	249^{+30}_{-40}	$H(0.51)$	$90.6^{+1.3}_{-1.8}$
$\ln(10^{10} A_{\mathrm{s}})$	3.12 ± 0.13	$n_{\mathrm{s},0.002}$	0.959 ± 0.020	$D_{\mathrm{M}}(0.51)$	1945 ± 69
n_{s}	0.959 ± 0.020	Y_{P}	$0.24531^{+0.00022}_{-0.00020}$	$H(0.61)$	$95.94^{+0.80}_{-1.4}$
H_0	69.6 ± 3.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2267 ± 74
Ω_{Λ}	$0.713^{+0.062}_{-0.039}$	$10^5 \mathrm{D}/\mathrm{H}$	2.620 ± 0.094	$H(2.33)$	$232.3^{+6.0}_{-7.4}$
Ω_{m}	$0.287^{+0.039}_{-0.062}$	Age/Gyr	$13.777^{+0.077}_{-0.066}$	$D_{\mathrm{M}}(2.33)$	5748^{+41}_{-31}
$\Omega_{\mathrm{m}} h^2$	$0.1367^{+0.0090}_{-0.011}$	z_{*}	$1089.6^{+1.0}_{-1.1}$	$f\sigma_8(0.15)$	0.440 ± 0.029
$\Omega_{\mathrm{m}} h^3$	0.0948 ± 0.0021	r_{*}	146.3 ± 2.8	$\sigma_8(0.15)$	$0.757^{+0.025}_{-0.021}$
σ_8	$0.816^{+0.022}_{-0.020}$	$100\theta_{*}$	1.04111 ± 0.00061	$f\sigma_8(0.38)$	$0.464^{+0.021}_{-0.016}$
S_8	$0.793^{+0.057}_{-0.064}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	14.05 ± 0.27	$\sigma_8(0.38)$	$0.675^{+0.028}_{-0.023}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.434^{+0.031}_{-0.035}$	z_{drag}	1059.1 ± 1.4	$f\sigma_8(0.51)$	$0.466^{+0.015}_{-0.011}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.595^{+0.021}_{-0.019}$	r_{drag}	149.0 ± 2.9	$\sigma_8(0.51)$	$0.633^{+0.029}_{-0.024}$
$\sigma_8/h^{0.5}$	0.979 ± 0.021	k_{D}	$0.1388^{+0.0029}_{-0.0033}$	$f\sigma_8(0.61)$	$0.464^{+0.011}_{-0.0093}$
$r_{\mathrm{drag}} h$	103.9 ± 7.5	$100\theta_{\mathrm{D}}$	0.16123 ± 0.00081	$\sigma_8(0.61)$	$0.603^{+0.029}_{-0.024}$
$\langle d^2 \rangle^{1/2}$	2.488 ± 0.051	z_{eq}	3252^{+220}_{-270}	$f\sigma_8(2.33)$	$0.305^{+0.017}_{-0.014}$
z_{re}	$7.69^{+0.18}_{-0.21}$	k_{eq}	$0.00992^{+0.00066}_{-0.00082}$	$\sigma_8(2.33)$	0.317 ± 0.019
$10^9 A_{\mathrm{s}}$	$2.29^{+0.26}_{-0.32}$	$100\theta_{\mathrm{eq}}$	0.844 ± 0.047	$\chi^2_{\mathrm{lensing}}$	8.4 ± 2.0
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$2.05^{+0.23}_{-0.28}$	$100\theta_{\mathrm{s,eq}}$	0.465 ± 0.024	χ^2_{prior}	3.0 ± 2.5
D_{40}	1380^{+200}_{-200}	$H(0.15)$	74.6 ± 3.2		
D_{220}	6464^{+900}_{-1000}	$D_{\mathrm{M}}(0.15)$	626^{+28}_{-33}		

$\bar{\chi}^2_{\mathrm{eff}} = 11.47$; $R - 1 = 0.00170$

2.174 base_lensing_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02218	0.02219 ± 0.00050	D_{1420}	847	835^{+100}_{-90}	$H(0.51)$	89.30	$89.6^{+2.2}_{-2.5}$
$\Omega_c h^2$	0.1156	$0.117^{+0.010}_{-0.012}$	D_{2000}	237.8	237^{+25}_{-30}	$D_M(0.51)$	1983.8	1978 ± 43
$100\theta_{MC}$	1.0379	1.040 ± 0.015	$n_{s,0.002}$	0.9554	0.956 ± 0.020	$H(0.61)$	94.80	$95.2^{+2.4}_{-2.8}$
$\ln(10^{10} A_s)$	3.090	3.08 ± 0.10	Y_P	0.245319	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2310	2303 ± 52
n_s	0.9554	0.956 ± 0.020	Y_P^{BBN}	0.246645	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	233.2	$234.4^{+8.4}_{-9.4}$
H_0	67.75	$67.9^{+1.2}_{-1.3}$	$10^5 D/H$	2.621	$2.623^{+0.088}_{-0.10}$	$D_M(2.33)$	5800	5781 ± 170
Ω_Λ	0.6983	$0.697^{+0.018}_{-0.016}$	Age/Gyr	13.887	13.84 ± 0.41	$f\sigma_8(0.15)$	0.4501	0.452 ± 0.018
Ω_m	0.3017	$0.303^{+0.016}_{-0.018}$	z_*	1089.77	$1089.9^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.7493	0.750 ± 0.017
$\Omega_m h^2$	0.1385	$0.140^{+0.010}_{-0.012}$	r_*	145.72	145.4 ± 3.0	$f\sigma_8(0.38)$	0.4707	0.472 ± 0.016
$\Omega_m h^3$	0.0938	$0.0953^{+0.0079}_{-0.010}$	$100\theta_*$	1.0381	1.040 ± 0.015	$\sigma_8(0.38)$	0.6653	0.666 ± 0.014
σ_8	0.8098	0.811 ± 0.019	$D_M(z_*)/\text{Gpc}$	14.037	13.99 ± 0.49	$f\sigma_8(0.51)$	0.4704	0.471 ± 0.014
S_8	0.8120	0.815 ± 0.036	z_{drag}	1059.17	1059.3 ± 1.5	$\sigma_8(0.51)$	0.6230	0.624 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.4448	0.447 ± 0.019	r_{drag}	148.47	148.1 ± 3.1	$f\sigma_8(0.61)$	0.4663	0.467 ± 0.013
$\sigma_8 \Omega_m^{0.25}$	0.6001	0.602 ± 0.019	k_D	0.13928	$0.1397^{+0.0031}_{-0.0036}$	$\sigma_8(0.61)$	0.5931	0.594 ± 0.013
$\sigma_8/h^{0.5}$	0.9838	0.984 ± 0.019	$100\theta_D$	0.16069	0.1609 ± 0.0021	$f\sigma_8(2.33)$	0.2995	0.2997 ± 0.0063
$r_{\text{drag}} h$	100.59	100.6 ± 1.3	z_{eq}	3293	3333^{+240}_{-290}	$\sigma_8(2.33)$	0.3092	0.3094 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.487	2.483 ± 0.052	k_{eq}	0.01005	$0.01017^{+0.00074}_{-0.00089}$	χ^2_{lensing}	7.88	9.9 ± 2.3
z_{re}	7.716	$7.74^{+0.22}_{-0.25}$	$100\theta_{\text{eq}}$	0.8303	0.827 ± 0.038	$\chi^2_{6\text{DF}}$	0.0003	0.062 ± 0.084
$10^9 A_s$	2.198	$2.19^{+0.20}_{-0.24}$	$100\theta_{s,\text{eq}}$	0.4583	0.457 ± 0.020	χ^2_{MGS}	1.75	1.85 ± 0.73
$10^9 A_s e^{-2\tau}$	1.969	$1.96^{+0.18}_{-0.22}$	$H(0.15)$	72.88	$73.1^{+1.4}_{-1.6}$	χ^2_{DR12BAO}	3.62	4.5 ± 1.6
D_{40}	1325	1317^{+130}_{-150}	$D_M(0.15)$	640.6	639 ± 12	χ^2_{prior}	0.05	2.0 ± 2.0
D_{220}	6146	6116^{+800}_{-1000}	$H(0.38)$	82.74	$83.0^{+1.9}_{-2.1}$	χ^2_{BAO}	5.37	6.4 ± 1.7
D_{810}	2656	2630 ± 300	$D_M(0.38)$	1530.2	1526 ± 32			

Best-fit $\chi^2_{\text{eff}} = 13.31$; $\bar{\chi}^2_{\text{eff}} = 18.39$; $R - 1 = 0.00184$

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.62 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.88

2.175 base_lensing_lenspriors_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02218	0.02219 ± 0.00050	D_{1420}	859	844 ± 77	$H(0.51)$	89.05	89.4 ± 2.1
$\Omega_c h^2$	0.1143	$0.1161^{+0.0086}_{-0.0097}$	D_{2000}	241.3	239^{+20}_{-26}	$D_M(0.51)$	1987.7	1981 ± 39
$100\theta_{MC}$	1.0362	1.038 ± 0.013	$n_{s,0.002}$	0.9567	0.956 ± 0.019	$H(0.61)$	94.51	94.9 ± 2.3
$\ln(10^{10} A_s)$	3.104	3.090 ± 0.086	Y_P	0.245317	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2314.6	2307 ± 47
n_s	0.9567	0.956 ± 0.019	Y_P^{BBN}	0.246643	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	232.1	233.4 ± 7.4
H_0	67.67	67.9 ± 1.2	$10^5 D/H$	2.622	$2.623^{+0.088}_{-0.10}$	$D_M(2.33)$	5819	5796 ± 140
Ω_Λ	0.7006	0.699 ± 0.013	Age/Gyr	13.933	13.88 ± 0.35	$f\sigma_8(0.15)$	0.4485	0.450 ± 0.016
Ω_m	0.2994	0.301 ± 0.013	z_*	1089.65	1089.80 ± 0.98	$\sigma_8(0.15)$	0.7492	0.750 ± 0.016
$\Omega_m h^2$	0.1371	$0.1389^{+0.0086}_{-0.0098}$	r_*	146.08	145.7 ± 2.5	$f\sigma_8(0.38)$	0.4695	0.471 ± 0.014
$\Omega_m h^3$	0.0928	$0.0943^{+0.0069}_{-0.0082}$	$100\theta_*$	1.0364	1.038 ± 0.013	$\sigma_8(0.38)$	0.6655	0.666 ± 0.014
σ_8	0.8095	0.810 ± 0.018	$D_M(z_*)/\text{Gpc}$	14.096	14.03 ± 0.41	$f\sigma_8(0.51)$	0.4695	0.471 ± 0.013
S_8	0.8086	0.812 ± 0.030	z_{drag}	1059.06	1059.2 ± 1.4	$\sigma_8(0.51)$	0.6233	0.624 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.4429	0.445 ± 0.016	r_{drag}	148.85	148.4 ± 2.6	$f\sigma_8(0.61)$	0.4656	0.466 ± 0.012
$\sigma_8 \Omega_m^{0.25}$	0.5988	0.600 ± 0.017	k_D	0.13888	0.1394 ± 0.0029	$\sigma_8(0.61)$	0.5935	0.594 ± 0.013
$\sigma_8/h^{0.5}$	0.9840	0.984 ± 0.019	$100\theta_D$	0.16048	0.1608 ± 0.0018	$f\sigma_8(2.33)$	0.2997	0.2998 ± 0.0063
$r_{\text{drag}} h$	100.73	100.7 ± 1.1	z_{eq}	3261	3304^{+210}_{-230}	$\sigma_8(2.33)$	0.3096	0.3096 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.4927	2.486 ± 0.049	k_{eq}	0.00995	$0.01008^{+0.00063}_{-0.00071}$	χ^2_{lensing}	7.78	9.6 ± 1.9
z_{re}	7.692	7.72 ± 0.20	$100\theta_{\text{eq}}$	0.8352	0.831 ± 0.031	χ^2_{JLA}	1034.734	1035.12 ± 0.55
$10^9 A_s$	2.228	$2.21^{+0.17}_{-0.21}$	$100\theta_{s,\text{eq}}$	0.4608	0.459 ± 0.016	$\chi^2_{6\text{DF}}$	0.0017	0.050 ± 0.069
$10^9 A_s e^{-2\tau}$	1.996	$1.98^{+0.15}_{-0.19}$	$H(0.15)$	72.76	73.0 ± 1.4	χ^2_{MGS}	1.82	1.90 ± 0.67
D_{40}	1343	1328^{+110}_{-130}	$D_M(0.15)$	641.5	640 ± 12	χ^2_{DR12BAO}	3.68	4.5 ± 1.5
D_{220}	6262	6181^{+620}_{-810}	$H(0.38)$	82.54	82.9 ± 1.8	χ^2_{prior}	0.03	2.0 ± 2.0
D_{810}	2696	2656 ± 250	$D_M(0.38)$	1532.9	1528 ± 29	χ^2_{BAO}	5.50	6.4 ± 1.6

Best-fit $\chi^2_{\text{eff}} = 1048.05$; $\bar{\chi}^2_{\text{eff}} = 1053.10$; $R - 1 = 0.00233$

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.68 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.78 SN - JLA Pantheon18: 1034.73

2.176 base_lensing_lenspriors_BAO_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	863 ± 83	$H(0.51)$	$88.5^{+1.9}_{-2.1}$
$\Omega_c h^2$	$0.1113^{+0.0082}_{-0.010}$	D_{2000}	246^{+23}_{-31}	$D_M(0.51)$	1998 ± 39
$100\theta_{MC}$	1.032 ± 0.013	$n_{s,0.002}$	0.954 ± 0.020	$H(0.61)$	$93.8^{+2.1}_{-2.4}$
$\ln(10^{10} A_s)$	3.117 ± 0.095	Y_P	$0.24531^{+0.00023}_{-0.00019}$	$D_M(0.61)$	2328 ± 46
n_s	0.954 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00019}$	$H(2.33)$	$229.6^{+7.0}_{-8.2}$
H_0	67.4 ± 1.1	$10^5 D/H$	$2.623^{+0.087}_{-0.099}$	$D_M(2.33)$	5868 ± 150
Ω_Λ	$0.705^{+0.016}_{-0.014}$	Age/Gyr	14.05 ± 0.36	$f\sigma_8(0.15)$	0.439 ± 0.015
Ω_m	$0.295^{+0.014}_{-0.016}$	z_*	$1089.38^{+0.94}_{-1.1}$	$\sigma_8(0.15)$	0.739 ± 0.014
$\Omega_m h^2$	$0.1341^{+0.0083}_{-0.010}$	r_*	147.0 ± 2.6	$f\sigma_8(0.38)$	0.460 ± 0.013
$\Omega_m h^3$	$0.0906^{+0.0066}_{-0.0084}$	$100\theta_*$	1.032 ± 0.013	$\sigma_8(0.38)$	0.657 ± 0.013
σ_8	0.797 ± 0.016	$D_M(z_*)/\text{Gpc}$	14.25 ± 0.43	$f\sigma_8(0.51)$	0.461 ± 0.011
S_8	0.790 ± 0.028	z_{drag}	1058.9 ± 1.4	$\sigma_8(0.51)$	0.615 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.433 ± 0.016	r_{drag}	149.7 ± 2.7	$f\sigma_8(0.61)$	0.457 ± 0.011
$\sigma_8 \Omega_m^{0.25}$	0.587 ± 0.015	k_D	$0.1380^{+0.0027}_{-0.0031}$	$\sigma_8(0.61)$	0.586 ± 0.011
$\sigma_8/h^{0.5}$	0.971 ± 0.017	$100\theta_D$	0.1599 ± 0.0018	$f\sigma_8(2.33)$	0.2962 ± 0.0057
$r_{\text{drag}} h$	101.0 ± 1.2	z_{eq}	3190^{+200}_{-250}	$\sigma_8(2.33)$	0.3061 ± 0.0060
$\langle d^2 \rangle^{1/2}$	2.492 ± 0.050	k_{eq}	$0.00974^{+0.00060}_{-0.00076}$	χ^2_{lensing}	12.1 ± 2.2
z_{re}	$7.63^{+0.19}_{-0.22}$	$100\theta_{\text{eq}}$	0.848 ± 0.034	$\chi^2_{6\text{DF}}$	0.063 ± 0.086
$10^9 A_s$	$2.27^{+0.20}_{-0.23}$	$100\theta_{s,\text{eq}}$	0.467 ± 0.017	χ^2_{MGS}	2.02 ± 0.73
$10^9 A_s e^{-2\tau}$	$2.03^{+0.18}_{-0.21}$	$H(0.15)$	72.4 ± 1.3	χ^2_{DR12BAO}	4.9 ± 1.6
D_{40}	1382 ± 130	$D_M(0.15)$	644 ± 11	χ^2_{prior}	2.1 ± 2.1
D_{220}	6502^{+800}_{-900}	$H(0.38)$	82.1 ± 1.7	χ^2_{BAO}	6.9 ± 1.7
D_{810}	2733 ± 270	$D_M(0.38)$	1541 ± 29		

$\bar{\chi}^2_{\text{eff}} = 21.15; R - 1 = 0.00403$

2.177 base_lensing_lenspriors_BAO_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	819^{+100}_{-100}	$H(0.51)$	$90.0^{+2.4}_{-3.0}$
$\Omega_c h^2$	$0.119^{+0.011}_{-0.015}$	D_{2000}	233^{+30}_{-30}	$D_M(0.51)$	1972 ± 49
$100\theta_{MC}$	1.042 ± 0.018	$n_{s,0.002}$	0.956 ± 0.020	$H(0.61)$	$95.6^{+2.7}_{-3.3}$
$\ln(10^{10} A_s)$	3.06 ± 0.12	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2295 ± 60
n_s	0.956 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$235.9^{+9.3}_{-11}$
H_0	$68.1^{+1.3}_{-1.5}$	$10^5 D/H$	$2.623^{+0.089}_{-0.10}$	$D_M(2.33)$	5754 ± 190
Ω_Λ	$0.694^{+0.021}_{-0.017}$	Age/Gyr	13.78 ± 0.47	$f\sigma_8(0.15)$	0.454 ± 0.021
Ω_m	$0.306^{+0.017}_{-0.021}$	z_*	$1090.1^{+1.2}_{-1.4}$	$\sigma_8(0.15)$	0.751 ± 0.017
$\Omega_m h^2$	$0.142^{+0.011}_{-0.015}$	r_*	$144.9^{+3.7}_{-3.2}$	$f\sigma_8(0.38)$	0.474 ± 0.017
$\Omega_m h^3$	$0.0970^{+0.0087}_{-0.012}$	$100\theta_*$	1.042 ± 0.018	$\sigma_8(0.38)$	0.667 ± 0.015
σ_8	0.813 ± 0.020	$D_M(z_*)/\text{Gpc}$	13.91 ± 0.57	$f\sigma_8(0.51)$	0.473 ± 0.015
S_8	0.821 ± 0.040	z_{drag}	1059.4 ± 1.6	$\sigma_8(0.51)$	0.624 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.449 ± 0.022	r_{drag}	$147.6^{+3.8}_{-3.3}$	$f\sigma_8(0.61)$	0.469 ± 0.014
$\sigma_8 \Omega_m^{0.25}$	0.604 ± 0.021	k_D	$0.1402^{+0.0034}_{-0.0042}$	$\sigma_8(0.61)$	0.594 ± 0.013
$\sigma_8/h^{0.5}$	0.985 ± 0.020	$100\theta_D$	0.1613 ± 0.0024	$f\sigma_8(2.33)$	0.2998 ± 0.0063
$r_{\text{drag}} h$	100.5 ± 1.3	z_{eq}	3383^{+270}_{-350}	$\sigma_8(2.33)$	0.3094 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.473 ± 0.063	k_{eq}	$0.01033^{+0.00081}_{-0.0011}$	χ^2_{lensing}	10.1 ± 2.4
z_{re}	$7.78^{+0.24}_{-0.29}$	$100\theta_{\text{eq}}$	0.821 ± 0.044	$\chi^2_{6\text{DF}}$	0.064 ± 0.087
$10^9 A_s$	$2.16^{+0.23}_{-0.28}$	$100\theta_{s,\text{eq}}$	0.454 ± 0.023	χ^2_{MGS}	1.81 ± 0.73
$10^9 A_s e^{-2\tau}$	$1.93^{+0.21}_{-0.25}$	$H(0.15)$	$73.3^{+1.5}_{-1.8}$	χ^2_{DR12BAO}	4.4 ± 1.6
D_{40}	1294^{+200}_{-200}	$D_M(0.15)$	637 ± 14	χ^2_{prior}	2.0 ± 2.0
D_{220}	5984^{+900}_{-1000}	$H(0.38)$	$83.4^{+2.1}_{-2.5}$	χ^2_{BAO}	6.2 ± 1.8
D_{810}	2581 ± 300	$D_M(0.38)$	1521 ± 36		

$\bar{\chi}^2_{\text{eff}} = 18.35; R - 1 = 0.00540$

2.178 base_lensing_lenspriors_BAO_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	825^{+100}_{-90}	$H(0.51)$	$89.9^{+2.2}_{-2.5}$
$\Omega_c h^2$	$0.119^{+0.010}_{-0.012}$	D_{2000}	234^{+25}_{-30}	$D_M(0.51)$	1973 ± 44
$100\theta_{MC}$	1.041 ± 0.015	$n_{s,0.002}$	0.955 ± 0.020	$H(0.61)$	$95.5^{+2.5}_{-2.8}$
$\ln(10^{10} A_s)$	3.07 ± 0.10	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2297 ± 53
n_s	0.955 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$235.5^{+8.4}_{-9.5}$
H_0	$68.1^{+1.2}_{-1.3}$	$10^5 D/H$	$2.623^{+0.088}_{-0.10}$	$D_M(2.33)$	5761 ± 170
Ω_Λ	$0.695^{+0.018}_{-0.016}$	Age/Gyr	13.79 ± 0.41	$f\sigma_8(0.15)$	0.454 ± 0.018
Ω_m	$0.305^{+0.016}_{-0.018}$	z_*	$1090.0^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.752 ± 0.017
$\Omega_m h^2$	$0.142^{+0.010}_{-0.012}$	r_*	145.0 ± 3.1	$f\sigma_8(0.38)$	0.474 ± 0.016
$\Omega_m h^3$	$0.0964^{+0.0081}_{-0.010}$	$100\theta_*$	1.042 ± 0.015	$\sigma_8(0.38)$	0.667 ± 0.014
σ_8	0.813 ± 0.019	$D_M(z_*)/\text{Gpc}$	13.93 ± 0.49	$f\sigma_8(0.51)$	0.473 ± 0.014
S_8	0.820 ± 0.036	z_{drag}	1059.4 ± 1.5	$\sigma_8(0.51)$	0.625 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.449 ± 0.020	r_{drag}	147.8 ± 3.2	$f\sigma_8(0.61)$	0.469 ± 0.013
$\sigma_8 \Omega_m^{0.25}$	0.604 ± 0.019	k_D	$0.1401^{+0.0032}_{-0.0036}$	$\sigma_8(0.61)$	0.595 ± 0.012
$\sigma_8/h^{0.5}$	0.986 ± 0.019	$100\theta_D$	0.1612 ± 0.0021	$f\sigma_8(2.33)$	0.3001 ± 0.0062
$r_{\text{drag}} h$	100.5 ± 1.2	z_{eq}	3367^{+240}_{-300}	$\sigma_8(2.33)$	0.3098 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.479 ± 0.053	k_{eq}	$0.01028^{+0.00074}_{-0.00091}$	χ^2_{lensing}	7.8 ± 2.3
z_{re}	$7.77^{+0.22}_{-0.25}$	$100\theta_{\text{eq}}$	0.823 ± 0.038	$\chi^2_{6\text{DF}}$	0.061 ± 0.083
$10^9 A_s$	$2.17^{+0.20}_{-0.24}$	$100\theta_{s,\text{eq}}$	0.454 ± 0.020	χ^2_{MGS}	1.82 ± 0.72
$10^9 A_s e^{-2\tau}$	$1.94^{+0.18}_{-0.22}$	$H(0.15)$	$73.3^{+1.4}_{-1.6}$	χ^2_{DR12BAO}	4.4 ± 1.6
D_{40}	1301^{+130}_{-150}	$D_M(0.15)$	638 ± 12	χ^2_{prior}	2.0 ± 2.0
D_{220}	6015^{+700}_{-1000}	$H(0.38)$	$83.3^{+1.9}_{-2.2}$	χ^2_{BAO}	6.3 ± 1.7
D_{810}	2598 ± 300	$D_M(0.38)$	1523 ± 32		

$\bar{\chi}^2_{\text{eff}} = 16.15; R - 1 = 0.00217$

2.179 base_lensing_lenspriors_BAO_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02220 ± 0.00051	D_{1420}	918^{+97}_{-85}	$H(0.51)$	$87.6^{+2.0}_{-2.6}$
$\Omega_c h^2$	$0.1070^{+0.0089}_{-0.012}$	D_{2000}	266^{+28}_{-39}	$D_M(0.51)$	2015^{+47}_{-41}
$100\theta_{MC}$	$1.025^{+0.015}_{-0.017}$	$n_{s,0.002}$	0.955 ± 0.020	$H(0.61)$	$92.8^{+2.3}_{-2.9}$
$\ln(10^{10} A_s)$	$3.19^{+0.12}_{-0.10}$	Y_P	$0.24531^{+0.00023}_{-0.00021}$	$D_M(0.61)$	2348^{+57}_{-49}
n_s	0.955 ± 0.020	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00021}$	$H(2.33)$	$226.1^{+7.7}_{-9.7}$
H_0	$67.0^{+1.1}_{-1.3}$	$10^5 D/H$	$2.621^{+0.091}_{-0.10}$	$D_M(2.33)$	5937^{+180}_{-160}
Ω_Λ	$0.712^{+0.018}_{-0.015}$	Age/Gyr	$14.22^{+0.45}_{-0.40}$	$f\sigma_8(0.15)$	0.437 ± 0.019
Ω_m	$0.288^{+0.015}_{-0.018}$	z_*	$1089.0^{+1.0}_{-1.2}$	$\sigma_8(0.15)$	0.744 ± 0.019
$\Omega_m h^2$	$0.1299^{+0.0089}_{-0.012}$	r_*	$148.2^{+3.3}_{-2.8}$	$f\sigma_8(0.38)$	0.460 ± 0.017
$\Omega_m h^3$	$0.0872^{+0.0069}_{-0.0097}$	$100\theta_*$	$1.025^{+0.015}_{-0.017}$	$\sigma_8(0.38)$	0.662 ± 0.016
σ_8	0.803 ± 0.021	$D_M(z_*)/\text{Gpc}$	$14.46^{+0.54}_{-0.49}$	$f\sigma_8(0.51)$	0.462 ± 0.015
S_8	0.787 ± 0.037	z_{drag}	1058.5 ± 1.5	$\sigma_8(0.51)$	0.621 ± 0.015
$\sigma_8 \Omega_m^{0.5}$	0.431 ± 0.020	r_{drag}	$151.0^{+3.4}_{-2.9}$	$f\sigma_8(0.61)$	0.459 ± 0.014
$\sigma_8 \Omega_m^{0.25}$	0.588 ± 0.020	k_D	$0.1368^{+0.0029}_{-0.0036}$	$\sigma_8(0.61)$	0.591 ± 0.014
$\sigma_8/h^{0.5}$	0.980 ± 0.022	$100\theta_D$	0.1591 ± 0.0021	$f\sigma_8(2.33)$	$0.2992^{+0.0072}_{-0.0066}$
$r_{\text{drag}} h$	$101.2^{+1.3}_{-1.1}$	z_{eq}	3088^{+210}_{-290}	$\sigma_8(2.33)$	0.3096 ± 0.0072
$\langle d^2 \rangle^{1/2}$	$2.547^{+0.066}_{-0.058}$	k_{eq}	$0.00942^{+0.00065}_{-0.00088}$	χ^2_{lensing}	11.5 ± 2.4
z_{re}	$7.54^{+0.21}_{-0.24}$	$100\theta_{\text{eq}}$	0.864 ± 0.040	$\chi^2_{6\text{DF}}$	0.071 ± 0.089
$10^9 A_s$	2.43 ± 0.26	$100\theta_{s,\text{eq}}$	0.476 ± 0.021	χ^2_{MGS}	2.12 ± 0.73
$10^9 A_s e^{-2\tau}$	2.18 ± 0.24	$H(0.15)$	$71.9^{+1.3}_{-1.6}$	χ^2_{DR12BAO}	5.2 ± 1.7
D_{40}	1493 ± 200	$D_M(0.15)$	648^{+13}_{-12}	χ^2_{prior}	2.1 ± 2.2
D_{220}	7122 ± 1000	$H(0.38)$	$81.3^{+1.7}_{-2.2}$	χ^2_{BAO}	7.4 ± 1.8
D_{810}	2923^{+300}_{-300}	$D_M(0.38)$	1552^{+35}_{-30}		

$$\bar{\chi}^2_{\text{eff}} = 21.02; R - 1 = 0.01428$$

2.180 base_lensing_lenspriors_BAO_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00050	D_{1420}	812^{+100}_{-80}	$H(0.51)$	$89.9^{+2.2}_{-2.5}$
$\Omega_{\mathrm{c}}h^2$	$0.119^{+0.010}_{-0.012}$	D_{2000}	231^{+24}_{-29}	$D_{\mathrm{M}}(0.51)$	1974 ± 44
$100\theta_{\mathrm{MC}}$	1.041 ± 0.015	$n_{\mathrm{s},0.002}$	0.956 ± 0.020	$H(0.61)$	$95.5^{+2.5}_{-2.8}$
$\ln(10^{10}A_{\mathrm{s}})$	3.05 ± 0.10	Y_{P}	$0.24531^{+0.00023}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2298 ± 52
n_{s}	0.956 ± 0.020	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$235.3^{+8.4}_{-9.5}$
H_0	$68.0^{+1.2}_{-1.3}$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.098}$	$D_{\mathrm{M}}(2.33)$	5763 ± 170
Ω_{Λ}	$0.695^{+0.018}_{-0.016}$	Age/Gyr	13.80 ± 0.41	$f\sigma_8(0.15)$	0.450 ± 0.019
Ω_{m}	$0.305^{+0.016}_{-0.018}$	z_*	$1090.0^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.745 ± 0.017
$\Omega_{\mathrm{m}}h^2$	$0.141^{+0.010}_{-0.012}$	r_*	145.1 ± 3.1	$f\sigma_8(0.38)$	0.470 ± 0.016
$\Omega_{\mathrm{m}}h^3$	$0.0963^{+0.0081}_{-0.010}$	$100\theta_*$	1.041 ± 0.015	$\sigma_8(0.38)$	0.661 ± 0.014
σ_8	0.806 ± 0.019	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.94 ± 0.49	$f\sigma_8(0.51)$	0.469 ± 0.014
S_8	0.812 ± 0.036	z_{drag}	1059.4 ± 1.5	$\sigma_8(0.51)$	0.619 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.445 ± 0.020	r_{drag}	147.8 ± 3.2	$f\sigma_8(0.61)$	0.465 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.599 ± 0.019	k_{D}	$0.1400^{+0.0031}_{-0.0036}$	$\sigma_8(0.61)$	0.589 ± 0.012
$\sigma_8/h^{0.5}$	0.977 ± 0.019	$100\theta_{\mathrm{D}}$	0.1611 ± 0.0021	$f\sigma_8(2.33)$	0.2975 ± 0.0061
$r_{\mathrm{drag}}h$	100.5 ± 1.2	z_{eq}	3363^{+240}_{-300}	$\sigma_8(2.33)$	0.3071 ± 0.0063
$\langle d^2 \rangle^{1/2}$	2.457 ± 0.049	k_{eq}	$0.01026^{+0.00074}_{-0.00091}$	$\chi_{\mathrm{lensing}}^2$	10.1 ± 2.3
z_{re}	$7.77^{+0.22}_{-0.25}$	$100\theta_{\mathrm{eq}}$	0.823 ± 0.038	$\chi_{6\mathrm{DF}}^2$	0.060 ± 0.083
10^9A_{s}	$2.13^{+0.19}_{-0.23}$	$100\theta_{\mathrm{s,eq}}$	0.455 ± 0.020	χ_{MGS}^2	1.83 ± 0.72
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.91^{+0.17}_{-0.21}$	$H(0.15)$	$73.3^{+1.4}_{-1.6}$	$\chi_{\mathrm{DR12BAO}}^2$	4.4 ± 1.6
D_{40}	1280^{+120}_{-150}	$D_{\mathrm{M}}(0.15)$	638 ± 12	χ_{prior}^2	2.0 ± 2.0
D_{220}	5922^{+700}_{-900}	$H(0.38)$	$83.3^{+1.9}_{-2.1}$	χ_{BAO}^2	6.3 ± 1.7
D_{810}	2558 ± 300	$D_{\mathrm{M}}(0.38)$	1523 ± 32		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.42$; $R - 1 = 0.00341$

2.181 base_lensing_lenspriors_BAO_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049	D_{1420}	842 ± 81	$H(0.51)$	88.7 ± 2.0
$\Omega_{\mathrm{c}}h^2$	$0.1125^{+0.0085}_{-0.010}$	D_{2000}	239^{+22}_{-29}	$D_{\mathrm{M}}(0.51)$	1994 ± 39
$100\theta_{\mathrm{MC}}$	1.033 ± 0.013	$n_{\mathrm{s},0.002}$	0.954 ± 0.020	$H(0.61)$	94.1 ± 2.3
$\ln(10^{10}A_{\mathrm{s}})$	3.091 ± 0.094	Y_{P}	$0.24531^{+0.00023}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2322 ± 46
n_{s}	0.954 ± 0.020	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00019}$	$H(2.33)$	$230.6^{+7.2}_{-8.2}$
H_0	67.6 ± 1.1	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.087}_{-0.097}$	$D_{\mathrm{M}}(2.33)$	5849 ± 150
Ω_{Λ}	$0.704^{+0.016}_{-0.014}$	Age/Gyr	14.01 ± 0.36	$f\sigma_8(0.15)$	0.437 ± 0.015
Ω_{m}	$0.296^{+0.014}_{-0.016}$	z_*	$1089.48^{+0.96}_{-1.1}$	$\sigma_8(0.15)$	0.734 ± 0.014
$\Omega_{\mathrm{m}}h^2$	$0.1353^{+0.0085}_{-0.010}$	r_*	146.6 ± 2.6	$f\sigma_8(0.38)$	0.458 ± 0.013
$\Omega_{\mathrm{m}}h^3$	$0.0915^{+0.0068}_{-0.0084}$	$100\theta_*$	1.033 ± 0.013	$\sigma_8(0.38)$	0.652 ± 0.012
σ_8	0.793 ± 0.016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.19 ± 0.43	$f\sigma_8(0.51)$	0.459 ± 0.011
S_8	0.788 ± 0.029	z_{drag}	1059.0 ± 1.4	$\sigma_8(0.51)$	0.611 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.431 ± 0.016	r_{drag}	149.4 ± 2.7	$f\sigma_8(0.61)$	0.455 ± 0.011
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.585 ± 0.016	k_{D}	$0.1383^{+0.0027}_{-0.0031}$	$\sigma_8(0.61)$	0.582 ± 0.011
$\sigma_8/h^{0.5}$	0.964 ± 0.017	$100\theta_{\mathrm{D}}$	0.1601 ± 0.0018	$f\sigma_8(2.33)$	0.2941 ± 0.0056
$r_{\mathrm{drag}}h$	100.9 ± 1.2	z_{eq}	3219^{+200}_{-250}	$\sigma_8(2.33)$	0.3039 ± 0.0059
$\langle d^2 \rangle^{1/2}$	2.466 ± 0.047	k_{eq}	$0.00982^{+0.00062}_{-0.00076}$	$\chi_{\mathrm{lensing}}^2$	12.3 ± 2.2
z_{re}	7.65 ± 0.21	$100\theta_{\mathrm{eq}}$	0.843 ± 0.034	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.084
10^9A_{s}	$2.21^{+0.19}_{-0.22}$	$100\theta_{\mathrm{s,eq}}$	0.465 ± 0.017	χ_{MGS}^2	1.99 ± 0.72
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.98^{+0.17}_{-0.20}$	$H(0.15)$	72.6 ± 1.3	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.6
D_{40}	1342^{+120}_{-130}	$D_{\mathrm{M}}(0.15)$	643 ± 11	χ_{prior}^2	2.1 ± 2.1
D_{220}	6298^{+700}_{-900}	$H(0.38)$	82.3 ± 1.8	χ_{BAO}^2	6.8 ± 1.7
D_{810}	2662 ± 260	$D_{\mathrm{M}}(0.38)$	1537 ± 29		

$\bar{\chi}_{\mathrm{eff}}^2 = 21.20$; $R - 1 = 0.00647$

2.182 base_lensing_lenspriors_BAO_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00050	D_{1420}	812^{+100}_{-90}	$H(0.51)$	$90.5^{+2.3}_{-2.7}$
$\Omega_{\mathrm{c}}h^2$	$0.122^{+0.010}_{-0.013}$	D_{2000}	230 ± 30	$D_{\mathrm{M}}(0.51)$	1964 ± 46
$100\theta_{\mathrm{MC}}$	1.045 ± 0.016	$n_{\mathrm{s},0.002}$	0.956 ± 0.020	$H(0.61)$	$96.1^{+2.5}_{-3.0}$
$\ln(10^{10}A_{\mathrm{s}})$	3.06 ± 0.11	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2286 ± 55
n_{s}	0.956 ± 0.020	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$	$H(2.33)$	$237.7^{+8.6}_{-10}$
H_0	$68.3^{+1.2}_{-1.4}$	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.089}_{-0.10}$	$D_{\mathrm{M}}(2.33)$	5720 ± 180
Ω_{Λ}	$0.691^{+0.020}_{-0.016}$	Age/Gyr	13.70 ± 0.43	$f\sigma_8(0.15)$	0.461 ± 0.020
Ω_{m}	$0.309^{+0.016}_{-0.020}$	z_*	$1090.3^{+1.1}_{-1.3}$	$\sigma_8(0.15)$	0.758 ± 0.017
$\Omega_{\mathrm{m}}h^2$	$0.144^{+0.010}_{-0.013}$	r_*	$144.3^{+3.3}_{-3.0}$	$f\sigma_8(0.38)$	0.480 ± 0.017
$\Omega_{\mathrm{m}}h^3$	$0.0988^{+0.0083}_{-0.011}$	$100\theta_*$	1.045 ± 0.016	$\sigma_8(0.38)$	0.672 ± 0.015
σ_8	0.820 ± 0.020	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.81 ± 0.51	$f\sigma_8(0.51)$	0.479 ± 0.015
S_8	0.833 ± 0.038	z_{drag}	1059.6 ± 1.5	$\sigma_8(0.51)$	0.629 ± 0.014
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.456 ± 0.021	r_{drag}	$147.0^{+3.4}_{-3.1}$	$f\sigma_8(0.61)$	0.474 ± 0.014
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.612 ± 0.021	k_{D}	$0.1409^{+0.0033}_{-0.0038}$	$\sigma_8(0.61)$	0.599 ± 0.013
$\sigma_8/h^{0.5}$	0.993 ± 0.020	$100\theta_{\mathrm{D}}$	0.1616 ± 0.0022	$f\sigma_8(2.33)$	0.3021 ± 0.0064
$r_{\mathrm{drag}}h$	100.3 ± 1.3	z_{eq}	3437^{+250}_{-320}	$\sigma_8(2.33)$	0.3116 ± 0.0066
$\langle d^2 \rangle^{1/2}$	2.473 ± 0.053	k_{eq}	$0.01049^{+0.00076}_{-0.00098}$	$\chi_{\mathrm{lensing}}^2$	10.4 ± 2.3
z_{re}	$7.82^{+0.23}_{-0.26}$	$100\theta_{\mathrm{eq}}$	0.813 ± 0.040	$\chi_{6\mathrm{DF}}^2$	0.063 ± 0.086
10^9A_{s}	$2.13^{+0.20}_{-0.24}$	$100\theta_{\mathrm{s,eq}}$	0.450 ± 0.020	χ_{MGS}^2	1.74 ± 0.72
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.91^{+0.18}_{-0.21}$	$H(0.15)$	$73.6^{+1.4}_{-1.7}$	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.6
D_{40}	1274^{+130}_{-150}	$D_{\mathrm{M}}(0.15)$	635 ± 13	χ_{prior}^2	2.1 ± 2.0
D_{220}	5855^{+800}_{-900}	$H(0.38)$	$83.8^{+1.9}_{-2.3}$	χ_{BAO}^2	6.0 ± 1.7
D_{810}	2554 ± 300	$D_{\mathrm{M}}(0.38)$	1516 ± 34		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.54$; $R - 1 = 0.00374$

2.183 base_lensing_lenspriors_BAO_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00050	D_{1420}	835^{+100}_{-90}	$H(0.51)$	$89.6^{+2.2}_{-2.5}$
$\Omega_{\mathrm{c}}h^2$	$0.117^{+0.010}_{-0.012}$	D_{2000}	238^{+25}_{-30}	$D_{\mathrm{M}}(0.51)$	1979 ± 43
$100\theta_{\mathrm{MC}}$	1.039 ± 0.015	$n_{\mathrm{s},0.002}$	0.956 ± 0.020	$H(0.61)$	$95.1^{+2.4}_{-2.8}$
$\ln(10^{10}A_{\mathrm{s}})$	3.08 ± 0.10	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2304 ± 52
n_{s}	0.956 ± 0.020	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$234.2^{+8.3}_{-9.4}$
H_0	$67.9^{+1.2}_{-1.3}$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.10}$	$D_{\mathrm{M}}(2.33)$	5784 ± 170
Ω_{Λ}	$0.697^{+0.018}_{-0.016}$	Age/Gyr	13.85 ± 0.41	$f\sigma_8(0.15)$	0.451 ± 0.018
Ω_{m}	$0.303^{+0.016}_{-0.018}$	z_{*}	$1089.9^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.750 ± 0.017
$\Omega_{\mathrm{m}}h^2$	$0.140^{+0.010}_{-0.012}$	r_{*}	145.4 ± 3.0	$f\sigma_8(0.38)$	0.471 ± 0.016
$\Omega_{\mathrm{m}}h^3$	$0.0952^{+0.0079}_{-0.010}$	$100\theta_{*}$	1.040 ± 0.015	$\sigma_8(0.38)$	0.666 ± 0.014
σ_8	0.811 ± 0.019	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	14.00 ± 0.49	$f\sigma_8(0.51)$	0.471 ± 0.014
S_8	0.814 ± 0.035	z_{drag}	1059.3 ± 1.5	$\sigma_8(0.51)$	0.623 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.446 ± 0.019	r_{drag}	148.2 ± 3.1	$f\sigma_8(0.61)$	0.467 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.601 ± 0.019	k_{D}	$0.1396^{+0.0031}_{-0.0036}$	$\sigma_8(0.61)$	0.593 ± 0.012
$\sigma_8/h^{0.5}$	0.984 ± 0.019	$100\theta_{\mathrm{D}}$	0.1609 ± 0.0021	$f\sigma_8(2.33)$	0.2996 ± 0.0062
$r_{\mathrm{drag}}h$	100.6 ± 1.2	z_{eq}	3329^{+240}_{-290}	$\sigma_8(2.33)$	0.3093 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.483 ± 0.052	k_{eq}	$0.01016^{+0.00073}_{-0.00089}$	$\chi_{\mathrm{lensing}}^2$	9.9 ± 2.3
z_{re}	$7.74^{+0.22}_{-0.25}$	$100\theta_{\mathrm{eq}}$	0.828 ± 0.038	$\chi_{6\mathrm{DF}}^2$	0.061 ± 0.083
10^9A_{s}	$2.19^{+0.20}_{-0.25}$	$100\theta_{\mathrm{s,eq}}$	0.457 ± 0.020	χ_{MGS}^2	1.86 ± 0.73
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.96^{+0.18}_{-0.22}$	$H(0.15)$	$73.1^{+1.4}_{-1.6}$	$\chi_{\mathrm{DR12BAO}}^2$	4.5 ± 1.6
D_{40}	1319^{+130}_{-150}	$D_{\mathrm{M}}(0.15)$	639 ± 12	χ_{prior}^2	2.0 ± 2.0
D_{220}	6124^{+800}_{-1000}	$H(0.38)$	$83.0^{+1.9}_{-2.1}$	χ_{BAO}^2	6.4 ± 1.7
D_{810}	2633 ± 300	$D_{\mathrm{M}}(0.38)$	1526 ± 32		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.36$; $R - 1 = 0.00214$

2.184 base_lensing_lenspriors_BAO_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	866 ± 82	$H(0.51)$	$88.4^{+1.9}_{-2.1}$
$\Omega_c h^2$	$0.1108^{+0.0081}_{-0.010}$	D_{2000}	247^{+23}_{-31}	$D_M(0.51)$	2000 ± 39
$100\theta_{MC}$	1.031 ± 0.013	$n_{s,0.002}$	0.954 ± 0.020	$H(0.61)$	$93.7^{+2.1}_{-2.4}$
$\ln(10^{10} A_s)$	3.121 ± 0.095	Y_P	$0.24531^{+0.00023}_{-0.00019}$	$D_M(0.61)$	2330 ± 46
n_s	0.954 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00019}$	$H(2.33)$	$229.2^{+6.9}_{-8.1}$
H_0	67.4 ± 1.1	$10^5 D/H$	$2.623^{+0.087}_{-0.099}$	$D_M(2.33)$	5876 ± 150
Ω_Λ	$0.706^{+0.016}_{-0.013}$	Age/Gyr	14.07 ± 0.36	$f\sigma_8(0.15)$	0.437 ± 0.015
Ω_m	$0.294^{+0.013}_{-0.016}$	z_*	$1089.33^{+0.93}_{-1.1}$	$\sigma_8(0.15)$	0.738 ± 0.014
$\Omega_m h^2$	$0.1336^{+0.0082}_{-0.010}$	r_*	147.1 ± 2.6	$f\sigma_8(0.38)$	0.459 ± 0.012
$\Omega_m h^3$	$0.0901^{+0.0065}_{-0.0083}$	$100\theta_*$	1.031 ± 0.013	$\sigma_8(0.38)$	0.656 ± 0.012
σ_8	0.796 ± 0.016	$D_M(z_*)/\text{Gpc}$	14.27 ± 0.43	$f\sigma_8(0.51)$	0.460 ± 0.011
S_8	0.788 ± 0.028	z_{drag}	1058.8 ± 1.4	$\sigma_8(0.51)$	0.614 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.432 ± 0.015	r_{drag}	149.9 ± 2.7	$f\sigma_8(0.61)$	0.456 ± 0.011
$\sigma_8 \Omega_m^{0.25}$	0.586 ± 0.015	k_D	$0.1379^{+0.0027}_{-0.0030}$	$\sigma_8(0.61)$	0.585 ± 0.011
$\sigma_8/h^{0.5}$	0.970 ± 0.017	$100\theta_D$	0.1598 ± 0.0018	$f\sigma_8(2.33)$	0.2959 ± 0.0057
$r_{\text{drag}} h$	101.0 ± 1.2	z_{eq}	3178^{+200}_{-250}	$\sigma_8(2.33)$	0.3058 ± 0.0060
$\langle d^2 \rangle^{1/2}$	2.493 ± 0.050	k_{eq}	$0.00970^{+0.00060}_{-0.00075}$	χ^2_{lensing}	12.2 ± 2.2
z_{re}	$7.62^{+0.19}_{-0.22}$	$100\theta_{\text{eq}}$	0.850 ± 0.034	$\chi^2_{6\text{DF}}$	0.064 ± 0.087
$10^9 A_s$	$2.28^{+0.20}_{-0.23}$	$100\theta_{s,\text{eq}}$	0.468 ± 0.017	χ^2_{MGS}	2.03 ± 0.73
$10^9 A_s e^{-2\tau}$	$2.04^{+0.18}_{-0.21}$	$H(0.15)$	72.4 ± 1.3	χ^2_{DR12BAO}	4.9 ± 1.6
D_{40}	1388 ± 130	$D_M(0.15)$	645 ± 11	χ^2_{prior}	2.1 ± 2.1
D_{220}	6540^{+800}_{-900}	$H(0.38)$	82.0 ± 1.7	χ^2_{BAO}	7.0 ± 1.7
D_{810}	2744 ± 270	$D_M(0.38)$	1542 ± 29		

$\bar{\chi}^2_{\text{eff}} = 21.26$; $R - 1 = 0.00444$

2.185 base_lensing_lenspriors_BAO_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	838^{+100}_{-90}	$H(0.51)$	$89.5^{+2.2}_{-2.5}$
$\Omega_c h^2$	$0.117^{+0.010}_{-0.012}$	D_{2000}	238^{+24}_{-30}	$D_M(0.51)$	1981 ± 43
$100\theta_{MC}$	1.039 ± 0.015	$n_{s,0.002}$	0.956 ± 0.020	$H(0.61)$	$95.0^{+2.4}_{-2.8}$
$\ln(10^{10} A_s)$	3.09 ± 0.10	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2306 ± 52
n_s	0.956 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$233.8^{+8.3}_{-9.5}$
H_0	$67.9^{+1.2}_{-1.3}$	$10^5 D/H$	$2.623^{+0.088}_{-0.10}$	$D_M(2.33)$	5792 ± 170
Ω_Λ	$0.698^{+0.018}_{-0.016}$	Age/Gyr	13.87 ± 0.41	$f\sigma_8(0.15)$	0.450 ± 0.019
Ω_m	$0.302^{+0.016}_{-0.018}$	z_*	$1089.8^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.749 ± 0.017
$\Omega_m h^2$	$0.139^{+0.010}_{-0.012}$	r_*	145.6 ± 3.0	$f\sigma_8(0.38)$	0.470 ± 0.016
$\Omega_m h^3$	$0.0947^{+0.0079}_{-0.010}$	$100\theta_*$	1.039 ± 0.015	$\sigma_8(0.38)$	0.665 ± 0.015
σ_8	0.809 ± 0.020	$D_M(z_*)/\text{Gpc}$	14.02 ± 0.49	$f\sigma_8(0.51)$	0.470 ± 0.015
S_8	0.812 ± 0.036	z_{drag}	1059.2 ± 1.5	$\sigma_8(0.51)$	0.623 ± 0.014
$\sigma_8 \Omega_m^{0.5}$	0.445 ± 0.020	r_{drag}	148.3 ± 3.1	$f\sigma_8(0.61)$	0.466 ± 0.014
$\sigma_8 \Omega_m^{0.25}$	0.600 ± 0.020	k_D	$0.1395^{+0.0031}_{-0.0036}$	$\sigma_8(0.61)$	0.593 ± 0.013
$\sigma_8/h^{0.5}$	0.982 ± 0.020	$100\theta_D$	0.1608 ± 0.0021	$f\sigma_8(2.33)$	0.2993 ± 0.0065
$r_{\text{drag}} h$	100.6 ± 1.2	z_{eq}	3316^{+240}_{-290}	$\sigma_8(2.33)$	0.3090 ± 0.0067
$\langle d^2 \rangle^{1/2}$	2.483 ± 0.052	k_{eq}	$0.01012^{+0.00073}_{-0.00090}$	χ^2_{lensing}	9.9 ± 2.3
z_{re}	$7.73^{+0.22}_{-0.25}$	$100\theta_{\text{eq}}$	0.830 ± 0.038	$\chi^2_{6\text{DF}}$	0.061 ± 0.084
$10^9 A_s$	$2.20^{+0.20}_{-0.24}$	$100\theta_{s,\text{eq}}$	0.458 ± 0.020	χ^2_{MGS}	1.87 ± 0.73
$10^9 A_s e^{-2\tau}$	$1.97^{+0.18}_{-0.22}$	$H(0.15)$	$73.0^{+1.4}_{-1.6}$	χ^2_{DR12BAO}	4.5 ± 1.6
D_{40}	1324^{+130}_{-150}	$D_M(0.15)$	640 ± 12	χ^2_{prior}	2.0 ± 2.0
D_{220}	6160^{+800}_{-1000}	$H(0.38)$	$82.9^{+1.9}_{-2.1}$	χ^2_{BAO}	6.5 ± 1.7
D_{810}	2642 ± 300	$D_M(0.38)$	1528 ± 32		

$\bar{\chi}^2_{\text{eff}} = 18.40$; $R - 1 = 0.00240$

2.186 base_lensing_lenspriors_BAO_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	868 ± 81	$H(0.51)$	$88.2^{+1.9}_{-2.1}$
$\Omega_c h^2$	$0.1101^{+0.0080}_{-0.010}$	D_{2000}	248^{+23}_{-31}	$D_M(0.51)$	2003 ± 39
$100\theta_{MC}$	1.030 ± 0.013	$n_{s,0.002}$	0.955 ± 0.020	$H(0.61)$	$93.6^{+2.1}_{-2.4}$
$\ln(10^{10} A_s)$	3.124 ± 0.094	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2333 ± 46
n_s	0.955 ± 0.020	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00020}$	$H(2.33)$	$228.7^{+6.9}_{-8.1}$
H_0	67.3 ± 1.1	$10^5 D/H$	$2.622^{+0.088}_{-0.098}$	$D_M(2.33)$	5885 ± 150
Ω_Λ	$0.707^{+0.016}_{-0.013}$	Age/Gyr	14.10 ± 0.36	$f\sigma_8(0.15)$	0.436 ± 0.015
Ω_m	$0.293^{+0.013}_{-0.016}$	z_*	$1089.27^{+0.92}_{-1.1}$	$\sigma_8(0.15)$	0.736 ± 0.015
$\Omega_m h^2$	$0.1330^{+0.0081}_{-0.010}$	r_*	147.3 ± 2.6	$f\sigma_8(0.38)$	0.458 ± 0.013
$\Omega_m h^3$	$0.0896^{+0.0064}_{-0.0082}$	$100\theta_*$	1.030 ± 0.013	$\sigma_8(0.38)$	0.655 ± 0.013
σ_8	0.795 ± 0.017	$D_M(z_*)/\text{Gpc}$	14.30 ± 0.43	$f\sigma_8(0.51)$	0.459 ± 0.012
S_8	0.785 ± 0.029	z_{drag}	1058.8 ± 1.4	$\sigma_8(0.51)$	0.613 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.430 ± 0.016	r_{drag}	150.1 ± 2.7	$f\sigma_8(0.61)$	0.455 ± 0.011
$\sigma_8 \Omega_m^{0.25}$	0.584 ± 0.016	k_D	$0.1377^{+0.0027}_{-0.0030}$	$\sigma_8(0.61)$	0.584 ± 0.012
$\sigma_8/h^{0.5}$	0.968 ± 0.018	$100\theta_D$	0.1597 ± 0.0018	$f\sigma_8(2.33)$	0.2954 ± 0.0059
$r_{\text{drag}} h$	101.0 ± 1.2	z_{eq}	3162^{+190}_{-240}	$\sigma_8(2.33)$	0.3054 ± 0.0062
$\langle d^2 \rangle^{1/2}$	2.493 ± 0.050	k_{eq}	$0.00965^{+0.00059}_{-0.00075}$	χ^2_{lensing}	12.2 ± 2.3
z_{re}	$7.61^{+0.19}_{-0.22}$	$100\theta_{\text{eq}}$	0.852 ± 0.034	$\chi^2_{6\text{DF}}$	0.065 ± 0.088
$10^9 A_s$	$2.28^{+0.20}_{-0.23}$	$100\theta_{s,\text{eq}}$	0.469 ± 0.017	χ^2_{MGS}	2.05 ± 0.73
$10^9 A_s e^{-2\tau}$	$2.05^{+0.18}_{-0.20}$	$H(0.15)$	72.3 ± 1.3	χ^2_{DR12BAO}	5.0 ± 1.6
D_{40}	1394 ± 130	$D_M(0.15)$	645 ± 11	χ^2_{prior}	2.1 ± 2.1
D_{220}	6581^{+800}_{-900}	$H(0.38)$	$81.9^{+1.6}_{-1.8}$	χ^2_{BAO}	7.1 ± 1.7
D_{810}	2752 ± 270	$D_M(0.38)$	1544 ± 29		

$\bar{\chi}^2_{\text{eff}} = 21.32; R - 1 = 0.00478$

2.187 base_lensing_lenspriors_BAO_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00050	D_{1420}	817^{+100}_{-90}	$H(0.51)$	$90.1^{+2.2}_{-2.5}$
$\Omega_c h^2$	$0.119^{+0.010}_{-0.012}$	D_{2000}	232^{+25}_{-29}	$D_M(0.51)$	1971 ± 44
$100\theta_{MC}$	1.042 ± 0.015	$n_{s,0.002}$	0.956 ± 0.020	$H(0.61)$	$95.6^{+2.5}_{-2.8}$
$\ln(10^{10} A_s)$	3.06 ± 0.10	Y_P	$0.24531^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2294 ± 53
n_s	0.956 ± 0.020	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020}$	$H(2.33)$	$236.0^{+8.4}_{-9.6}$
H_0	$68.1^{+1.2}_{-1.3}$	$10^5 D/H$	$2.623^{+0.088}_{-0.10}$	$D_M(2.33)$	5751 ± 170
Ω_Λ	$0.694^{+0.019}_{-0.016}$	Age/Gyr	13.77 ± 0.41	$f\sigma_8(0.15)$	0.454 ± 0.019
Ω_m	$0.306^{+0.016}_{-0.019}$	z_*	$1090.1^{+1.1}_{-1.2}$	$\sigma_8(0.15)$	0.751 ± 0.017
$\Omega_m h^2$	$0.142^{+0.010}_{-0.013}$	r_*	144.8 ± 3.1	$f\sigma_8(0.38)$	0.474 ± 0.016
$\Omega_m h^3$	$0.0970^{+0.0081}_{-0.010}$	$100\theta_*$	1.042 ± 0.015	$\sigma_8(0.38)$	0.666 ± 0.014
σ_8	0.812 ± 0.019	$D_M(z_*)/\text{Gpc}$	13.90 ± 0.49	$f\sigma_8(0.51)$	0.473 ± 0.014
S_8	0.820 ± 0.036	z_{drag}	1059.4 ± 1.5	$\sigma_8(0.51)$	0.624 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.449 ± 0.020	r_{drag}	147.6 ± 3.2	$f\sigma_8(0.61)$	0.469 ± 0.013
$\sigma_8 \Omega_m^{0.25}$	0.604 ± 0.019	k_D	$0.1403^{+0.0031}_{-0.0036}$	$\sigma_8(0.61)$	0.594 ± 0.013
$\sigma_8/h^{0.5}$	0.984 ± 0.019	$100\theta_D$	0.1613 ± 0.0021	$f\sigma_8(2.33)$	0.2997 ± 0.0062
$r_{\text{drag}} h$	100.5 ± 1.2	z_{eq}	3383^{+240}_{-300}	$\sigma_8(2.33)$	0.3093 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.471 ± 0.052	k_{eq}	$0.01032^{+0.00075}_{-0.00091}$	χ^2_{lensing}	8.8 ± 2.3
z_{re}	$7.78^{+0.22}_{-0.25}$	$100\theta_{\text{eq}}$	0.820 ± 0.038	$\chi^2_{6\text{DF}}$	0.060 ± 0.083
$10^9 A_s$	$2.15^{+0.20}_{-0.24}$	$100\theta_{s,\text{eq}}$	0.453 ± 0.020	χ^2_{MGS}	1.80 ± 0.72
$10^9 A_s e^{-2\tau}$	$1.92^{+0.18}_{-0.21}$	$H(0.15)$	$73.3^{+1.4}_{-1.6}$	χ^2_{DR12BAO}	4.3 ± 1.6
D_{40}	1287^{+130}_{-150}	$D_M(0.15)$	637 ± 12	χ^2_{prior}	2.0 ± 2.0
D_{220}	5941^{+700}_{-900}	$H(0.38)$	$83.4^{+1.9}_{-2.2}$	χ^2_{BAO}	6.2 ± 1.7
D_{810}	2573 ± 300	$D_M(0.38)$	1521 ± 32		

$\bar{\chi}^2_{\text{eff}} = 17.02; R - 1 = 0.00221$

2.188 base_lensing_lenspriors_BAO_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022208	0.02221 ± 0.00049	D_{1420}	831.4	831 ± 36	$H(0.51)$	89.787	89.80 ± 0.42
$\Omega_c h^2$	0.11776	0.1178 ± 0.0017	D_{2000}	233.6	234^{+11}_{-12}	$D_M(0.51)$	1974.6	1974 ± 14
$100\theta_{MC}$	1.04090	1.04090 ± 0.00060	$n_{s,0.002}$	0.9545	0.955 ± 0.019	$H(0.61)$	95.338	95.35 ± 0.39
$\ln(10^{10} A_s)$	3.0723	3.071 ± 0.035	Y_P	0.245329	$0.24532^{+0.00022}_{-0.00020}$	$D_M(0.61)$	2298.7	2299 ± 15
n_s	0.9545	0.955 ± 0.019	Y_P^{BBN}	0.246655	$0.24665^{+0.00023}_{-0.00020}$	$H(2.33)$	234.92	234.9 ± 1.3
H_0	68.01	68.01 ± 0.66	$10^5 D/H$	2.616	2.618 ± 0.094	$D_M(2.33)$	5765.5	5765 ± 22
Ω_Λ	0.6960	0.6959 ± 0.0087	Age/Gyr	13.805	13.804 ± 0.052	$f\sigma_8(0.15)$	0.4531	0.4530 ± 0.0095
Ω_m	0.3040	0.3041 ± 0.0087	z_*	1089.93	1089.93 ± 0.62	$\sigma_8(0.15)$	0.7514	0.751 ± 0.014
$\Omega_m h^2$	0.14061	0.1406 ± 0.0018	r_*	145.14	145.13 ± 0.62	$f\sigma_8(0.38)$	0.4732	0.4731 ± 0.0091
$\Omega_m h^3$	0.09563	0.0956 ± 0.0011	$100\theta_*$	1.04110	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.6669	0.667 ± 0.013
σ_8	0.8124	0.812 ± 0.015	$D_M(z_*)/\text{Gpc}$	13.941	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4727	0.4725 ± 0.0089
S_8	0.8178	0.818 ± 0.018	z_{drag}	1059.40	1059.4 ± 1.2	$\sigma_8(0.51)$	0.6245	0.624 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.4479	0.4478 ± 0.0098	r_{drag}	147.87	147.87 ± 0.76	$f\sigma_8(0.61)$	0.4683	0.4682 ± 0.0087
$\sigma_8 \Omega_m^{0.25}$	0.6032	0.603 ± 0.011	k_D	0.13993	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.5944	0.594 ± 0.012
$\sigma_8/h^{0.5}$	0.9851	0.985 ± 0.018	$100\theta_D$	0.16105	0.16106 ± 0.00071	$f\sigma_8(2.33)$	0.3000	0.2999 ± 0.0060
$r_{\text{drag}} h$	100.56	100.6 ± 1.1	z_{eq}	3344.8	3345 ± 43	$\sigma_8(2.33)$	0.3096	0.3096 ± 0.0064
$\langle d^2 \rangle^{1/2}$	2.4802	2.479 ± 0.040	k_{eq}	0.010209	0.01021 ± 0.00013	χ^2_{lensing}	8.10	9.3 ± 1.5
z_{re}	7.753	7.75 ± 0.11	$100\theta_{\text{eq}}$	0.8232	0.8233 ± 0.0074	$\chi^2_{6\text{DF}}$	0.0002	0.055 ± 0.080
$10^9 A_s$	2.159	2.158 ± 0.075	$100\theta_{s,\text{eq}}$	0.45469	0.4547 ± 0.0040	χ^2_{MGS}	1.75	1.84 ± 0.70
$10^9 A_s e^{-2\tau}$	1.934	1.933 ± 0.067	$H(0.15)$	73.20	73.21 ± 0.58	χ^2_{DR12BAO}	3.43	4.3 ± 1.3
D_{40}	1300	1299 ± 56	$D_M(0.15)$	638.0	638.0 ± 5.6	χ^2_{prior}	0.08	2.9 ± 2.3
D_{220}	5991	5987 ± 220	$H(0.38)$	83.159	83.17 ± 0.46	χ^2_{BAO}	5.17	6.2 ± 1.4
D_{810}	2605	2605 ± 98	$D_M(0.38)$	1523.4	1523 ± 12			

Best-fit $\chi^2_{\text{eff}} = 13.35$; $\bar{\chi}^2_{\text{eff}} = 18.35$; $R - 1 = 0.00243$

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 8.10

2.189 base_lensing_lenspriors_BAO_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022215	0.02222 ± 0.00049	D_{1420}	834.1	833 ± 35	$H(0.51)$	89.815	89.82 ± 0.40
$\Omega_c h^2$	0.11761	0.1176 ± 0.0016	D_{2000}	234.4	234 ± 11	$D_M(0.51)$	1973.4	1974 ± 13
$100\theta_{MC}$	1.04090	1.04090 ± 0.00060	$n_{s,0.002}$	0.9547	0.955 ± 0.019	$H(0.61)$	95.358	95.36 ± 0.39
$\ln(10^{10} A_s)$	3.0753	3.073 ± 0.034	Y_P	0.245332	$0.24532^{+0.00022}_{-0.00020}$	$D_M(0.61)$	2297.4	2298 ± 14
n_s	0.9547	0.955 ± 0.019	Y_P^{BBN}	0.246659	$0.24665^{+0.00022}_{-0.00020}$	$H(2.33)$	234.82	234.8 ± 1.2
H_0	68.07	68.07 ± 0.62	$10^5 D/H$	2.615	2.617 ± 0.093	$D_M(2.33)$	5764.7	5765 ± 22
Ω_Λ	0.6968	0.6966 ± 0.0081	Age/Gyr	13.803	13.803 ± 0.051	$f\sigma_8(0.15)$	0.4530	0.4527 ± 0.0094
Ω_m	0.3032	0.3034 ± 0.0081	z_*	1089.90	1089.91 ± 0.62	$\sigma_8(0.15)$	0.7522	0.752 ± 0.014
$\Omega_m h^2$	0.14047	0.1405 ± 0.0017	r_*	145.17	145.16 ± 0.61	$f\sigma_8(0.38)$	0.4733	0.4729 ± 0.0091
$\Omega_m h^3$	0.09561	0.0956 ± 0.0010	$100\theta_*$	1.04111	1.04110 ± 0.00060	$\sigma_8(0.38)$	0.6677	0.667 ± 0.013
σ_8	0.8131	0.812 ± 0.015	$D_M(z_*)/\text{Gpc}$	13.944	13.943 ± 0.060	$f\sigma_8(0.51)$	0.4728	0.4725 ± 0.0089
S_8	0.8174	0.817 ± 0.018	z_{drag}	1059.40	1059.4 ± 1.2	$\sigma_8(0.51)$	0.6252	0.625 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.4477	0.4475 ± 0.0096	r_{drag}	147.90	147.89 ± 0.75	$f\sigma_8(0.61)$	0.4685	0.4682 ± 0.0087
$\sigma_8 \Omega_m^{0.25}$	0.6034	0.603 ± 0.011	k_D	0.13990	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.5952	0.595 ± 0.012
$\sigma_8/h^{0.5}$	0.9856	0.985 ± 0.018	$100\theta_D$	0.16105	0.16106 ± 0.00071	$f\sigma_8(2.33)$	0.3004	0.3002 ± 0.0060
$r_{\text{drag}} h$	100.67	100.7 ± 1.1	z_{eq}	3341.3	3342 ± 41	$\sigma_8(2.33)$	0.3101	0.3099 ± 0.0063
$\langle d^2 \rangle^{1/2}$	2.4819	2.479 ± 0.039	k_{eq}	0.010198	0.01020 ± 0.00013	χ^2_{lensing}	8.08	9.3 ± 1.5
z_{re}	7.747	7.75 ± 0.11	$100\theta_{\text{eq}}$	0.8239	0.8238 ± 0.0070	χ^2_{JLA}	1034.771	1034.91 ± 0.24
$10^9 A_s$	2.166	2.162 ± 0.073	$100\theta_{s,\text{eq}}$	0.45503	0.4550 ± 0.0038	$\chi^2_{6\text{DF}}$	0.0015	0.049 ± 0.070
$10^9 A_s e^{-2\tau}$	1.940	1.937 ± 0.065	$H(0.15)$	73.25	73.25 ± 0.55	χ^2_{MGS}	1.82	1.89 ± 0.66
D_{40}	1304	1301 ± 55	$D_M(0.15)$	637.5	637.6 ± 5.3	χ^2_{DR12BAO}	3.386	4.1 ± 1.1
D_{220}	6012	5999 ± 220	$H(0.38)$	83.196	83.20 ± 0.44	χ^2_{prior}	0.07	2.9 ± 2.3
D_{810}	2614	2610 ± 96	$D_M(0.38)$	1522.4	1522 ± 11	χ^2_{BAO}	5.21	6.1 ± 1.3

Best-fit $\chi^2_{\text{eff}} = 1048.13$; $\bar{\chi}^2_{\text{eff}} = 1053.13$; $R - 1 = 0.00215$

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.39 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 8.08 SN - JLA Pantheon18: 1034.77

2.190 base_lensing_lenspriors_BAO_theta_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02223 ± 0.00049	D_{1420}	814 ± 33	$H(0.51)$	89.83 ± 0.41
$\Omega_c h^2$	0.1176 ± 0.0017	D_{2000}	228 ± 11	$D_M(0.51)$	1973 ± 14
$100\theta_{MC}$	1.04089 ± 0.00060	$n_{s,0.002}$	0.949 ± 0.018	$H(0.61)$	95.37 ± 0.39
$\ln(10^{10} A_s)$	3.054 ± 0.033	Y_P	$0.24533^{+0.00022}_{-0.00019}$	$D_M(0.61)$	2297 ± 15
n_s	0.949 ± 0.018	Y_P^{BBN}	$0.24665^{+0.00022}_{-0.00019}$	$H(2.33)$	234.8 ± 1.3
H_0	68.10 ± 0.65	$10^5 D/H$	2.615 ± 0.092	$D_M(2.33)$	5764 ± 22
Ω_Λ	0.6970 ± 0.0086	Age/Gyr	13.802 ± 0.051	$f\sigma_8(0.15)$	0.4469 ± 0.0087
Ω_m	0.3030 ± 0.0086	z_*	1089.90 ± 0.61	$\sigma_8(0.15)$	0.743 ± 0.013
$\Omega_m h^2$	0.1404 ± 0.0018	r_*	145.18 ± 0.61	$f\sigma_8(0.38)$	0.4670 ± 0.0082
$\Omega_m h^3$	0.0956 ± 0.0010	$100\theta_*$	1.04109 ± 0.00060	$\sigma_8(0.38)$	0.659 ± 0.012
σ_8	0.803 ± 0.014	$D_M(z_*)/\text{Gpc}$	13.945 ± 0.061	$f\sigma_8(0.51)$	0.4666 ± 0.0080
S_8	0.807 ± 0.016	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.617 ± 0.011
$\sigma_8 \Omega_m^{0.5}$	0.4417 ± 0.0089	r_{drag}	147.91 ± 0.75	$f\sigma_8(0.61)$	0.4624 ± 0.0079
$\sigma_8 \Omega_m^{0.25}$	0.595 ± 0.010	k_D	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.588 ± 0.011
$\sigma_8/h^{0.5}$	0.973 ± 0.017	$100\theta_D$	0.16105 ± 0.00069	$f\sigma_8(2.33)$	0.2966 ± 0.0056
$r_{\text{drag}} h$	100.7 ± 1.1	z_{eq}	3341 ± 43	$\sigma_8(2.33)$	0.3062 ± 0.0060
$\langle d^2 \rangle^{1/2}$	2.468 ± 0.039	k_{eq}	0.01020 ± 0.00013	χ^2_{lensing}	12.5 ± 1.8
z_{re}	7.75 ± 0.11	$100\theta_{\text{eq}}$	0.8241 ± 0.0074	$\chi^2_{6\text{DF}}$	0.057 ± 0.081
$10^9 A_s$	2.122 ± 0.070	$100\theta_{s,\text{eq}}$	0.4552 ± 0.0040	χ^2_{MGS}	1.93 ± 0.71
$10^9 A_s e^{-2\tau}$	1.901 ± 0.063	$H(0.15)$	73.28 ± 0.57	χ^2_{DR12BAO}	4.2 ± 1.2
D_{40}	1294 ± 55	$D_M(0.15)$	637.3 ± 5.6	χ^2_{prior}	3.1 ± 2.4
D_{220}	5927 ± 220	$H(0.38)$	83.22 ± 0.46	χ^2_{BAO}	6.2 ± 1.4
D_{810}	2557 ± 92	$D_M(0.38)$	1522 ± 11		

$\bar{\chi}^2_{\text{eff}} = 21.73$; $R - 1 = 0.00232$

2.191 base_lensing_lenspriors_BAO_theta_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00049	D_{1420}	831 ± 36	$H(0.51)$	89.79 ± 0.42
$\Omega_{\mathrm{c}}h^2$	0.1178 ± 0.0017	D_{2000}	234 ± 11	$D_{\mathrm{M}}(0.51)$	1975 ± 14
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00060	$n_{\mathrm{s},0.002}$	0.956 ± 0.019	$H(0.61)$	95.34 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.070 ± 0.035	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2299 ± 15
n_{s}	0.956 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$H(2.33)$	234.9 ± 1.3
H_0	68.00 ± 0.66	$10^5 D/H$	2.619 ± 0.094	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6957 ± 0.0087	Age/Gyr	13.804 ± 0.052	$f\sigma_8(0.15)$	0.4531 ± 0.0095
Ω_{m}	0.3043 ± 0.0087	z_*	1089.94 ± 0.62	$\sigma_8(0.15)$	0.751 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1407 ± 0.0018	r_*	145.13 ± 0.62	$f\sigma_8(0.38)$	0.4731 ± 0.0091
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.667 ± 0.013
σ_8	0.812 ± 0.015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4726 ± 0.0089
S_8	0.818 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.624 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4479 ± 0.0098	r_{drag}	147.86 ± 0.76	$f\sigma_8(0.61)$	0.4682 ± 0.0087
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.603 ± 0.011	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.594 ± 0.012
$\sigma_8/h^{0.5}$	0.985 ± 0.018	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00071	$f\sigma_8(2.33)$	0.2999 ± 0.0060
$r_{\mathrm{drag}}h$	100.6 ± 1.1	z_{eq}	3346 ± 43	$\sigma_8(2.33)$	0.3095 ± 0.0064
$\langle d^2 \rangle^{1/2}$	2.474 ± 0.042	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	9.2 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8232 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.079
$10^9 A_{\mathrm{s}}$	2.155 ± 0.075	$100\theta_{\mathrm{s,eq}}$	0.4546 ± 0.0040	χ_{MGS}^2	1.83 ± 0.70
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.931 ± 0.068	$H(0.15)$	73.20 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1293 ± 59	$D_{\mathrm{M}}(0.15)$	638.1 ± 5.6	χ_{prior}^2	2.9 ± 2.3
D_{220}	5970 ± 230	$H(0.38)$	83.16 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2602 ± 99	$D_{\mathrm{M}}(0.38)$	1524 ± 12		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.27$; $R - 1 = 0.00270$

2.192 base_lensing_lenspriors_BAO_theta_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00049	D_{1420}	833 ± 36	$H(0.51)$	89.79 ± 0.42
$\Omega_{\mathrm{c}}h^2$	0.1178 ± 0.0017	D_{2000}	234 ± 11	$D_{\mathrm{M}}(0.51)$	1975 ± 14
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00060	$n_{\mathrm{s},0.002}$	0.956 ± 0.019	$H(0.61)$	95.34 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.072 ± 0.035	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2299 ± 15
n_{s}	0.956 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$H(2.33)$	234.9 ± 1.3
H_0	68.00 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.619 ± 0.094	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6957 ± 0.0087	Age/Gyr	13.805 ± 0.052	$f\sigma_8(0.15)$	0.4536 ± 0.0095
Ω_{m}	0.3043 ± 0.0087	z_*	1089.94 ± 0.62	$\sigma_8(0.15)$	0.752 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1407 ± 0.0018	r_*	145.13 ± 0.62	$f\sigma_8(0.38)$	0.4736 ± 0.0091
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.667 ± 0.013
σ_8	0.813 ± 0.015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4731 ± 0.0089
S_8	0.819 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.625 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4484 ± 0.0098	r_{drag}	147.86 ± 0.76	$f\sigma_8(0.61)$	0.4687 ± 0.0087
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.604 ± 0.011	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.595 ± 0.012
$\sigma_8/h^{0.5}$	0.986 ± 0.018	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00071	$f\sigma_8(2.33)$	0.3002 ± 0.0060
$r_{\mathrm{drag}}h$	100.6 ± 1.1	z_{eq}	3346 ± 43	$\sigma_8(2.33)$	0.3098 ± 0.0064
$\langle d^2 \rangle^{1/2}$	2.479 ± 0.040	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	7.0 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8232 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.079
10^9A_{s}	2.161 ± 0.075	$100\theta_{\mathrm{s,eq}}$	0.4546 ± 0.0040	χ_{MGS}^2	1.82 ± 0.70
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.936 ± 0.067	$H(0.15)$	73.20 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1298 ± 56	$D_{\mathrm{M}}(0.15)$	638.1 ± 5.6	χ_{prior}^2	2.9 ± 2.3
D_{220}	5988 ± 220	$H(0.38)$	83.16 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2608 ± 98	$D_{\mathrm{M}}(0.38)$	1524 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 16.09$; $R - 1 = 0.00233$

2.193 base_lensing_lenspriors_BAO_theta_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00050	D_{1420}	837^{+35}_{-40}	$H(0.51)$	89.84 ± 0.42
$\Omega_{\mathrm{c}}h^2$	0.1176 ± 0.0017	D_{2000}	235^{+11}_{-13}	$D_{\mathrm{M}}(0.51)$	1973 ± 14
$100\theta_{\mathrm{MC}}$	1.04087 ± 0.00060	$n_{\mathrm{s},0.002}$	0.948 ± 0.019	$H(0.61)$	95.38 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.083 ± 0.039	Y_{P}	0.24533 ± 0.00022	$D_{\mathrm{M}}(0.61)$	2297 ± 15
n_{s}	0.948 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24665 ± 0.00022	$H(2.33)$	234.8 ± 1.3
H_0	68.10 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.614 ± 0.094	$D_{\mathrm{M}}(2.33)$	5764 ± 22
Ω_{Λ}	0.6970 ± 0.0087	Age/Gyr	13.802 ± 0.052	$f\sigma_8(0.15)$	0.453 ± 0.010
Ω_{m}	0.3030 ± 0.0087	z_*	1089.89 ± 0.63	$\sigma_8(0.15)$	0.753 ± 0.016
$\Omega_{\mathrm{m}}h^2$	0.1404 ± 0.0018	r_*	145.17 ± 0.63	$f\sigma_8(0.38)$	0.4736 ± 0.0099
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04107 ± 0.00060	$\sigma_8(0.38)$	0.669 ± 0.014
σ_8	0.814 ± 0.017	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.945 ± 0.062	$f\sigma_8(0.51)$	0.4733 ± 0.0097
S_8	0.818 ± 0.019	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.626 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.448 ± 0.010	r_{drag}	147.90 ± 0.77	$f\sigma_8(0.61)$	0.4690 ± 0.0096
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.604 ± 0.013	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.596 ± 0.013
$\sigma_8/h^{0.5}$	0.987 ± 0.020	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00071	$f\sigma_8(2.33)$	0.3008 ± 0.0066
$r_{\mathrm{drag}}h$	100.7 ± 1.1	z_{eq}	3341 ± 44	$\sigma_8(2.33)$	0.3106 ± 0.0069
$\langle d^2 \rangle^{1/2}$	2.505 ± 0.048	k_{eq}	0.01020 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	12.9 ± 1.9
z_{re}	7.74 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8242 ± 0.0075	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.084
10^9A_{s}	2.184 ± 0.086	$100\theta_{\mathrm{s,eq}}$	0.4551 ± 0.0040	χ_{MGS}^2	1.93 ± 0.72
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.956 ± 0.077	$H(0.15)$	73.28 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.3
D_{40}	1334^{+61}_{-69}	$D_{\mathrm{M}}(0.15)$	637.3 ± 5.6	χ_{prior}^2	3.2 ± 2.5
D_{220}	6104 ± 260	$H(0.38)$	83.22 ± 0.47	χ_{BAO}^2	6.2 ± 1.5
D_{810}	2631 ± 110	$D_{\mathrm{M}}(0.38)$	1522 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 22.40$; $R - 1 = 0.00650$

2.194 base_lensing_lenspriors_BAO_theta_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00049	D_{1420}	819 ± 35	$H(0.51)$	89.80 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1178 ± 0.0017	D_{2000}	230 ± 11	$D_{\mathrm{M}}(0.51)$	1975 ± 14
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00060	$n_{\mathrm{s},0.002}$	0.956 ± 0.019	$H(0.61)$	95.35 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.055 ± 0.033	Y_{P}	$0.24532^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2299 ± 15
n_{s}	0.956 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00019}$	$H(2.33)$	234.9 ± 1.3
H_0	68.01 ± 0.65	$10^5\mathrm{D}/\mathrm{H}$	2.619 ± 0.092	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6958 ± 0.0087	Age/Gyr	13.804 ± 0.051	$f\sigma_8(0.15)$	0.4496 ± 0.0093
Ω_{m}	0.3042 ± 0.0087	z_*	1089.94 ± 0.62	$\sigma_8(0.15)$	0.746 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0018	r_*	145.14 ± 0.62	$f\sigma_8(0.38)$	0.4695 ± 0.0089
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0010	$100\theta_*$	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.662 ± 0.013
σ_8	0.806 ± 0.015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4690 ± 0.0087
S_8	0.811 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.620 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4445 ± 0.0096	r_{drag}	147.87 ± 0.76	$f\sigma_8(0.61)$	0.4646 ± 0.0085
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.599 ± 0.011	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.590 ± 0.011
$\sigma_8/h^{0.5}$	0.977 ± 0.018	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00070	$f\sigma_8(2.33)$	0.2977 ± 0.0059
$r_{\mathrm{drag}}h$	100.6 ± 1.1	z_{eq}	3345 ± 43	$\sigma_8(2.33)$	0.3072 ± 0.0062
$\langle d^2 \rangle^{1/2}$	2.457 ± 0.037	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	9.3 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8232 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.078
10^9A_{s}	2.124 ± 0.071	$100\theta_{\mathrm{s,eq}}$	0.4547 ± 0.0040	χ_{MGS}^2	1.84 ± 0.70
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.903 ± 0.063	$H(0.15)$	73.20 ± 0.57	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1275 ± 53	$D_{\mathrm{M}}(0.15)$	638.0 ± 5.6	χ_{prior}^2	2.8 ± 2.3
D_{220}	5886 ± 210	$H(0.38)$	83.17 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2565 ± 94	$D_{\mathrm{M}}(0.38)$	1523 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.37$; $R - 1 = 0.00253$

2.195 base_lensing_lenspriors_BAO_theta_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00048	D_{1420}	803 ± 32	$H(0.51)$	89.83 ± 0.40
$\Omega_{\mathrm{c}}h^2$	0.1176 ± 0.0017	D_{2000}	225 ± 10	$D_{\mathrm{M}}(0.51)$	1973 ± 13
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00060	$n_{\mathrm{s},0.002}$	0.950 ± 0.018	$H(0.61)$	95.37 ± 0.38
$\ln(10^{10}A_{\mathrm{s}})$	3.040 ± 0.032	Y_{P}	$0.24532^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2297 ± 15
n_{s}	0.950 ± 0.018	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00019}$	$H(2.33)$	234.8 ± 1.3
H_0	68.08 ± 0.65	$10^5 D/H$	2.617 ± 0.091	$D_{\mathrm{M}}(2.33)$	5764 ± 21
Ω_{Λ}	0.6969 ± 0.0086	Age/Gyr	13.803 ± 0.050	$f\sigma_8(0.15)$	0.4441 ± 0.0084
Ω_{m}	0.3031 ± 0.0086	z_*	1089.91 ± 0.61	$\sigma_8(0.15)$	0.738 ± 0.013
$\Omega_{\mathrm{m}}h^2$	0.1404 ± 0.0018	r_*	145.18 ± 0.61	$f\sigma_8(0.38)$	0.4639 ± 0.0080
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0010	$100\theta_*$	1.04110 ± 0.00060	$\sigma_8(0.38)$	0.655 ± 0.012
σ_8	0.797 ± 0.013	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.945 ± 0.060	$f\sigma_8(0.51)$	0.4636 ± 0.0078
S_8	0.801 ± 0.016	z_{drag}	1059.4 ± 1.1	$\sigma_8(0.51)$	0.613 ± 0.011
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4389 ± 0.0087	r_{drag}	147.91 ± 0.75	$f\sigma_8(0.61)$	0.4593 ± 0.0076
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.592 ± 0.010	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.584 ± 0.010
$\sigma_8/h^{0.5}$	0.966 ± 0.016	$100\theta_{\mathrm{D}}$	0.16106 ± 0.00069	$f\sigma_8(2.33)$	0.2946 ± 0.0054
$r_{\mathrm{drag}}h$	100.7 ± 1.1	z_{eq}	3341 ± 43	$\sigma_8(2.33)$	0.3041 ± 0.0058
$\langle d^2 \rangle^{1/2}$	2.448 ± 0.036	k_{eq}	0.01020 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	12.3 ± 1.7
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8241 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.079
$10^9 A_{\mathrm{s}}$	2.091 ± 0.067	$100\theta_{\mathrm{s,eq}}$	0.4551 ± 0.0040	χ_{MGS}^2	1.92 ± 0.71
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.873 ± 0.060	$H(0.15)$	73.26 ± 0.57	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.2
D_{40}	1273 ± 52	$D_{\mathrm{M}}(0.15)$	637.4 ± 5.5	χ_{prior}^2	3.0 ± 2.4
D_{220}	5834 ± 210	$H(0.38)$	83.21 ± 0.45	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2522 ± 88	$D_{\mathrm{M}}(0.38)$	1522 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 21.52; R - 1 = 0.00519$

2.196 base_lensing_lenspriors_BAO_theta_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02220 ± 0.00050	D_{1420}	841 ± 36	$H(0.51)$	89.78 ± 0.42
$\Omega_c h^2$	0.1179 ± 0.0017	D_{2000}	236^{+11}_{-12}	$D_M(0.51)$	1975 ± 14
$100\theta_{MC}$	1.04091 ± 0.00060	$n_{s,0.002}$	0.958 ± 0.019	$H(0.61)$	95.33 ± 0.39
$\ln(10^{10} A_s)$	3.080 ± 0.035	Y_P	$0.24531^{+0.00022}_{-0.00020}$	$D_M(0.61)$	2299 ± 15
n_s	0.958 ± 0.019	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00020}$	$H(2.33)$	235.0 ± 1.3
H_0	67.98 ± 0.66	$10^5 D/H$	2.620 ± 0.094	$D_M(2.33)$	5766 ± 22
Ω_Λ	0.6954 ± 0.0087	Age/Gyr	13.805 ± 0.052	$f\sigma_8(0.15)$	0.4561 ± 0.0097
Ω_m	0.3046 ± 0.0087	z_*	1089.95 ± 0.63	$\sigma_8(0.15)$	0.756 ± 0.014
$\Omega_m h^2$	0.1407 ± 0.0018	r_*	145.12 ± 0.62	$f\sigma_8(0.38)$	0.4762 ± 0.0093
$\Omega_m h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.671 ± 0.013
σ_8	0.817 ± 0.015	$D_M(z_*)/\text{Gpc}$	13.939 ± 0.061	$f\sigma_8(0.51)$	0.4756 ± 0.0091
S_8	0.823 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.628 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.451 ± 0.010	r_{drag}	147.85 ± 0.77	$f\sigma_8(0.61)$	0.4711 ± 0.0089
$\sigma_8 \Omega_m^{0.25}$	0.607 ± 0.012	k_D	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.598 ± 0.012
$\sigma_8/h^{0.5}$	0.991 ± 0.019	$100\theta_D$	0.16107 ± 0.00071	$f\sigma_8(2.33)$	0.3017 ± 0.0061
$r_{\text{drag}} h$	100.5 ± 1.1	z_{eq}	3347 ± 43	$\sigma_8(2.33)$	0.3114 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.482 ± 0.040	k_{eq}	0.01022 ± 0.00013	χ^2_{lensing}	9.4 ± 1.5
z_{re}	7.76 ± 0.11	$100\theta_{\text{eq}}$	0.8229 ± 0.0074	$\chi^2_{6\text{DF}}$	0.055 ± 0.078
$10^9 A_s$	2.178 ± 0.075	$100\theta_{s,\text{eq}}$	0.4545 ± 0.0040	χ^2_{MGS}	1.80 ± 0.70
$10^9 A_s e^{-2\tau}$	1.951 ± 0.068	$H(0.15)$	73.17 ± 0.58	χ^2_{DR12BAO}	4.3 ± 1.4
D_{40}	1303 ± 56	$D_M(0.15)$	638.3 ± 5.6	χ^2_{prior}	2.9 ± 2.3
D_{220}	6024 ± 220	$H(0.38)$	83.15 ± 0.46	χ^2_{BAO}	6.2 ± 1.4
D_{810}	2631 ± 100	$D_M(0.38)$	1524 ± 12		

$\bar{\chi}^2_{\text{eff}} = 18.45; R - 1 = 0.00265$

2.197 base_lensing_lenspriors_BAO_theta_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00050	D_{1420}	831 ± 36	$H(0.51)$	89.80 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1178 ± 0.0017	D_{2000}	234 ± 11	$D_{\mathrm{M}}(0.51)$	1974 ± 14
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	$n_{\mathrm{s},0.002}$	0.955 ± 0.019	$H(0.61)$	95.35 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.071 ± 0.034	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2298 ± 15
n_{s}	0.955 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00020}$	$H(2.33)$	234.9 ± 1.3
H_0	68.02 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.617 ± 0.094	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6959 ± 0.0087	Age/Gyr	13.804 ± 0.052	$f\sigma_8(0.15)$	0.4528 ± 0.0095
Ω_{m}	0.3041 ± 0.0087	z_*	1089.93 ± 0.62	$\sigma_8(0.15)$	0.751 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0018	r_*	145.13 ± 0.62	$f\sigma_8(0.38)$	0.4729 ± 0.0091
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04110 ± 0.00060	$\sigma_8(0.38)$	0.667 ± 0.013
σ_8	0.812 ± 0.015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4724 ± 0.0088
S_8	0.817 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.624 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4477 ± 0.0097	r_{drag}	147.86 ± 0.76	$f\sigma_8(0.61)$	0.4680 ± 0.0087
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.603 ± 0.011	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.594 ± 0.012
$\sigma_8/h^{0.5}$	0.984 ± 0.018	$100\theta_{\mathrm{D}}$	0.16105 ± 0.00071	$f\sigma_8(2.33)$	0.2998 ± 0.0060
$r_{\mathrm{drag}}h$	100.6 ± 1.1	z_{eq}	3345 ± 43	$\sigma_8(2.33)$	0.3095 ± 0.0063
$\langle d^2 \rangle^{1/2}$	2.479 ± 0.040	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	9.3 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8233 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.079
10^9A_{s}	2.157 ± 0.074	$100\theta_{\mathrm{s,eq}}$	0.4547 ± 0.0040	χ_{MGS}^2	1.84 ± 0.70
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.932 ± 0.066	$H(0.15)$	73.21 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1298 ± 56	$D_{\mathrm{M}}(0.15)$	637.9 ± 5.6	χ_{prior}^2	2.9 ± 2.3
D_{220}	5984 ± 220	$H(0.38)$	83.17 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2604 ± 98	$D_{\mathrm{M}}(0.38)$	1523 ± 12		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.35; R - 1 = 0.00361$

2.198 base_lensing_lenspriors_BAO_theta_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00049	D_{1420}	813 ± 33	$H(0.51)$	89.84 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1175 ± 0.0017	D_{2000}	228 ± 10	$D_{\mathrm{M}}(0.51)$	1973 ± 14
$100\theta_{\mathrm{MC}}$	1.04088 ± 0.00060	$n_{\mathrm{s},0.002}$	0.948 ± 0.018	$H(0.61)$	95.38 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.053 ± 0.033	Y_{P}	$0.24533^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2297 ± 15
n_{s}	0.948 ± 0.018	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00019}$	$H(2.33)$	234.8 ± 1.3
H_0	68.10 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.614 ± 0.092	$D_{\mathrm{M}}(2.33)$	5764 ± 22
Ω_{Λ}	0.6971 ± 0.0087	Age/Gyr	13.802 ± 0.051	$f\sigma_8(0.15)$	0.4465 ± 0.0086
Ω_{m}	0.3029 ± 0.0087	z_*	1089.89 ± 0.61	$\sigma_8(0.15)$	0.742 ± 0.013
$\Omega_{\mathrm{m}}h^2$	0.1404 ± 0.0018	r_*	145.18 ± 0.61	$f\sigma_8(0.38)$	0.4665 ± 0.0082
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0010	$100\theta_*$	1.04108 ± 0.00060	$\sigma_8(0.38)$	0.659 ± 0.012
σ_8	0.802 ± 0.014	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.945 ± 0.060	$f\sigma_8(0.51)$	0.4661 ± 0.0080
S_8	0.806 ± 0.016	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.617 ± 0.011
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4412 ± 0.0089	r_{drag}	147.90 ± 0.75	$f\sigma_8(0.61)$	0.4619 ± 0.0078
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.595 ± 0.010	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.587 ± 0.011
$\sigma_8/h^{0.5}$	0.972 ± 0.017	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00069	$f\sigma_8(2.33)$	0.2963 ± 0.0056
$r_{\mathrm{drag}}h$	100.7 ± 1.1	z_{eq}	3340 ± 43	$\sigma_8(2.33)$	0.3059 ± 0.0059
$\langle d^2 \rangle^{1/2}$	2.468 ± 0.039	k_{eq}	0.01020 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	12.6 ± 1.8
z_{re}	7.74 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8242 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.081
10^9A_{s}	2.119 ± 0.070	$100\theta_{\mathrm{s,eq}}$	0.4552 ± 0.0040	χ_{MGS}^2	1.93 ± 0.71
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.898 ± 0.063	$H(0.15)$	73.28 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.2
D_{40}	1295 ± 56	$D_{\mathrm{M}}(0.15)$	637.2 ± 5.6	χ_{prior}^2	3.1 ± 2.5
D_{220}	5923 ± 220	$H(0.38)$	83.22 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2555 ± 92	$D_{\mathrm{M}}(0.38)$	1522 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 21.94$; $R - 1 = 0.00291$

2.199 base_lensing_lenspriors_BAO_theta_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00049	D_{1420}	830 ± 37	$H(0.51)$	89.80 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1177 ± 0.0017	D_{2000}	233 ± 12	$D_{\mathrm{M}}(0.51)$	1974 ± 14
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00060	$n_{\mathrm{s},0.002}$	0.955 ± 0.019	$H(0.61)$	95.35 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.070 ± 0.035	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2298 ± 15
n_{s}	0.955 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00020}$	$H(2.33)$	234.9 ± 1.3
H_0	68.02 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.618 ± 0.093	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6960 ± 0.0087	$\mathrm{Age}/\mathrm{Gyr}$	13.804 ± 0.052	$f\sigma_8(0.15)$	0.4525 ± 0.0098
Ω_{m}	0.3040 ± 0.0087	z_{*}	1089.93 ± 0.62	$\sigma_8(0.15)$	0.751 ± 0.015
$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0018	r_{*}	145.14 ± 0.62	$f\sigma_8(0.38)$	0.4725 ± 0.0094
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_{*}$	1.04110 ± 0.00060	$\sigma_8(0.38)$	0.666 ± 0.013
σ_8	0.811 ± 0.016	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.941 ± 0.061	$f\sigma_8(0.51)$	0.4720 ± 0.0092
S_8	0.817 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.624 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.447 ± 0.010	r_{drag}	147.87 ± 0.76	$f\sigma_8(0.61)$	0.4677 ± 0.0090
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.602 ± 0.012	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.594 ± 0.012
$\sigma_8/h^{0.5}$	0.984 ± 0.019	$100\theta_{\mathrm{D}}$	0.16106 ± 0.00071	$f\sigma_8(2.33)$	0.2997 ± 0.0062
$r_{\mathrm{drag}}h$	100.6 ± 1.1	z_{eq}	3345 ± 43	$\sigma_8(2.33)$	0.3093 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.477 ± 0.039	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	9.3 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8234 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.079
10^9A_{s}	2.154 ± 0.076	$100\theta_{\mathrm{s,eq}}$	0.4548 ± 0.0040	χ_{MGS}^2	1.85 ± 0.71
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.930 ± 0.068	$H(0.15)$	73.21 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1297 ± 55	$D_{\mathrm{M}}(0.15)$	637.9 ± 5.6	χ_{prior}^2	2.9 ± 2.3
D_{220}	5978 ± 220	$H(0.38)$	83.17 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2600 ± 100	$D_{\mathrm{M}}(0.38)$	1523 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 18.40$; $R - 1 = 0.00218$

2.200 base_lensing_lenspriors_BAO_theta_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00048	D_{1420}	811 ± 34	$H(0.51)$	89.84 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1175 ± 0.0017	D_{2000}	227 ± 11	$D_{\mathrm{M}}(0.51)$	1973 ± 14
$100\theta_{\mathrm{MC}}$	1.04088 ± 0.00060	$n_{\mathrm{s},0.002}$	0.948 ± 0.018	$H(0.61)$	95.38 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.051 ± 0.034	Y_{P}	$0.24533^{+0.00022}_{-0.00019}$	$D_{\mathrm{M}}(0.61)$	2297 ± 15
n_{s}	0.948 ± 0.018	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00019}$	$H(2.33)$	234.8 ± 1.3
H_0	68.11 ± 0.65	$10^5\mathrm{D}/\mathrm{H}$	2.615 ± 0.091	$D_{\mathrm{M}}(2.33)$	5764 ± 21
Ω_{Λ}	0.6972 ± 0.0086	Age/Gyr	13.802 ± 0.051	$f\sigma_8(0.15)$	0.4459 ± 0.0090
Ω_{m}	0.3028 ± 0.0086	z_*	1089.89 ± 0.61	$\sigma_8(0.15)$	0.741 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1404 ± 0.0018	r_*	145.19 ± 0.61	$f\sigma_8(0.38)$	0.4659 ± 0.0086
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0010	$100\theta_*$	1.04109 ± 0.00060	$\sigma_8(0.38)$	0.658 ± 0.012
σ_8	0.801 ± 0.014	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.946 ± 0.060	$f\sigma_8(0.51)$	0.4656 ± 0.0083
S_8	0.805 ± 0.017	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.616 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4407 ± 0.0092	r_{drag}	147.91 ± 0.75	$f\sigma_8(0.61)$	0.4614 ± 0.0082
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.594 ± 0.011	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.586 ± 0.011
$\sigma_8/h^{0.5}$	0.971 ± 0.017	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00069	$f\sigma_8(2.33)$	0.2960 ± 0.0058
$r_{\mathrm{drag}}h$	100.7 ± 1.1	z_{eq}	3340 ± 43	$\sigma_8(2.33)$	0.3056 ± 0.0061
$\langle d^2 \rangle^{1/2}$	2.465 ± 0.038	k_{eq}	0.01019 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	12.8 ± 1.8
z_{re}	7.74 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8243 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.082
10^9A_{s}	2.114 ± 0.071	$100\theta_{\mathrm{s,eq}}$	0.4552 ± 0.0040	χ_{MGS}^2	1.95 ± 0.71
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.894 ± 0.064	$H(0.15)$	73.29 ± 0.57	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.2
D_{40}	1291 ± 54	$D_{\mathrm{M}}(0.15)$	637.2 ± 5.5	χ_{prior}^2	3.1 ± 2.5
D_{220}	5911 ± 220	$H(0.38)$	83.23 ± 0.46	χ_{BAO}^2	6.2 ± 1.5
D_{810}	2548 ± 94	$D_{\mathrm{M}}(0.38)$	1522 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 22.09; R - 1 = 0.00237$

2.201 base_lensing_lenspriors_BAO_theta_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00049	D_{1420}	830 ± 36	$H(0.51)$	89.79 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.1178 ± 0.0017	D_{2000}	233 ± 11	$D_{\mathrm{M}}(0.51)$	1975 ± 14
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00060	$n_{\mathrm{s},0.002}$	0.956 ± 0.019	$H(0.61)$	95.34 ± 0.39
$\ln(10^{10}A_{\mathrm{s}})$	3.068 ± 0.034	Y_{P}	$0.24532^{+0.00022}_{-0.00020}$	$D_{\mathrm{M}}(0.61)$	2299 ± 15
n_{s}	0.956 ± 0.019	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00022}_{-0.00020}$	$H(2.33)$	234.9 ± 1.3
H_0	68.00 ± 0.66	$10^5\mathrm{D}/\mathrm{H}$	2.619 ± 0.093	$D_{\mathrm{M}}(2.33)$	5765 ± 22
Ω_{Λ}	0.6957 ± 0.0087	Age/Gyr	13.805 ± 0.052	$f\sigma_8(0.15)$	0.4529 ± 0.0095
Ω_{m}	0.3043 ± 0.0087	z_*	1089.95 ± 0.62	$\sigma_8(0.15)$	0.751 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1407 ± 0.0018	r_*	145.13 ± 0.62	$f\sigma_8(0.38)$	0.4728 ± 0.0091
$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0011	$100\theta_*$	1.04111 ± 0.00060	$\sigma_8(0.38)$	0.666 ± 0.013
σ_8	0.812 ± 0.015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.940 ± 0.061	$f\sigma_8(0.51)$	0.4723 ± 0.0089
S_8	0.817 ± 0.018	z_{drag}	1059.4 ± 1.2	$\sigma_8(0.51)$	0.624 ± 0.012
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4477 ± 0.0098	r_{drag}	147.86 ± 0.76	$f\sigma_8(0.61)$	0.4679 ± 0.0087
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.603 ± 0.012	k_{D}	0.1399 ± 0.0011	$\sigma_8(0.61)$	0.594 ± 0.012
$\sigma_8/h^{0.5}$	0.984 ± 0.018	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00071	$f\sigma_8(2.33)$	0.2997 ± 0.0060
$r_{\mathrm{drag}}h$	100.5 ± 1.1	z_{eq}	3346 ± 43	$\sigma_8(2.33)$	0.3093 ± 0.0064
$\langle d^2 \rangle^{1/2}$	2.473 ± 0.039	k_{eq}	0.01021 ± 0.00013	$\chi_{\mathrm{lensing}}^2$	7.9 ± 1.5
z_{re}	7.75 ± 0.11	$100\theta_{\mathrm{eq}}$	0.8231 ± 0.0074	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.078
10^9A_{s}	2.152 ± 0.074	$100\theta_{\mathrm{s,eq}}$	0.4546 ± 0.0040	χ_{MGS}^2	1.82 ± 0.70
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.928 ± 0.066	$H(0.15)$	73.19 ± 0.58	$\chi_{\mathrm{DR12BAO}}^2$	4.3 ± 1.3
D_{40}	1291 ± 55	$D_{\mathrm{M}}(0.15)$	638.1 ± 5.6	χ_{prior}^2	2.9 ± 2.3
D_{220}	5961 ± 220	$H(0.38)$	83.16 ± 0.46	χ_{BAO}^2	6.2 ± 1.4
D_{810}	2598 ± 98	$D_{\mathrm{M}}(0.38)$	1524 ± 11		

$\bar{\chi}_{\mathrm{eff}}^2 = 16.94$; $R - 1 = 0.00237$

2.202 base_lensing_lenspriors_pttagr2

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02218	0.02220 ± 0.00050	D_{810}	3632	3282 ± 600	$H(0.38)$	109.4	84 ± 10
$\Omega_c h^2$	0.0991	$0.0941^{+0.0084}_{-0.0097}$	D_{1420}	1013	1046^{+100}_{-200}	$D_M(0.38)$	1094	1556^{+160}_{-460}
$100\theta_{MC}$	1.107	$1.018^{+0.078}_{-0.046}$	D_{2000}	287	344^{+40}_{-90}	$H(0.51)$	113.8	89 ± 10
$\ln(10^{10} A_s)$	3.465	3.34 ± 0.14	$n_{s,0.002}$	0.9594	0.959 ± 0.020	$D_M(0.51)$	1444	2019^{+210}_{-570}
n_s	0.9594	0.959 ± 0.020	Y_P	0.245319	$0.24531^{+0.00023}_{-0.00020}$	$H(0.61)$	117.7	94 ± 10
H_0	99.9	—	Y_P^{BBN}	0.246645	$0.24664^{+0.00023}_{-0.00020}$	$D_M(0.61)$	1703	2353^{+240}_{-650}
Ω_Λ	0.878	$0.723^{+0.16}_{-0.041}$	$10^5 D/H$	2.621	$2.621^{+0.088}_{-0.10}$	$H(2.33)$	232.0	217 ± 11
Ω_m	0.122	$0.277^{+0.041}_{-0.16}$	Age/Gyr	11.92	$14.5^{+1.1}_{-2.5}$	$D_M(2.33)$	4894	6028^{+490}_{-1100}
$\Omega_m h^2$	0.1219	$0.1169^{+0.0084}_{-0.0097}$	z_*	1088.25	1087.7 ± 1.0	$f\sigma_8(0.15)$	0.3327	$0.399^{+0.044}_{-0.053}$
$\Omega_m h^3$	0.1218	$0.084^{+0.023}_{-0.029}$	r_*	150.36	151.9 ± 2.8	$\sigma_8(0.15)$	0.881	$0.743^{+0.13}_{-0.066}$
σ_8	0.924	$0.796^{+0.12}_{-0.064}$	$100\theta_*$	1.107	$1.018^{+0.078}_{-0.046}$	$f\sigma_8(0.38)$	0.3926	$0.426^{+0.025}_{-0.016}$
S_8	0.589	$0.723^{+0.071}_{-0.13}$	$D_M(z_*)/\text{Gpc}$	13.58	$14.98^{+0.83}_{-1.3}$	$\sigma_8(0.38)$	0.815	$0.668^{+0.14}_{-0.069}$
$\sigma_8 \Omega_m^{0.5}$	0.323	$0.396^{+0.039}_{-0.070}$	z_{drag}	1057.95	1057.6 ± 1.4	$f\sigma_8(0.51)$	0.4177	$0.431^{+0.018}_{-0.015}$
$\sigma_8 \Omega_m^{0.25}$	0.5460	$0.557^{+0.019}_{-0.016}$	r_{drag}	153.23	154.9 ± 3.0	$\sigma_8(0.51)$	0.778	$0.629^{+0.14}_{-0.070}$
$\sigma_8/h^{0.5}$	0.9241	$0.954^{+0.028}_{-0.022}$	k_D	0.13445	0.1329 ± 0.0030	$f\sigma_8(0.61)$	0.4326	$0.432^{+0.023}_{-0.014}$
$r_{\text{drag}} h$	153.0	110^{+40}_{-20}	$100\theta_D$	0.1720	$0.158^{+0.012}_{-0.0070}$	$\sigma_8(0.61)$	0.751	$0.602^{+0.14}_{-0.070}$
$\langle d^2 \rangle^{1/2}$	2.597	2.606 ± 0.064	z_{eq}	2898	2778^{+200}_{-230}	$f\sigma_8(2.33)$	0.392	$0.307^{+0.079}_{-0.040}$
z_{re}	7.600	7.31 ± 0.27	k_{eq}	0.00884	$0.00848^{+0.00062}_{-0.00071}$	$\sigma_8(2.33)$	0.432	$0.324^{+0.095}_{-0.052}$
$10^9 A_s$	3.199	$2.84^{+0.35}_{-0.42}$	$100\theta_{\text{eq}}$	0.975	0.929 ± 0.050	χ^2_{lensing}	15.57	18.0 ± 2.0
$10^9 A_s e^{-2\tau}$	2.865	$2.55^{+0.31}_{-0.38}$	$100\theta_{s,\text{eq}}$	0.5353	0.509 ± 0.026	χ^2_{prior}	0.00	2.0 ± 2.0
D_{40}	2108	1794^{+300}_{-300}	$H(0.15)$	103.0	75^{+30}_{-20}			
D_{220}	9493	8741^{+1000}_{-2000}	$D_M(0.15)$	444	651^{+68}_{-210}			

Best-fit $\chi^2_{\text{eff}} = 15.57$; $\bar{\chi}^2_{\text{eff}} = 20.05$; $R - 1 = 0.00735$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 15.57

2.203 base_lensing_lenspriors_pttagr2_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02220	0.02222 ± 0.00050	D_{810}	3672	3627^{+400}_{-500}	$H(0.38)$	89.11	88.9 ± 2.4
$\Omega_c h^2$	0.0943	$0.0957^{+0.0068}_{-0.0085}$	D_{1420}	1150	1137^{+100}_{-200}	$D_M(0.38)$	1376	1384^{+48}_{-55}
$100\theta_{MC}$	1.04090	1.04089 ± 0.00061	D_{2000}	320.2	317^{+40}_{-50}	$H(0.51)$	94.32	$94.2^{+1.8}_{-2.1}$
$\ln(10^{10} A_s)$	3.389	3.37 ± 0.13	$n_{s,0.002}$	0.9600	0.959 ± 0.020	$D_M(0.51)$	1801	1811^{+59}_{-65}
n_s	0.9600	0.959 ± 0.020	Y_P	0.245325	$0.24532^{+0.00023}_{-0.00020}$	$H(0.61)$	98.76	$98.7^{+1.4}_{-1.8}$
H_0	77.67	77.2 ± 3.6	Y_P^{BBN}	0.246651	$0.24665^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2112	2122 ± 68
Ω_Λ	0.8058	$0.798^{+0.037}_{-0.024}$	$10^5 D/H$	2.618	$2.617^{+0.088}_{-0.099}$	$H(2.33)$	219.5	$220.5^{+4.4}_{-5.6}$
Ω_m	0.1942	$0.202^{+0.024}_{-0.037}$	Age/Gyr	13.645	13.648 ± 0.085	$D_M(2.33)$	5667.8	5670^{+53}_{-45}
$\Omega_m h^2$	0.1171	$0.1186^{+0.0069}_{-0.0085}$	z_*	1087.78	$1087.89^{+0.84}_{-0.97}$	$f\sigma_8(0.15)$	0.3798	0.383 ± 0.026
$\Omega_m h^3$	0.09099	0.0913 ± 0.0019	r_*	151.79	151.4 ± 2.4	$\sigma_8(0.15)$	0.7876	0.784 ± 0.021
σ_8	0.8374	0.834 ± 0.020	$100\theta_*$	1.04114	1.04114 ± 0.00061	$f\sigma_8(0.38)$	0.4240	$0.425^{+0.021}_{-0.019}$
S_8	0.6737	$0.681^{+0.045}_{-0.051}$	$D_M(z_*)/\text{Gpc}$	14.579	$14.54^{+0.24}_{-0.22}$	$\sigma_8(0.38)$	0.7144	0.710 ± 0.023
$\sigma_8 \Omega_m^{0.5}$	0.3690	$0.373^{+0.025}_{-0.028}$	z_{drag}	1057.61	1057.7 ± 1.4	$f\sigma_8(0.51)$	0.4377	$0.438^{+0.018}_{-0.015}$
$\sigma_8 \Omega_m^{0.25}$	0.5559	0.557 ± 0.019	r_{drag}	154.68	154.3 ± 2.5	$\sigma_8(0.51)$	0.6757	$0.671^{+0.024}_{-0.022}$
$\sigma_8/h^{0.5}$	0.9502	$0.950^{+0.023}_{-0.021}$	k_D	0.13303	0.1335 ± 0.0026	$f\sigma_8(0.61)$	0.4436	$0.443^{+0.015}_{-0.012}$
$r_{\text{drag}} h$	120.1	119.2 ± 7.4	$100\theta_D$	0.16199	0.16193 ± 0.00080	$\sigma_8(0.61)$	0.6476	$0.643^{+0.024}_{-0.022}$
$\langle d^2 \rangle^{1/2}$	2.607	2.599 ± 0.063	z_{eq}	2784	2819^{+160}_{-200}	$f\sigma_8(2.33)$	0.3330	$0.330^{+0.015}_{-0.013}$
z_{re}	7.362	$7.38^{+0.15}_{-0.17}$	k_{eq}	0.00850	$0.00860^{+0.00050}_{-0.00062}$	$\sigma_8(2.33)$	0.3524	0.350 ± 0.018
$10^9 A_s$	2.963	$2.93^{+0.33}_{-0.39}$	$100\theta_{\text{eq}}$	0.9457	0.940 ± 0.047	χ^2_{lensing}	15.83	17.9 ± 2.1
$10^9 A_s e^{-2\tau}$	2.655	$2.62^{+0.30}_{-0.35}$	$100\theta_{s,\text{eq}}$	0.5181	0.515 ± 0.024	χ^2_{prior}	0.00	3.0 ± 2.5
D_{40}	1891	1868^{+200}_{-300}	$H(0.15)$	81.51	81.1 ± 3.2			
D_{220}	9125	9009^{+1000}_{-1000}	$D_M(0.15)$	565.6	570^{+22}_{-27}			

Best-fit $\chi^2_{\text{eff}} = 15.83$; $\bar{\chi}^2_{\text{eff}} = 20.91$; $R - 1 = 0.00715$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmargd: 15.83

2.204 base_lensing_lenspriors_pttagr2_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02219	0.02221 ± 0.00051	D_{1420}	973	967 ± 85	$H(0.51)$	85.63	85.9 ± 1.9
$\Omega_c h^2$	0.0976	$0.0987^{+0.0079}_{-0.0091}$	D_{2000}	287.2	290^{+27}_{-50}	$D_M(0.51)$	2048.4	2044 ± 39
$100\theta_{MC}$	1.0117	1.013 ± 0.014	$n_{s,0.002}$	0.9542	0.954 ± 0.020	$H(0.61)$	90.62	90.9 ± 2.2
$\ln(10^{10} A_s)$	3.266	3.26 ± 0.10	Y_P	0.245322	$0.24532^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2388.8	2383 ± 47
n_s	0.9542	0.954 ± 0.020	Y_P^{BBN}	0.246648	$0.24664^{+0.00023}_{-0.00020}$	$H(2.33)$	218.4	219.2 ± 7.3
H_0	66.26	66.4 ± 1.1	$10^5 D/H$	2.620	2.618 ± 0.096	$D_M(2.33)$	6085	6069 ± 150
Ω_Λ	0.7257	0.725 ± 0.014	Age/Gyr	14.580	14.54 ± 0.37	$f\sigma_8(0.15)$	0.4189	0.419 ± 0.016
Ω_m	0.2743	0.275 ± 0.014	z_*	1088.10	$1088.18^{+0.90}_{-1.0}$	$\sigma_8(0.15)$	0.7302	0.730 ± 0.016
$\Omega_m h^2$	0.1204	$0.1215^{+0.0080}_{-0.0092}$	r_*	150.81	150.5 ± 2.6	$f\sigma_8(0.38)$	0.4447	0.445 ± 0.014
$\Omega_m h^3$	0.0798	$0.0808^{+0.0062}_{-0.0073}$	$100\theta_*$	1.0120	1.013 ± 0.014	$\sigma_8(0.38)$	0.6514	0.651 ± 0.014
σ_8	0.7861	0.786 ± 0.017	$D_M(z_*)/\text{Gpc}$	14.902	14.86 ± 0.45	$f\sigma_8(0.51)$	0.4477	0.448 ± 0.013
S_8	0.7516	0.753 ± 0.030	z_{drag}	1057.84	1057.9 ± 1.4	$\sigma_8(0.51)$	0.6114	0.611 ± 0.013
$\sigma_8 \Omega_m^{0.5}$	0.4117	0.412 ± 0.016	r_{drag}	153.68	153.4 ± 2.7	$f\sigma_8(0.61)$	0.4459	0.446 ± 0.012
$\sigma_8 \Omega_m^{0.25}$	0.5689	0.569 ± 0.017	k_D	0.13401	0.1343 ± 0.0028	$\sigma_8(0.61)$	0.5829	0.583 ± 0.012
$\sigma_8/h^{0.5}$	0.9658	0.965 ± 0.019	$100\theta_D$	0.15731	0.1575 ± 0.0018	$f\sigma_8(2.33)$	0.2956	0.2954 ± 0.0061
$r_{\text{drag}} h$	101.82	101.8 ± 1.2	z_{eq}	2862	2889^{+190}_{-220}	$\sigma_8(2.33)$	0.3065	0.3063 ± 0.0064
$\langle d^2 \rangle^{1/2}$	2.585	2.579 ± 0.062	k_{eq}	0.00873	$0.00882^{+0.00058}_{-0.00067}$	χ^2_{lensing}	16.40	18.4 ± 2.3
z_{re}	7.356	$7.37^{+0.19}_{-0.21}$	$100\theta_{\text{eq}}$	0.9001	0.897 ± 0.037	$\chi^2_{6\text{DF}}$	0.051	0.11 ± 0.14
$10^9 A_s$	2.622	$2.61^{+0.23}_{-0.29}$	$100\theta_{s,\text{eq}}$	0.4937	0.492 ± 0.019	χ^2_{MGS}	2.35	2.43 ± 0.78
$10^9 A_s e^{-2\tau}$	2.348	$2.34^{+0.21}_{-0.26}$	$H(0.15)$	70.83	71.0 ± 1.3	χ^2_{DR12BAO}	5.16	6.0 ± 1.7
D_{40}	1640	1633^{+150}_{-190}	$D_M(0.15)$	657.1	656 ± 11	χ^2_{prior}	0.09	2.1 ± 2.1
D_{220}	7982	7943^{+900}_{-1000}	$H(0.38)$	79.69	79.9 ± 1.7	χ^2_{BAO}	7.56	8.6 ± 1.8
D_{810}	3143	3114 ± 290	$D_M(0.38)$	1576.5	1573 ± 29			

Best-fit $\chi^2_{\text{eff}} = 24.05$; $\bar{\chi}^2_{\text{eff}} = 29.10$; $R - 1 = 0.00706$

χ^2_{eff} : BAO - 6DF: 0.05 MGS: 2.35 DR12BAO: 5.16 CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 16.40

2.205 base_lensing_lenspriors_pttagr2_BAO_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02225	0.02228 ± 0.00051	D_{1420}	811.9	812 ± 36	$H(0.51)$	89.870	89.91 ± 0.43
$\Omega_c h^2$	0.11724	0.1173 ± 0.0017	D_{2000}	226.8	227 ± 11	$D_M(0.51)$	1970.9	1970 ± 14
$100\theta_{MC}$	1.04081	1.04086 ± 0.00059	$n_{s,0.002}$	0.9377	0.938 ± 0.018	$H(0.61)$	95.397	95.43 ± 0.40
$\ln(10^{10} A_s)$	3.0617	3.061 ± 0.038	Y_P	0.245348	$0.24535^{+0.00023}_{-0.00020}$	$D_M(0.61)$	2294.8	2294 ± 15
n_s	0.9377	0.938 ± 0.018	Y_P^{BBN}	0.246674	$0.24667^{+0.00023}_{-0.00021}$	$H(2.33)$	234.61	234.6 ± 1.3
H_0	68.20	68.24 ± 0.67	$10^5 D/H$	2.608	2.606 ± 0.097	$D_M(2.33)$	5763.3	5761 ± 22
Ω_Λ	0.6987	0.6989 ± 0.0088	Age/Gyr	13.801	13.796 ± 0.053	$f\sigma_8(0.15)$	0.4450	0.4447 ± 0.0094
Ω_m	0.3013	0.3011 ± 0.0088	z_*	1089.83	1089.81 ± 0.64	$\sigma_8(0.15)$	0.7411	0.741 ± 0.014
$\Omega_m h^2$	0.14014	0.1402 ± 0.0019	r_*	145.24	145.22 ± 0.64	$f\sigma_8(0.38)$	0.4654	0.4652 ± 0.0091
$\Omega_m h^3$	0.09557	0.0957 ± 0.0011	$100\theta_*$	1.04101	1.04106 ± 0.00060	$\sigma_8(0.38)$	0.6581	0.658 ± 0.013
σ_8	0.8010	0.801 ± 0.015	$D_M(z_*)/\text{Gpc}$	13.952	13.949 ± 0.063	$f\sigma_8(0.51)$	0.4652	0.4650 ± 0.0089
S_8	0.8027	0.802 ± 0.018	z_{drag}	1059.47	1059.5 ± 1.2	$\sigma_8(0.51)$	0.6163	0.616 ± 0.012
$\sigma_8 \Omega_m^{0.5}$	0.4396	0.4394 ± 0.0097	r_{drag}	147.96	147.93 ± 0.79	$f\sigma_8(0.61)$	0.4611	0.4609 ± 0.0087
$\sigma_8 \Omega_m^{0.25}$	0.5934	0.593 ± 0.011	k_D	0.13987	0.1399 ± 0.0012	$\sigma_8(0.61)$	0.5867	0.587 ± 0.012
$\sigma_8/h^{0.5}$	0.9699	0.969 ± 0.018	$100\theta_D$	0.16099	0.16098 ± 0.00073	$f\sigma_8(2.33)$	0.2962	0.2963 ± 0.0061
$r_{\text{drag}} h$	100.91	$101.0^{+1.1}_{-1.2}$	z_{eq}	3333.4	3334 ± 44	$\sigma_8(2.33)$	0.3059	0.3059 ± 0.0065
$\langle d^2 \rangle^{1/2}$	2.4964	2.495 ± 0.047	k_{eq}	0.010174	0.01018 ± 0.00014	χ^2_{lensing}	21.72	23 ± 3
z_{re}	7.732	7.73 ± 0.12	$100\theta_{\text{eq}}$	0.8254	0.8254 ± 0.0076	$\chi^2_{6\text{DF}}$	0.0075	0.066 ± 0.096
$10^9 A_s$	2.136	2.136 ± 0.080	$100\theta_{s,\text{eq}}$	0.45578	0.4558 ± 0.0041	χ^2_{MGS}	1.97	2.07 ± 0.75
$10^9 A_s e^{-2\tau}$	1.914	1.914 ± 0.072	$H(0.15)$	73.36	73.40 ± 0.59	χ^2_{DR12BAO}	3.37	4.3 ± 1.3
D_{40}	1335	1335 ± 65	$D_M(0.15)$	636.4	636.1 ± 5.7	χ^2_{prior}	1.27	4.1 ± 3.1
D_{220}	6040	6041^{+230}_{-260}	$H(0.38)$	83.271	83.31 ± 0.47	χ^2_{BAO}	5.34	6.4 ± 1.7
D_{810}	2567	2567 ± 100	$D_M(0.38)$	1520.2	1519 ± 12			

Best-fit $\chi^2_{\text{eff}} = 28.33$; $\bar{\chi}^2_{\text{eff}} = 33.48$; $R - 1 = 0.01261$

χ^2_{eff} : BAO - 6DF: 0.01 MGS: 1.97 DR12BAO: 3.37 CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 21.72

2.206 base_lensing_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_m	0.259	$0.276^{+0.050}_{-0.061}$	$\Omega_b h^2$	0.0276	$0.0257^{+0.0060}_{-0.011}$	S_8	0.779	0.780 ± 0.051
Ω_b	0.0541	—	$\Omega_c h^2$	0.1041	$0.112^{+0.016}_{-0.025}$	$\sigma_8 \Omega_m^{0.5}$	0.4268	0.427 ± 0.028
H_0	71.5	< 77.4	Ω_Λ	0.741	$0.724^{+0.061}_{-0.050}$	$\sigma_8 \Omega_m^{0.25}$	0.5983	0.591 ± 0.020
$10^9 A_s$	2.733	$2.47^{+0.38}_{-0.54}$	$\ln(10^{10} A_s)$	3.308	3.19 ± 0.18	χ^2_{lensing}	7.38	9.6 ± 2.0
n_s	1.037	> 0.945	σ_8	0.8388	$0.820^{+0.041}_{-0.048}$			

Best-fit $\chi^2_{\text{eff}} = 7.38$; $\bar{\chi}^2_{\text{eff}} = 9.64$; $R - 1 = 0.01504$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.38

2.207 base_lensing_DESpriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_m	0.3365	$0.302^{+0.021}_{-0.026}$	$\Omega_c h^2$	0.1204	$0.122^{+0.019}_{-0.029}$	$\sigma_8 \Omega_m^{0.25}$	0.5911	0.598 ± 0.020
Ω_b	0.0373	$0.048^{+0.010}_{-0.013}$	Ω_Λ	0.6635	$0.698^{+0.026}_{-0.021}$	χ^2_{lensing}	8.16	9.9 ± 2.1
H_0	63.6	$69.5^{+4.9}_{-11}$	$\ln(10^{10} A_s)$	2.925	$3.07^{+0.13}_{-0.19}$	$\chi^2_{6\text{DF}}$	0.0470	0.08 ± 0.11
$10^9 A_s$	1.863	$2.18^{+0.23}_{-0.45}$	σ_8	0.7762	$0.808^{+0.024}_{-0.028}$	χ^2_{MGS}	1.16	1.87 ± 0.79
n_s	0.870	< 0.970	S_8	0.8220	0.810 ± 0.036	χ^2_{DR12BAO}	2.43	4.7 ± 1.7
$\Omega_b h^2$	0.0151	$0.0247^{+0.0049}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	0.4502	0.443 ± 0.020	χ^2_{BAO}	3.64	6.6 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 11.80$; $\bar{\chi}^2_{\text{eff}} = 16.52$; $R - 1 = 0.00617$

χ^2_{eff} : BAO - 6DF: 0.05 MGS: 1.16 DR12BAO: 2.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 8.16

2.208 base_lensing_DESpriors_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.239	$0.300^{+0.066}_{-0.083}$	$\Omega_{\text{b}}h^2$	0.022239	0.02218 ± 0.00050	S_8	0.762	0.797 ± 0.060
Ω_{b}	0.0445	—	$\Omega_{\text{c}}h^2$	0.0966	$0.108^{+0.012}_{-0.018}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4175	0.437 ± 0.033
H_0	70.7	$67.2^{+4.0}_{-11}$	Ω_{Λ}	0.761	$0.700^{+0.083}_{-0.066}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5972	0.593 ± 0.020
$10^9 A_{\text{s}}$	2.890	$2.46^{+0.41}_{-0.52}$	$\ln(10^{10} A_{\text{s}})$	3.364	$3.18^{+0.20}_{-0.18}$	χ^2_{lensing}	7.36	9.6 ± 2.0
n_{s}	1.036	—	σ_8	0.854	$0.808^{+0.043}_{-0.063}$	χ^2_{prior}	0.006	1.0 ± 1.5

Best-fit $\chi^2_{\text{eff}} = 7.37$; $\bar{\chi}^2_{\text{eff}} = 10.57$; $R - 1 = 0.00800$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.36

2.209 base_lensing_DESpriors_CookeDH_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3280	0.306 ± 0.022	Ω_{Λ}	0.6720	0.694 ± 0.022	$\chi^2_{6\text{DF}}$	0.0281	0.070 ± 0.097
Ω_{b}	0.04619	$0.0480^{+0.0020}_{-0.0022}$	$\ln(10^{10} A_{\text{s}})$	2.890	$3.06^{+0.12}_{-0.18}$	χ^2_{MGS}	1.28	1.79 ± 0.76
H_0	69.24	68.0 ± 1.5	σ_8	0.7835	$0.807^{+0.022}_{-0.026}$	χ^2_{DR12BAO}	2.67	4.5 ± 1.8
$10^9 A_{\text{s}}$	1.799	$2.17^{+0.22}_{-0.41}$	S_8	0.8192	0.813 ± 0.035	χ^2_{prior}	0.011	0.99 ± 1.4
n_{s}	0.8703	< 0.968	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4487	0.446 ± 0.019	χ^2_{BAO}	3.98	6.4 ± 2.0
$\Omega_{\text{b}}h^2$	0.022147	0.02219 ± 0.00050	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5929	0.599 ± 0.019			
$\Omega_{\text{c}}h^2$	0.1345	0.119 ± 0.015	χ^2_{lensing}	8.00	9.8 ± 2.1			

Best-fit $\chi^2_{\text{eff}} = 11.99$; $\bar{\chi}^2_{\text{eff}} = 17.15$; $R - 1 = 0.00446$

χ^2_{eff} : BAO - 6DF: 0.03 MGS: 1.28 DR12BAO: 2.67 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 8.00

2.210 base_plikHM_TT

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022557	0.02242 ± 0.00028	$\sigma_8 \Omega_m^{0.5}$	0.4799	0.478 ± 0.014	$100\theta_{\text{eq}}$	0.8255	0.821 ± 0.012
$\Omega_c h^2$	0.11718	0.1182 ± 0.0027	$\sigma_8 \Omega_m^{0.25}$	0.6495	0.643 ± 0.017	$100\theta_{\text{s,eq}}$	0.4556	0.4536 ± 0.0060
$100\theta_{\text{MC}}$	1.04130	1.04114 ± 0.00054	$\sigma_8/h^{0.5}$	1.0612	1.049 ± 0.028	$H(0.15)$	73.77	73.3 ± 1.1
τ	0.1470	$0.127^{+0.039}_{-0.034}$	$r_{\text{drag}} h$	101.33	100.5 ± 2.2	$D_{\text{M}}(0.15)$	632.6	637 ± 11
$\ln(10^{10} A_{\text{s}})$	3.222	$3.185^{+0.073}_{-0.064}$	$\langle d^2 \rangle^{1/2}$	2.618	$2.592^{+0.068}_{-0.062}$	$H(0.38)$	83.65	83.32 ± 0.80
n_{s}	0.9756	0.9708 ± 0.0086	z_{re}	15.38	$13.8^{+3.2}_{-2.2}$	$D_{\text{M}}(0.38)$	1511.9	1521 ± 21
A_{217}^{CIB}	42.9	46 ± 7	$10^9 A_{\text{s}}$	2.508	2.42 ± 0.17	$H(0.51)$	90.23	89.97 ± 0.63
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	> 0.400	$10^9 A_{\text{s}} e^{-2\tau}$	1.8692	1.873 ± 0.016	$D_{\text{M}}(0.51)$	1960.7	1971 ± 25
A_{143}^{tSZ}	6.81	$5.5^{+2.1}_{-1.9}$	D_{40}	1254.8	1255 ± 18	$H(0.61)$	95.75	95.53 ± 0.51
A_{100}^{PS}	239.6	254 ± 30	D_{220}	5725.4	5725 ± 41	$D_{\text{M}}(0.61)$	2283.3	2295 ± 27
A_{143}^{PS}	49.8	44 ± 9	D_{810}	2530.1	2529 ± 14	$H(2.33)$	234.93	235.4 ± 1.6
$A_{143 \times 217}^{\text{PS}}$	57.4	42 ± 9	D_{1420}	816.4	814.2 ± 5.1	$D_{\text{M}}(2.33)$	5743.9	5754 ± 22
A_{217}^{PS}	123.1	115 ± 10	D_{2000}	232.90	231.5 ± 2.1	$f\sigma_8(0.15)$	0.4860	0.483 ± 0.014
A^{kSZ}	0.01	< 3.67	$n_{\text{s},0.002}$	0.9756	0.9708 ± 0.0086	$\sigma_8(0.15)$	0.8138	0.801 ± 0.024
A_{100}^{dustTT}	8.63	8.7 ± 1.8	Y_{P}	0.245465	0.24541 ± 0.00012	$f\sigma_8(0.38)$	0.5092	0.504 ± 0.013
A_{143}^{dustTT}	10.54	10.5 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.246791	0.24674 ± 0.00012	$\sigma_8(0.38)$	0.7230	0.711 ± 0.023
$A_{143 \times 217}^{\text{dustTT}}$	19.77	18.0 ± 3.3	$10^5 D/\text{H}$	2.552	2.579 ± 0.052	$f\sigma_8(0.51)$	0.5094	0.504 ± 0.013
A_{217}^{dustTT}	95.9	93.7 ± 7.3	Age/Gyr	13.7551	13.778 ± 0.049	$\sigma_8(0.51)$	0.6773	0.665 ± 0.022
c_{100}	0.99971	0.99961 ± 0.00062	z_*	1089.44	1089.71 ± 0.55	$f\sigma_8(0.61)$	0.5052	0.499 ± 0.013
c_{217}	0.99817	0.99820 ± 0.00062	r_*	145.02	144.87 ± 0.58	$\sigma_8(0.61)$	0.6449	0.633 ± 0.021
y_{cal}	1.00006	1.0002 ± 0.0025	$100\theta_*$	1.04147	1.04132 ± 0.00052	$f\sigma_8(2.33)$	0.3258	0.320 ± 0.011
H_0	68.64	68.1 ± 1.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.925	13.912 ± 0.052	$\sigma_8(2.33)$	0.3365	0.330 ± 0.012
Ω_{Λ}	0.7020	$0.695^{+0.018}_{-0.015}$	z_{drag}	1060.16	1059.91 ± 0.54	f_{2000}^{143}	25.65	28 ± 4
Ω_{m}	0.2980	$0.305^{+0.015}_{-0.018}$	r_{drag}	147.63	147.53 ± 0.55	$f_{2000}^{143 \times 217}$	29.71	30.9 ± 2.5
$\Omega_{\text{m}} h^2$	0.14039	0.1412 ± 0.0025	k_{D}	0.14044	0.14044 ± 0.00055	f_{2000}^{217}	104.31	105.8 ± 2.3
$\Omega_{\text{m}} h^3$	0.096355	0.09619 ± 0.00048	$100\theta_{\text{D}}$	0.160651	0.16080 ± 0.00030	χ_{plik}^2	752.7	767.4 ± 5.5
σ_8	0.8791	0.866 ± 0.026	z_{eq}	3339	3360 ± 60	χ_{prior}^2	0.98	7.1 ± 3.6
S_8	0.8762	0.872 ± 0.026	k_{eq}	0.010192	0.01025 ± 0.00018			

Best-fit $\chi_{\text{eff}}^2 = 753.73$; $\bar{\chi}_{\text{eff}}^2 = 774.46$; $R - 1 = 0.00674$
 χ_{eff}^2 : CMB - plik_rd12_HM_v22_TT: 752.75

2.211 base_plikHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022496	0.02238 ± 0.00027	$\sigma_8 \Omega_m^{0.25}$	0.6370	0.630 ± 0.016	$H(0.15)$	73.68	73.3 ± 1.0
$\Omega_c h^2$	0.11728	0.1181 ± 0.0025	$\sigma_8/h^{0.5}$	1.0406	1.028 ± 0.026	$D_M(0.15)$	633.5	637.0 ± 9.8
$100\theta_{MC}$	1.04124	1.04112 ± 0.00052	$r_{drag}h$	101.20	100.6 ± 2.0	$H(0.38)$	83.57	83.31 ± 0.74
τ	0.1259	$0.108^{+0.034}_{-0.031}$	$\langle d^2 \rangle^{1/2}$	2.564	2.539 ± 0.061	$D_M(0.38)$	1513.9	1521 ± 20
$\ln(10^{10} A_s)$	3.180	$3.145^{+0.065}_{-0.058}$	z_{re}	13.82	$12.3^{+3.0}_{-2.1}$	$H(0.51)$	90.16	89.95 ± 0.59
n_s	0.9756	0.9713 ± 0.0077	$10^9 A_s$	2.405	2.33 ± 0.14	$D_M(0.51)$	1963.1	1971 ± 23
y_{cal}	1.00013	1.0003 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8693	1.872 ± 0.015	$H(0.61)$	95.679	$95.51^{+0.45}_{-0.50}$
A_{217}^{CIB}	42.8	46 ± 7	D_{40}	1238.9	1240 ± 16	$D_M(0.61)$	2285.9	2295 ± 25
$\xi^{tSZ \times CIB}$	0.986	> 0.390	D_{220}	5715.5	5718 ± 42	$H(2.33)$	234.92	235.3 ± 1.5
A_{143}^{tSZ}	6.86	$5.5^{+2.1}_{-1.9}$	D_{810}	2531.7	2531 ± 14	$D_M(2.33)$	5747.6	5755 ± 21
A_{100}^{PS}	239.7	254 ± 30	D_{1420}	817.1	815.2 ± 5.1	$f\sigma_8(0.15)$	0.4770	0.473 ± 0.013
A_{143}^{PS}	50.5	44 ± 9	D_{2000}	232.59	231.4 ± 2.1	$\sigma_8(0.15)$	0.7973	0.785 ± 0.022
$A_{143 \times 217}^{PS}$	58.0	42 ± 9	$n_{s,0.002}$	0.9756	0.9713 ± 0.0077	$f\sigma_8(0.38)$	0.4994	0.494 ± 0.013
A_{217}^{PS}	123.8	115 ± 10	Y_P	0.245443	0.24540 ± 0.00011	$\sigma_8(0.38)$	0.7082	0.697 ± 0.020
A^{kSZ}	0.00	< 3.71	Y_P^{BBN}	0.246770	0.24672 ± 0.00011	$f\sigma_8(0.51)$	0.4995	0.494 ± 0.012
A_{100}^{dustTT}	8.74	8.8 ± 1.8	$10^5 D/H$	2.5627	2.584 ± 0.050	$\sigma_8(0.51)$	0.6634	0.652 ± 0.019
A_{143}^{dustTT}	10.66	10.5 ± 1.8	Age/Gyr	13.7636	13.781 ± 0.046	$f\sigma_8(0.61)$	0.4953	0.489 ± 0.012
$A_{143 \times 217}^{dustTT}$	19.94	18.1 ± 3.3	z_*	1089.53	1089.74 ± 0.51	$\sigma_8(0.61)$	0.6316	0.621 ± 0.019
A_{217}^{dustTT}	96.2	93.7 ± 7.3	r_*	145.04	144.92 ± 0.54	$f\sigma_8(2.33)$	0.3190	0.3134 ± 0.0097
c_{100}	0.99968	0.99960 ± 0.00061	$100\theta_*$	1.04141	1.04131 ± 0.00050	$\sigma_8(2.33)$	0.3295	0.323 ± 0.011
c_{217}	0.99816	0.99820 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.9273	13.918 ± 0.049	f_{2000}^{143}	26.13	28 ± 3
H_0	68.53	68.1 ± 1.2	z_{drag}	1060.05	1059.83 ± 0.52	$f_{2000}^{143 \times 217}$	30.11	31.2 ± 2.5
Ω_Λ	0.7010	0.696 ± 0.015	r_{drag}	147.67	147.59 ± 0.52	f_{2000}^{217}	104.67	106.1 ± 2.2
Ω_m	0.2990	0.304 ± 0.015	k_D	0.14035	0.14035 ± 0.00053	χ_{lowl}^2	24.89	25.0 ± 1.7
$\Omega_m h^2$	0.14042	0.1411 ± 0.0023	$100\theta_D$	0.160722	0.16084 ± 0.00029	χ_{plik}^2	753.5	768.0 ± 5.7
$\Omega_m h^3$	0.096230	0.09610 ± 0.00048	z_{eq}	3340	3356 ± 56	χ_{prior}^2	1.05	7.2 ± 3.6
σ_8	0.8614	0.849 ± 0.023	k_{eq}	0.010195	0.01024 ± 0.00017	χ_{CMB}^2	778.4	793.0 ± 5.5
S_8	0.8600	0.854 ± 0.025	$100\theta_{eq}$	0.8251	0.822 ± 0.011			
$\sigma_8 \Omega_m^{0.5}$	0.4710	0.468 ± 0.014	$100\theta_{s,eq}$	0.4555	0.4539 ± 0.0056			

Best-fit $\chi_{eff}^2 = 779.48$; $\bar{\chi}_{eff}^2 = 800.20$; $R - 1 = 0.00744$

χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 24.89 plik_rd12_HM_v22_TT: 753.54

2.212 base_plikHM_TT_lowl_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022429	0.02237 ± 0.00021	$\sigma_8/h^{0.5}$	1.0363	1.028 ± 0.026	$H(0.38)$	83.372	83.27 ± 0.39
$\Omega_c h^2$	0.11792	0.1182 ± 0.0013	$r_{\text{drag}} h$	100.68	100.5 ± 1.0	$D_M(0.38)$	1519.1	1522 ± 10
$100\theta_{\text{MC}}$	1.041173	1.04111 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.554	$2.539^{+0.064}_{-0.057}$	$H(0.51)$	90.002	89.91 ± 0.32
τ	0.1163	$0.107^{+0.029}_{-0.025}$	z_{re}	13.12	$12.3^{+2.5}_{-1.8}$	$D_M(0.51)$	1969.2	1972 ± 12
$\ln(10^{10} A_s)$	3.163	$3.143^{+0.056}_{-0.049}$	$10^9 A_s$	2.363	2.32 ± 0.12	$H(0.61)$	95.555	95.48 ± 0.28
n_s	0.97354	0.9709 ± 0.0049	$10^9 A_s e^{-2\tau}$	1.8728	1.873 ± 0.012	$D_M(0.61)$	2292.5	2296 ± 13
y_{cal}	1.00027	1.0003 ± 0.0025	D_{40}	1238.1	1240 ± 16	$H(2.33)$	235.27	235.37 ± 0.79
A_{217}^{CIB}	43.1	46 ± 7	D_{220}	5715.2	5718 ± 41	$D_M(2.33)$	5752.9	5757 ± 13
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	> 0.387	D_{810}	2533.5	2531 ± 14	$f\sigma_8(0.15)$	0.4767	0.474 ± 0.012
A_{143}^{tSZ}	6.73	$5.5^{+2.1}_{-1.9}$	D_{1420}	817.00	815.1 ± 4.9	$\sigma_8(0.15)$	0.7918	0.784 ± 0.020
A_{100}^{PS}	242.2	254 ± 28	D_{2000}	232.25	231.3 ± 1.9	$f\sigma_8(0.38)$	0.4981	0.494 ± 0.013
A_{143}^{PS}	52.4	45 ± 8	$n_{s,0.002}$	0.97354	0.9709 ± 0.0049	$\sigma_8(0.38)$	0.7029	0.696 ± 0.018
$A_{143 \times 217}^{\text{PS}}$	59.3	42 ± 9	Y_{P}	0.245419	0.245392 ± 0.000084	$f\sigma_8(0.51)$	0.4977	0.494 ± 0.013
A_{217}^{PS}	124.6	115 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246745	0.246719 ± 0.000084	$\sigma_8(0.51)$	0.6582	0.652 ± 0.017
A^{kSZ}	0.00	< 3.71	$10^5 D/H$	2.5745	2.586 ± 0.039	$f\sigma_8(0.61)$	0.4931	0.489 ± 0.012
A_{100}^{dustTT}	8.74	8.8 ± 1.8	Age/Gyr	13.7752	13.784 ± 0.031	$\sigma_8(0.61)$	0.6265	0.620 ± 0.017
A_{143}^{dustTT}	10.65	10.5 ± 1.8	z_*	1089.664	1089.76 ± 0.32	$f\sigma_8(2.33)$	0.3163	0.3131 ± 0.0085
$A_{143 \times 217}^{\text{dustTT}}$	19.82	18.1 ± 3.3	r_*	144.924	144.91 ± 0.32	$\sigma_8(2.33)$	0.3265	0.3231 ± 0.0089
A_{217}^{dustTT}	95.8	93.8 ± 7.3	$100\theta_*$	1.041349	1.04130 ± 0.00043	f_{2000}^{143}	26.84	28.4 ± 3.1
c_{100}	0.99967	0.99959 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.9170	13.916 ± 0.031	$f_{2000}^{143 \times 217}$	30.66	31.3 ± 2.2
c_{217}	0.99818	0.99821 ± 0.00062	z_{drag}	1059.933	1059.81 ± 0.46	f_{2000}^{217}	105.17	106.2 ± 2.1
H_0	68.22	68.07 ± 0.60	r_{drag}	147.576	147.58 ± 0.34	χ_{lowl}^2	24.68	24.9 ± 1.7
Ω_Λ	0.6970	0.6952 ± 0.0077	k_{D}	0.140400	0.14036 ± 0.00044	χ_{plik}^2	753.8	767.3 ± 5.5
Ω_{m}	0.3030	0.3048 ± 0.0077	$100\theta_{\text{D}}$	0.160782	0.16085 ± 0.00027	$\chi_{6\text{DF}}^2$	0.0015	0.043 ± 0.061
$\Omega_{\text{m}} h^2$	0.14100	0.1412 ± 0.0012	z_{eq}	3354.0	3359 ± 29	χ_{MGS}^2	1.82	1.75 ± 0.62
$\Omega_{\text{m}} h^3$	0.096190	0.09610 ± 0.00047	k_{eq}	0.010237	0.010251 ± 0.000089	χ_{DR12BAO}^2	3.40	4.2 ± 1.1
σ_8	0.8559	0.848 ± 0.022	$100\theta_{\text{eq}}$	0.8224	0.8214 ± 0.0056	χ_{prior}^2	1.03	7.2 ± 3.6
S_8	0.8601	0.855 ± 0.023	$100\theta_{s,\text{eq}}$	0.45408	0.4536 ± 0.0029	χ_{BAO}^2	5.222	6.0 ± 1.1
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4711	0.468 ± 0.012	$H(0.15)$	73.41	73.28 ± 0.52	χ_{CMB}^2	778.53	792.3 ± 5.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6350	0.630 ± 0.016	$D_M(0.15)$	636.1	637.4 ± 5.0			

Best-fit $\chi_{\text{eff}}^2 = 784.78$; $\bar{\chi}_{\text{eff}}^2 = 805.42$; $R - 1 = 0.01210$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.40 CMB - commander_dx12_v3.2.29: 24.68 plik_rd12_HM_v22_TT: 753.84

2.213 base_plikHM_TT_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02239 ± 0.00026	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.631 ± 0.015	$H(0.15)$	73.36 ± 0.99
$\Omega_{\mathrm{c}}h^2$	0.1180 ± 0.0025	$\sigma_8/h^{0.5}$	1.029 ± 0.025	$D_{\mathrm{M}}(0.15)$	636.7 ± 9.6
$100\theta_{\mathrm{MC}}$	1.04113 ± 0.00051	$r_{\mathrm{drag}}h$	100.6 ± 2.0	$H(0.38)$	83.34 ± 0.73
τ	0.110 ± 0.030	$\langle d^2 \rangle^{1/2}$	2.542 ± 0.058	$D_{\mathrm{M}}(0.38)$	1520 ± 19
$\ln(10^{10}A_{\mathrm{s}})$	3.149 ± 0.058	z_{re}	$12.5^{+2.7}_{-2.2}$	$H(0.51)$	$89.97^{+0.55}_{-0.61}$
n_{s}	0.9716 ± 0.0075	$10^9 A_{\mathrm{s}}$	$2.34^{+0.13}_{-0.15}$	$D_{\mathrm{M}}(0.51)$	1971 ± 23
y_{cal}	1.0003 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.872 ± 0.015	$H(0.61)$	$95.53^{+0.44}_{-0.50}$
A_{217}^{CIB}	46 ± 7	D_{40}	1240 ± 16	$D_{\mathrm{M}}(0.61)$	2294 ± 25
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.391	D_{220}	5718 ± 42	$H(2.33)$	235.3 ± 1.4
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{810}	2531 ± 14	$D_{\mathrm{M}}(2.33)$	5755 ± 21
A_{100}^{PS}	254 ± 30	D_{1420}	815.2 ± 5.1	$f\sigma_8(0.15)$	0.474 ± 0.013
A_{143}^{PS}	44 ± 8	D_{2000}	231.4 ± 2.1	$\sigma_8(0.15)$	0.786 ± 0.021
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	$n_{\mathrm{s},0.002}$	0.9716 ± 0.0075	$f\sigma_8(0.38)$	0.495 ± 0.012
A_{217}^{PS}	115 ± 10	Y_{P}	0.24540 ± 0.00011	$\sigma_8(0.38)$	0.698 ± 0.019
A^{kSZ}	< 3.67	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24673 ± 0.00011	$f\sigma_8(0.51)$	0.494 ± 0.012
$A_{100}^{\mathrm{dust}TT}$	8.8 ± 1.8	$10^5 \mathrm{D}/\mathrm{H}$	2.582 ± 0.049	$\sigma_8(0.51)$	0.653 ± 0.018
$A_{143}^{\mathrm{dust}TT}$	10.5 ± 1.8	$\mathrm{Age}/\mathrm{Gyr}$	13.780 ± 0.046	$f\sigma_8(0.61)$	0.490 ± 0.012
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.0 ± 3.3	z_*	1089.72 ± 0.50	$\sigma_8(0.61)$	0.622 ± 0.017
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	r_*	144.94 ± 0.54	$f\sigma_8(2.33)$	0.3140 ± 0.0092
c_{100}	0.99960 ± 0.00061	$100\theta_*$	1.04132 ± 0.00050	$\sigma_8(2.33)$	0.3241 ± 0.0099
c_{217}	0.99820 ± 0.00062	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.919 ± 0.049	f_{2000}^{143}	28 ± 3
H_0	68.2 ± 1.1	z_{drag}	1059.84 ± 0.51	$f_{2000}^{143 \times 217}$	31.1 ± 2.4
Ω_{Λ}	0.696 ± 0.015	r_{drag}	147.60 ± 0.52	f_{2000}^{217}	106.0 ± 2.2
Ω_{m}	0.304 ± 0.015	k_{D}	0.14034 ± 0.00053	χ_{lowl}^2	25.0 ± 1.7
$\Omega_{\mathrm{m}}h^2$	0.1410 ± 0.0023	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00029	χ_{plik}^2	767.9 ± 5.6
$\Omega_{\mathrm{m}}h^3$	0.09611 ± 0.00047	z_{eq}	3355 ± 55	χ_{prior}^2	7.2 ± 3.6
σ_8	0.850 ± 0.022	k_{eq}	0.01024 ± 0.00017	χ_{CMB}^2	792.9 ± 5.4
S_8	0.855 ± 0.025	$100\theta_{\mathrm{eq}}$	0.822 ± 0.011		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.468 ± 0.014	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4540 ± 0.0055		

$\bar{\chi}_{\mathrm{eff}}^2 = 800.08$; $R - 1 = 0.00767$

2.214 base_plikHM_TT_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02237 ± 0.00021	$\sigma_8/h^{0.5}$	1.029 ± 0.025	$H(0.38)$	83.27 ± 0.39
$\Omega_{\mathrm{c}}h^2$	0.1182 ± 0.0013	$r_{\mathrm{drag}}h$	100.5 ± 1.0	$D_{\mathrm{M}}(0.38)$	1522 ± 10
$100\theta_{\mathrm{MC}}$	1.04112 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.541 ± 0.058	$H(0.51)$	89.92 ± 0.32
τ	0.108 ± 0.026	z_{re}	$12.4^{+2.3}_{-1.9}$	$D_{\mathrm{M}}(0.51)$	1972 ± 12
$\ln(10^{10}A_{\mathrm{s}})$	3.146 ± 0.050	$10^9 A_{\mathrm{s}}$	2.33 ± 0.12	$H(0.61)$	95.48 ± 0.27
n_{s}	0.9710 ± 0.0048	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.873 ± 0.012	$D_{\mathrm{M}}(0.61)$	2296 ± 13
y_{cal}	1.0003 ± 0.0025	D_{40}	1240 ± 16	$H(2.33)$	235.37 ± 0.79
A_{217}^{CIB}	46 ± 7	D_{220}	5718 ± 41	$D_{\mathrm{M}}(2.33)$	5756 ± 13
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.388	D_{810}	2531 ± 14	$f\sigma_8(0.15)$	0.474 ± 0.012
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{1420}	815.1 ± 4.9	$\sigma_8(0.15)$	0.785 ± 0.019
A_{100}^{PS}	254 ± 28	D_{2000}	231.3 ± 1.8	$f\sigma_8(0.38)$	0.495 ± 0.012
A_{143}^{PS}	45 ± 8	$n_{\mathrm{s},0.002}$	0.9710 ± 0.0048	$\sigma_8(0.38)$	0.697 ± 0.018
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	Y_{P}	0.245394 ± 0.000083	$f\sigma_8(0.51)$	0.494 ± 0.012
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246720 ± 0.000083	$\sigma_8(0.51)$	0.652 ± 0.016
A^{kSZ}	< 3.69	$10^5 \mathrm{D}/\mathrm{H}$	2.586 ± 0.039	$f\sigma_8(0.61)$	0.490 ± 0.012
$A_{100}^{\mathrm{dust}TT}$	8.8 ± 1.8	$\mathrm{Age}/\mathrm{Gyr}$	13.783 ± 0.030	$\sigma_8(0.61)$	0.621 ± 0.016
$A_{143}^{\mathrm{dust}TT}$	10.5 ± 1.8	z_*	1089.76 ± 0.32	$f\sigma_8(2.33)$	0.3134 ± 0.0081
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.1 ± 3.3	r_*	144.91 ± 0.32	$\sigma_8(2.33)$	0.3235 ± 0.0085
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	$100\theta_*$	1.04130 ± 0.00043	f_{2000}^{143}	28.3 ± 3.1
c_{100}	0.99959 ± 0.00062	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.916 ± 0.031	$f_{2000}^{143 \times 217}$	31.3 ± 2.2
c_{217}	0.99821 ± 0.00062	z_{drag}	1059.81 ± 0.46	f_{2000}^{217}	106.2 ± 2.1
H_0	68.08 ± 0.59	r_{drag}	147.58 ± 0.34	χ_{lowl}^2	25.0 ± 1.7
Ω_{Λ}	0.6953 ± 0.0077	k_{D}	0.14036 ± 0.00044	χ_{plik}^2	767.2 ± 5.4
Ω_{m}	0.3047 ± 0.0077	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00026	$\chi_{6\mathrm{DF}}^2$	0.043 ± 0.060
$\Omega_{\mathrm{m}}h^2$	0.1412 ± 0.0012	z_{eq}	3358 ± 29	χ_{MGS}^2	1.76 ± 0.62
$\Omega_{\mathrm{m}}h^3$	0.09610 ± 0.00046	k_{eq}	0.010250 ± 0.000089	$\chi_{\mathrm{DR12BAO}}^2$	4.2 ± 1.1
σ_8	0.849 ± 0.021	$100\theta_{\mathrm{eq}}$	0.8214 ± 0.0056	χ_{prior}^2	7.2 ± 3.6
S_8	0.856 ± 0.022	$100\theta_{\mathrm{s,eq}}$	0.4536 ± 0.0029	χ_{BAO}^2	6.0 ± 1.1
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.469 ± 0.012	$H(0.15)$	73.28 ± 0.51	χ_{CMB}^2	792.2 ± 5.2
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.631 ± 0.015	$D_{\mathrm{M}}(0.15)$	637.3 ± 5.0		
$\bar{\chi}_{\mathrm{eff}}^2 = 805.33; R - 1 = 0.01264$					

2.215 base_plikHM_TT_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022073	0.02205 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6170	0.617 ± 0.012	$H(0.15)$	71.88	71.83 ± 0.79
$\Omega_c h^2$	0.12172	0.1218 ± 0.0022	$\sigma_8/h^{0.5}$	1.0009	1.001 ± 0.016	$D_M(0.15)$	651.4	652.1 ± 8.2
$100\theta_{MC}$	1.040676	1.04065 ± 0.00048	$r_{drag}h$	97.64	97.6 ± 1.6	$H(0.38)$	82.26	82.22 ± 0.56
τ	0.0520	0.0515 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4736	2.477 ± 0.039	$D_M(0.38)$	1549.8	1551 ± 16
$\ln(10^{10} A_s)$	3.0431	3.042 ± 0.016	z_{re}	7.54	7.47 ± 0.83	$H(0.51)$	89.127	89.10 ± 0.44
n_s	0.9600	0.9587 ± 0.0059	$10^9 A_s$	2.0971	2.096 ± 0.034	$D_M(0.51)$	2005.2	2007 ± 19
y_{cal}	1.00023	1.0004 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8898	1.891 ± 0.014	$H(0.61)$	94.863	94.84 ± 0.35
A_{217}^{CIB}	49.7	48 ± 7	D_{40}	1239.9	1243 ± 16	$D_M(0.61)$	2331.3	2333 ± 20
$\xi^{tSZ \times CIB}$	0.22	—	D_{220}	5713.3	5718 ± 42	$H(2.33)$	237.38	237.4 ± 1.3
A_{143}^{tSZ}	7.03	4.9 ± 2.0	D_{810}	2538.0	2537 ± 14	$D_M(2.33)$	5783.3	5785 ± 16
A_{100}^{PS}	257.4	266 ± 28	D_{1420}	814.2	813.4 ± 5.3	$f\sigma_8(0.15)$	0.4700	0.470 ± 0.012
A_{143}^{PS}	49.6	50 ± 8	D_{2000}	229.46	229.1 ± 1.8	$\sigma_8(0.15)$	0.7523	0.7518 ± 0.0075
$A_{143 \times 217}^{PS}$	45.1	44_{-10}^{+9}	$n_{s,0.002}$	0.9600	0.9587 ± 0.0059	$f\sigma_8(0.38)$	0.4848	0.4849 ± 0.0097
A_{217}^{PS}	118.5	115 ± 10	Y_P	0.245272	$0.24525_{-0.000090}^{+0.00011}$	$\sigma_8(0.38)$	0.6651	0.6646 ± 0.0060
A^{kSZ}	0.01	< 5.20	Y_P^{BBN}	0.246598	$0.24658_{-0.000090}^{+0.00011}$	$f\sigma_8(0.51)$	0.4816	0.4815 ± 0.0082
A_{100}^{dustTT}	8.79	8.8 ± 1.8	$10^5 D/H$	2.6423	2.647 ± 0.042	$\sigma_8(0.51)$	0.6218	0.6212 ± 0.0054
A_{143}^{dustTT}	10.79	10.7 ± 1.8	Age/Gyr	13.8417	13.845 ± 0.036	$f\sigma_8(0.61)$	0.4753	0.4752 ± 0.0073
$A_{143 \times 217}^{dustTT}$	19.44	18.3 ± 3.3	z_*	1090.449	1090.49 ± 0.41	$\sigma_8(0.61)$	0.5912	0.5907 ± 0.0051
A_{217}^{dustTT}	94.5	93.2 ± 7.3	r_*	144.217	144.21 ± 0.49	$f\sigma_8(2.33)$	0.29748	0.2972 ± 0.0025
c_{100}	0.99964	0.99962 ± 0.00062	$100\theta_*$	1.040890	1.04086 ± 0.00047	$\sigma_8(2.33)$	0.30603	0.3057 ± 0.0027
c_{217}	0.99828	0.99827 ± 0.00063	$D_M(z_*)/\text{Gpc}$	13.8551	13.855 ± 0.045	f_{2000}^{143}	31.16	31.9 ± 3.0
H_0	66.43	66.37 ± 0.93	z_{drag}	1059.361	1059.32 ± 0.45	$f_{2000}^{143 \times 217}$	33.79	34.1 ± 2.0
Ω_Λ	0.6727	$0.672_{-0.013}^{+0.014}$	r_{drag}	146.972	146.97 ± 0.49	f_{2000}^{217}	108.16	108.6 ± 1.9
Ω_m	0.3273	0.328 ± 0.014	k_D	0.14076	0.14074 ± 0.00053	χ_{small}^2	395.90	397.0 ± 1.7
$\Omega_m h^2$	0.14443	0.1445 ± 0.0021	$100\theta_D$	0.161086	0.16112 ± 0.00026	χ_{plik}^2	758.3	771.1 ± 5.3
$\Omega_m h^3$	0.095952	0.09590 ± 0.00045	z_{eq}	3436.1	3438 ± 49	χ_{prior}^2	1.38	7.3 ± 3.7
σ_8	0.8158	0.8153 ± 0.0089	k_{eq}	0.010487	0.01049 ± 0.00015	χ_{CMB}^2	1154.2	1168.0 ± 5.5
S_8	0.8520	0.853 ± 0.025	$100\theta_{eq}$	0.8063	0.8060 ± 0.0090			
$\sigma_8 \Omega_m^{0.5}$	0.4667	0.467 ± 0.014	$100\theta_{s,eq}$	0.44594	0.4458 ± 0.0047			

Best-fit $\chi_{eff}^2 = 1155.55$; $\bar{\chi}_{eff}^2 = 1175.37$; $R - 1 = 0.00555$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 plik_rd12_HM_v22_TT: 758.28

2.216 base_plikHM_TTTEEE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022555	0.02253 ± 0.00017	$\Omega_{\mathrm{m}}h^2$	0.14173	0.1418 ± 0.0015	z_{eq}	3371.5	3373 ± 36
$\Omega_{\mathrm{c}}h^2$	0.11853	0.1186 ± 0.0016	$\Omega_{\mathrm{m}}h^3$	0.096489	0.09646 ± 0.00029	k_{eq}	0.010290	0.01030 ± 0.00011
$100\theta_{\mathrm{MC}}$	1.041086	1.04108 ± 0.00033	σ_8	0.8637	0.860 ± 0.019	$100\theta_{\mathrm{eq}}$	0.8195	0.8191 ± 0.0069
τ	0.1235	0.120 ± 0.026	S_8	0.8720	0.870 ± 0.020	$100\theta_{\mathrm{s,eq}}$	0.45246	0.4523 ± 0.0035
$\ln(10^{10}A_{\mathrm{s}})$	3.1788	3.171 ± 0.049	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4776	0.476 ± 0.011	$H(0.15)$	73.30	73.26 ± 0.63
n_{s}	0.9715	0.9699 ± 0.0055	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6423	0.640 ± 0.013	$D_{\mathrm{M}}(0.15)$	637.2	637.7 ± 6.2
A_{217}^{CIB}	42.8	45 ± 7	$\sigma_8/h^{0.5}$	1.0468	1.043 ± 0.022	$H(0.38)$	83.328	83.30 ± 0.46
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.9995	> 0.426	$r_{\mathrm{drag}}h$	100.26	100.2 ± 1.3	$D_{\mathrm{M}}(0.38)$	1521.1	1522 ± 12
A_{143}^{tSZ}	6.83	5.7 ± 1.9	$\langle d^2 \rangle^{1/2}$	2.585	2.580 ± 0.053	$H(0.51)$	89.994	89.97 ± 0.36
A_{100}^{PS}	240.7	251 ± 28	z_{re}	13.65	$13.3_{-1.8}^{+2.2}$	$D_{\mathrm{M}}(0.51)$	1971.3	1972 ± 15
A_{143}^{PS}	50.2	43 ± 8	$10^9 A_{\mathrm{s}}$	2.402	2.39 ± 0.12	$H(0.61)$	95.575	95.55 ± 0.29
$A_{143 \times 217}^{\mathrm{PS}}$	57.9	42 ± 9	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8762	1.876 ± 0.012	$D_{\mathrm{M}}(0.61)$	2294.6	2296 ± 16
A_{217}^{PS}	124.0	115.7 ± 9.9	D_{40}	1249.1	1252 ± 15	$H(2.33)$	235.79	235.83 ± 0.94
A^{kSZ}	0.00	< 3.25	D_{220}	5733.2	5737 ± 38	$D_{\mathrm{M}}(2.33)$	5750.2	5751 ± 13
$A_{100}^{\mathrm{dust}TT}$	8.56	8.7 ± 1.8	D_{810}	2533.8	2532 ± 14	$f\sigma_8(0.15)$	0.4830	0.482 ± 0.011
$A_{143}^{\mathrm{dust}TT}$	10.70	10.5 ± 1.8	D_{1420}	816.97	815.7 ± 4.8	$\sigma_8(0.15)$	0.7987	0.796 ± 0.018
$A_{143 \times 217}^{\mathrm{dust}TT}$	19.76	18.1 ± 3.3	D_{2000}	232.62	232.0 ± 1.7	$f\sigma_8(0.38)$	0.5039	0.502 ± 0.011
$A_{217}^{\mathrm{dust}TT}$	95.3	93.5 ± 7.3	$n_{\mathrm{s},0.002}$	0.9715	0.9699 ± 0.0055	$\sigma_8(0.38)$	0.7087	0.706 ± 0.017
$A_{100}^{\mathrm{dust}TE}$	0.1122	0.113 ± 0.038	Y_{P}	0.245464	0.245455 ± 0.000065	$f\sigma_8(0.51)$	0.5031	0.501 ± 0.011
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.1349	0.134 ± 0.029	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246791	0.246782 ± 0.000065	$\sigma_8(0.51)$	0.6635	0.661 ± 0.016
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.480	0.481 ± 0.085	$10^5 \mathrm{D}/\mathrm{H}$	2.5522	2.557 ± 0.031	$f\sigma_8(0.61)$	0.4983	0.497 ± 0.011
$A_{143}^{\mathrm{dust}TE}$	0.223	0.221 ± 0.054	$\mathrm{Age}/\mathrm{Gyr}$	13.7678	13.771 ± 0.028	$\sigma_8(0.61)$	0.6315	0.629 ± 0.015
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.662	0.661 ± 0.080	z_*	1089.559	1089.60 ± 0.32	$f\sigma_8(2.33)$	0.3187	0.3173 ± 0.0079
$A_{217}^{\mathrm{dust}TE}$	2.065	2.06 ± 0.27	r_*	144.670	144.66 ± 0.34	$\sigma_8(2.33)$	0.3288	0.3274 ± 0.0084
c_{100}	0.99976	0.99970 ± 0.00061	$100\theta_*$	1.041247	1.04124 ± 0.00032	f_{2000}^{143}	25.91	27.1 ± 3.0
c_{217}	0.99812	0.99814 ± 0.00062	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8939	13.893 ± 0.032	$f_{2000}^{143 \times 217}$	29.92	30.2 ± 2.1
y_{cal}	0.99995	1.0001 ± 0.0025	z_{drag}	1060.276	1060.21 ± 0.32	f_{2000}^{217}	104.56	105.3 ± 1.9
H_0	68.08	68.03 ± 0.73	r_{drag}	147.273	147.28 ± 0.33	χ_{plik}^2	2337.1	2353.9 ± 5.7
Ω_{Λ}	0.6942	0.6934 ± 0.0097	k_{D}	0.140813	0.14079 ± 0.00033	χ_{prior}^2	1.31	11.2 ± 4.4
Ω_{m}	0.3058	0.3066 ± 0.0097	$100\theta_{\mathrm{D}}$	0.160577	0.16061 ± 0.00018			

Best-fit $\chi_{\mathrm{eff}}^2 = 2338.36$; $\bar{\chi}_{\mathrm{eff}}^2 = 2365.14$; $R - 1 = 0.00675$
 χ_{eff}^2 : CMB - plik_rd12_HM_v22b_TTTEEE: 2337.05

2.217 base_plikHM_TTTEEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022555	0.02251 ± 0.00016	$\Omega_m h^3$	0.096458	0.09641 ± 0.00030	$100\theta_{\text{eq}}$	0.8205	0.8197 ± 0.0066
$\Omega_c h^2$	0.11829	0.1185 ± 0.0015	σ_8	0.8551	0.848 ± 0.018	$100\theta_{\text{s,eq}}$	0.45301	0.4526 ± 0.0034
$100\theta_{\text{MC}}$	1.041103	1.04108 ± 0.00033	S_8	0.8614	0.857 ± 0.019	$H(0.15)$	73.38	73.28 ± 0.60
τ	0.1141	0.106 ± 0.024	$\sigma_8 \Omega_m^{0.5}$	0.4718	0.469 ± 0.010	$D_{\text{M}}(0.15)$	636.4	637.5 ± 5.9
$\ln(10^{10} A_s)$	3.1595	3.143 ± 0.047	$\sigma_8 \Omega_m^{0.25}$	0.6352	0.631 ± 0.013	$H(0.38)$	83.380	83.31 ± 0.44
n_s	0.9730	0.9707 ± 0.0052	$\sigma_8/h^{0.5}$	1.0356	1.028 ± 0.021	$D_{\text{M}}(0.38)$	1519.6	1522 ± 12
y_{cal}	1.00020	1.0003 ± 0.0025	$r_{\text{drag}} h$	100.44	100.3 ± 1.2	$H(0.51)$	90.032	89.97 ± 0.35
A_{217}^{CIB}	42.5	45 ± 7	$\langle d^2 \rangle^{1/2}$	2.5543	$2.541^{+0.051}_{-0.046}$	$D_{\text{M}}(0.51)$	1969.6	1972 ± 14
$\xi^{\text{tSZ} \times \text{CIB}}$	0.9996	> 0.420	z_{re}	12.90	$12.2^{+2.1}_{-1.7}$	$H(0.61)$	95.602	95.55 ± 0.28
A_{143}^{tSZ}	6.85	$5.7^{+2.1}_{-1.8}$	$10^9 A_s$	2.356	2.32 ± 0.11	$D_{\text{M}}(0.61)$	2292.8	2295 ± 15
A_{100}^{PS}	239.0	251 ± 28	$10^9 A_s e^{-2\tau}$	1.8754	1.875 ± 0.012	$H(2.33)$	235.64	235.74 ± 0.91
A_{143}^{PS}	49.7	43 ± 8	D_{40}	1239.7	1241 ± 14	$D_{\text{M}}(2.33)$	5749.3	5752 ± 12
$A_{143 \times 217}^{\text{PS}}$	57.7	42 ± 9	D_{220}	5727.6	5731 ± 38	$f\sigma_8(0.15)$	0.4773	0.474 ± 0.010
A_{217}^{PS}	124.3	116 ± 10	D_{810}	2535.6	2534 ± 14	$\sigma_8(0.15)$	0.7909	0.785 ± 0.017
A^{kSZ}	0.00	< 3.24	D_{1420}	818.26	816.7 ± 4.7	$f\sigma_8(0.38)$	0.4983	0.495 ± 0.010
A_{100}^{dustTT}	8.68	8.8 ± 1.9	D_{2000}	232.84	232.0 ± 1.7	$\sigma_8(0.38)$	0.7019	0.696 ± 0.016
A_{143}^{dustTT}	10.72	10.6 ± 1.8	$n_{\text{s},0.002}$	0.9730	0.9707 ± 0.0052	$f\sigma_8(0.51)$	0.4977	0.494 ± 0.010
$A_{143 \times 217}^{\text{dustTT}}$	19.79	18.2 ± 3.3	Y_{P}	0.245464	0.245448 ± 0.000062	$\sigma_8(0.51)$	0.6572	0.652 ± 0.015
A_{217}^{dustTT}	95.5	93.7 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246791	0.246775 ± 0.000062	$f\sigma_8(0.61)$	0.4930	0.489 ± 0.010
A_{100}^{dustTE}	0.1131	0.113 ± 0.038	$10^5 \text{D}/\text{H}$	2.5522	2.560 ± 0.029	$\sigma_8(0.61)$	0.6255	0.620 ± 0.014
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.134 ± 0.029	Age/Gyr	13.7660	13.772 ± 0.027	$f\sigma_8(2.33)$	0.3157	0.3130 ± 0.0074
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.483 ± 0.085	z_*	1089.539	1089.61 ± 0.31	$\sigma_8(2.33)$	0.3258	0.3230 ± 0.0078
A_{143}^{dustTE}	0.221	0.222 ± 0.054	r_*	144.732	144.71 ± 0.33	f_{2000}^{143}	25.70	27.2 ± 2.9
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.663 ± 0.080	$100\theta_*$	1.041272	1.04125 ± 0.00032	$f_{2000}^{143 \times 217}$	29.78	30.4 ± 2.0
A_{217}^{dustTE}	2.057	2.07 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8995	13.897 ± 0.031	f_{2000}^{217}	104.53	105.4 ± 1.9
c_{100}	0.99975	0.99967 ± 0.00061	z_{drag}	1060.238	1060.16 ± 0.31	χ_{lowl}^2	24.77	25.0 ± 1.4
c_{217}	0.99812	0.99814 ± 0.00062	r_{drag}	147.338	147.33 ± 0.32	χ_{plik}^2	2337.6	2354.2 ± 5.9
H_0	68.17	68.06 ± 0.70	k_{D}	0.140745	0.14073 ± 0.00033	χ_{prior}^2	1.29	11.3 ± 4.5
Ω_{Λ}	0.6955	0.6940 ± 0.0093	$100\theta_{\text{D}}$	0.160589	0.16064 ± 0.00018	χ_{CMB}^2	2362.3	2379.2 ± 5.8
Ω_{m}	0.3045	0.3060 ± 0.0093	z_{eq}	3365.8	3370 ± 34			
$\Omega_{\text{m}} h^2$	0.14149	0.1417 ± 0.0014	k_{eq}	0.010273	0.01029 ± 0.00011			

Best-fit $\chi_{\text{eff}}^2 = 2363.64$; $\bar{\chi}_{\text{eff}}^2 = 2390.54$; $R - 1 = 0.00817$

χ_{eff}^2 : CMB - commander_dx12.v3.2.29: 24.77 plik_rd12_HM.v22b_TTTEEE: 2337.58

2.218 base_plikHM_TTTEEE_lowl_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022555	0.02252 ± 0.00014	σ_8	0.8549	0.849 ± 0.017	$H(0.15)$	73.386	73.33 ± 0.42
$\Omega_c h^2$	0.11828	0.1184 ± 0.0011	S_8	0.8611	0.856 ± 0.018	$D_M(0.15)$	636.40	637.0 ± 4.1
$100\theta_{MC}$	1.041105	1.04110 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4716	0.4690 ± 0.0098	$H(0.38)$	83.383	83.34 ± 0.31
τ	0.1142	0.107 ± 0.022	$\sigma_8 \Omega_m^{0.25}$	0.6350	0.631 ± 0.013	$D_M(0.38)$	1519.5	1520.7 ± 8.3
$\ln(10^{10} A_s)$	3.1593	$3.145^{+0.044}_{-0.040}$	$\sigma_8/h^{0.5}$	1.0353	1.029 ± 0.021	$H(0.51)$	90.034	89.99 ± 0.25
n_s	0.97278	0.9710 ± 0.0042	$r_{\text{drag}} h$	100.45	100.36 ± 0.84	$D_M(0.51)$	1969.5	1970.9 ± 9.7
y_{cal}	0.99998	1.0003 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.5543	$2.542^{+0.051}_{-0.045}$	$H(0.61)$	95.603	95.57 ± 0.21
A_{217}^{CIB}	42.4	45 ± 7	z_{re}	12.91	$12.3^{+1.9}_{-1.5}$	$D_M(0.61)$	2292.7	2294 ± 11
$\xi^{\text{tSZ} \times \text{CIB}}$	0.9996	> 0.423	$10^9 A_s$	2.355	2.324 ± 0.099	$H(2.33)$	235.63	235.67 ± 0.65
A_{143}^{tSZ}	6.90	$5.7^{+2.1}_{-1.8}$	$10^9 A_s e^{-2\tau}$	1.8744	1.875 ± 0.011	$D_M(2.33)$	5749.3	5751.0 ± 9.6
A_{100}^{PS}	238.4	251 ± 30	D_{40}	1239.8	1241 ± 14	$f\sigma_8(0.15)$	0.4771	0.4743 ± 0.0098
A_{143}^{PS}	50.0	43 ± 8	D_{220}	5726.3	5731 ± 38	$\sigma_8(0.15)$	0.7907	0.785 ± 0.016
$A_{143 \times 217}^{\text{PS}}$	57.8	42 ± 9	D_{810}	2534.3	2534 ± 13	$f\sigma_8(0.38)$	0.4981	0.4950 ± 0.0099
A_{217}^{PS}	124.3	116.1 ± 9.9	D_{1420}	817.74	816.8 ± 4.7	$\sigma_8(0.38)$	0.7017	0.697 ± 0.015
A^{kSZ}	0.00	< 3.23	D_{2000}	232.67	232.1 ± 1.6	$f\sigma_8(0.51)$	0.4975	0.4943 ± 0.0099
A_{100}^{dustTT}	8.67	8.8 ± 1.8	$n_{s,0.002}$	0.97278	0.9710 ± 0.0042	$\sigma_8(0.51)$	0.6570	0.652 ± 0.014
A_{143}^{dustTT}	10.75	10.6 ± 1.8	Y_P	0.245464	0.245451 ± 0.000053	$f\sigma_8(0.61)$	0.4929	0.4896 ± 0.0098
$A_{143 \times 217}^{\text{dustTT}}$	19.98	18.2 ± 3.3	Y_P^{BBN}	0.246791	0.246778 ± 0.000053	$\sigma_8(0.61)$	0.6254	0.621 ± 0.013
A_{217}^{dustTT}	95.9	93.6 ± 7.3	$10^5 D/H$	2.5522	2.559 ± 0.025	$f\sigma_8(2.33)$	0.3156	0.3133 ± 0.0068
A_{100}^{dustTE}	0.1131	0.114 ± 0.038	Age/Gyr	13.7660	13.770 ± 0.021	$\sigma_8(2.33)$	0.3257	0.3233 ± 0.0071
$A_{100 \times 143}^{\text{dustTE}}$	0.1334	0.135 ± 0.030	z_*	1089.537	1089.59 ± 0.24	f_{2000}^{143}	25.85	27.1 ± 2.9
$A_{100 \times 217}^{\text{dustTE}}$	0.487	0.483 ± 0.084	r_*	144.736	144.73 ± 0.25	$f_{2000}^{143 \times 217}$	29.84	30.3 ± 2.0
A_{143}^{dustTE}	0.220	0.222 ± 0.054	$100\theta_*$	1.041270	1.04127 ± 0.00029	f_{2000}^{217}	104.50	105.4 ± 1.9
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.663 ± 0.080	$D_M(z_*)/\text{Gpc}$	13.8999	13.900 ± 0.024	χ_{lowl}^2	24.83	24.9 ± 1.4
A_{217}^{dustTE}	2.066	2.07 ± 0.27	z_{drag}	1060.238	1060.17 ± 0.30	χ_{plik}^2	2337.4	2353.9 ± 5.8
c_{100}	0.99973	0.99968 ± 0.00062	r_{drag}	147.342	147.35 ± 0.25	$\chi_{6\text{DF}}^2$	0.0001	0.030 ± 0.043
c_{217}	0.99813	0.99814 ± 0.00061	k_D	0.140742	0.14071 ± 0.00030	χ_{MGS}^2	1.68	1.68 ± 0.51
H_0	68.176	68.11 ± 0.49	$100\theta_D$	0.160588	0.16063 ± 0.00017	χ_{DR12BAO}^2	3.528	4.05 ± 0.90
Ω_Λ	0.6956	0.6948 ± 0.0064	z_{eq}	3365.5	3367 ± 24	χ_{prior}^2	1.40	11.3 ± 4.4
Ω_m	0.3044	0.3052 ± 0.0064	k_{eq}	0.010272	0.010277 ± 0.000075	χ_{BAO}^2	5.205	5.77 ± 0.75
$\Omega_m h^2$	0.14148	0.1416 ± 0.0010	$100\theta_{\text{eq}}$	0.82058	0.8202 ± 0.0047	χ_{CMB}^2	2362.3	2378.8 ± 5.6
$\Omega_m h^3$	0.096454	0.09641 ± 0.00030	$100\theta_{s,\text{eq}}$	0.45305	0.4529 ± 0.0024			

Best-fit $\chi_{\text{eff}}^2 = 2368.86$; $\bar{\chi}_{\text{eff}}^2 = 2395.83$; $R - 1 = 0.01077$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.53 CMB - commander_dx12_v3.2.29: 24.83 plik_rd12_HM_v22b_TTTEEE: 2337.43

2.219 base_plikHM_TTTEEE_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02252 ± 0.00016	$\Omega_{\mathrm{m}}h^3$	0.09641 ± 0.00030	$100\theta_{\mathrm{eq}}$	0.8197 ± 0.0066
$\Omega_{\mathrm{c}}h^2$	0.1185 ± 0.0015	σ_8	0.849 ± 0.018	$100\theta_{\mathrm{s,eq}}$	0.4526 ± 0.0034
$100\theta_{\mathrm{MC}}$	1.04109 ± 0.00033	S_8	0.857 ± 0.019	$H(0.15)$	73.29 ± 0.60
τ	0.106 ± 0.024	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.469 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.4 ± 5.9
$\ln(10^{10}A_{\mathrm{s}})$	3.144 ± 0.045	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.631 ± 0.013	$H(0.38)$	83.31 ± 0.44
n_{s}	0.9708 ± 0.0051	$\sigma_8/h^{0.5}$	1.029 ± 0.020	$D_{\mathrm{M}}(0.38)$	1521 ± 12
y_{cal}	1.0003 ± 0.0025	$r_{\mathrm{drag}}h$	100.3 ± 1.2	$H(0.51)$	89.98 ± 0.35
A_{217}^{CIB}	45 ± 7	$\langle d^2 \rangle^{1/2}$	2.542 ± 0.048	$D_{\mathrm{M}}(0.51)$	1972 ± 14
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.420	z_{re}	$12.2^{+2.1}_{-1.7}$	$H(0.61)$	95.56 ± 0.28
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8}$	$10^9 A_{\mathrm{s}}$	2.32 ± 0.11	$D_{\mathrm{M}}(0.61)$	2295 ± 15
A_{100}^{PS}	251 ± 28	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.012	$H(2.33)$	235.73 ± 0.90
A_{143}^{PS}	43 ± 8	D_{40}	1241 ± 14	$D_{\mathrm{M}}(2.33)$	5752 ± 12
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{220}	5731 ± 38	$f\sigma_8(0.15)$	0.475 ± 0.010
A_{217}^{PS}	116 ± 10	D_{810}	2534 ± 13	$\sigma_8(0.15)$	0.785 ± 0.017
A^{kSZ}	< 3.24	D_{1420}	816.7 ± 4.7	$f\sigma_8(0.38)$	0.4952 ± 0.0099
$A_{100}^{\mathrm{dust}TT}$	8.8 ± 1.9	D_{2000}	232.1 ± 1.7	$\sigma_8(0.38)$	0.696 ± 0.015
$A_{143}^{\mathrm{dust}TT}$	10.6 ± 1.8	$n_{\mathrm{s},0.002}$	0.9708 ± 0.0051	$f\sigma_8(0.51)$	0.4944 ± 0.0098
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.2 ± 3.3	Y_{P}	0.245449 ± 0.000061	$\sigma_8(0.51)$	0.652 ± 0.014
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246776 ± 0.000061	$f\sigma_8(0.61)$	0.4897 ± 0.0098
$A_{100}^{\mathrm{dust}TE}$	0.113 ± 0.038	$10^5 \mathrm{D}/\mathrm{H}$	2.560 ± 0.029	$\sigma_8(0.61)$	0.621 ± 0.014
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	$\mathrm{Age}/\mathrm{Gyr}$	13.771 ± 0.027	$f\sigma_8(2.33)$	0.3132 ± 0.0072
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483 ± 0.085	z_*	1089.61 ± 0.30	$\sigma_8(2.33)$	0.3231 ± 0.0076
$A_{143}^{\mathrm{dust}TE}$	0.222 ± 0.054	r_*	144.71 ± 0.33	f_{2000}^{143}	27.2 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.663 ± 0.080	$100\theta_*$	1.04126 ± 0.00032	$f_{2000}^{143 \times 217}$	30.4 ± 2.0
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.898 ± 0.031	f_{2000}^{217}	105.4 ± 1.9
c_{100}	0.99967 ± 0.00061	z_{drag}	1060.16 ± 0.31	χ_{lowl}^2	25.0 ± 1.4
c_{217}	0.99814 ± 0.00062	r_{drag}	147.33 ± 0.32	χ_{plik}^2	2354.2 ± 5.8
H_0	68.06 ± 0.70	k_{D}	0.14072 ± 0.00033	χ_{prior}^2	11.3 ± 4.5
Ω_{Λ}	0.6941 ± 0.0093	$100\theta_{\mathrm{D}}$	0.16063 ± 0.00018	χ_{CMB}^2	2379.2 ± 5.7
Ω_{m}	0.3059 ± 0.0093	z_{eq}	3370 ± 34		
$\Omega_{\mathrm{m}}h^2$	0.1417 ± 0.0014	k_{eq}	0.01028 ± 0.00010		

$\bar{\chi}_{\mathrm{eff}}^2 = 2390.49$; $R - 1 = 0.00813$

2.220 base_plikHM_TTTEEE_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02252 ± 0.00014	σ_8	0.849 ± 0.017	$H(0.15)$	73.33 ± 0.42
$\Omega_c h^2$	0.1184 ± 0.0011	S_8	0.856 ± 0.018	$D_M(0.15)$	637.0 ± 4.1
$100\theta_{MC}$	1.04110 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4691 ± 0.0097	$H(0.38)$	83.34 ± 0.31
τ	0.107 ± 0.022	$\sigma_8 \Omega_m^{0.25}$	0.631 ± 0.012	$D_M(0.38)$	1520.7 ± 8.3
$\ln(10^{10} A_s)$	3.146 ± 0.042	$\sigma_8/h^{0.5}$	1.029 ± 0.020	$H(0.51)$	90.00 ± 0.25
n_s	0.9711 ± 0.0042	$r_{\text{drag}} h$	100.36 ± 0.84	$D_M(0.51)$	1970.9 ± 9.7
y_{cal}	1.0003 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.542 ± 0.048	$H(0.61)$	95.57 ± 0.21
A_{217}^{CIB}	45 ± 7	z_{re}	$12.3^{+1.9}_{-1.5}$	$D_M(0.61)$	2294 ± 10
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.423	$10^9 A_s$	2.325 ± 0.097	$H(2.33)$	235.66 ± 0.65
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8}$	$10^9 A_s e^{-2\tau}$	1.875 ± 0.011	$D_M(2.33)$	5751.0 ± 9.6
A_{100}^{PS}	251 ± 30	D_{40}	1241 ± 14	$f\sigma_8(0.15)$	0.4744 ± 0.0096
A_{143}^{PS}	43 ± 8	D_{220}	5731 ± 38	$\sigma_8(0.15)$	0.785 ± 0.016
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{810}	2533 ± 13	$f\sigma_8(0.38)$	0.4951 ± 0.0098
A_{217}^{PS}	116.1 ± 9.9	D_{1420}	816.8 ± 4.7	$\sigma_8(0.38)$	0.697 ± 0.014
A^{kSZ}	< 3.23	D_{2000}	232.1 ± 1.6	$f\sigma_8(0.51)$	0.4944 ± 0.0097
$A_{100}^{\text{dust}TT}$	8.8 ± 1.8	$n_{s,0.002}$	0.9711 ± 0.0042	$\sigma_8(0.51)$	0.652 ± 0.014
$A_{143}^{\text{dust}TT}$	10.6 ± 1.8	Y_P	0.245451 ± 0.000053	$f\sigma_8(0.61)$	0.4897 ± 0.0097
$A_{143 \times 217}^{\text{dust}TT}$	18.2 ± 3.3	Y_P^{BBN}	0.246778 ± 0.000053	$\sigma_8(0.61)$	0.621 ± 0.013
$A_{217}^{\text{dust}TT}$	93.6 ± 7.3	$10^5 D/H$	2.558 ± 0.025	$f\sigma_8(2.33)$	0.3134 ± 0.0067
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	Age/Gyr	13.770 ± 0.021	$\sigma_8(2.33)$	0.3234 ± 0.0070
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	z_*	1089.59 ± 0.23	f_{2000}^{143}	27.1 ± 2.9
$A_{100 \times 217}^{\text{dust}TE}$	0.483 ± 0.084	r_*	144.73 ± 0.25	$f_{2000}^{143 \times 217}$	30.3 ± 2.0
$A_{143}^{\text{dust}TE}$	0.222 ± 0.054	$100\theta_*$	1.04127 ± 0.00029	f_{2000}^{217}	105.4 ± 1.9
$A_{143 \times 217}^{\text{dust}TE}$	0.663 ± 0.080	$D_M(z_*)/\text{Gpc}$	13.900 ± 0.024	χ_{lowl}^2	24.9 ± 1.4
$A_{217}^{\text{dust}TE}$	2.07 ± 0.27	z_{drag}	1060.17 ± 0.30	χ_{plik}^2	2353.8 ± 5.7
c_{100}	0.99968 ± 0.00062	r_{drag}	147.35 ± 0.25	$\chi_{6\text{DF}}^2$	0.030 ± 0.042
c_{217}	0.99814 ± 0.00061	k_D	0.14071 ± 0.00030	χ_{MGS}^2	1.69 ± 0.51
H_0	68.11 ± 0.49	$100\theta_D$	0.16063 ± 0.00017	χ_{DR12BAO}^2	4.05 ± 0.89
Ω_Λ	0.6948 ± 0.0064	z_{eq}	3367 ± 24	χ_{prior}^2	11.3 ± 4.4
Ω_m	0.3052 ± 0.0064	k_{eq}	0.010277 ± 0.000074	χ_{BAO}^2	5.77 ± 0.74
$\Omega_m h^2$	0.1416 ± 0.0010	$100\theta_{\text{eq}}$	0.8202 ± 0.0046	χ_{CMB}^2	2378.8 ± 5.6
$\Omega_m h^3$	0.09641 ± 0.00030	$100\theta_{s,\text{eq}}$	0.4529 ± 0.0024		

$$\bar{\chi}_{\text{eff}}^2 = 2395.80; R - 1 = 0.01085$$

2.221 base_plikHM_TTTEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022348	0.02233 ± 0.00015	$\Omega_m h^3$	0.096359	0.09634 ± 0.00029	$100\theta_{\text{eq}}$	0.8107	0.8105 ± 0.0058
$\Omega_c h^2$	0.12060	0.1207 ± 0.0014	σ_8	0.8136	0.8136 ± 0.0075	$100\theta_{\text{s,eq}}$	0.44807	0.4480 ± 0.0030
$100\theta_{\text{MC}}$	1.040857	1.04086 ± 0.00031	S_8	0.8387	0.840 ± 0.016	$H(0.15)$	72.47	72.44 ± 0.52
τ	0.0540	$0.0545^{+0.0070}_{-0.0079}$	$\sigma_8 \Omega_m^{0.5}$	0.4594	0.4598 ± 0.0089	$D_{\text{M}}(0.15)$	645.5	645.8 ± 5.2
$\ln(10^{10} A_s)$	3.0460	3.047 ± 0.016	$\sigma_8 \Omega_m^{0.25}$	0.6113	0.6117 ± 0.0083	$H(0.38)$	82.719	82.70 ± 0.37
n_s	0.96384	0.9625 ± 0.0045	$\sigma_8/h^{0.5}$	0.9931	0.994 ± 0.012	$D_{\text{M}}(0.38)$	1537.7	1538 ± 10
y_{cal}	1.00076	1.0006 ± 0.0025	$r_{\text{drag}} h$	98.62	98.6 ± 1.1	$H(0.51)$	89.516	89.50 ± 0.29
A_{217}^{CIB}	47.5	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.4560	2.460 ± 0.029	$D_{\text{M}}(0.51)$	1990.8	1992 ± 12
$\xi^{\text{tSZ} \times \text{CIB}}$	0.43	—	z_{re}	7.66	7.70 ± 0.78	$H(0.61)$	95.196	95.18 ± 0.23
A_{143}^{tSZ}	7.14	$5.3^{+2.2}_{-1.9}$	$10^9 A_s$	2.1031	2.105 ± 0.034	$D_{\text{M}}(0.61)$	2315.6	2316 ± 13
A_{100}^{PS}	251.8	261 ± 28	$10^9 A_s e^{-2\tau}$	1.8879	1.887 ± 0.012	$H(2.33)$	236.93	236.96 ± 0.83
A_{143}^{PS}	48.5	47 ± 8	D_{40}	1235.0	1238 ± 13	$D_{\text{M}}(2.33)$	5766.7	5767 ± 11
$A_{143 \times 217}^{\text{PS}}$	48.0	42 ± 9	D_{220}	5738.1	5739 ± 39	$f\sigma_8(0.15)$	0.4634	0.4638 ± 0.0083
A_{217}^{PS}	119.8	115 ± 10	D_{810}	2542.6	2540 ± 13	$\sigma_8(0.15)$	0.7510	0.7511 ± 0.0066
A^{kSZ}	0.01	< 4.59	D_{1420}	818.01	816.5 ± 4.8	$f\sigma_8(0.38)$	0.4801	0.4804 ± 0.0068
A_{100}^{dustTT}	8.79	8.8 ± 1.8	D_{2000}	231.10	230.6 ± 1.6	$\sigma_8(0.38)$	0.6649	0.6649 ± 0.0056
A_{143}^{dustTT}	10.98	10.9 ± 1.8	$n_{\text{s},0.002}$	0.96384	0.9625 ± 0.0045	$f\sigma_8(0.51)$	0.4779	0.4780 ± 0.0060
$A_{143 \times 217}^{\text{dustTT}}$	19.84	18.6 ± 3.3	Y_{P}	0.245387	0.245378 ± 0.000060	$\sigma_8(0.51)$	0.6219	0.6219 ± 0.0052
A_{217}^{dustTT}	95.0	93.5 ± 7.3	$Y_{\text{P}}^{\text{BBN}}$	0.246713	0.246705 ± 0.000060	$f\sigma_8(0.61)$	0.4723	0.4724 ± 0.0054
A_{100}^{dustTE}	0.1147	0.115 ± 0.038	$10^5 \text{D}/\text{H}$	2.5896	2.593 ± 0.028	$\sigma_8(0.61)$	0.59159	0.5915 ± 0.0049
$A_{100 \times 143}^{\text{dustTE}}$	0.1345	0.135 ± 0.029	Age/Gyr	13.8040	13.806 ± 0.024	$f\sigma_8(2.33)$	0.29799	0.2979 ± 0.0025
$A_{100 \times 217}^{\text{dustTE}}$	0.484	0.481 ± 0.084	z_*	1090.000	1090.03 ± 0.28	$\sigma_8(2.33)$	0.30690	0.3068 ± 0.0026
A_{143}^{dustTE}	0.226	0.225 ± 0.054	r_*	144.294	144.29 ± 0.30	f_{2000}^{143}	29.27	30.1 ± 2.8
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.667 ± 0.080	$100\theta_*$	1.041044	1.04104 ± 0.00031	$f_{2000}^{143 \times 217}$	32.33	32.6 ± 1.9
A_{217}^{dustTE}	2.087	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8605	13.860 ± 0.028	f_{2000}^{217}	106.90	107.4 ± 1.8
c_{100}	0.99973	0.99968 ± 0.00061	z_{drag}	1059.933	1059.90 ± 0.30	χ_{small}^2	396.06	397.2 ± 2.0
c_{217}	0.99820	0.99821 ± 0.00062	r_{drag}	146.958	146.96 ± 0.30	χ_{plik}^2	2344.5	2359.4 ± 5.8
H_0	67.11	67.07 ± 0.61	k_{D}	0.140990	0.14098 ± 0.00032	χ_{prior}^2	1.72	11.5 ± 4.5
Ω_{Λ}	0.6811	0.6806 ± 0.0086	$100\theta_{\text{D}}$	0.160761	0.16078 ± 0.00018	χ_{CMB}^2	2740.5	2756.7 ± 5.8
Ω_{m}	0.3189	0.3194 ± 0.0086	z_{eq}	3416.0	3417 ± 31			
$\Omega_{\text{m}} h^2$	0.14359	0.1436 ± 0.0013	k_{eq}	0.010426	0.010430 ± 0.000095			

Best-fit $\chi_{\text{eff}}^2 = 2742.24$; $\bar{\chi}_{\text{eff}}^2 = 2768.16$; $R - 1 = 0.00605$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 plik_rd12_HM_v22b_TTTEEE: 2344.46

2.222 base_CamSpecHM_TT

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022571	0.02248 ± 0.00029	S_8	0.8750	0.871 ± 0.026	k_{eq}	0.010181	0.01023 ± 0.00019
$\Omega_c h^2$	0.11702	0.1178 ± 0.0027	$\sigma_8 \Omega_m^{0.5}$	0.4793	0.477 ± 0.014	$100\theta_{\text{eq}}$	0.8263	0.823 ± 0.012
$100\theta_{\text{MC}}$	1.04136	1.04126 ± 0.00055	$\sigma_8 \Omega_m^{0.25}$	0.6493	0.644 ± 0.017	$100\theta_{\text{s,eq}}$	0.4560	0.4545 ± 0.0061
τ	0.1485	$0.134^{+0.040}_{-0.034}$	$\sigma_8/h^{0.5}$	1.0610	1.051 ± 0.028	$H(0.15)$	73.86	73.5 ± 1.1
$\ln(10^{10} A_s)$	3.224	$3.196^{+0.074}_{-0.063}$	$r_{\text{drag}} h$	101.48	100.9 ± 2.2	$D_M(0.15)$	631.8	635 ± 11
n_s	0.9767	0.9731 ± 0.0088	$\langle d^2 \rangle^{1/2}$	2.615	$2.596^{+0.069}_{-0.061}$	$H(0.38)$	83.71	83.48 ± 0.82
A_{100}^{PS}	218.3	232 ± 26	z_{re}	15.47	$14.3^{+3.1}_{-2.1}$	$D_M(0.38)$	1510.3	1517 ± 22
A_{143}^{PS}	45.5	35 ± 9	$10^9 A_s$	2.512	2.45 ± 0.17	$H(0.51)$	90.29	90.10 ± 0.65
A_{217}^{PS}	108.9	104 ± 10	$10^9 A_s e^{-2\tau}$	1.8666	1.869 ± 0.016	$D_M(0.51)$	1958.8	1966 ± 26
A_{217}^{CIB}	37.5	37^{+7}_{-8}	D_{40}	1251.9	1253^{+17}_{-19}	$H(0.61)$	95.79	95.64 ± 0.53
A_{143}^{tSZ}	6.29	4.1 ± 2.1	D_{220}	5716.6	5717 ± 41	$D_M(0.61)$	2281.2	2289 ± 28
$r_{143 \times 217}^{\text{PS}}$	0.787	0.68 ± 0.13	D_{810}	2527.8	2527 ± 14	$H(2.33)$	234.84	235.2 ± 1.6
$r_{143 \times 217}^{\text{CIB}}$	0.777	$0.51^{+0.33}_{-0.27}$	D_{1420}	816.1	814.4 ± 5.2	$D_M(2.33)$	5742.0	5749 ± 23
$\xi^{\text{tSZ} \times \text{CIB}}$	0.99	—	D_{2000}	232.89	231.9 ± 2.2	$f\sigma_8(0.15)$	0.4855	0.483 ± 0.014
A^{kSZ}	0.01	< 5.46	$n_{\text{s},0.002}$	0.9767	0.9731 ± 0.0088	$\sigma_8(0.15)$	0.8144	$0.804^{+0.026}_{-0.023}$
A_{100}^{dust}	0.992	0.998 ± 0.20	Y_{P}	0.245470	0.24543 ± 0.00012	$f\sigma_8(0.38)$	0.5089	0.505 ± 0.013
A_{143}^{dust}	0.958	0.95 ± 0.18	$Y_{\text{P}}^{\text{BBN}}$	0.246797	0.24676 ± 0.00012	$\sigma_8(0.38)$	0.7236	$0.714^{+0.024}_{-0.022}$
A_{217}^{dust}	0.992	0.98 ± 0.10	$10^5 \text{D}/\text{H}$	2.549	2.567 ± 0.053	$f\sigma_8(0.51)$	0.5093	0.505 ± 0.013
$A_{143 \times 217}^{\text{dust}}$	1.017	1.02 ± 0.16	Age/Gyr	13.751	13.767 ± 0.051	$\sigma_8(0.51)$	0.6779	$0.669^{+0.023}_{-0.021}$
y_{cal}	1.00009	1.0002 ± 0.0025	z_*	1089.41	1089.60 ± 0.56	$f\sigma_8(0.61)$	0.5052	0.500 ± 0.013
c_{100}	0.99785	0.9975 ± 0.0011	r_*	145.05	144.93 ± 0.58	$\sigma_8(0.61)$	0.6455	$0.637^{+0.022}_{-0.020}$
c_{217}	1.00088	1.0009 ± 0.0016	$100\theta_*$	1.04153	1.04143 ± 0.00053	$f\sigma_8(2.33)$	0.3261	$0.322^{+0.012}_{-0.011}$
H_0	68.73	68.4 ± 1.3	$D_M(z_*)/\text{Gpc}$	13.927	13.917 ± 0.052	$\sigma_8(2.33)$	0.3370	0.332 ± 0.012
Ω_Λ	0.7031	$0.698^{+0.018}_{-0.016}$	z_{drag}	1060.20	1060.02 ± 0.55	f_{2000}^{143}	25.87	27 ± 4
Ω_m	0.2969	$0.302^{+0.016}_{-0.018}$	r_{drag}	147.66	147.57 ± 0.55	f_{2000}^{217}	103.71	104.9 ± 2.5
$\Omega_m h^2$	0.14024	0.1409 ± 0.0025	k_{D}	0.14042	0.14044 ± 0.00054	$f_{2000}^{143 \times 217}$	28.96	29.9 ± 2.8
$\Omega_m h^3$	0.096384	0.09628 ± 0.00049	$100\theta_{\text{D}}$	0.160649	0.16074 ± 0.00030	χ_{CamSpec}^2	7045.25	7059.6 ± 5.3
σ_8	0.8796	$0.869^{+0.027}_{-0.024}$	z_{eq}	3336	3351 ± 61	χ_{prior}^2	1.44	7.3 ± 3.4

Best-fit $\chi_{\text{eff}}^2 = 7046.70$; $\bar{\chi}_{\text{eff}}^2 = 7066.87$; $R - 1 = 0.00646$
 χ_{eff}^2 : CMB - CamSpec like_10.7HM: 7045.25

2.223 base_CamSpecHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022525	0.02242 ± 0.00028	$\sigma_8 \Omega_m^{0.5}$	0.4693	0.468 ± 0.014	$100\theta_{s,eq}$	0.4563	0.4547 ± 0.0058
$\Omega_c h^2$	0.11691	0.1177 ± 0.0026	$\sigma_8 \Omega_m^{0.25}$	0.6359	0.631 ± 0.016	$H(0.15)$	73.84	73.5 ± 1.0
$100\theta_{MC}$	1.04132	1.04122 ± 0.00053	$\sigma_8/h^{0.5}$	1.0394	1.030 ± 0.026	$D_M(0.15)$	631.9	635 ± 10
τ	0.1282	$0.113^{+0.036}_{-0.032}$	$r_{drag}h$	101.52	100.9 ± 2.1	$H(0.38)$	83.69	83.44 ± 0.77
$\ln(10^{10} A_s)$	3.183	$3.154^{+0.068}_{-0.060}$	$\langle d^2 \rangle^{1/2}$	2.560	2.542 ± 0.061	$D_M(0.38)$	1510.7	1518 ± 20
n_s	0.9775	0.9734 ± 0.0081	z_{re}	13.98	$12.7^{+3.0}_{-2.1}$	$H(0.51)$	90.26	90.05 ± 0.61
y_{cal}	1.00018	1.0003 ± 0.0025	$10^9 A_s$	2.411	2.35 ± 0.15	$D_M(0.51)$	1959.3	1967 ± 24
A_{100}^{PS}	219.3	233 ± 25	$10^9 A_s e^{-2\tau}$	1.8656	1.868 ± 0.015	$H(0.61)$	95.758	95.60 ± 0.49
A_{143}^{PS}	45.0	36 ± 9	D_{40}	1234.6	1237 ± 16	$D_M(0.61)$	2281.8	2291 ± 26
A_{217}^{PS}	109.7	104 ± 10	D_{220}	5706.2	5708 ± 41	$H(2.33)$	234.71	235.1 ± 1.5
A_{217}^{CIB}	37.6	38^{+7}_{-8}	D_{810}	2529.3	2528 ± 14	$D_M(2.33)$	5744.2	5752 ± 22
A_{143}^{tSZ}	6.20	$4.0^{+2.0}_{-2.4}$	D_{1420}	817.0	815.1 ± 5.2	$f\sigma_8(0.15)$	0.4754	0.473 ± 0.013
$r_{143 \times 217}^{PS}$	0.807	0.67 ± 0.13	D_{2000}	232.68	231.6 ± 2.2	$\sigma_8(0.15)$	0.7978	0.788 ± 0.022
$r_{143 \times 217}^{CIB}$	0.700	$0.52^{+0.35}_{-0.25}$	$n_{s,0.002}$	0.9775	0.9734 ± 0.0081	$f\sigma_8(0.38)$	0.4984	0.495 ± 0.013
$\xi^{tSZ \times CIB}$	0.96	—	Y_P	0.245453	0.24541 ± 0.00011	$\sigma_8(0.38)$	0.7089	0.700 ± 0.021
A^{kSZ}	0.06	< 5.56	Y_P^{BBN}	0.246780	0.24674 ± 0.00011	$f\sigma_8(0.51)$	0.4988	0.495 ± 0.013
A_{100}^{dust}	1.006	1.01 ± 0.20	$10^5 D/H$	2.557	2.577 ± 0.051	$\sigma_8(0.51)$	0.6642	0.655 ± 0.020
A_{143}^{dust}	0.962	0.96 ± 0.18	Age/Gyr	13.7563	13.773 ± 0.048	$f\sigma_8(0.61)$	0.4948	0.490 ± 0.013
A_{217}^{dust}	0.978	0.98 ± 0.10	z_*	1089.46	1089.66 ± 0.52	$\sigma_8(0.61)$	0.6324	0.624 ± 0.019
$A_{143 \times 217}^{dust}$	1.030	1.02 ± 0.16	r_*	145.12	144.99 ± 0.55	$f\sigma_8(2.33)$	0.3195	0.315 ± 0.010
c_{100}	0.99783	0.9975 ± 0.0011	$100\theta_*$	1.04150	1.04140 ± 0.00051	$\sigma_8(2.33)$	0.3302	0.325 ± 0.011
c_{217}	1.00070	1.0009 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.9335	13.922 ± 0.050	f_{2000}^{143}	25.95	27 ± 4
H_0	68.72	68.3 ± 1.2	z_{drag}	1060.09	1059.89 ± 0.53	f_{2000}^{217}	103.94	105.3 ± 2.4
Ω_Λ	0.7034	$0.698^{+0.016}_{-0.015}$	r_{drag}	147.74	147.65 ± 0.53	$f_{2000}^{143 \times 217}$	29.32	30.3 ± 2.6
Ω_m	0.2966	$0.302^{+0.015}_{-0.016}$	k_D	0.14030	0.14032 ± 0.00053	χ_{lowl}^2	24.50	24.8 ± 1.7
$\Omega_m h^2$	0.14008	0.1408 ± 0.0024	$100\theta_D$	0.160707	0.16081 ± 0.00029	$\chi_{CamSpec}^2$	7046.4	7060.1 ± 5.5
$\Omega_m h^3$	0.096258	0.09616 ± 0.00048	z_{eq}	3332	3349 ± 57	χ_{prior}^2	1.41	7.4 ± 3.3
σ_8	0.8616	0.851 ± 0.023	k_{eq}	0.010170	0.01022 ± 0.00018	χ_{CMB}^2	7070.9	7084.8 ± 5.4
S_8	0.8568	0.854 ± 0.025	$100\theta_{eq}$	0.8268	0.824 ± 0.011			

Best-fit $\chi_{eff}^2 = 7072.29$; $\bar{\chi}_{eff}^2 = 7092.24$; $R - 1 = 0.00797$

χ_{eff}^2 : CMB - commander_dx12_v3_2.29: 24.50 CamSpec like_10.7HM: 7046.38

2.224 base_CamSpecHM_TT_lowl_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02239 ± 0.00022	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.631 ± 0.016	$D_{\mathrm{M}}(0.15)$	636.9 ± 5.1
$\Omega_{\mathrm{c}} h^2$	0.1181 ± 0.0013	$\sigma_8 / h^{0.5}$	1.030 ± 0.026	$H(0.38)$	83.31 ± 0.40
$100\theta_{\mathrm{MC}}$	1.04117 ± 0.00043	$r_{\mathrm{drag}} h$	100.6 ± 1.0	$D_{\mathrm{M}}(0.38)$	1521 ± 10
τ	$0.109^{+0.029}_{-0.026}$	$\langle d^2 \rangle^{1/2}$	2.540 ± 0.061	$H(0.51)$	89.96 ± 0.33
$\ln(10^{10} A_{\mathrm{s}})$	$3.147^{+0.057}_{-0.051}$	z_{re}	$12.5^{+2.5}_{-1.8}$	$D_{\mathrm{M}}(0.51)$	1971 ± 12
n_{s}	0.9721 ± 0.0050	$10^9 A_{\mathrm{s}}$	2.33 ± 0.12	$H(0.61)$	95.52 ± 0.28
y_{cal}	1.0003 ± 0.0025	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.870 ± 0.012	$D_{\mathrm{M}}(0.61)$	2294 ± 13
A_{100}^{PS}	234 ± 25	D_{40}	1237 ± 16	$H(2.33)$	235.34 ± 0.80
A_{143}^{PS}	36 ± 9	D_{220}	5707 ± 40	$D_{\mathrm{M}}(2.33)$	5755 ± 14
A_{217}^{PS}	104^{+10}_{-10}	D_{810}	2529 ± 14	$f\sigma_8(0.15)$	0.474 ± 0.012
A_{217}^{CIB}	38^{+7}_{-8}	D_{1420}	814.9 ± 5.0	$\sigma_8(0.15)$	0.786 ± 0.021
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5}$	D_{2000}	231.4 ± 1.9	$f\sigma_8(0.38)$	0.495 ± 0.013
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9721 ± 0.0050	$\sigma_8(0.38)$	0.698 ± 0.019
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.53^{+0.37}_{-0.23}$	Y_{P}	0.245400 ± 0.000086	$f\sigma_8(0.51)$	0.494 ± 0.013
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246726 ± 0.000086	$\sigma_8(0.51)$	0.653 ± 0.018
A^{kSZ}	< 5.72	$10^5 \mathrm{D}/\mathrm{H}$	2.583 ± 0.040	$f\sigma_8(0.61)$	0.490 ± 0.013
A_{100}^{dust}	1.01 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.780 ± 0.031	$\sigma_8(0.61)$	0.622 ± 0.017
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.73 ± 0.33	$f\sigma_8(2.33)$	0.3139 ± 0.0086
A_{217}^{dust}	0.98 ± 0.10	r_*	144.91 ± 0.32	$\sigma_8(2.33)$	0.3240 ± 0.0090
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04136 ± 0.00043	f_{2000}^{143}	28 ± 3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.916 ± 0.031	f_{2000}^{217}	105.5 ± 2.2
c_{217}	1.0010 ± 0.0015	z_{drag}	1059.84 ± 0.47	$f_{2000}^{143 \times 217}$	30.6 ± 2.4
H_0	68.13 ± 0.60	r_{drag}	147.58 ± 0.35	χ_{lowl}^2	24.7 ± 1.6
Ω_{Λ}	0.6959 ± 0.0077	k_{D}	0.14037 ± 0.00045	$\chi_{\mathrm{CamSpec}}^2$	7059.6 ± 5.4
Ω_{m}	0.3041 ± 0.0077	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00027	$\chi_{6\mathrm{DF}}^2$	0.044 ± 0.061
$\Omega_{\mathrm{m}} h^2$	0.1411 ± 0.0012	z_{eq}	3357 ± 30	χ_{MGS}^2	1.82 ± 0.63
$\Omega_{\mathrm{m}} h^3$	0.09615 ± 0.00048	k_{eq}	0.010246 ± 0.000090	$\chi_{\mathrm{DR12BAO}}^2$	4.1 ± 1.1
σ_8	0.850 ± 0.022	$100\theta_{\mathrm{eq}}$	0.8218 ± 0.0056	χ_{prior}^2	7.4 ± 3.3
S_8	0.856 ± 0.023	$100\theta_{\mathrm{s,eq}}$	0.4538 ± 0.0029	χ_{BAO}^2	6.0 ± 1.1
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.469 ± 0.012	$H(0.15)$	73.34 ± 0.52	χ_{CMB}^2	7084.3 ± 5.3
$\bar{\chi}_{\mathrm{eff}}^2 = 7097.63; R - 1 = 0.01179$					

2.225 base_CamSpecHM_TT_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02243 ± 0.00027	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.468 ± 0.014	$100\theta_{\mathrm{s,eq}}$	0.4549 ± 0.0057
$\Omega_{\mathrm{c}}h^2$	0.1176 ± 0.0025	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.632 ± 0.016	$H(0.15)$	73.5 ± 1.0
$100\theta_{\mathrm{MC}}$	1.04123 ± 0.00052	$\sigma_8/h^{0.5}$	1.031 ± 0.025	$D_{\mathrm{M}}(0.15)$	635.1 ± 9.9
τ	0.115 ± 0.032	$r_{\mathrm{drag}}h$	100.9 ± 2.0	$H(0.38)$	83.46 ± 0.75
$\ln(10^{10}A_{\mathrm{s}})$	3.157 ± 0.060	$\langle d^2 \rangle^{1/2}$	2.544 ± 0.058	$D_{\mathrm{M}}(0.38)$	1517 ± 20
n_{s}	0.9737 ± 0.0079	z_{re}	$12.9^{+2.8}_{-2.2}$	$H(0.51)$	90.08 ± 0.60
y_{cal}	1.0003 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.36 ± 0.14	$D_{\mathrm{M}}(0.51)$	1967 ± 23
A_{100}^{PS}	232 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.868 ± 0.015	$H(0.61)$	$95.61^{+0.45}_{-0.51}$
A_{143}^{PS}	35 ± 9	D_{40}	1237 ± 16	$D_{\mathrm{M}}(0.61)$	2290 ± 25
A_{217}^{PS}	104 ± 10	D_{220}	5708 ± 41	$H(2.33)$	235.1 ± 1.5
A_{217}^{CIB}	38 ± 7	D_{810}	2528 ± 14	$D_{\mathrm{M}}(2.33)$	5751 ± 21
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{1420}	815.2 ± 5.2	$f\sigma_8(0.15)$	0.474 ± 0.013
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	D_{2000}	231.6 ± 2.1	$\sigma_8(0.15)$	0.789 ± 0.021
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.35}_{-0.25}$	$n_{\mathrm{s},0.002}$	0.9737 ± 0.0079	$f\sigma_8(0.38)$	0.495 ± 0.012
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.24542 ± 0.00011	$\sigma_8(0.38)$	0.701 ± 0.020
A^{kSZ}	< 5.53	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24674 ± 0.00011	$f\sigma_8(0.51)$	0.495 ± 0.012
A_{100}^{dust}	1.01 ± 0.20	$10^5 \mathrm{D}/\mathrm{H}$	2.576 ± 0.050	$\sigma_8(0.51)$	0.656 ± 0.019
A_{143}^{dust}	0.96 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.771 ± 0.047	$f\sigma_8(0.61)$	0.491 ± 0.012
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.64 ± 0.51	$\sigma_8(0.61)$	0.625 ± 0.018
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	r_*	145.00 ± 0.54	$f\sigma_8(2.33)$	0.3154 ± 0.0095
c_{100}	0.9975 ± 0.0011	$100\theta_*$	1.04141 ± 0.00051	$\sigma_8(2.33)$	0.326 ± 0.010
c_{217}	1.0009 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.924 ± 0.050	f_{2000}^{143}	27 ± 4
H_0	68.4 ± 1.2	z_{drag}	1059.90 ± 0.52	f_{2000}^{217}	105.2 ± 2.4
Ω_{Λ}	0.698 ± 0.015	r_{drag}	147.66 ± 0.53	$f_{2000}^{143 \times 217}$	30.2 ± 2.6
Ω_{m}	0.302 ± 0.015	k_{D}	0.14031 ± 0.00053	χ_{lowl}^2	24.8 ± 1.7
$\Omega_{\mathrm{m}}h^2$	0.1407 ± 0.0024	$100\theta_{\mathrm{D}}$	0.16081 ± 0.00029	$\chi_{\mathrm{CamSpec}}^2$	7060.0 ± 5.4
$\Omega_{\mathrm{m}}h^3$	0.09616 ± 0.00047	z_{eq}	3347 ± 56	χ_{prior}^2	7.4 ± 3.3
σ_8	0.853 ± 0.022	k_{eq}	0.01022 ± 0.00017	χ_{CMB}^2	7084.8 ± 5.3
S_8	0.854 ± 0.025	$100\theta_{\mathrm{eq}}$	0.824 ± 0.011		

$\bar{\chi}_{\mathrm{eff}}^2 = 7092.14$; $R - 1 = 0.00760$

2.226 base_CamSpecHM_TT_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02239 ± 0.00021	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.632 ± 0.016	$D_{\mathrm{M}}(0.15)$	636.8 ± 5.1
$\Omega_{\mathrm{c}} h^2$	0.1181 ± 0.0013	$\sigma_8 / h^{0.5}$	1.030 ± 0.025	$H(0.38)$	83.32 ± 0.39
$100\theta_{\mathrm{MC}}$	1.04117 ± 0.00043	$r_{\mathrm{drag}} h$	100.6 ± 1.0	$D_{\mathrm{M}}(0.38)$	1521 ± 10
τ	0.110 ± 0.026	$\langle d^2 \rangle^{1/2}$	2.542 ± 0.059	$H(0.51)$	89.96 ± 0.33
$\ln(10^{10} A_{\mathrm{s}})$	3.149 ± 0.052	z_{re}	$12.6^{+2.4}_{-1.9}$	$D_{\mathrm{M}}(0.51)$	1971 ± 12
n_{s}	0.9722 ± 0.0050	$10^9 A_{\mathrm{s}}$	2.33 ± 0.12	$H(0.61)$	95.52 ± 0.28
y_{cal}	1.0003 ± 0.0025	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.870 ± 0.012	$D_{\mathrm{M}}(0.61)$	2294 ± 13
A_{100}^{PS}	233 ± 25	D_{40}	1237 ± 15	$H(2.33)$	235.34 ± 0.80
A_{143}^{PS}	36 ± 9	D_{220}	5707 ± 40	$D_{\mathrm{M}}(2.33)$	5755 ± 14
A_{217}^{PS}	104^{+10}_{-10}	D_{810}	2529 ± 14	$f\sigma_8(0.15)$	0.474 ± 0.012
A_{217}^{CIB}	38^{+7}_{-8}	D_{1420}	814.9 ± 5.0	$\sigma_8(0.15)$	0.787 ± 0.020
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5}$	D_{2000}	231.4 ± 1.9	$f\sigma_8(0.38)$	0.495 ± 0.012
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	$n_{\mathrm{s},0.002}$	0.9722 ± 0.0050	$\sigma_8(0.38)$	0.698 ± 0.018
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.37}_{-0.24}$	Y_{P}	0.245401 ± 0.000085	$f\sigma_8(0.51)$	0.495 ± 0.012
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246727 ± 0.000085	$\sigma_8(0.51)$	0.654 ± 0.017
A^{kSZ}	< 5.69	$10^5 \mathrm{D}/\mathrm{H}$	2.582 ± 0.040	$f\sigma_8(0.61)$	0.490 ± 0.012
A_{100}^{dust}	1.01 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.779 ± 0.031	$\sigma_8(0.61)$	0.622 ± 0.016
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.73 ± 0.32	$f\sigma_8(2.33)$	0.3141 ± 0.0083
A_{217}^{dust}	0.98 ± 0.10	r_*	144.91 ± 0.32	$\sigma_8(2.33)$	0.3242 ± 0.0087
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04136 ± 0.00043	f_{2000}^{143}	28 ± 3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.916 ± 0.031	f_{2000}^{217}	105.5 ± 2.2
c_{217}	1.0010 ± 0.0016	z_{drag}	1059.85 ± 0.47	$f_{2000}^{143 \times 217}$	30.5 ± 2.4
H_0	68.14 ± 0.60	r_{drag}	147.58 ± 0.35	χ_{lowl}^2	24.7 ± 1.6
Ω_{Λ}	0.6960 ± 0.0077	k_{D}	0.14037 ± 0.00045	$\chi_{\mathrm{CamSpec}}^2$	7059.5 ± 5.3
Ω_{m}	0.3040 ± 0.0077	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00027	$\chi_{6\mathrm{DF}}^2$	0.043 ± 0.061
$\Omega_{\mathrm{m}} h^2$	0.1411 ± 0.0012	z_{eq}	3357 ± 29	χ_{MGS}^2	1.82 ± 0.63
$\Omega_{\mathrm{m}} h^3$	0.09615 ± 0.00048	k_{eq}	0.010245 ± 0.000090	$\chi_{\mathrm{DR12BAO}}^2$	4.1 ± 1.0
σ_8	0.851 ± 0.021	$100\theta_{\mathrm{eq}}$	0.8218 ± 0.0056	χ_{prior}^2	7.4 ± 3.3
S_8	0.856 ± 0.022	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4538 ± 0.0029	χ_{BAO}^2	6.0 ± 1.1
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.469 ± 0.012	$H(0.15)$	73.34 ± 0.52	χ_{CMB}^2	7084.2 ± 5.3
$\bar{\chi}_{\mathrm{eff}}^2 = 7097.56; R - 1 = 0.01150$					

2.227 base_CamSpecHM_TT_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022053	0.02207 ± 0.00021	$\sigma_8 \Omega_m^{0.5}$	0.4653	0.465 ± 0.014	$100\theta_{s,eq}$	0.44618	0.4464 ± 0.0046
$\Omega_c h^2$	0.12163	0.1216 ± 0.0022	$\sigma_8 \Omega_m^{0.25}$	0.6154	0.615 ± 0.012	$H(0.15)$	71.90	71.95 ± 0.79
$100\theta_{MC}$	1.040725	1.04073 ± 0.00048	$\sigma_8/h^{0.5}$	0.9985	0.998 ± 0.016	$D_M(0.15)$	651.2	650.8 ± 8.1
τ	0.0513	0.0517 ± 0.0080	$r_{drag}h$	97.71	97.8 ± 1.6	$H(0.38)$	82.27	82.31 ± 0.56
$\ln(10^{10} A_s)$	3.0400	3.041 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.4710	2.469 ± 0.039	$D_M(0.38)$	1549.3	1549 ± 16
n_s	0.9590	0.9599 ± 0.0060	z_{re}	7.47	7.48 ± 0.83	$H(0.51)$	89.134	89.17 ± 0.44
y_{cal}	1.00029	1.0004 ± 0.0025	$10^9 A_s$	2.0905	2.092 ± 0.034	$D_M(0.51)$	2004.6	2004 ± 19
A_{100}^{PS}	248.9	245 ± 25	$10^9 A_s e^{-2\tau}$	1.8866	1.887 ± 0.014	$H(0.61)$	94.866	94.90 ± 0.35
A_{143}^{PS}	39.9	42 ± 8	D_{40}	1240.5	1239 ± 16	$D_M(0.61)$	2330.7	2330 ± 20
A_{217}^{PS}	97.9	100 ± 10	D_{220}	5709.7	5709 ± 42	$H(2.33)$	237.30	237.3 ± 1.3
A_{217}^{CIB}	44.6	42 ± 7	D_{810}	2533.3	2534 ± 14	$D_M(2.33)$	5783.3	5782 ± 16
A_{143}^{tSZ}	4.22	$3.6_{-2.6}^{+1.7}$	D_{1420}	812.1	812.9 ± 5.2	$f\sigma_8(0.15)$	0.4686	0.468 ± 0.012
$r_{143 \times 217}^{PS}$	0.539	0.64 ± 0.13	D_{2000}	228.72	229.0 ± 1.8	$\sigma_8(0.15)$	0.7507	0.7509 ± 0.0076
$r_{143 \times 217}^{CIB}$	0.693	> 0.473	$n_{s,0.002}$	0.9590	0.9599 ± 0.0060	$f\sigma_8(0.38)$	0.4836	0.4834 ± 0.0097
$\xi^{tSZ \times CIB}$	0.01	—	Y_P	0.245264	$0.24526_{-0.000089}^{+0.00010}$	$\sigma_8(0.38)$	0.6638	0.6640 ± 0.0060
A^{kSZ}	3.92	$5.2_{-2.2}^{+4.0}$	Y_P^{BBN}	0.246590	$0.24659_{-0.000089}^{+0.00011}$	$f\sigma_8(0.51)$	0.4804	0.4803 ± 0.0083
A_{100}^{dust}	1.005	1.01 ± 0.20	$10^5 D/H$	2.6461	2.643 ± 0.041	$\sigma_8(0.51)$	0.6206	0.6208 ± 0.0055
A_{143}^{dust}	0.986	0.97 ± 0.18	Age/Gyr	13.8419	13.839 ± 0.036	$f\sigma_8(0.61)$	0.4742	0.4741 ± 0.0073
A_{217}^{dust}	0.958	0.97 ± 0.10	z_*	1090.466	1090.44 ± 0.41	$\sigma_8(0.61)$	0.59006	0.5903 ± 0.0051
$A_{143 \times 217}^{dust}$	1.001	1.03 ± 0.16	r_*	144.254	144.26 ± 0.49	$f\sigma_8(2.33)$	0.29692	0.2971 ± 0.0025
c_{100}	0.99748	0.9975 ± 0.0011	$100\theta_*$	1.040937	1.04094 ± 0.00047	$\sigma_8(2.33)$	0.30548	0.3056 ± 0.0027
c_{217}	1.00140	1.0013 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.8581	13.859 ± 0.045	f_{2000}^{143}	32.33	31.6 ± 3.0
H_0	66.46	66.51 ± 0.93	z_{drag}	1059.322	1059.35 ± 0.44	f_{2000}^{217}	108.39	108.0 ± 2.0
Ω_Λ	0.6733	$0.674_{-0.013}^{+0.014}$	r_{drag}	147.016	147.02 ± 0.49	$f_{2000}^{143 \times 217}$	33.80	33.6 ± 2.2
Ω_m	0.3267	$0.326_{-0.014}^{+0.013}$	k_D	0.14070	0.14071 ± 0.00052	χ_{small}^2	395.83	397.0 ± 1.7
$\Omega_m h^2$	0.14433	0.1443 ± 0.0021	$100\theta_D$	0.161123	0.16111 ± 0.00026	$\chi_{CamSpec}^2$	7049.7	7062.9 ± 5.3
$\Omega_m h^3$	0.095922	0.09594 ± 0.00045	z_{eq}	3433.5	3432 ± 49	χ_{prior}^2	2.29	7.7 ± 3.5
σ_8	0.8140	0.8142 ± 0.0090	k_{eq}	0.010479	0.01048 ± 0.00015	χ_{CMB}^2	7445.5	7459.8 ± 5.5
S_8	0.8495	0.849 ± 0.025	$100\theta_{eq}$	0.8067	0.8071 ± 0.0090			

Best-fit $\chi_{eff}^2 = 7447.83$; $\bar{\chi}_{eff}^2 = 7467.49$; $R - 1 = 0.00861$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 CamSpec like_10.7HM: 7049.71

2.228 base_CamSpecHM_TTTEE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022485	0.02246 ± 0.00019	σ_8	0.8525	$0.850^{+0.021}_{-0.026}$	k_{eq}	0.010269	0.01027 ± 0.00011
$\Omega_c h^2$	0.11831	0.1183 ± 0.0017	S_8	0.8597	0.858 ± 0.022	$100\theta_{\text{eq}}$	0.8205	0.8206 ± 0.0073
$100\theta_{\text{MC}}$	1.041043	1.04104 ± 0.00034	$\sigma_8 \Omega_m^{0.5}$	0.4709	0.470 ± 0.012	$100\theta_{\text{s,eq}}$	0.45306	0.4531 ± 0.0037
τ	0.1119	$0.110^{+0.029}_{-0.034}$	$\sigma_8 \Omega_m^{0.25}$	0.6336	$0.632^{+0.015}_{-0.017}$	$H(0.15)$	73.30	73.29 ± 0.68
$\ln(10^{10} A_s)$	3.154	$3.149^{+0.056}_{-0.065}$	$\sigma_8/h^{0.5}$	1.0331	$1.031^{+0.025}_{-0.028}$	$D_M(0.15)$	637.2	637.4 ± 6.6
n_s	0.9714	0.9705 ± 0.0060	$r_{\text{drag}} h$	100.37	100.4 ± 1.3	$H(0.38)$	83.307	83.29 ± 0.50
A_{100}^{PS}	221.2	233 ± 25	$\langle d^2 \rangle^{1/2}$	2.551	$2.548^{+0.060}_{-0.066}$	$D_M(0.38)$	1521.1	1522 ± 13
A_{143}^{PS}	48.6	36 ± 8	z_{re}	12.76	12.4 ± 2.6	$H(0.51)$	89.962	89.95 ± 0.40
A_{217}^{PS}	107.7	104 ± 10	$10^9 A_s$	2.343	$2.34^{+0.12}_{-0.16}$	$D_M(0.51)$	1971.5	1972 ± 16
A_{217}^{CIB}	39.2	37 ± 7	$10^9 A_s e^{-2\tau}$	1.8728	1.872 ± 0.013	$H(0.61)$	95.534	$95.52^{+0.30}_{-0.33}$
A_{143}^{tSZ}	6.49	$4.0^{+2.0}_{-2.4}$	D_{40}	1240.1	1243^{+14}_{-17}	$D_M(0.61)$	2295.0	2295 ± 17
$r_{143 \times 217}^{\text{PS}}$	0.774	0.68 ± 0.13	D_{220}	5721.4	5722 ± 39	$H(2.33)$	235.57	235.55 ± 0.98
$r_{143 \times 217}^{\text{CIB}}$	0.866	$0.51^{+0.34}_{-0.26}$	D_{810}	2531.0	2529 ± 14	$D_M(2.33)$	5753.1	5754 ± 14
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	—	D_{1420}	815.85	814.7 ± 4.8	$f\sigma_8(0.15)$	0.4762	0.475 ± 0.012
A^{kSZ}	0.00	< 5.48	D_{2000}	231.86	231.4 ± 1.8	$\sigma_8(0.15)$	0.7884	$0.786^{+0.020}_{-0.024}$
A_{100}^{dust}	0.995	1.00 ± 0.19	$n_{\text{s},0.002}$	0.9714	0.9705 ± 0.0060	$f\sigma_8(0.38)$	0.4971	0.496 ± 0.013
A_{143}^{dust}	0.963	0.95 ± 0.17	Y_{P}	0.245439	0.245429 ± 0.000075	$\sigma_8(0.38)$	0.6996	$0.698^{+0.018}_{-0.022}$
A_{217}^{dust}	0.987	0.98 ± 0.10	$Y_{\text{P}}^{\text{BBN}}$	0.246766	0.246756 ± 0.000075	$f\sigma_8(0.51)$	0.4964	$0.495^{+0.012}_{-0.013}$
$A_{143 \times 217}^{\text{dust}}$	0.998	1.02 ± 0.16	$10^5 \text{D}/\text{H}$	2.5645	2.569 ± 0.035	$\sigma_8(0.51)$	0.6550	$0.653^{+0.017}_{-0.021}$
y_{cal}	1.00001	1.0001 ± 0.0025	Age/Gyr	13.7749	13.777 ± 0.031	$f\sigma_8(0.61)$	0.4917	$0.490^{+0.012}_{-0.014}$
c_{100}	0.99792	0.9976 ± 0.0011	z_*	1089.628	1089.66 ± 0.36	$\sigma_8(0.61)$	0.6235	$0.622^{+0.017}_{-0.020}$
c_{217}	1.00103	1.0009 ± 0.0016	r_*	144.782	144.80 ± 0.36	$f\sigma_8(2.33)$	0.3146	$0.3138^{+0.0085}_{-0.011}$
c_{TE}	0.9925	0.9924 ± 0.0055	$100\theta_*$	1.041219	1.04122 ± 0.00033	$\sigma_8(2.33)$	0.3247	$0.3239^{+0.0091}_{-0.011}$
c_{EE}	0.99028	0.9903 ± 0.0050	$D_M(z_*)/\text{Gpc}$	13.9050	13.907 ± 0.033	f_{2000}^{143}	27.34	27 ± 3
H_0	68.09	68.07 ± 0.78	z_{drag}	1060.085	1060.03 ± 0.37	f_{2000}^{217}	104.70	105.3 ± 2.2
Ω_Λ	0.6949	0.695 ± 0.010	r_{drag}	147.412	147.44 ± 0.34	$f_{2000}^{143 \times 217}$	30.06	30.3 ± 2.4
Ω_m	0.3051	0.305 ± 0.010	k_{D}	0.140616	0.14057 ± 0.00035	χ_{CamSpec}^2	11495.8	11512.0 ± 5.6
$\Omega_m h^2$	0.14144	0.1414 ± 0.0016	$100\theta_{\text{D}}$	0.160674	0.16071 ± 0.00021	χ_{prior}^2	1.86	7.7 ± 3.3
$\Omega_m h^3$	0.096302	0.09626 ± 0.00032	z_{eq}	3364.5	3364 ± 38			

Best-fit $\chi_{\text{eff}}^2 = 11497.65$; $\bar{\chi}_{\text{eff}}^2 = 11519.77$; $R - 1 = 0.00880$
 χ_{eff}^2 : CMB - CamSpec like_10.7HM_1400_unified: 11495.79

2.229 base_CamSpecHM_TTTEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022467	0.02243 ± 0.00018	S_8	0.8498	0.846 ± 0.020	$100\theta_{s,eq}$	0.45334	0.4530 ± 0.0034
$\Omega_c h^2$	0.11820	0.1184 ± 0.0016	$\sigma_8 \Omega_m^{0.5}$	0.4655	0.463 ± 0.011	$H(0.15)$	73.32	73.23 ± 0.62
$100\theta_{MC}$	1.041045	1.04102 ± 0.00033	$\sigma_8 \Omega_m^{0.25}$	0.6265	0.623 ± 0.015	$D_M(0.15)$	637.0	637.9 ± 6.1
τ	0.1012	0.094 ± 0.028	$\sigma_8/h^{0.5}$	1.0219	1.015 ± 0.024	$H(0.38)$	83.314	83.25 ± 0.46
$\ln(10^{10} A_s)$	3.132	3.117 ± 0.054	$r_{drag} h$	100.44	100.3 ± 1.2	$D_M(0.38)$	1520.8	1523 ± 12
n_s	0.9723	0.9707 ± 0.0055	$\langle d^2 \rangle^{1/2}$	2.521	2.508 ± 0.056	$H(0.51)$	89.963	89.91 ± 0.37
y_{cal}	1.00023	1.0002 ± 0.0024	z_{re}	11.89	$11.2^{+2.6}_{-2.0}$	$D_M(0.51)$	1971.2	1973 ± 14
A_{100}^{PS}	221.6	234 ± 25	$10^9 A_s$	2.293	2.26 ± 0.12	$H(0.61)$	95.530	$95.48^{+0.28}_{-0.31}$
A_{143}^{PS}	48.3	37 ± 9	$10^9 A_s e^{-2\tau}$	1.8726	1.872 ± 0.012	$D_M(0.61)$	2294.6	2297 ± 16
A_{217}^{PS}	108.5	104 ± 10	D_{40}	1231.7	1233 ± 14	$H(2.33)$	235.48	235.56 ± 0.91
A_{217}^{CIB}	38.8	38 ± 7	D_{220}	5716.2	5716 ± 38	$D_M(2.33)$	5753.6	5756 ± 13
A_{143}^{tSZ}	6.38	$4.0^{+2.0}_{-2.4}$	D_{810}	2532.6	2531 ± 13	$f\sigma_8(0.15)$	0.4708	0.468 ± 0.011
$r_{143 \times 217}^{PS}$	0.768	0.67 ± 0.13	D_{1420}	816.86	815.5 ± 4.7	$\sigma_8(0.15)$	0.7800	0.774 ± 0.020
$r_{143 \times 217}^{CIB}$	0.842	$0.52^{+0.36}_{-0.24}$	D_{2000}	231.94	231.3 ± 1.8	$f\sigma_8(0.38)$	0.4915	0.489 ± 0.011
$\xi^{tSZ \times CIB}$	0.96	—	$n_{s,0.002}$	0.9723	0.9707 ± 0.0055	$\sigma_8(0.38)$	0.6922	0.687 ± 0.018
A^{kSZ}	0.01	< 5.50	Y_P	0.245433	0.245416 ± 0.000071	$f\sigma_8(0.51)$	0.4909	0.488 ± 0.011
A_{100}^{dust}	1.000	1.00 ± 0.20	Y_P^{BBN}	0.246759	0.246743 ± 0.000072	$\sigma_8(0.51)$	0.6481	0.643 ± 0.017
A_{143}^{dust}	0.960	0.95 ± 0.18	$10^5 D/H$	2.5677	2.575 ± 0.034	$f\sigma_8(0.61)$	0.4863	0.483 ± 0.011
A_{217}^{dust}	0.993	0.98 ± 0.10	Age/Gyr	13.7762	13.781 ± 0.029	$\sigma_8(0.61)$	0.6169	0.612 ± 0.016
$A_{143 \times 217}^{dust}$	1.008	1.01 ± 0.16	z_*	1089.641	1089.70 ± 0.33	$f\sigma_8(2.33)$	0.3114	0.3090 ± 0.0084
c_{100}	0.99782	0.9975 ± 0.0011	r_*	144.824	144.81 ± 0.33	$\sigma_8(2.33)$	0.3213	0.3188 ± 0.0089
c_{217}	1.00104	1.0009 ± 0.0016	$100\theta_*$	1.041222	1.04120 ± 0.00032	f_{2000}^{143}	27.38	28 ± 3
c_{TE}	0.9932	0.9938 ± 0.0053	$D_M(z_*)/\text{Gpc}$	13.9091	13.908 ± 0.031	f_{2000}^{217}	104.79	105.5 ± 2.1
c_{EE}	0.9906	0.9907 ± 0.0050	z_{drag}	1060.047	1059.96 ± 0.36	$f_{2000}^{143 \times 217}$	30.07	30.6 ± 2.3
H_0	68.11	68.01 ± 0.72	r_{drag}	147.460	147.46 ± 0.33	χ^2_{lowl}	23.92	24.1 ± 1.4
Ω_Λ	0.6954	0.6940 ± 0.0095	k_D	0.140550	0.14053 ± 0.00034	$\chi^2_{CamSpec}$	11496.2	11512.2 ± 5.7
Ω_m	0.3046	0.3060 ± 0.0095	$100\theta_D$	0.160702	0.16075 ± 0.00021	χ^2_{prior}	1.90	7.8 ± 3.4
$\Omega_m h^2$	0.14131	0.1415 ± 0.0015	z_{eq}	3361.4	3365 ± 35	χ^2_{CMB}	11520.1	11536.3 ± 5.6
$\Omega_m h^3$	0.096250	0.09620 ± 0.00032	k_{eq}	0.010259	0.01027 ± 0.00011			
σ_8	0.8434	0.837 ± 0.021	$100\theta_{eq}$	0.8210	0.8203 ± 0.0067			

Best-fit $\chi^2_{eff} = 11522.05$; $\bar{\chi}^2_{eff} = 11544.10$; $R - 1 = 0.00836$

χ^2_{eff} : CMB - commander_dx12_v3_2_29: 23.92 CamSpec like_10.7HM_1400_unified: 11496.23

2.230 base_CamSpecHM_TTTEEE_lowl_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02244 ± 0.00016	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.463 ± 0.011	$D_{\mathrm{M}}(0.15)$	637.4 ± 4.2
$\Omega_{\mathrm{c}}h^2$	0.1183 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.623 ± 0.014	$H(0.38)$	83.28 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04103 ± 0.00030	$\sigma_8/h^{0.5}$	1.015 ± 0.023	$D_{\mathrm{M}}(0.38)$	1521.8 ± 8.5
τ	$0.095^{+0.026}_{-0.023}$	$r_{\mathrm{drag}}h$	100.38 ± 0.85	$H(0.51)$	89.93 ± 0.26
$\ln(10^{10}A_{\mathrm{s}})$	$3.119^{+0.051}_{-0.045}$	$\langle d^2 \rangle^{1/2}$	$2.508^{+0.057}_{-0.052}$	$D_{\mathrm{M}}(0.51)$	1972 ± 10
n_{s}	0.9709 ± 0.0044	z_{re}	$11.3^{+2.4}_{-1.8}$	$H(0.61)$	95.50 ± 0.22
y_{cal}	1.0002 ± 0.0024	$10^9 A_{\mathrm{s}}$	2.26 ± 0.11	$D_{\mathrm{M}}(0.61)$	2296 ± 11
A_{100}^{PS}	233 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.872 ± 0.011	$H(2.33)$	235.49 ± 0.64
A_{143}^{PS}	36 ± 9	D_{40}	1232 ± 14	$D_{\mathrm{M}}(2.33)$	5755 ± 10
A_{217}^{PS}	104 ± 10	D_{220}	5717 ± 38	$f\sigma_8(0.15)$	0.468 ± 0.011
A_{217}^{CIB}	38 ± 7	D_{810}	2530 ± 13	$\sigma_8(0.15)$	0.775 ± 0.019
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{1420}	815.6 ± 4.7	$f\sigma_8(0.38)$	0.488 ± 0.011
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	D_{2000}	231.3 ± 1.7	$\sigma_8(0.38)$	0.688 ± 0.017
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.35}_{-0.25}$	$n_{\mathrm{s},0.002}$	0.9709 ± 0.0044	$f\sigma_8(0.51)$	0.488 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.245419 ± 0.000061	$\sigma_8(0.51)$	0.644 ± 0.016
A^{kSZ}	< 5.54	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246746 ± 0.000061	$f\sigma_8(0.61)$	0.483 ± 0.011
A_{100}^{dust}	1.00 ± 0.20	$10^5 \mathrm{D}/\mathrm{H}$	2.574 ± 0.029	$\sigma_8(0.61)$	0.613 ± 0.015
A_{143}^{dust}	0.95 ± 0.17	$\mathrm{Age}/\mathrm{Gyr}$	13.780 ± 0.023	$f\sigma_8(2.33)$	0.3092 ± 0.0077
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.68 ± 0.26	$\sigma_8(2.33)$	0.3191 ± 0.0081
$A_{143 \times 217}^{\mathrm{dust}}$	1.01 ± 0.16	r_*	144.83 ± 0.25	f_{2000}^{143}	27.7 ± 3.1
c_{100}	0.9975 ± 0.0010	$100\theta_*$	1.04121 ± 0.00030	f_{2000}^{217}	105.5 ± 2.1
c_{217}	1.0009 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.024	$f_{2000}^{143 \times 217}$	30.6 ± 2.2
c_{TE}	0.9937 ± 0.0052	z_{drag}	1059.97 ± 0.34	χ_{lowl}^2	24.1 ± 1.3
c_{EE}	0.9907 ± 0.0049	r_{drag}	147.48 ± 0.26	$\chi_{\mathrm{CamSpec}}^2$	11511.7 ± 5.5
H_0	68.06 ± 0.50	k_{D}	0.14051 ± 0.00031	$\chi_{6\mathrm{DF}}^2$	0.030 ± 0.043
Ω_{Λ}	0.6948 ± 0.0065	$100\theta_{\mathrm{D}}$	0.16074 ± 0.00020	χ_{MGS}^2	1.69 ± 0.51
Ω_{m}	0.3052 ± 0.0065	z_{eq}	3362 ± 24	$\chi_{\mathrm{DR12BAO}}^2$	4.03 ± 0.89
$\Omega_{\mathrm{m}}h^2$	0.1413 ± 0.0010	k_{eq}	0.010262 ± 0.000074	χ_{prior}^2	7.7 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09620 ± 0.00032	$100\theta_{\mathrm{eq}}$	0.8208 ± 0.0046	χ_{BAO}^2	5.76 ± 0.76
σ_8	0.838 ± 0.020	$100\theta_{\mathrm{s,eq}}$	0.4532 ± 0.0024	χ_{CMB}^2	11535.7 ± 5.4
S_8	0.845 ± 0.020	$H(0.15)$	73.28 ± 0.43		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11549.23; R - 1 = 0.01419$$

2.231 base_CamSpecHM_TTTEE_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02244 ± 0.00018	S_8	0.847 ± 0.020	$100\theta_{s,eq}$	0.4532 ± 0.0034
$\Omega_c h^2$	0.1183 ± 0.0015	$\sigma_8 \Omega_m^{0.5}$	0.464 ± 0.011	$H(0.15)$	73.26 ± 0.61
$100\theta_{MC}$	1.04102 ± 0.00033	$\sigma_8 \Omega_m^{0.25}$	0.624 ± 0.013	$D_M(0.15)$	637.6 ± 6.0
τ	0.097 ± 0.025	$\sigma_8/h^{0.5}$	$1.018^{+0.021}_{-0.023}$	$H(0.38)$	83.27 ± 0.45
$\ln(10^{10} A_s)$	3.122 ± 0.049	$r_{drag} h$	100.3 ± 1.2	$D_M(0.38)$	1522 ± 12
n_s	0.9710 ± 0.0053	$\langle d^2 \rangle^{1/2}$	$2.513^{+0.049}_{-0.055}$	$H(0.51)$	$89.93^{+0.33}_{-0.37}$
y_{cal}	1.0002 ± 0.0024	z_{re}	11.4 ± 2.1	$D_M(0.51)$	1973 ± 14
A_{100}^{PS}	233 ± 25	$10^9 A_s$	$2.273^{+0.099}_{-0.12}$	$H(0.61)$	$95.50^{+0.27}_{-0.31}$
A_{143}^{PS}	36 ± 9	$10^9 A_s e^{-2\tau}$	1.872 ± 0.012	$D_M(0.61)$	2296 ± 15
A_{217}^{PS}	104 ± 10	D_{40}	1233 ± 14	$H(2.33)$	235.52 ± 0.89
A_{217}^{CIB}	38 ± 7	D_{220}	5716 ± 38	$D_M(2.33)$	5755^{+14}_{-12}
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{810}	2530 ± 13	$f\sigma_8(0.15)$	0.469 ± 0.011
$r_{143 \times 217}^{PS}$	0.68 ± 0.13	D_{1420}	815.5 ± 4.7	$\sigma_8(0.15)$	$0.776^{+0.017}_{-0.019}$
$r_{143 \times 217}^{CIB}$	$0.52^{+0.36}_{-0.25}$	D_{2000}	231.3 ± 1.7	$f\sigma_8(0.38)$	0.489 ± 0.011
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	0.9710 ± 0.0053	$\sigma_8(0.38)$	$0.689^{+0.015}_{-0.018}$
A^{kSZ}	< 5.45	Y_P	0.245419 ± 0.000070	$f\sigma_8(0.51)$	$0.4888^{+0.0099}_{-0.011}$
A_{100}^{dust}	1.00 ± 0.20	Y_P^{BBN}	0.246746 ± 0.000070	$\sigma_8(0.51)$	$0.645^{+0.014}_{-0.017}$
A_{143}^{dust}	0.95 ± 0.18	$10^5 D/H$	2.574 ± 0.033	$f\sigma_8(0.61)$	$0.4841^{+0.0098}_{-0.011}$
A_{217}^{dust}	0.98 ± 0.10	Age/Gyr	13.780 ± 0.029	$\sigma_8(0.61)$	$0.614^{+0.014}_{-0.016}$
$A_{143 \times 217}^{dust}$	1.01 ± 0.16	z_*	1089.69 ± 0.33	$f\sigma_8(2.33)$	$0.3098^{+0.0070}_{-0.0083}$
c_{100}	0.9975 ± 0.0011	r_*	144.82 ± 0.33	$\sigma_8(2.33)$	$0.3196^{+0.0074}_{-0.0088}$
c_{217}	1.0009 ± 0.0016	$100\theta_*$	1.04120 ± 0.00032	f_{2000}^{143}	28 ± 3
c_{TE}	0.9936 ± 0.0052	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.030	f_{2000}^{217}	105.4 ± 2.1
c_{EE}	0.9906 ± 0.0050	z_{drag}	1059.97 ± 0.36	$f_{2000}^{143 \times 217}$	30.5 ± 2.3
H_0	68.05 ± 0.71	r_{drag}	147.47 ± 0.32	χ_{lowl}^2	24.2 ± 1.4
Ω_Λ	0.6945 ± 0.0093	k_D	0.14052 ± 0.00034	$\chi_{CamSpec}^2$	11512.0 ± 5.6
Ω_m	0.3055 ± 0.0093	$100\theta_D$	0.16074 ± 0.00021	χ_{prior}^2	7.7 ± 3.4
$\Omega_m h^2$	0.1414 ± 0.0014	z_{eq}	3363 ± 34	χ_{CMB}^2	11536.2 ± 5.6
$\Omega_m h^3$	0.09620 ± 0.00032	k_{eq}	0.01027 ± 0.00010		
σ_8	$0.839^{+0.018}_{-0.020}$	$100\theta_{eq}$	0.8206 ± 0.0066		

$\bar{\chi}_{eff}^2 = 11543.93$; $R - 1 = 0.00900$

2.232 base_CamSpecHM_TTTEEE_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02244 ± 0.00016	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.463 ± 0.010	$D_{\mathrm{M}}(0.15)$	637.3 ± 4.2
$\Omega_{\mathrm{c}}h^2$	0.1182 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.624 ± 0.013	$H(0.38)$	83.29 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04104 ± 0.00030	$\sigma_8/h^{0.5}$	1.017 ± 0.022	$D_{\mathrm{M}}(0.38)$	1521.5 ± 8.4
τ	0.097 ± 0.023	$r_{\mathrm{drag}}h$	100.40 ± 0.84	$H(0.51)$	89.94 ± 0.26
$\ln(10^{10}A_{\mathrm{s}})$	3.122 ± 0.046	$\langle d^2 \rangle^{1/2}$	2.512 ± 0.052	$D_{\mathrm{M}}(0.51)$	1972.0 ± 9.9
n_{s}	0.9711 ± 0.0043	z_{re}	$11.4^{+2.1}_{-1.8}$	$H(0.61)$	95.51 ± 0.22
y_{cal}	1.0002 ± 0.0024	$10^9 A_{\mathrm{s}}$	2.27 ± 0.10	$D_{\mathrm{M}}(0.61)$	2296 ± 11
A_{100}^{PS}	233 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.011	$H(2.33)$	235.48 ± 0.64
A_{143}^{PS}	36 ± 8	D_{40}	1233 ± 14	$D_{\mathrm{M}}(2.33)$	5755 ± 10
A_{217}^{PS}	105 ± 10	D_{220}	5717 ± 38	$f\sigma_8(0.15)$	0.469 ± 0.010
A_{217}^{CIB}	38 ± 7	D_{810}	2530 ± 13	$\sigma_8(0.15)$	0.776 ± 0.017
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{1420}	815.5 ± 4.7	$f\sigma_8(0.38)$	0.489 ± 0.011
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	D_{2000}	231.3 ± 1.7	$\sigma_8(0.38)$	0.689 ± 0.016
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.35}_{-0.25}$	$n_{\mathrm{s},0.002}$	0.9711 ± 0.0043	$f\sigma_8(0.51)$	0.489 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.245421 ± 0.000060	$\sigma_8(0.51)$	0.645 ± 0.015
A^{kSZ}	< 5.50	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246748 ± 0.000061	$f\sigma_8(0.61)$	0.484 ± 0.010
A_{100}^{dust}	1.00 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	2.573 ± 0.029	$\sigma_8(0.61)$	0.614 ± 0.014
A_{143}^{dust}	0.95 ± 0.17	$\mathrm{Age}/\mathrm{Gyr}$	13.779 ± 0.023	$f\sigma_8(2.33)$	0.3097 ± 0.0072
A_{217}^{dust}	0.98 ± 0.10	z_{*}	1089.68 ± 0.25	$\sigma_8(2.33)$	0.3196 ± 0.0075
$A_{143 \times 217}^{\mathrm{dust}}$	1.01 ± 0.16	r_{*}	144.83 ± 0.25	f_{2000}^{143}	27.6 ± 3.0
c_{100}	0.9975 ± 0.0010	$100\theta_{*}$	1.04121 ± 0.00030	f_{2000}^{217}	105.5 ± 2.0
c_{217}	1.0009 ± 0.0016	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.910 ± 0.023	$f_{2000}^{143 \times 217}$	30.5 ± 2.2
c_{TE}	0.9936 ± 0.0052	z_{drag}	1059.98 ± 0.33	χ_{lowl}^2	24.1 ± 1.3
c_{EE}	0.9906 ± 0.0049	r_{drag}	147.48 ± 0.26	$\chi_{\mathrm{CamSpec}}^2$	11511.5 ± 5.4
H_0	68.08 ± 0.49	k_{D}	0.14051 ± 0.00031	$\chi_{6\mathrm{DF}}^2$	0.030 ± 0.042
Ω_{Λ}	0.6950 ± 0.0064	$100\theta_{\mathrm{D}}$	0.16073 ± 0.00019	χ_{MGS}^2	1.71 ± 0.51
Ω_{m}	0.3050 ± 0.0064	z_{eq}	3362 ± 24	$\chi_{\mathrm{DR12BAO}}^2$	4.01 ± 0.86
$\Omega_{\mathrm{m}}h^2$	0.1413 ± 0.0010	k_{eq}	0.010261 ± 0.000073	χ_{prior}^2	7.7 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09621 ± 0.00032	$100\theta_{\mathrm{eq}}$	0.8209 ± 0.0046	χ_{BAO}^2	5.75 ± 0.74
σ_8	0.839 ± 0.018	$100\theta_{\mathrm{s,eq}}$	0.4533 ± 0.0023	χ_{CMB}^2	11535.6 ± 5.3
S_8	0.846 ± 0.019	$H(0.15)$	73.29 ± 0.43		

$\bar{\chi}_{\mathrm{eff}}^2 = 11549.09$; $R - 1 = 0.01512$

2.233 base_CamSpecHM_TTTEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022266	0.02227 ± 0.00016	S_8	0.8311	0.831 ± 0.016	$100\theta_{\mathrm{s,eq}}$	0.44945	0.4495 ± 0.0030
$\Omega_{\mathrm{c}}h^2$	0.12002	0.1200 ± 0.0014	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4552	0.4552 ± 0.0090	$H(0.15)$	72.56	72.57 ± 0.53
$100\theta_{\mathrm{MC}}$	1.040829	1.04084 ± 0.00032	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6070	0.6069 ± 0.0084	$D_{\mathrm{M}}(0.15)$	644.5	644.5 ± 5.3
τ	0.0527	0.0527 ± 0.0078	$\sigma_8/h^{0.5}$	0.9872	0.987 ± 0.012	$H(0.38)$	82.753	82.76 ± 0.38
$\ln(10^{10}A_{\mathrm{s}})$	3.0397	3.040 ± 0.016	$r_{\mathrm{drag}}h$	98.96	99.0 ± 1.1	$D_{\mathrm{M}}(0.38)$	1536.0	1536 ± 11
n_{s}	0.96396	0.9639 ± 0.0045	$\langle d^2 \rangle^{1/2}$	2.4431	2.443 ± 0.029	$H(0.51)$	89.518	89.53 ± 0.30
y_{cal}	1.00037	1.0005 ± 0.0025	z_{re}	7.54	7.52 ± 0.80	$D_{\mathrm{M}}(0.51)$	1989.0	1989 ± 12
A_{100}^{PS}	238.7	242 ± 25	$10^9 A_{\mathrm{s}}$	2.0899	2.090 ± 0.033	$H(0.61)$	95.173	95.18 ± 0.24
A_{143}^{PS}	43.9	40 ± 8	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8808	1.881 ± 0.012	$D_{\mathrm{M}}(0.61)$	2313.8	2314 ± 13
A_{217}^{PS}	101.4	102 ± 10	D_{40}	1230.7	1231 ± 13	$H(2.33)$	236.46	236.46 ± 0.84
A_{217}^{CIB}	43.3	40 ± 7	D_{220}	5723.0	5724 ± 39	$D_{\mathrm{M}}(2.33)$	5769.4	5769 ± 11
A_{143}^{tSZ}	5.45	$3.8_{-2.5}^{+1.9}$	D_{810}	2535.1	2535 ± 14	$f\sigma_8(0.15)$	0.4594	0.4593 ± 0.0084
$r_{143 \times 217}^{\mathrm{PS}}$	0.637	0.65 ± 0.13	D_{1420}	815.02	815.0 ± 4.9	$\sigma_8(0.15)$	0.7475	0.7475 ± 0.0066
$r_{143 \times 217}^{\mathrm{CIB}}$	0.780	$0.57_{-0.16}^{+0.39}$	D_{2000}	229.94	229.9 ± 1.6	$f\sigma_8(0.38)$	0.4766	0.4766 ± 0.0069
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.39	—	$n_{\mathrm{s},0.002}$	0.96396	0.9639 ± 0.0045	$\sigma_8(0.38)$	0.6621	0.6621 ± 0.0056
A^{kSZ}	1.92	$4.8_{-3.7}^{+2.6}$	Y_{P}	0.245353	$0.245352_{-0.000061}^{+0.000068}$	$f\sigma_8(0.51)$	0.4747	0.4746 ± 0.0060
A_{100}^{dust}	1.006	1.01 ± 0.19	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246680	$0.246678_{-0.000061}^{+0.000068}$	$\sigma_8(0.51)$	0.6194	0.6194 ± 0.0051
A_{143}^{dust}	0.977	0.96 ± 0.18	$10^5 \mathrm{D}/\mathrm{H}$	2.6052	2.606 ± 0.030	$f\sigma_8(0.61)$	0.4693	0.4693 ± 0.0055
A_{217}^{dust}	0.968	0.97 ± 0.10	$\mathrm{Age}/\mathrm{Gyr}$	13.8109	13.810 ± 0.025	$\sigma_8(0.61)$	0.58923	0.5892 ± 0.0048
$A_{143 \times 217}^{\mathrm{dust}}$	0.996	1.03 ± 0.16	z_*	1090.053	1090.05 ± 0.29	$f\sigma_8(2.33)$	0.29691	0.2969 ± 0.0024
c_{100}	0.99769	0.9976 ± 0.0011	r_*	144.505	144.51 ± 0.32	$\sigma_8(2.33)$	0.30590	0.3059 ± 0.0025
c_{217}	1.00131	1.0011 ± 0.0016	$100\theta_*$	1.041020	1.04103 ± 0.00031	f_{2000}^{143}	30.67	30.3 ± 2.8
c_{TE}	0.99656	0.9966 ± 0.0049	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8811	13.881 ± 0.029	f_{2000}^{217}	107.15	107.2 ± 1.9
c_{EE}	0.99247	0.9924 ± 0.0049	z_{drag}	1059.704	1059.70 ± 0.33	$f_{2000}^{143 \times 217}$	32.59	32.5 ± 2.0
H_0	67.23	67.24 ± 0.62	r_{drag}	147.201	147.21 ± 0.32	χ_{small}^2	395.86	396.9 ± 1.7
Ω_{Λ}	0.6838	0.6837 ± 0.0086	k_{D}	0.140671	0.14067 ± 0.00035	$\chi_{\mathrm{CamSpec}}^2$	11499.5	11514.4 ± 5.6
Ω_{m}	0.3162	0.3163 ± 0.0086	$100\theta_{\mathrm{D}}$	0.160888	0.16089 ± 0.00019	χ_{prior}^2	2.14	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.14293	0.1429 ± 0.0013	z_{eq}	3400.2	3400 ± 32	χ_{CMB}^2	11895.4	11911.3 ± 5.7
$\Omega_{\mathrm{m}}h^3$	0.096092	0.09609 ± 0.00032	k_{eq}	0.010378	0.010377 ± 0.000096			
σ_8	0.8094	0.8094 ± 0.0075	$100\theta_{\mathrm{eq}}$	0.8133	0.8134 ± 0.0059			

Best-fit $\chi_{\mathrm{eff}}^2 = 11897.49$; $\bar{\chi}_{\mathrm{eff}}^2 = 11919.09$; $R - 1 = 0.00575$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 CamSpec like_10.7HM_1400_unified: 11499.49

2.234 base_WMAP

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022608	0.02265 ± 0.00049	D_{40}	1219.6	1219 ± 24	$H(0.15)$	74.44	74.6 ± 1.9
$\Omega_{\mathrm{c}}h^2$	0.11413	0.1136 ± 0.0045	D_{220}	5751.7	5748 ± 35	$D_{\mathrm{M}}(0.15)$	626.0	625 ± 17
$100\theta_{\mathrm{MC}}$	1.04031	1.0401 ± 0.0022	D_{810}	2517.1	2507 ± 32	$H(0.38)$	84.04	84.2 ± 1.4
τ	0.0878	$0.089^{+0.012}_{-0.015}$	D_{1420}	811.2	808 ± 15	$D_{\mathrm{M}}(0.38)$	1499.4	1496 ± 35
$\ln(10^{10}A_{\mathrm{s}})$	3.0934	3.092 ± 0.030	D_{2000}	229.4	228.4 ± 5.9	$H(0.51)$	90.46	90.6 ± 1.2
n_{s}	0.9737	0.973 ± 0.013	$n_{\mathrm{s},0.002}$	0.9737	0.973 ± 0.013	$D_{\mathrm{M}}(0.51)$	1946.6	1943 ± 42
A_{tsz}	0.08	—	Y_{P}	0.245483	0.24550 ± 0.00021	$H(0.61)$	95.85	95.9 ± 1.0
H_0	69.46	69.7 ± 2.1	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246810	0.24683 ± 0.00021	$D_{\mathrm{M}}(0.61)$	2268.6	2265 ± 46
Ω_{Λ}	0.7152	$0.717^{+0.028}_{-0.023}$	$10^5D/H$	2.543	2.538 ± 0.088	$H(2.33)$	232.87	232.5 ± 2.9
Ω_{m}	0.2848	$0.283^{+0.023}_{-0.028}$	Age/Gyr	13.765	13.76 ± 0.11	$D_{\mathrm{M}}(2.33)$	5746.0	5744 ± 49
$\Omega_{\mathrm{m}}h^2$	0.13739	0.1369 ± 0.0044	z_{*}	1089.11	1089.03 ± 0.80	$f\sigma_8(0.15)$	0.4396	0.436 ± 0.028
$\Omega_{\mathrm{m}}h^3$	0.09543	0.0953 ± 0.0017	r_{*}	145.79	145.9 ± 1.2	$\sigma_8(0.15)$	0.7525	0.749 ± 0.020
σ_8	0.8114	0.808 ± 0.023	$100\theta_{*}$	1.04047	1.0403 ± 0.0022	$f\sigma_8(0.38)$	0.4639	0.461 ± 0.023
S_8	0.790	$0.785^{+0.050}_{-0.056}$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	14.012	14.03 ± 0.12	$\sigma_8(0.38)$	0.6701	0.668 ± 0.016
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4330	$0.430^{+0.027}_{-0.031}$	z_{drag}	1060.05	1060.1 ± 1.1	$f\sigma_8(0.51)$	0.4657	0.463 ± 0.020
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5927	0.589 ± 0.028	r_{drag}	148.40	148.5 ± 1.2	$\sigma_8(0.51)$	0.6284	0.626 ± 0.014
$\sigma_8/h^{0.5}$	0.9735	0.968 ± 0.038	k_{D}	0.13967	0.1396 ± 0.0014	$f\sigma_8(0.61)$	0.4630	0.460 ± 0.018
$r_{\mathrm{drag}}h$	103.08	103.5 ± 3.7	$100\theta_{\mathrm{D}}$	0.16053	0.16050 ± 0.00050	$\sigma_8(0.61)$	0.5987	0.597 ± 0.013
$\langle d^2 \rangle^{1/2}$	2.429	2.423 ± 0.076	z_{eq}	3268	3256 ± 100	$f\sigma_8(2.33)$	0.3030	0.3021 ± 0.0064
z_{re}	10.61	10.7 ± 1.1	k_{eq}	0.009973	0.00994 ± 0.00032	$\sigma_8(2.33)$	0.3137	0.3129 ± 0.0064
10^9A_{s}	2.205	$2.203^{+0.061}_{-0.070}$	$100\theta_{\mathrm{eq}}$	0.8384	0.841 ± 0.021	χ_{WMAP}^2	7557.95	7564.0 ± 3.3
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8500	1.843 ± 0.030	$100\theta_{\mathrm{s,eq}}$	0.4623	0.464 ± 0.011			

Best-fit $\chi_{\mathrm{eff}}^2 = 7557.95$; $\bar{\chi}_{\mathrm{eff}}^2 = 7563.97$; $R - 1 = 0.00844$
 χ_{eff}^2 : CMB - WMAP: 7557.95

2.235 base_WMAP_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022403	0.02246 ± 0.00043	D_{220}	5740.4	5739 ± 32	$H(0.38)$	83.14	83.20 ± 0.62
$\Omega_c h^2$	0.11645	0.1167 ± 0.0021	D_{810}	2518.4	2516 ± 31	$D_M(0.38)$	1522.4	1522 ± 14
$100\theta_{MC}$	1.03933	1.0395 ± 0.0020	D_{1420}	809.4	809 ± 16	$H(0.51)$	89.72	89.79 ± 0.61
τ	0.0862	$0.086^{+0.012}_{-0.013}$	D_{2000}	228.7	228.7 ± 6.0	$D_M(0.51)$	1973.9	1973 ± 17
$\ln(10^{10} A_s)$	3.0958	$3.095^{+0.028}_{-0.031}$	$n_{s,0.002}$	0.9678	0.967 ± 0.010	$H(0.61)$	95.23	95.31 ± 0.61
n_s	0.9678	0.967 ± 0.010	Y_P	0.245409	0.24543 ± 0.00018	$D_M(0.61)$	2298.3	2297 ± 19
A_{tsz}	0.03	—	Y_P^{BBN}	0.246735	0.24675 ± 0.00018	$H(2.33)$	234.09	234.4 ± 1.7
H_0	68.11	68.14 ± 0.73	$10^5 D/H$	2.579	2.571 ± 0.080	$D_M(2.33)$	5773.9	5769 ± 36
Ω_Λ	0.6993	0.6988 ± 0.0084	Age/Gyr	13.826	13.815 ± 0.086	$f\sigma_8(0.15)$	0.4547	0.455 ± 0.013
Ω_m	0.3007	0.3012 ± 0.0084	z_*	1089.57	1089.53 ± 0.51	$\sigma_8(0.15)$	0.7580	0.759 ± 0.016
$\Omega_m h^2$	0.13949	0.1398 ± 0.0023	r_*	145.33	145.22 ± 0.73	$f\sigma_8(0.38)$	0.4757	0.476 ± 0.012
$\Omega_m h^3$	0.09501	0.0953 ± 0.0018	$100\theta_*$	1.03951	1.0397 ± 0.0020	$\sigma_8(0.38)$	0.6732	$0.674^{+0.013}_{-0.015}$
σ_8	0.8192	0.820 ± 0.018	$D_M(z_*)/\text{Gpc}$	13.981	13.967 ± 0.092	$f\sigma_8(0.51)$	0.4756	0.476 ± 0.012
S_8	0.8201	0.821 ± 0.025	z_{drag}	1059.74	1059.9 ± 1.1	$\sigma_8(0.51)$	0.6305	$0.631^{+0.012}_{-0.014}$
$\sigma_8 \Omega_m^{0.5}$	0.4492	0.450 ± 0.013	r_{drag}	148.00	147.87 ± 0.86	$f\sigma_8(0.61)$	0.4714	0.472 ± 0.011
$\sigma_8 \Omega_m^{0.25}$	0.6066	0.607 ± 0.015	k_D	0.13993	0.1401 ± 0.0012	$\sigma_8(0.61)$	0.6002	$0.600^{+0.012}_{-0.013}$
$\sigma_8/h^{0.5}$	0.9926	0.993 ± 0.022	$100\theta_D$	0.16058	0.16054 ± 0.00051	$f\sigma_8(2.33)$	0.3031	$0.3032^{+0.0059}_{-0.0065}$
$r_{\text{drag}} h$	100.81	100.8 ± 1.1	z_{eq}	3318	3326 ± 54	$\sigma_8(2.33)$	0.3130	$0.3131^{+0.0060}_{-0.0067}$
$\langle d^2 \rangle^{1/2}$	2.4717	2.474 ± 0.041	k_{eq}	0.010127	0.01015 ± 0.00016	χ^2_{WMAP}	7558.29	7563.6 ± 3.2
z_{re}	10.59	10.5 ± 1.1	$100\theta_{\text{eq}}$	0.8275	0.8265 ± 0.0084	$\chi^2_{6\text{DF}}$	0.0040	0.055 ± 0.079
$10^9 A_s$	2.210	$2.210^{+0.059}_{-0.070}$	$100\theta_{s,\text{eq}}$	0.45672	0.4561 ± 0.0045	χ^2_{MGS}	1.89	1.94 ± 0.70
$10^9 A_s e^{-2\tau}$	1.8604	1.859 ± 0.022	$H(0.15)$	73.26	73.30 ± 0.67	χ^2_{DR12BAO}	3.47	4.3 ± 1.2
D_{40}	1231.4	1233 ± 18	$D_M(0.15)$	637.3	637.0 ± 6.3	χ^2_{BAO}	5.37	6.3 ± 1.4

Best-fit $\chi^2_{\text{eff}} = 7563.66$; $\bar{\chi}^2_{\text{eff}} = 7569.93$; $R - 1 = 0.00961$
 χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.89 DR12BAO: 3.47 CMB - WMAP: 7558.29

2.236 base_DES_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022199	0.02220 ± 0.00050	$\Omega_m h^2$	0.1256	$0.1302^{+0.0088}_{-0.013}$	k_D	0.13559	$0.1369^{+0.0029}_{-0.0038}$
$\Omega_c h^2$	0.1028	$0.1074^{+0.0087}_{-0.013}$	$\Omega_m h^3$	0.0888	$0.095^{+0.011}_{-0.020}$	$100\theta_D$	0.16018	$0.1614^{+0.0037}_{-0.0053}$
$100\theta_{MC}$	1.0317	$1.040^{+0.026}_{-0.036}$	σ_8	0.872	$0.866^{+0.067}_{-0.089}$	z_{eq}	2987	3097^{+210}_{-300}
$\ln(10^{10} A_s)$	3.375	$3.30^{+0.17}_{-0.15}$	S_8	0.7986	0.790 ± 0.025	k_{eq}	0.00912	$0.00945^{+0.00064}_{-0.00093}$
n_s	0.9617	0.960 ± 0.020	$\sigma_8 \Omega_m^{0.5}$	0.4374	0.433 ± 0.014	$100\theta_{eq}$	0.8885	0.875 ± 0.034
b_{DES}^1	1.339	$1.36^{+0.14}_{-0.16}$	$\sigma_8 \Omega_m^{0.25}$	0.6177	$0.612^{+0.032}_{-0.039}$	$100\theta_{s,eq}$	0.4883	0.481 ± 0.017
b_{DES}^2	1.534	$1.56^{+0.14}_{-0.16}$	$\sigma_8/h^{0.5}$	1.038	1.019 ± 0.055	$H(0.15)$	75.2	$76.8^{+5.1}_{-8.2}$
b_{DES}^3	1.521	$1.55^{+0.14}_{-0.16}$	$r_{drag} h$	107.5	$108.7^{+7.1}_{-10}$	$D_M(0.15)$	617	611^{+60}_{-54}
b_{DES}^4	1.835	$1.87^{+0.17}_{-0.19}$	$\langle d^2 \rangle^{1/2}$	2.717	2.65 ± 0.15	$H(0.38)$	83.9	$85.7^{+5.0}_{-8.1}$
b_{DES}^5	1.893	$1.93^{+0.18}_{-0.21}$	z_{re}	7.487	$7.58^{+0.22}_{-0.30}$	$D_M(0.38)$	1487	1470^{+140}_{-120}
m_{DES}^1	0.0132	0.012 ± 0.023	$10^9 A_s$	2.922	$2.74^{+0.39}_{-0.46}$	$H(0.51)$	89.8	$91.6^{+5.0}_{-8.0}$
m_{DES}^2	0.0154	0.014 ± 0.022	$10^9 A_s e^{-2\tau}$	2.618	$2.45^{+0.35}_{-0.41}$	$D_M(0.51)$	1936	1913^{+170}_{-150}
m_{DES}^3	0.0062	0.009 ± 0.021	D_{40}	1795	1680^{+200}_{-300}	$H(0.61)$	94.8	$96.7^{+5.0}_{-8.0}$
m_{DES}^4	0.0087	0.011 ± 0.021	D_{220}	8615	7948^{+1000}_{-2000}	$D_M(0.61)$	2261	2233^{+200}_{-170}
$A_{IA,DES}$	0.507	$0.49^{+0.18}_{-0.22}$	D_{810}	3566	3256^{+500}_{-600}	$H(2.33)$	224.0	$228.0^{+8.5}_{-12}$
$\alpha_{IA,DES}$	-1.19	$-0.2^{+2.3}_{-2.7}$	D_{1420}	1125	1013 ± 200	$D_M(2.33)$	5835	5754^{+410}_{-340}
$\Delta z_{l,DES}^1$	0.0041	0.0044 ± 0.0075	D_{2000}	319	297^{+50}_{-60}	$f\sigma_8(0.15)$	0.4467	0.442 ± 0.016
$\Delta z_{l,DES}^2$	0.0017	0.0020 ± 0.0067	$n_{s,0.002}$	0.9617	0.960 ± 0.020	$\sigma_8(0.15)$	0.813	$0.808^{+0.066}_{-0.088}$
$\Delta z_{l,DES}^3$	0.0044	0.0044 ± 0.0066	Y_P	0.245325	$0.24531^{+0.00023}_{-0.00019}$	$f\sigma_8(0.38)$	0.4806	0.475 ± 0.025
$\Delta z_{l,DES}^4$	0.0029	0.0025 ± 0.0092	Y_P^{BBN}	0.246652	$0.24664^{+0.00023}_{-0.00019}$	$\sigma_8(0.38)$	0.728	$0.724^{+0.062}_{-0.084}$
$\Delta z_{l,DES}^5$	0.0012	0.0009 ± 0.0098	$10^5 D/H$	2.618	$2.621^{+0.085}_{-0.10}$	$f\sigma_8(0.51)$	0.4871	0.482 ± 0.030
$\Delta z_{s,DES}^1$	-0.0011	-0.003 ± 0.014	Age/Gyr	14.00	$13.80^{+0.96}_{-0.79}$	$\sigma_8(0.51)$	0.685	$0.681^{+0.060}_{-0.082}$
$\Delta z_{s,DES}^2$	-0.0288	-0.030 ± 0.011	z_*	1088.58	$1088.99^{+0.97}_{-1.3}$	$f\sigma_8(0.61)$	0.4873	$0.482^{+0.030}_{-0.034}$
$\Delta z_{s,DES}^3$	0.0059	0.0069 ± 0.0097	r_*	149.26	$148.1^{+3.4}_{-2.8}$	$\sigma_8(0.61)$	0.654	$0.650^{+0.058}_{-0.080}$
$\Delta z_{s,DES}^4$	-0.0266	-0.024 ± 0.019	$100\theta_*$	1.0319	$1.040^{+0.026}_{-0.036}$	$f\sigma_8(2.33)$	0.3327	$0.331^{+0.031}_{-0.043}$
H_0	70.7	$72.2^{+5.3}_{-8.4}$	$D_M(z_*)/\text{Gpc}$	14.46	$14.26^{+0.77}_{-0.65}$	$\sigma_8(2.33)$	0.3466	$0.345^{+0.034}_{-0.048}$
Ω_Λ	0.7486	0.745 ± 0.039	z_{drag}	1058.25	1058.6 ± 1.5	χ_{DES}^2	500.49	512.8 ± 5.2
Ω_m	0.2514	0.255 ± 0.039	r_{drag}	152.09	$150.9^{+3.6}_{-2.9}$	χ_{prior}^2	1.32	14.3 ± 5.3

Best-fit $\chi_{\text{eff}}^2 = 501.82$; $\bar{\chi}_{\text{eff}}^2 = 527.14$; $R - 1 = 0.00444$
 χ_{eff}^2 : WL - DES_1YR_final: 500.49

2.237 base_DESlens_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022164	0.02219 ± 0.00049	$r_{\text{drag}} h$	110.1	112^{+20}_{-10}	$100\theta_{\text{eq}}$	0.830	0.796 ± 0.091
$\Omega_c h^2$	0.1204	$0.137^{+0.022}_{-0.041}$	$\langle d^2 \rangle^{1/2}$	2.537	$2.39^{+0.39}_{-0.44}$	$100\theta_{\text{s,eq}}$	0.459	0.441 ± 0.047
$100\theta_{\text{MC}}$	1.064	$1.084^{+0.060}_{-0.047}$	z_{re}	7.85	$8.13^{+0.50}_{-0.69}$	$H(0.15)$	79.7	84^{+10}_{-10}
$\ln(10^{10} A_s)$	3.15	$2.95^{+0.58}_{-0.45}$	$10^9 A_s$	2.34	$2.14^{+0.57}_{-1.3}$	$D_{\text{M}}(0.15)$	583	570^{+39}_{-120}
n_s	0.9598	0.960 ± 0.020	$10^9 A_s e^{-2\tau}$	2.10	$1.91^{+0.51}_{-1.1}$	$H(0.38)$	89.1	94^{+10}_{-10}
m_{DES}^1	0.0147	0.014 ± 0.023	D_{40}	1407	1288^{+300}_{-800}	$D_{\text{M}}(0.38)$	1403	1365^{+95}_{-260}
m_{DES}^2	0.0136	0.013 ± 0.022	D_{220}	6383	5754^{+2000}_{-4000}	$H(0.51)$	95.4	100^{+10}_{-10}
m_{DES}^3	0.0017	0.005 ± 0.022	D_{810}	2800	2357^{+700}_{-2000}	$D_{\text{M}}(0.51)$	1826	1774^{+130}_{-330}
m_{DES}^4	0.0162	0.017 ± 0.022	D_{1420}	883	704^{+200}_{-500}	$H(0.61)$	100.7	106^{+10}_{-10}
$A_{\text{IA,DES}}$	1.34	$0.66^{+0.97}_{-0.55}$	D_{2000}	252	208^{+60}_{-200}	$D_{\text{M}}(0.61)$	2132	2068^{+150}_{-370}
$\alpha_{\text{IA,DES}}$	3.38	> 1.13	$n_{\text{s},0.002}$	0.9598	0.960 ± 0.020	$H(2.33)$	239.0	252^{+21}_{-29}
$\Delta z_{\text{s,DES}}^1$	0.0029	0.002 ± 0.015	Y_{P}	0.245311	$0.24531^{+0.00022}_{-0.00020}$	$D_{\text{M}}(2.33)$	5488	5288^{+430}_{-700}
$\Delta z_{\text{s,DES}}^2$	-0.0192	-0.020 ± 0.012	$Y_{\text{P}}^{\text{BBN}}$	0.246637	$0.24664^{+0.00022}_{-0.00020}$	$f\sigma_8(0.15)$	0.4532	$0.440^{+0.029}_{-0.018}$
$\Delta z_{\text{s,DES}}^3$	0.0080	0.009 ± 0.011	$10^5 D/H$	2.625	2.622 ± 0.094	$\sigma_8(0.15)$	0.818	$0.80^{+0.16}_{-0.13}$
$\Delta z_{\text{s,DES}}^4$	-0.0164	-0.016 ± 0.021	Age/Gyr	13.16	$12.7^{+1.0}_{-1.7}$	$f\sigma_8(0.38)$	0.4863	$0.470^{+0.052}_{-0.030}$
H_0	74.8	78^{+20}_{-10}	z_*	1090.22	$1091.5^{+2.2}_{-3.4}$	$\sigma_8(0.38)$	0.732	$0.72^{+0.16}_{-0.13}$
Ω_{Λ}	0.744	$0.724^{+0.11}_{-0.038}$	r_*	144.5	$141.0^{+8.7}_{-6.8}$	$f\sigma_8(0.51)$	0.492	$0.475^{+0.063}_{-0.037}$
Ω_{m}	0.256	$0.276^{+0.038}_{-0.11}$	$100\theta_*$	1.064	$1.085^{+0.060}_{-0.047}$	$\sigma_8(0.51)$	0.688	$0.67^{+0.15}_{-0.13}$
$\Omega_{\text{m}} h^2$	0.1432	$0.160^{+0.022}_{-0.041}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.58	$13.1^{+1.2}_{-1.4}$	$f\sigma_8(0.61)$	0.492	$0.475^{+0.071}_{-0.043}$
$\Omega_{\text{m}} h^3$	0.1072	$0.127^{+0.029}_{-0.046}$	z_{drag}	1059.47	$1060.6^{+2.2}_{-2.8}$	$\sigma_8(0.61)$	0.657	$0.64^{+0.15}_{-0.12}$
σ_8	0.878	$0.86^{+0.17}_{-0.13}$	r_{drag}	147.2	$143.7^{+8.9}_{-7.0}$	$f\sigma_8(2.33)$	0.334	$0.328^{+0.078}_{-0.068}$
S_8	0.8110	$0.791^{+0.042}_{-0.029}$	k_{D}	0.1406	$0.1447^{+0.0069}_{-0.010}$	$\sigma_8(2.33)$	0.347	0.343 ± 0.079
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4442	$0.433^{+0.023}_{-0.016}$	$100\theta_{\text{D}}$	0.1646	$0.1675^{+0.0086}_{-0.0068}$	χ_{DES}^2	228.71	233.7 ± 2.8
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.625	$0.608^{+0.072}_{-0.051}$	z_{eq}	3408	3814^{+500}_{-1000}	χ_{prior}^2	0.33	9.4 ± 4.3
$\sigma_8/h^{0.5}$	1.015	$0.97^{+0.13}_{-0.10}$	k_{eq}	0.01040	$0.0116^{+0.0016}_{-0.0030}$			

Best-fit $\chi_{\text{eff}}^2 = 229.04$; $\bar{\chi}_{\text{eff}}^2 = 243.17$; $R - 1 = 0.00629$

χ_{eff}^2 : WL - DES_1YR_final: 228.72

2.238 base_DES_lenspriors_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00050	$\Omega_{\mathrm{m}}h^3$	$0.0915^{+0.0086}_{-0.012}$	z_{eq}	3119^{+170}_{-210}
$\Omega_{\mathrm{c}}h^2$	$0.1083^{+0.0068}_{-0.0088}$	σ_8	$0.816^{+0.029}_{-0.033}$	k_{eq}	$0.00952^{+0.00050}_{-0.00065}$
$100\theta_{\mathrm{MC}}$	$1.034^{+0.019}_{-0.022}$	S_8	0.776 ± 0.015	$100\theta_{\mathrm{eq}}$	0.864 ± 0.024
$\ln(10^{10}A_{\mathrm{s}})$	3.181 ± 0.071	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4251 ± 0.0083	$100\theta_{\mathrm{s,eq}}$	0.476 ± 0.012
n_{s}	0.961 ± 0.020	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.589 ± 0.014	$H(0.15)$	$74.3^{+3.7}_{-4.7}$
b_{DES}^1	1.442 ± 0.095	$\sigma_8/h^{0.5}$	0.979 ± 0.017	$D_{\mathrm{M}}(0.15)$	629 ± 38
b_{DES}^2	1.652 ± 0.081	$r_{\mathrm{drag}}h$	$104.6^{+4.7}_{-5.6}$	$H(0.38)$	$83.5^{+3.7}_{-4.7}$
b_{DES}^3	1.640 ± 0.073	$\langle d^2 \rangle^{1/2}$	2.518 ± 0.044	$D_{\mathrm{M}}(0.38)$	1508 ± 86
b_{DES}^4	1.983 ± 0.085	z_{re}	$7.58^{+0.18}_{-0.21}$	$H(0.51)$	$89.7^{+3.7}_{-4.7}$
b_{DES}^5	2.06 ± 0.10	$10^9 A_{\mathrm{s}}$	$2.41^{+0.16}_{-0.18}$	$D_{\mathrm{M}}(0.51)$	1960 ± 110
m_{DES}^1	0.012 ± 0.023	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$2.16^{+0.14}_{-0.16}$	$H(0.61)$	$94.9^{+3.8}_{-4.7}$
m_{DES}^2	0.015 ± 0.022	D_{40}	1462 ± 91	$D_{\mathrm{M}}(0.61)$	2286 ± 120
m_{DES}^3	0.012 ± 0.021	D_{220}	6949 ± 640	$H(2.33)$	$228.0^{+6.6}_{-8.1}$
m_{DES}^4	0.013 ± 0.021	D_{810}	2906 ± 220	$D_{\mathrm{M}}(2.33)$	5827 ± 260
$A_{\mathrm{IA,DES}}$	$0.46^{+0.18}_{-0.21}$	D_{1420}	916 ± 76	$f\sigma_8(0.15)$	0.4325 ± 0.0080
$\alpha_{\mathrm{IA,DES}}$	$-0.2^{+2.4}_{-2.7}$	D_{2000}	264^{+22}_{-28}	$\sigma_8(0.15)$	$0.758^{+0.029}_{-0.033}$
$\Delta z_{\mathrm{l,DES}}^1$	0.0044 ± 0.0076	$n_{\mathrm{s},0.002}$	0.961 ± 0.020	$f\sigma_8(0.38)$	0.4597 ± 0.0095
$\Delta z_{\mathrm{l,DES}}^2$	0.0017 ± 0.0067	Y_{P}	$0.24532^{+0.00023}_{-0.00020}$	$\sigma_8(0.38)$	$0.677^{+0.028}_{-0.032}$
$\Delta z_{\mathrm{l,DES}}^3$	0.0040 ± 0.0066	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020}$	$f\sigma_8(0.51)$	0.463 ± 0.011
$\Delta z_{\mathrm{l,DES}}^4$	0.0023 ± 0.0091	$10^5 \mathrm{D}/\mathrm{H}$	$2.618^{+0.089}_{-0.099}$	$\sigma_8(0.51)$	$0.635^{+0.027}_{-0.032}$
$\Delta z_{\mathrm{l,DES}}^5$	0.0003 ± 0.0098	$\mathrm{Age}/\mathrm{Gyr}$	13.97 ± 0.60	$f\sigma_8(0.61)$	0.462 ± 0.013
$\Delta z_{\mathrm{s,DES}}^1$	-0.004 ± 0.014	z_*	$1089.07^{+0.82}_{-0.96}$	$\sigma_8(0.61)$	$0.606^{+0.027}_{-0.031}$
$\Delta z_{\mathrm{s,DES}}^2$	-0.029 ± 0.011	r_*	$147.7^{+2.4}_{-2.1}$	$f\sigma_8(2.33)$	$0.307^{+0.014}_{-0.017}$
$\Delta z_{\mathrm{s,DES}}^3$	0.0079 ± 0.0097	$100\theta_*$	$1.034^{+0.019}_{-0.022}$	$\sigma_8(2.33)$	$0.319^{+0.016}_{-0.019}$
$\Delta z_{\mathrm{s,DES}}^4$	-0.021 ± 0.018	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.29 ± 0.50	$\chi_{\mathrm{lensing}}^2$	9.0 ± 1.5
H_0	$69.5^{+3.8}_{-4.7}$	z_{drag}	1058.7 ± 1.4	χ_{DES}^2	512.9 ± 4.5
Ω_{Λ}	0.727 ± 0.023	r_{drag}	$150.5^{+2.5}_{-2.2}$	χ_{prior}^2	14.1 ± 5.2
Ω_{m}	0.273 ± 0.023	k_{D}	$0.1372^{+0.0024}_{-0.0028}$		
$\Omega_{\mathrm{m}}h^2$	$0.1312^{+0.0069}_{-0.0089}$	$100\theta_{\mathrm{D}}$	$0.1604^{+0.0028}_{-0.0032}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 535.95; R - 1 = 0.00951$$

2.239 base_DESlens_lenspriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022213	0.02221 ± 0.00049	$r_{\text{drag}} h$	102.8	$108.1^{+6.5}_{-11}$	$100\theta_{\text{eq}}$	0.8421	0.845 ± 0.033
$\Omega_c h^2$	0.1132	$0.115^{+0.010}_{-0.013}$	$\langle d^2 \rangle^{1/2}$	2.496	2.489 ± 0.053	$100\theta_{\text{s,eq}}$	0.4645	0.466 ± 0.017
$100\theta_{\text{MC}}$	1.0388	$1.051^{+0.030}_{-0.035}$	z_{re}	7.674	$7.73^{+0.24}_{-0.28}$	$H(0.15)$	73.9	$77.6^{+5.5}_{-8.5}$
$\ln(10^{10} A_s)$	3.126	3.134 ± 0.091	$10^9 A_s$	2.278	$2.31^{+0.19}_{-0.22}$	$D_{\text{M}}(0.15)$	630	605 ± 60
n_s	0.9597	0.960 ± 0.020	$10^9 A_s e^{-2\tau}$	2.041	$2.07^{+0.17}_{-0.20}$	$H(0.38)$	83.5	$87.0^{+5.5}_{-8.2}$
m_{DES}^1	0.0143	0.013 ± 0.023	D_{40}	1371	1390^{+110}_{-130}	$D_{\text{M}}(0.38)$	1510	1452 ± 140
m_{DES}^2	0.0140	0.013 ± 0.022	D_{220}	6416	6444^{+800}_{-900}	$H(0.51)$	89.9	$93.2^{+5.6}_{-8.1}$
m_{DES}^3	0.0027	0.005 ± 0.021	D_{810}	2764	2727^{+300}_{-300}	$D_{\text{M}}(0.51)$	1959	1888 ± 170
m_{DES}^4	0.0180	0.018 ± 0.021	D_{1420}	881	850^{+100}_{-80}	$H(0.61)$	95.3	$98.5^{+5.7}_{-8.1}$
$A_{\text{IA,DES}}$	1.27	$0.46^{+1.1}_{-0.44}$	D_{2000}	247.7	246 ± 40	$D_{\text{M}}(0.61)$	2283	2203 ± 190
$\alpha_{\text{IA,DES}}$	3.31	> 1.17	$n_{\text{s},0.002}$	0.9597	0.960 ± 0.020	$H(2.33)$	231.7	$234.5^{+9.8}_{-11}$
$\Delta z_{\text{s,DES}}^1$	0.0026	0.001 ± 0.015	Y_{P}	0.245331	$0.24532^{+0.00023}_{-0.00019}$	$D_{\text{M}}(2.33)$	5780	5638 ± 380
$\Delta z_{\text{s,DES}}^2$	-0.0191	-0.020 ± 0.012	$Y_{\text{P}}^{\text{BBN}}$	0.246658	$0.24664^{+0.00023}_{-0.00019}$	$f\sigma_8(0.15)$	0.4438	$0.436^{+0.016}_{-0.0085}$
$\Delta z_{\text{s,DES}}^3$	0.0082	0.009 ± 0.011	$10^5 D/H$	2.615	$2.620^{+0.086}_{-0.098}$	$\sigma_8(0.15)$	0.7580	$0.779^{+0.042}_{-0.053}$
$\Delta z_{\text{s,DES}}^4$	-0.0166	-0.016 ± 0.020	Age/Gyr	13.85	13.52 ± 0.89	$f\sigma_8(0.38)$	0.4680	$0.466^{+0.014}_{-0.012}$
H_0	69.0	$72.8^{+5.6}_{-8.7}$	z_*	1089.52	$1089.7^{+1.0}_{-1.2}$	$\sigma_8(0.38)$	0.6748	$0.697^{+0.041}_{-0.053}$
Ω_{Λ}	0.7139	$0.734^{+0.033}_{-0.041}$	r_*	146.34	145.9 ± 3.1	$f\sigma_8(0.51)$	0.4697	0.470 ± 0.015
Ω_{m}	0.2861	$0.266^{+0.041}_{-0.033}$	$100\theta_*$	1.0390	$1.052^{+0.029}_{-0.035}$	$\sigma_8(0.51)$	0.6327	$0.655^{+0.039}_{-0.053}$
$\Omega_{\text{m}} h^2$	0.1361	$0.138^{+0.010}_{-0.013}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.08	13.89 ± 0.69	$f\sigma_8(0.61)$	0.4668	0.470 ± 0.017
$\Omega_{\text{m}} h^3$	0.0939	$0.101^{+0.014}_{-0.021}$	z_{drag}	1059.09	1059.2 ± 1.5	$\sigma_8(0.61)$	0.6028	$0.625^{+0.038}_{-0.052}$
σ_8	0.8174	$0.837^{+0.042}_{-0.052}$	r_{drag}	149.10	148.6 ± 3.2	$f\sigma_8(2.33)$	0.3050	$0.317^{+0.020}_{-0.029}$
S_8	0.7982	$0.783^{+0.032}_{-0.016}$	k_{D}	0.13865	$0.1392^{+0.0032}_{-0.0036}$	$\sigma_8(2.33)$	0.3157	$0.330^{+0.022}_{-0.033}$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4372	$0.429^{+0.017}_{-0.0090}$	$100\theta_{\text{D}}$	0.16087	$0.1628^{+0.0042}_{-0.0051}$	χ_{lensing}^2	7.71	9.6 ± 2.0
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5978	0.599 ± 0.018	z_{eq}	3236	3289^{+240}_{-300}	χ_{DES}^2	228.96	232.8 ± 2.5
$\sigma_8/h^{0.5}$	0.9843	0.982 ± 0.018	k_{eq}	0.00988	$0.01004^{+0.00073}_{-0.00092}$	χ_{prior}^2	0.31	9.3 ± 4.2

Best-fit $\chi_{\text{eff}}^2 = 236.98$; $\bar{\chi}_{\text{eff}}^2 = 251.72$; $R - 1 = 0.00394$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8_CMBmargd: 7.71 WL - DES_1YR_final: 228.96

2.240 base_DES_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022232	0.02222 ± 0.00050	σ_8	0.8171	0.803 ± 0.030	$100\theta_{\text{eq}}$	0.8816	0.873 ± 0.029
$\Omega_c h^2$	0.1020	$0.1046^{+0.0067}_{-0.0080}$	S_8	0.7899	0.780 ± 0.022	$100\theta_{\text{s,eq}}$	0.4844	0.480 ± 0.015
$100\theta_{\text{MC}}$	1.0188	1.023 ± 0.011	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4326	0.427 ± 0.012	$H(0.15)$	71.45	$71.8^{+1.1}_{-1.3}$
$\ln(10^{10} A_{\text{s}})$	3.279	3.21 ± 0.15	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5946	0.586 ± 0.018	$D_{\text{M}}(0.15)$	651.9	649 ± 11
n_{s}	0.9578	0.958 ± 0.020	$\sigma_8/h^{0.5}$	1.0002	0.981 ± 0.039	$H(0.38)$	80.55	$81.0^{+1.4}_{-1.6}$
b_{DES}^1	1.443	$1.468^{+0.086}_{-0.096}$	$r_{\text{drag}} h$	101.63	101.6 ± 1.1	$D_{\text{M}}(0.38)$	1562.5	1555 ± 26
b_{DES}^2	1.646	1.677 ± 0.084	$\langle d^2 \rangle^{1/2}$	2.626	2.56 ± 0.14	$H(0.51)$	86.64	$87.2^{+1.6}_{-1.8}$
b_{DES}^3	1.629	$1.662^{+0.074}_{-0.087}$	z_{re}	7.439	7.49 ± 0.17	$D_{\text{M}}(0.51)$	2029.2	2019 ± 35
b_{DES}^4	1.966	$2.007^{+0.092}_{-0.11}$	$10^9 A_{\text{s}}$	2.655	$2.51^{+0.32}_{-0.42}$	$H(0.61)$	91.75	$92.4^{+1.8}_{-2.0}$
b_{DES}^5	2.034	$2.08^{+0.12}_{-0.13}$	$10^9 A_{\text{s}} e^{-2\tau}$	2.378	$2.25^{+0.29}_{-0.38}$	$D_{\text{M}}(0.61)$	2365.6	2353 ± 42
m_{DES}^1	0.0133	0.012 ± 0.023	D_{40}	1634	1539^{+200}_{-300}	$H(2.33)$	222.2	$224.3^{+5.8}_{-6.5}$
m_{DES}^2	0.0148	0.014 ± 0.022	D_{220}	7889	7399^{+1000}_{-1000}	$D_{\text{M}}(2.33)$	6006	5964 ± 130
m_{DES}^3	0.0054	0.009 ± 0.021	D_{810}	3202	3022^{+400}_{-500}	$f\sigma_8(0.15)$	0.4397	0.434 ± 0.012
m_{DES}^4	0.0082	0.011 ± 0.021	D_{1420}	1002	949^{+100}_{-100}	$\sigma_8(0.15)$	0.7583	0.745 ± 0.029
$A_{\text{IA,DES}}$	0.464	$0.45^{+0.17}_{-0.20}$	D_{2000}	289.9	275^{+30}_{-60}	$f\sigma_8(0.38)$	0.4652	0.458 ± 0.014
$\alpha_{\text{IA,DES}}$	-1.59	$-0.3^{+2.2}_{-2.8}$	$n_{\text{s},0.002}$	0.9578	0.958 ± 0.020	$\sigma_8(0.38)$	0.6758	0.664 ± 0.027
$\Delta z_{\text{l,DES}}^1$	0.0039	0.0042 ± 0.0075	Y_{P}	0.245339	0.24532 ± 0.00022	$f\sigma_8(0.51)$	0.4675	0.460 ± 0.015
$\Delta z_{\text{l,DES}}^2$	0.0015	0.0016 ± 0.0066	$Y_{\text{P}}^{\text{BBN}}$	0.246665	0.24665 ± 0.00022	$\sigma_8(0.51)$	0.6339	0.622 ± 0.026
$\Delta z_{\text{l,DES}}^3$	0.0040	0.0040 ± 0.0066	10^5D/H	2.612	2.617 ± 0.095	$f\sigma_8(0.61)$	0.4651	0.458 ± 0.015
$\Delta z_{\text{l,DES}}^4$	0.0019	0.0018 ± 0.0091	Age/Gyr	14.388	14.29 ± 0.31	$\sigma_8(0.61)$	0.6042	0.593 ± 0.025
$\Delta z_{\text{l,DES}}^5$	0.0001	-0.0001 ± 0.0098	z_*	1088.46	1088.73 ± 0.86	$f\sigma_8(2.33)$	0.3061	0.300 ± 0.013
$\Delta z_{\text{s,DES}}^1$	-0.0014	-0.004 ± 0.014	r_*	149.47	148.8 ± 2.2	$\sigma_8(2.33)$	0.3171	0.311 ± 0.014
$\Delta z_{\text{s,DES}}^2$	-0.0290	-0.029 ± 0.011	$100\theta_*$	1.0190	1.023 ± 0.011	$\chi_{6\text{DF}}^2$	0.0394	0.09 ± 0.12
$\Delta z_{\text{s,DES}}^3$	0.0059	0.0071 ± 0.0098	$D_{\text{M}}(z_*)/\text{Gpc}$	14.668	14.55 ± 0.37	χ_{MGS}^2	2.27	2.34 ± 0.74
$\Delta z_{\text{s,DES}}^4$	-0.0249	-0.023 ± 0.019	z_{drag}	1058.29	1058.4 ± 1.4	χ_{DR12BAO}^2	4.64	5.3 ± 1.5
H_0	66.74	67.0 ± 1.1	r_{drag}	152.30	151.6 ± 2.3	χ_{DES}^2	501.43	512.8 ± 4.9
Ω_{Λ}	0.7197	$0.716^{+0.013}_{-0.011}$	k_{D}	0.13541	0.1361 ± 0.0025	χ_{prior}^2	1.24	14.2 ± 5.2
Ω_{m}	0.2803	$0.284^{+0.011}_{-0.013}$	$100\theta_{\text{D}}$	0.15816	0.1587 ± 0.0016	χ_{BAO}^2	6.95	7.7 ± 1.7
$\Omega_{\text{m}} h^2$	0.1249	$0.1275^{+0.0068}_{-0.0080}$	z_{eq}	2968	3031^{+160}_{-190}			
$\Omega_{\text{m}} h^3$	0.0833	$0.0855^{+0.0054}_{-0.0066}$	k_{eq}	0.00906	$0.00925^{+0.00049}_{-0.00059}$			

Best-fit $\chi_{\text{eff}}^2 = 509.62$; $\bar{\chi}_{\text{eff}}^2 = 534.74$; $R - 1 = 0.00577$

χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 2.27 DR12BAO: 4.64 WL - DES_1YR_final: 501.43

2.241 base_DESlens_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02217	0.02220 ± 0.00051	$\langle d^2 \rangle^{1/2}$	2.100	$2.05^{+0.22}_{-0.30}$	$H(0.15)$	76.19	$77.0^{+2.8}_{-3.7}$
$\Omega_c h^2$	0.1456	$0.153^{+0.024}_{-0.035}$	z_{re}	8.26	$8.35^{+0.47}_{-0.55}$	$D_{\text{M}}(0.15)$	615.6	611^{+25}_{-22}
$100\theta_{\text{MC}}$	1.0737	1.078 ± 0.031	$10^9 A_{\text{s}}$	1.368	$1.36^{+0.28}_{-0.63}$	$H(0.38)$	87.58	$88.7^{+4.0}_{-5.3}$
$\ln(10^{10} A_{\text{s}})$	2.616	2.53 ± 0.38	$10^9 A_{\text{s}} e^{-2\tau}$	1.226	$1.21^{+0.25}_{-0.56}$	$D_{\text{M}}(0.38)$	1461	1449^{+67}_{-60}
n_{s}	0.9583	0.959 ± 0.020	D_{40}	784	782^{+200}_{-400}	$H(0.51)$	95.1	$96.4^{+4.8}_{-6.3}$
m_{DES}^1	0.0146	0.013 ± 0.023	D_{220}	3383	3439^{+700}_{-2000}	$D_{\text{M}}(0.51)$	1888	1872^{+92}_{-83}
m_{DES}^2	0.0131	0.012 ± 0.022	D_{810}	1575	1546^{+400}_{-800}	$H(0.61)$	101.4	$102.8^{+5.5}_{-7.1}$
m_{DES}^3	0.0008	0.002 ± 0.021	D_{1420}	499	482^{+100}_{-300}	$D_{\text{M}}(0.61)$	2194	2175 ± 100
m_{DES}^4	0.0189	0.019 ± 0.022	D_{2000}	144	139^{+40}_{-80}	$H(2.33)$	255.9	260^{+19}_{-24}
$A_{\text{IA,DES}}$	1.37	1.01 ± 0.66	$n_{\text{s},0.002}$	0.9583	0.959 ± 0.020	$D_{\text{M}}(2.33)$	5408	5355 ± 340
$\alpha_{\text{IA,DES}}$	2.71	> 1.06	Y_{P}	0.245314	$0.24531^{+0.00023}_{-0.00020}$	$f\sigma_8(0.15)$	0.4367	$0.429^{+0.017}_{-0.015}$
$\Delta z_{\text{s,DES}}^1$	0.0041	0.003 ± 0.015	$Y_{\text{P}}^{\text{BBN}}$	0.246641	$0.24664^{+0.00023}_{-0.00020}$	$\sigma_8(0.15)$	0.685	0.670 ± 0.051
$\Delta z_{\text{s,DES}}^2$	-0.0206	-0.021 ± 0.012	10^5D/H	2.623	$2.620^{+0.089}_{-0.10}$	$f\sigma_8(0.38)$	0.4472	0.438 ± 0.021
$\Delta z_{\text{s,DES}}^3$	0.0075	0.008 ± 0.011	Age/Gyr	12.94	12.81 ± 0.82	$\sigma_8(0.38)$	0.6042	0.591 ± 0.048
$\Delta z_{\text{s,DES}}^4$	-0.0167	-0.016 ± 0.021	z_*	1092.33	$1092.8^{+2.2}_{-2.7}$	$f\sigma_8(0.51)$	0.4427	0.433 ± 0.024
H_0	70.19	$70.8^{+2.1}_{-2.8}$	r_*	138.5	137.3 ± 6.5	$\sigma_8(0.51)$	0.5642	0.551 ± 0.046
Ω_{Λ}	0.6583	$0.652^{+0.041}_{-0.034}$	$100\theta_*$	1.0738	1.078 ± 0.031	$f\sigma_8(0.61)$	0.4360	0.426 ± 0.025
Ω_{m}	0.3417	$0.348^{+0.034}_{-0.041}$	$D_{\text{M}}(z_*)/\text{Gpc}$	12.89	12.76 ± 0.97	$\sigma_8(0.61)$	0.5361	0.524 ± 0.044
$\Omega_{\text{m}} h^2$	0.1684	$0.176^{+0.024}_{-0.035}$	z_{drag}	1061.23	1061.7 ± 2.4	$f\sigma_8(2.33)$	0.2692	$0.263^{+0.022}_{-0.025}$
$\Omega_{\text{m}} h^3$	0.1182	$0.125^{+0.019}_{-0.031}$	r_{drag}	141.0	139.9 ± 6.7	$\sigma_8(2.33)$	0.2765	$0.270^{+0.023}_{-0.027}$
σ_8	0.744	0.728 ± 0.052	k_{D}	0.1473	$0.1489^{+0.0069}_{-0.0084}$	$\chi_{6\text{DF}}^2$	0.059	0.17 ± 0.22
S_8	0.7942	$0.781^{+0.028}_{-0.024}$	$100\theta_{\text{D}}$	0.16543	0.1661 ± 0.0042	χ_{MGS}^2	1.10	1.20 ± 0.76
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4350	$0.428^{+0.015}_{-0.013}$	z_{eq}	4008	4189^{+600}_{-800}	χ_{DR12BAO}^2	2.31	3.5 ± 1.5
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5689	0.558 ± 0.028	k_{eq}	0.01223	$0.0128^{+0.0018}_{-0.0026}$	χ_{DES}^2	229.45	233.6 ± 2.9
$\sigma_8/h^{0.5}$	0.888	0.866 ± 0.074	$100\theta_{\text{eq}}$	0.743	$0.735^{+0.067}_{-0.077}$	χ_{prior}^2	0.49	9.6 ± 4.3
$r_{\text{drag}} h$	99.00	98.9 ± 1.8	$100\theta_{\text{s,eq}}$	0.4131	$0.409^{+0.035}_{-0.040}$	χ_{BAO}^2	3.46	4.9 ± 1.8

Best-fit $\chi_{\text{eff}}^2 = 233.41$; $\bar{\chi}_{\text{eff}}^2 = 248.10$; $R - 1 = 0.01028$

χ_{eff}^2 : BAO - 6DF: 0.06 MGS: 1.10 DR12BAO: 2.31 WL - DES_1YR_final: 229.45

2.242 base_DES_lensprior_lens_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022215	0.02220 ± 0.00050	σ_8	0.8009	0.799 ± 0.013	$100\theta_{\text{eq}}$	0.8646	0.866 ± 0.021
$\Omega_c h^2$	0.1063	0.1062 ± 0.0053	S_8	0.7833	0.780 ± 0.015	$100\theta_{\text{s,eq}}$	0.4758	0.476 ± 0.011
$100\theta_{\text{MC}}$	1.0251	1.0250 ± 0.0084	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4290	0.4274 ± 0.0082	$H(0.15)$	71.92	72.0 ± 1.0
$\ln(10^{10} A_{\text{s}})$	3.180	3.179 ± 0.068	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5862	0.5844 ± 0.0096	$D_{\text{M}}(0.15)$	648.1	647.7 ± 9.3
n_{s}	0.9591	0.959 ± 0.020	$\sigma_8/h^{0.5}$	0.9778	0.975 ± 0.016	$H(0.38)$	81.26	81.3 ± 1.2
b_{DES}^1	1.484	1.477 ± 0.075	$r_{\text{drag}} h$	101.33	101.5 ± 1.0	$D_{\text{M}}(0.38)$	1551.6	1551 ± 23
b_{DES}^2	1.686	1.688 ± 0.056	$\langle d^2 \rangle^{1/2}$	2.5279	2.524 ± 0.041	$H(0.51)$	87.50	87.5 ± 1.4
b_{DES}^3	1.6722	1.673 ± 0.048	z_{re}	7.527	7.53 ± 0.14	$D_{\text{M}}(0.51)$	2014.0	2013 ± 30
b_{DES}^4	2.021	2.023 ± 0.056	$10^9 A_{\text{s}}$	2.405	$2.41^{+0.15}_{-0.17}$	$H(0.61)$	92.74	92.7 ± 1.5
b_{DES}^5	2.102	2.097 ± 0.079	$10^9 A_{\text{s}} e^{-2\tau}$	2.155	$2.16^{+0.13}_{-0.16}$	$D_{\text{M}}(0.61)$	2346.9	2346 ± 35
m_{DES}^1	0.0129	0.012 ± 0.022	D_{40}	1464	1464^{+80}_{-90}	$H(2.33)$	225.70	225.6 ± 4.5
m_{DES}^2	0.0165	0.014 ± 0.022	D_{220}	6995	7009^{+510}_{-590}	$D_{\text{M}}(2.33)$	5937	5939 ± 98
m_{DES}^3	0.0084	0.009 ± 0.020	D_{810}	2913	2910 ± 200	$f\sigma_8(0.15)$	0.4355	0.4339 ± 0.0080
m_{DES}^4	0.0098	0.011 ± 0.021	D_{1420}	919	917 ± 63	$\sigma_8(0.15)$	0.7425	0.741 ± 0.013
$A_{\text{IA,DES}}$	0.458	$0.45^{+0.17}_{-0.19}$	D_{2000}	261.1	262^{+19}_{-26}	$f\sigma_8(0.38)$	0.4590	0.4576 ± 0.0076
$\alpha_{\text{IA,DES}}$	-1.46	$-0.4^{+2.3}_{-2.8}$	$n_{\text{s},0.002}$	0.9591	0.959 ± 0.020	$\sigma_8(0.38)$	0.6609	0.660 ± 0.012
$\Delta z_{\text{l,DES}}^1$	0.0045	0.0041 ± 0.0075	Y_{P}	0.245332	$0.24531^{+0.00023}_{-0.00020}$	$f\sigma_8(0.51)$	0.4605	0.4592 ± 0.0074
$\Delta z_{\text{l,DES}}^2$	0.0013	0.0017 ± 0.0066	$Y_{\text{P}}^{\text{BBN}}$	0.246659	$0.24664^{+0.00023}_{-0.00020}$	$\sigma_8(0.51)$	0.6197	0.619 ± 0.011
$\Delta z_{\text{l,DES}}^3$	0.0037	0.0039 ± 0.0067	$10^5 \text{D}/\text{H}$	2.615	$2.621^{+0.088}_{-0.099}$	$f\sigma_8(0.61)$	0.4576	0.4564 ± 0.0074
$\Delta z_{\text{l,DES}}^4$	0.0015	0.0017 ± 0.0091	Age/Gyr	14.222	14.23 ± 0.24	$\sigma_8(0.61)$	0.5904	0.589 ± 0.011
$\Delta z_{\text{l,DES}}^5$	0.0000	0.0000 ± 0.0096	z_*	1088.88	1088.90 ± 0.72	$f\sigma_8(2.33)$	0.2988	0.2983 ± 0.0057
$\Delta z_{\text{s,DES}}^1$	-0.0020	-0.004 ± 0.014	r_*	148.25	148.3 ± 1.6	$\sigma_8(2.33)$	0.3091	0.3087 ± 0.0061
$\Delta z_{\text{s,DES}}^2$	-0.0286	-0.029 ± 0.011	$100\theta_*$	1.0253	1.0252 ± 0.0084	χ_{lensing}^2	7.73	8.8 ± 1.4
$\Delta z_{\text{s,DES}}^3$	0.0064	0.0071 ± 0.0096	$D_{\text{M}}(z_*)/\text{Gpc}$	14.459	14.47 ± 0.27	$\chi_{6\text{DF}}^2$	0.0213	0.075 ± 0.097
$\Delta z_{\text{s,DES}}^4$	-0.0238	-0.023 ± 0.018	z_{drag}	1058.56	1058.5 ± 1.3	χ_{MGS}^2	2.12	2.27 ± 0.69
H_0	67.08	67.14 ± 0.96	r_{drag}	151.05	151.1 ± 1.7	χ_{DR12BAO}^2	4.25	5.1 ± 1.4
Ω_{Λ}	0.7130	0.7138 ± 0.0088	k_{D}	0.13665	0.1366 ± 0.0019	χ_{DES}^2	502.63	512.5 ± 4.4
Ω_{m}	0.2870	0.2862 ± 0.0088	$100\theta_{\text{D}}$	0.15900	0.1590 ± 0.0012	χ_{prior}^2	1.12	13.9 ± 5.1
$\Omega_{\text{m}} h^2$	0.1291	0.1290 ± 0.0054	z_{eq}	3071	3067 ± 130	χ_{BAO}^2	6.39	7.4 ± 1.5
$\Omega_{\text{m}} h^3$	0.08663	0.0866 ± 0.0046	k_{eq}	0.009372	0.00936 ± 0.00040			

Best-fit $\chi_{\text{eff}}^2 = 517.88$; $\bar{\chi}_{\text{eff}}^2 = 542.64$; $R - 1 = 0.00500$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 2.12 DR12BAO: 4.25 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8_CMBmargd: 7.73 WL - DES_1YR_final: 502.63

2.243 base_DESlens_lenspriors_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022190	0.02220 ± 0.00049	z_{re}	7.671	7.65 ± 0.16	$H(0.38)$	82.42	82.3 ± 1.4
$\Omega_c h^2$	0.1133	$0.1121^{+0.0063}_{-0.0071}$	$10^9 A_s$	2.242	$2.27^{+0.16}_{-0.18}$	$D_M(0.38)$	1534.3	1537 ± 25
$100\theta_{\text{MC}}$	1.0350	1.033 ± 0.010	$10^9 A_s e^{-2\tau}$	2.009	$2.04^{+0.14}_{-0.16}$	$H(0.51)$	88.90	88.7 ± 1.6
$\ln(10^{10} A_s)$	3.110	3.121 ± 0.076	D_{40}	1353	1371 ± 100	$D_M(0.51)$	1989.8	1993 ± 33
n_s	0.9569	0.958 ± 0.019	D_{220}	6328	6454^{+560}_{-650}	$H(0.61)$	94.33	94.1 ± 1.8
m_{DES}^1	0.0151	0.014 ± 0.023	D_{810}	2715	2747 ± 220	$D_M(0.61)$	2317.2	2321 ± 39
m_{DES}^2	0.0137	0.013 ± 0.022	D_{1420}	864	872 ± 69	$H(2.33)$	231.4	230.4 ± 5.6
m_{DES}^3	-0.0004	0.000 ± 0.021	D_{2000}	242.8	247^{+20}_{-24}	$D_M(2.33)$	5831	5849 ± 110
m_{DES}^4	0.0162	0.015 ± 0.021	$n_{s,0.002}$	0.9569	0.958 ± 0.019	$f\sigma_8(0.15)$	0.4461	0.443 ± 0.010
$A_{\text{IA,DES}}$	1.30	$1.01^{+0.56}_{-0.63}$	Y_{P}	0.245322	$0.24531^{+0.00023}_{-0.00019}$	$\sigma_8(0.15)$	0.7475	0.746 ± 0.013
$\alpha_{\text{IA,DES}}$	2.80	> 1.09	$Y_{\text{P}}^{\text{BBN}}$	0.246648	$0.24664^{+0.00023}_{-0.00019}$	$f\sigma_8(0.38)$	0.4675	0.4651 ± 0.0092
$\Delta z_{s,\text{DES}}^1$	0.0030	0.003 ± 0.015	$10^5 D/H$	2.620	$2.621^{+0.086}_{-0.099}$	$\sigma_8(0.38)$	0.6641	0.663 ± 0.012
$\Delta z_{s,\text{DES}}^2$	-0.0192	-0.020 ± 0.012	Age/Gyr	13.963	14.01 ± 0.28	$f\sigma_8(0.51)$	0.4677	0.4657 ± 0.0087
$\Delta z_{s,\text{DES}}^3$	0.0068	0.007 ± 0.010	z_*	1089.55	1089.44 ± 0.82	$\sigma_8(0.51)$	0.6222	0.621 ± 0.011
$\Delta z_{s,\text{DES}}^4$	-0.0187	-0.018 ± 0.020	r_*	146.34	146.7 ± 1.9	$f\sigma_8(0.61)$	0.4639	0.4621 ± 0.0084
H_0	67.64	67.6 ± 1.0	$100\theta_*$	1.0352	1.033 ± 0.010	$\sigma_8(0.61)$	0.5924	0.592 ± 0.011
Ω_Λ	0.7025	0.705 ± 0.011	$D_M(z_*)/\text{Gpc}$	14.136	14.20 ± 0.32	$f\sigma_8(2.33)$	0.2993	0.2990 ± 0.0057
Ω_{m}	0.2975	0.295 ± 0.011	z_{drag}	1059.02	1058.9 ± 1.3	$\sigma_8(2.33)$	0.3092	0.3090 ± 0.0061
$\Omega_{\text{m}} h^2$	0.1361	$0.1350^{+0.0064}_{-0.0071}$	r_{drag}	149.10	149.5 ± 2.0	χ_{lensing}^2	7.72	8.9 ± 1.5
$\Omega_{\text{m}} h^3$	0.0921	$0.0913^{+0.0053}_{-0.0060}$	k_{D}	0.13863	0.1383 ± 0.0023	$\chi_{6\text{DF}}^2$	0.0045	0.057 ± 0.083
σ_8	0.8074	0.805 ± 0.014	$100\theta_{\text{D}}$	0.16031	0.1601 ± 0.0014	χ_{MGS}^2	1.89	2.06 ± 0.69
S_8	0.8041	0.799 ± 0.019	z_{eq}	3238	3210^{+150}_{-170}	χ_{DR12BAO}^2	3.71	4.7 ± 1.5
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4404	0.437 ± 0.011	k_{eq}	0.009882	$0.00980^{+0.00047}_{-0.00052}$	χ_{DES}^2	228.94	232.1 ± 2.3
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5963	0.594 ± 0.011	$100\theta_{\text{eq}}$	0.8387	0.844 ± 0.024	χ_{prior}^2	0.48	9.3 ± 4.1
$\sigma_8/h^{0.5}$	0.9817	0.979 ± 0.016	$100\theta_{s,\text{eq}}$	0.4626	0.465 ± 0.013	χ_{BAO}^2	5.60	6.8 ± 1.6
$r_{\text{drag}} h$	100.86	101.0 ± 1.1	$H(0.15)$	72.70	72.6 ± 1.2			
$\langle d^2 \rangle^{1/2}$	2.4931	2.494 ± 0.045	$D_M(0.15)$	641.9	643 ± 10			

Best-fit $\chi_{\text{eff}}^2 = 242.74$; $\bar{\chi}_{\text{eff}}^2 = 257.11$; $R - 1 = 0.00702$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.89 DR12BAO: 3.71 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.71 WL - DES_1YR_final: 228.94

2.244 base_DES_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2378	$0.256^{+0.023}_{-0.031}$	m_{DES}^3	0.0080	0.008 ± 0.021	$\Delta z_{s,\text{DES}}^4$	-0.0268	-0.025 ± 0.019
Ω_b	0.0660	$0.0511^{+0.015}_{-0.0091}$	m_{DES}^4	0.0098	0.010 ± 0.021	$\Omega_b h^2$	0.0543	$0.0295^{+0.0084}_{-0.016}$
H_0	90.8	> 68.8	$A_{\text{IA,DES}}$	0.533	$0.49^{+0.18}_{-0.22}$	$\Omega_c h^2$	0.1409	$0.112^{+0.021}_{-0.027}$
$10^9 A_s$	2.72	$2.86^{+0.47}_{-0.71}$	$\alpha_{\text{IA,DES}}$	-1.05	$-0.3^{+2.3}_{-2.7}$	Ω_Λ	0.7622	$0.744^{+0.031}_{-0.023}$
n_s	1.026	> 0.953	$\Delta z_{l,\text{DES}}^1$	0.0041	0.0045 ± 0.0075	$\ln(10^{10} A_s)$	3.303	3.33 ± 0.21
b_{DES}^1	1.307	$1.37^{+0.11}_{-0.13}$	$\Delta z_{l,\text{DES}}^2$	0.0020	0.0020 ± 0.0066	σ_8	0.908	0.863 ± 0.063
b_{DES}^2	1.504	$1.57^{+0.11}_{-0.13}$	$\Delta z_{l,\text{DES}}^3$	0.0045	0.0045 ± 0.0066	S_8	0.8081	0.793 ± 0.024
b_{DES}^3	1.493	$1.55^{+0.10}_{-0.13}$	$\Delta z_{l,\text{DES}}^4$	0.0032	0.0025 ± 0.0090	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4426	0.434 ± 0.013
b_{DES}^4	1.805	$1.88^{+0.13}_{-0.16}$	$\Delta z_{l,\text{DES}}^5$	0.0007	0.0008 ± 0.0098	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6339	0.612 ± 0.030
b_{DES}^5	1.867	$1.94^{+0.14}_{-0.17}$	$\Delta z_{s,\text{DES}}^1$	-0.0012	-0.004 ± 0.014	χ_{DES}^2	498.64	511.6 ± 5.0
m_{DES}^1	0.0135	0.012 ± 0.023	$\Delta z_{s,\text{DES}}^2$	-0.0290	-0.030 ± 0.011	χ_{prior}^2	1.28	12.4 ± 4.9
m_{DES}^2	0.0155	0.015 ± 0.022	$\Delta z_{s,\text{DES}}^3$	0.0064	0.0066 ± 0.0098			

Best-fit $\chi^2_{\text{eff}} = 499.92$; $\bar{\chi}^2_{\text{eff}} = 523.99$; $R - 1 = 0.00668$
 χ^2_{eff} : WL - DES_1YR_final: 498.64

2.245 base_DESlens_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.256	$0.279^{+0.038}_{-0.076}$	$A_{\text{IA,DES}}$	1.33	$0.75^{+0.83}_{-0.60}$	$\ln(10^{10} A_{\text{s}})$	3.180	$3.13^{+0.60}_{-0.31}$
Ω_b	0.0380	< 0.0544	$\alpha_{\text{IA,DES}}$	3.29	> 1.08	σ_8	0.878	$0.835^{+0.11}_{-0.098}$
H_0	72.8	—	$\Delta z_{\text{s,DES}}^1$	0.0027	0.002 ± 0.015	S_8	0.8113	$0.790^{+0.035}_{-0.026}$
$10^9 A_{\text{s}}$	2.41	$2.53^{+0.81}_{-1.4}$	$\Delta z_{\text{s,DES}}^2$	-0.0193	-0.020 ± 0.012	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4443	$0.433^{+0.019}_{-0.014}$
n_{s}	0.975	> 0.947	$\Delta z_{\text{s,DES}}^3$	0.0080	0.008 ± 0.011	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6246	$0.601^{+0.050}_{-0.041}$
m_{DES}^1	0.0147	0.013 ± 0.023	$\Delta z_{\text{s,DES}}^4$	-0.0162	-0.016 ± 0.020	χ^2_{DES}	228.74	233.3 ± 2.7
m_{DES}^2	0.0132	0.013 ± 0.022	$\Omega_{\text{b}} h^2$	0.0201	$0.0265^{+0.0060}_{-0.013}$	χ^2_{prior}	0.30	7.4 ± 3.7
m_{DES}^3	0.0027	0.003 ± 0.021	$\Omega_{\text{c}} h^2$	0.1150	$0.122^{+0.019}_{-0.039}$			
m_{DES}^4	0.0173	0.017 ± 0.021	Ω_{Λ}	0.744	$0.721^{+0.076}_{-0.038}$			

Best-fit $\chi^2_{\text{eff}} = 229.04$; $\bar{\chi}^2_{\text{eff}} = 240.73$; $R - 1 = 0.00678$
 χ^2_{eff} : WL - DES_1YR_final: 228.74

2.246 base_DESwt_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2740	$0.275^{+0.028}_{-0.038}$	m_{DES}^3	0.0194	0.022 ± 0.022	$\Delta z_{\text{s,DES}}^4$	-0.0264	-0.024 ± 0.019
Ω_b	0.0599	$0.0517^{+0.016}_{-0.0076}$	m_{DES}^4	0.0051	0.007 ± 0.022	$\Omega_{\text{b}} h^2$	0.0406	$0.0263^{+0.0059}_{-0.014}$
H_0	82.3	< 74.8	$A_{\text{IA,DES}}$	0.381	$0.43^{+0.16}_{-0.21}$	$\Omega_{\text{c}} h^2$	0.1445	$0.107^{+0.016}_{-0.028}$
$10^9 A_{\text{s}}$	2.20	$2.75^{+0.44}_{-0.74}$	$\alpha_{\text{IA,DES}}$	-2.80	$-0.6^{+2.1}_{-3.4}$	Ω_{Λ}	0.7260	$0.725^{+0.038}_{-0.028}$
n_{s}	0.877	< 0.987	$\Delta z_{\text{l,DES}}^1$	0.0028	0.0036 ± 0.0077	$\ln(10^{10} A_{\text{s}})$	3.093	3.29 ± 0.22
b_{DES}^1	1.372	$1.40^{+0.12}_{-0.15}$	$\Delta z_{\text{l,DES}}^2$	0.0018	0.0021 ± 0.0068	σ_8	0.829	0.825 ± 0.071
b_{DES}^2	1.600	$1.63^{+0.13}_{-0.16}$	$\Delta z_{\text{l,DES}}^3$	0.0051	0.0051 ± 0.0068	S_8	0.7918	0.785 ± 0.035
b_{DES}^3	1.587	$1.62^{+0.12}_{-0.16}$	$\Delta z_{\text{l,DES}}^4$	0.0035	0.0031 ± 0.0091	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4337	0.430 ± 0.019
b_{DES}^4	1.914	$1.95^{+0.15}_{-0.19}$	$\Delta z_{\text{l,DES}}^5$	0.0009	0.0003 ± 0.0098	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5994	0.595 ± 0.037
b_{DES}^5	1.973	$2.01^{+0.16}_{-0.20}$	$\Delta z_{\text{s,DES}}^1$	0.0003	-0.004 ± 0.015	χ^2_{DES}	249.62	261.2 ± 4.8
m_{DES}^1	0.0126	0.011 ± 0.023	$\Delta z_{\text{s,DES}}^2$	-0.0303	-0.031 ± 0.011	χ^2_{prior}	1.55	13.1 ± 5.1
m_{DES}^2	0.0099	0.009 ± 0.022	$\Delta z_{\text{s,DES}}^3$	0.0067	0.0080 ± 0.0099			

Best-fit $\chi^2_{\text{eff}} = 251.17$; $\bar{\chi}^2_{\text{eff}} = 274.25$; $R - 1 = 0.00686$
 χ^2_{eff} : WL - DES_1YR_final: 249.62

2.247 base_DES_DESpriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2607	$0.269^{+0.018}_{-0.022}$	m_{DES}^3	0.0140	0.013 ± 0.021	$\Delta z_{\text{s,DES}}^4$	-0.0228	-0.021 ± 0.018
Ω_b	0.0634	$0.0523^{+0.014}_{-0.0079}$	m_{DES}^4	0.0138	0.014 ± 0.021	$\Omega_{\text{b}} h^2$	0.0408	$0.0288^{+0.0082}_{-0.015}$
H_0	80.2	73^{+10}_{-10}	$A_{\text{IA,DES}}$	0.489	$0.46^{+0.18}_{-0.21}$	$\Omega_{\text{c}} h^2$	0.1262	$0.114^{+0.020}_{-0.027}$
$10^9 A_{\text{s}}$	2.441	$2.51^{+0.31}_{-0.49}$	$\alpha_{\text{IA,DES}}$	-0.94	$-0.1^{+2.4}_{-2.7}$	Ω_{Λ}	0.7393	$0.731^{+0.022}_{-0.018}$
n_{s}	1.021	> 0.960	$\Delta z_{\text{l,DES}}^1$	0.0039	0.0043 ± 0.0075	$\ln(10^{10} A_{\text{s}})$	3.195	$3.21^{+0.16}_{-0.17}$
b_{DES}^1	1.416	1.435 ± 0.089	$\Delta z_{\text{l,DES}}^2$	0.0018	0.0020 ± 0.0066	σ_8	0.8400	0.822 ± 0.031
b_{DES}^2	1.628	1.646 ± 0.075	$\Delta z_{\text{l,DES}}^3$	0.0042	0.0041 ± 0.0067	S_8	0.7831	0.778 ± 0.015
b_{DES}^3	1.618	1.636 ± 0.067	$\Delta z_{\text{l,DES}}^4$	0.0019	0.0021 ± 0.0091	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4289	0.4261 ± 0.0084
b_{DES}^4	1.960	1.979 ± 0.078	$\Delta z_{\text{l,DES}}^5$	0.0002	0.0004 ± 0.0097	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6003	0.592 ± 0.014
b_{DES}^5	2.038	2.053 ± 0.094	$\Delta z_{\text{s,DES}}^1$	-0.0020	-0.004 ± 0.014	χ^2_{lensing}	7.76	9.0 ± 1.5
m_{DES}^1	0.0132	0.012 ± 0.023	$\Delta z_{\text{s,DES}}^2$	-0.0284	-0.029 ± 0.011	χ^2_{DES}	501.25	512.3 ± 4.5
m_{DES}^2	0.0162	0.015 ± 0.022	$\Delta z_{\text{s,DES}}^3$	0.0079	0.0080 ± 0.0096	χ^2_{prior}	0.99	12.1 ± 4.8

Best-fit $\chi^2_{\text{eff}} = 510.00$; $\bar{\chi}^2_{\text{eff}} = 533.39$; $R - 1 = 0.00725$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.76 WL - DES_1YR_final: 501.25

2.248 base_DESlens_DESpriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2843	$0.277^{+0.028}_{-0.032}$	$A_{\text{IA,DES}}$	1.33	$0.75^{+0.74}_{-0.65}$	$\ln(10^{10} A_{\text{s}})$	3.406	3.17 ± 0.16
Ω_b	0.0564	—	$\alpha_{\text{IA,DES}}$	3.35	> 1.11	σ_8	0.8266	0.826 ± 0.040
H_0	63.5	72^{+8}_{-10}	$\Delta z_{\text{s,DES}}^1$	0.0027	0.002 ± 0.015	S_8	0.8046	$0.790^{+0.025}_{-0.019}$
$10^9 A_{\text{s}}$	3.014	$2.41^{+0.32}_{-0.48}$	$\Delta z_{\text{s,DES}}^2$	-0.0192	-0.020 ± 0.012	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4407	$0.433^{+0.014}_{-0.010}$
n_{s}	1.070	> 0.949	$\Delta z_{\text{s,DES}}^3$	0.0081	0.008 ± 0.011	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6036	0.598 ± 0.017
m_{DES}^1	0.0146	0.013 ± 0.023	$\Delta z_{\text{s,DES}}^4$	-0.0165	-0.016 ± 0.020	χ^2_{lensing}	7.37	9.3 ± 1.7
m_{DES}^2	0.0141	0.013 ± 0.022	$\Omega_{\text{b}} h^2$	0.0228	$0.0267^{+0.0067}_{-0.013}$	χ^2_{DES}	228.89	232.6 ± 2.4
m_{DES}^3	0.0017	0.004 ± 0.021	$\Omega_{\text{c}} h^2$	0.0913	$0.116^{+0.018}_{-0.029}$	χ^2_{prior}	0.35	7.3 ± 3.7
m_{DES}^4	0.0178	0.018 ± 0.021	Ω_{Λ}	0.7157	$0.723^{+0.032}_{-0.028}$			

Best-fit $\chi^2_{\text{eff}} = 236.62$; $\bar{\chi}^2_{\text{eff}} = 249.24$; $R - 1 = 0.00861$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.37 WL - DES_1YR_final: 228.89

2.249 base_DESwt_DESpriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2729	$0.277^{+0.022}_{-0.031}$	m_{DES}^3	0.0225	0.023 ± 0.021	$\Delta z_{\text{s,DES}}^4$	-0.0229	-0.022 ± 0.019
Ω_b	0.0606	$0.0520^{+0.015}_{-0.0080}$	m_{DES}^4	0.0088	0.009 ± 0.022	$\Omega_{\text{b}} h^2$	0.0392	$0.0275^{+0.0071}_{-0.015}$
H_0	80.5	< 76.2	$A_{\text{IA,DES}}$	0.399	$0.43^{+0.16}_{-0.20}$	$\Omega_{\text{c}} h^2$	0.1368	$0.112^{+0.018}_{-0.029}$
$10^9 A_{\text{s}}$	2.124	$2.46^{+0.28}_{-0.50}$	$\alpha_{\text{IA,DES}}$	-2.38	$-0.6^{+2.1}_{-3.4}$	Ω_{Λ}	0.7271	$0.723^{+0.031}_{-0.022}$
n_{s}	0.941	—	$\Delta z_{\text{l,DES}}^1$	0.0028	0.0032 ± 0.0077	$\ln(10^{10} A_{\text{s}})$	3.056	$3.19^{+0.14}_{-0.19}$
b_{DES}^1	1.424	1.428 ± 0.096	$\Delta z_{\text{l,DES}}^2$	0.0013	0.0017 ± 0.0068	σ_8	0.8099	0.806 ± 0.036
b_{DES}^2	1.661	$1.668^{+0.079}_{-0.089}$	$\Delta z_{\text{l,DES}}^3$	0.0043	0.0045 ± 0.0066	S_8	0.7725	0.772 ± 0.020
b_{DES}^3	1.653	$1.660^{+0.071}_{-0.080}$	$\Delta z_{\text{l,DES}}^4$	0.0027	0.0026 ± 0.0092	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4231	0.423 ± 0.011
b_{DES}^4	1.999	$2.006^{+0.083}_{-0.094}$	$\Delta z_{\text{l,DES}}^5$	-0.0001	0.0002 ± 0.0098	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5854	0.584 ± 0.015
b_{DES}^5	2.071	2.08 ± 0.10	$\Delta z_{\text{s,DES}}^1$	-0.0007	-0.004 ± 0.015	χ^2_{lensing}	7.87	9.3 ± 1.6
m_{DES}^1	0.0122	0.011 ± 0.023	$\Delta z_{\text{s,DES}}^2$	-0.0300	-0.030 ± 0.011	χ^2_{DES}	251.25	261.4 ± 4.5
m_{DES}^2	0.0094	0.009 ± 0.023	$\Delta z_{\text{s,DES}}^3$	0.0083	0.0089 ± 0.0097	χ^2_{prior}	1.29	12.7 ± 4.9

Best-fit $\chi^2_{\text{eff}} = 260.41$; $\bar{\chi}^2_{\text{eff}} = 283.37$; $R - 1 = 0.00571$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.87 WL - DES_1YR_final: 251.25

2.250 base_DES_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2934	0.283 ± 0.017	m_{DES}^4	0.0085	0.011 ± 0.021	$\Omega_{\text{c}} h^2$	0.1110	$0.104^{+0.010}_{-0.012}$
Ω_b	0.04868	0.0497 ± 0.0019	$A_{\text{IA,DES}}$	0.443	$0.45^{+0.17}_{-0.20}$	Ω_{Λ}	0.7066	0.717 ± 0.017
H_0	67.54	66.9 ± 1.2	$\alpha_{\text{IA,DES}}$	-1.78	$-0.4^{+2.2}_{-2.8}$	$\ln(10^{10} A_{\text{s}})$	3.144	3.23 ± 0.20
$10^9 A_{\text{s}}$	2.32	$2.59^{+0.40}_{-0.61}$	$\Delta z_{\text{l,DES}}^1$	0.0036	0.0043 ± 0.0074	σ_8	0.7937	0.806 ± 0.039
n_{s}	0.901	< 0.987	$\Delta z_{\text{l,DES}}^2$	0.0011	0.0017 ± 0.0066	S_8	0.7849	0.782 ± 0.023
b_{DES}^1	1.477	$1.462^{+0.092}_{-0.10}$	$\Delta z_{\text{l,DES}}^3$	0.0039	0.0040 ± 0.0066	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4299	0.428 ± 0.013
b_{DES}^2	1.682	$1.671^{+0.086}_{-0.099}$	$\Delta z_{\text{l,DES}}^4$	0.0020	0.0019 ± 0.0091	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5841	0.588 ± 0.022
b_{DES}^3	1.663	$1.655^{+0.082}_{-0.098}$	$\Delta z_{\text{l,DES}}^5$	0.0002	0.0000 ± 0.0097	$\chi_{6\text{DF}}^2$	0.0137	0.09 ± 0.13
b_{DES}^4	2.006	$2.00^{+0.10}_{-0.12}$	$\Delta z_{\text{s,DES}}^1$	-0.0009	-0.004 ± 0.014	χ_{MGS}^2	2.04	2.31 ± 0.77
b_{DES}^5	2.072	$2.07^{+0.12}_{-0.14}$	$\Delta z_{\text{s,DES}}^2$	-0.0286	-0.030 ± 0.011	χ_{DR12BAO}^2	3.83	5.5 ± 1.8
m_{DES}^1	0.0133	0.012 ± 0.023	$\Delta z_{\text{s,DES}}^3$	0.0059	0.0070 ± 0.0098	χ_{DES}^2	502.45	512.7 ± 4.9
m_{DES}^2	0.0149	0.014 ± 0.022	$\Delta z_{\text{s,DES}}^4$	-0.0249	-0.023 ± 0.019	χ_{prior}^2	1.18	13.2 ± 5.0
m_{DES}^3	0.0045	0.008 ± 0.021	$\Omega_{\text{b}} h^2$	0.02221	0.02220 ± 0.00050	χ_{BAO}^2	5.88	7.9 ± 2.0

Best-fit $\chi_{\text{eff}}^2 = 509.50$; $\bar{\chi}_{\text{eff}}^2 = 533.77$; $R - 1 = 0.00944$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 2.04 DR12BAO: 3.83 WL - DES_1YR_final: 502.44

2.251 base_DESlens_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3454	$0.330^{+0.033}_{-0.040}$	$\alpha_{\text{IA,DES}}$	2.72	> 1.08	S_8	0.7908	0.785 ± 0.028
Ω_b	0.04455	0.0460 ± 0.0031	$\Delta z_{\text{s,DES}}^1$	0.0038	0.003 ± 0.015	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4331	0.430 ± 0.015
H_0	70.58	$69.6^{+2.0}_{-2.6}$	$\Delta z_{\text{s,DES}}^2$	-0.0204	-0.021 ± 0.012	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5650	0.569 ± 0.028
$10^9 A_{\text{s}}$	1.34	$1.64^{+0.35}_{-0.76}$	$\Delta z_{\text{s,DES}}^3$	0.0077	0.008 ± 0.011	$\chi_{6\text{DF}}^2$	0.061	0.13 ± 0.17
n_{s}	0.922	< 0.992	$\Delta z_{\text{s,DES}}^4$	-0.0164	-0.016 ± 0.021	χ_{MGS}^2	1.10	1.43 ± 0.82
m_{DES}^1	0.0146	0.014 ± 0.023	$\Omega_{\text{b}} h^2$	0.022190	0.02220 ± 0.00049	χ_{DR12BAO}^2	2.20	3.9 ± 1.7
m_{DES}^2	0.0135	0.012 ± 0.022	$\Omega_{\text{c}} h^2$	0.1492	$0.139^{+0.021}_{-0.032}$	χ_{DES}^2	229.41	233.2 ± 2.7
m_{DES}^3	0.0012	0.002 ± 0.022	Ω_{Λ}	0.6546	$0.670^{+0.040}_{-0.033}$	χ_{prior}^2	0.45	8.5 ± 4.0
m_{DES}^4	0.0187	0.018 ± 0.022	$\ln(10^{10} A_{\text{s}})$	2.594	2.73 ± 0.38	χ_{BAO}^2	3.36	5.4 ± 2.1
$A_{\text{IA,DES}}$	1.33	0.99 ± 0.66	σ_8	0.737	0.752 ± 0.054			

Best-fit $\chi_{\text{eff}}^2 = 233.21$; $\bar{\chi}_{\text{eff}}^2 = 247.19$; $R - 1 = 0.00929$

χ_{eff}^2 : BAO - 6DF: 0.06 MGS: 1.10 DR12BAO: 2.20 WL - DES_1YR_final: 229.41

2.252 base_DESwt_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2999	0.287 ± 0.016	m_{DES}^4	0.0056	0.007 ± 0.022	$\Omega_{\text{c}} h^2$	0.1148	0.106 ± 0.010
Ω_{b}	0.04840	$0.0495^{+0.0017}_{-0.0019}$	$A_{\text{IA,DES}}$	0.354	$0.41^{+0.16}_{-0.19}$	Ω_{Λ}	0.7001	0.713 ± 0.016
H_0	67.76	67.0 ± 1.2	$\alpha_{\text{IA,DES}}$	-3.06	$-0.6^{+2.0}_{-3.5}$	$\ln(10^{10} A_{\text{s}})$	3.086	$3.19^{+0.19}_{-0.21}$
$10^9 A_{\text{s}}$	2.189	$2.49^{+0.36}_{-0.59}$	$\Delta z_{\text{l,DES}}^1$	0.0026	0.0035 ± 0.0077	σ_8	0.7801	$0.797^{+0.043}_{-0.048}$
n_{s}	0.8701	< 0.951	$\Delta z_{\text{l,DES}}^2$	0.0015	0.0020 ± 0.0068	S_8	0.7800	0.779 ± 0.035
b_{DES}^1	1.456	$1.44^{+0.10}_{-0.12}$	$\Delta z_{\text{l,DES}}^3$	0.0049	0.0048 ± 0.0067	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4272	0.426 ± 0.019
b_{DES}^2	1.693	$1.678^{+0.098}_{-0.12}$	$\Delta z_{\text{l,DES}}^4$	0.0031	0.0028 ± 0.0091	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5773	0.583 ± 0.029
b_{DES}^3	1.681	$1.666^{+0.096}_{-0.11}$	$\Delta z_{\text{l,DES}}^5$	0.0005	0.0001 ± 0.0097	χ_{6DF}^2	0.0018	0.08 ± 0.11
b_{DES}^4	2.028	$2.01^{+0.12}_{-0.14}$	$\Delta z_{\text{s,DES}}^1$	0.0000	-0.004 ± 0.015	χ_{MGS}^2	1.82	2.16 ± 0.75
b_{DES}^5	2.090	$2.08^{+0.13}_{-0.16}$	$\Delta z_{\text{s,DES}}^2$	-0.0300	-0.031 ± 0.011	χ_{DR12BAO}^2	3.63	5.3 ± 1.7
m_{DES}^1	0.0125	0.011 ± 0.023	$\Delta z_{\text{s,DES}}^3$	0.0070	0.008 ± 0.010	χ_{DES}^2	250.45	261.1 ± 5.0
m_{DES}^2	0.0102	0.009 ± 0.023	$\Delta z_{\text{s,DES}}^4$	-0.0247	-0.024 ± 0.019	χ_{prior}^2	1.38	14.1 ± 5.2
m_{DES}^3	0.0191	0.021 ± 0.021	$\Omega_{\text{b}} h^2$	0.02222	0.02218 ± 0.00051	χ_{BAO}^2	5.45	7.5 ± 1.9

Best-fit $\chi_{\text{eff}}^2 = 257.28$; $\bar{\chi}_{\text{eff}}^2 = 282.67$; $R - 1 = 0.00957$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.63 WL - DES_1YR_final: 250.45

2.253 base_DES_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2919	0.285 ± 0.014	$A_{\text{IA,DES}}$	0.455	$0.45^{+0.17}_{-0.20}$	$\ln(10^{10} A_{\text{s}})$	3.130	$3.20^{+0.12}_{-0.16}$
Ω_{b}	0.04891	0.0495 ± 0.0017	$\alpha_{\text{IA,DES}}$	-1.47	$-0.4^{+2.2}_{-2.8}$	σ_8	0.7917	$0.802^{+0.023}_{-0.026}$
H_0	67.42	67.0 ± 1.2	$\Delta z_{\text{l,DES}}^1$	0.0041	0.0042 ± 0.0075	S_8	0.7809	0.780 ± 0.015
$10^9 A_{\text{s}}$	2.287	$2.47^{+0.25}_{-0.43}$	$\Delta z_{\text{l,DES}}^2$	0.0011	0.0017 ± 0.0066	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4277	0.4273 ± 0.0083
n_{s}	0.935	—	$\Delta z_{\text{l,DES}}^3$	0.0036	0.0039 ± 0.0065	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5819	0.585 ± 0.013
b_{DES}^1	1.494	1.473 ± 0.080	$\Delta z_{\text{l,DES}}^4$	0.0015	0.0016 ± 0.0090	χ_{lensing}^2	7.91	8.9 ± 1.5
b_{DES}^2	1.701	1.685 ± 0.062	$\Delta z_{\text{l,DES}}^5$	-0.0001	0.0000 ± 0.0097	χ_{6DF}^2	0.0141	0.08 ± 0.11
b_{DES}^3	1.685	1.671 ± 0.055	$\Delta z_{\text{s,DES}}^1$	-0.0012	-0.004 ± 0.014	χ_{MGS}^2	2.04	2.27 ± 0.73
b_{DES}^4	2.035	2.019 ± 0.064	$\Delta z_{\text{s,DES}}^2$	-0.0287	-0.029 ± 0.011	χ_{DR12BAO}^2	3.94	5.3 ± 1.6
b_{DES}^5	2.112	2.094 ± 0.084	$\Delta z_{\text{s,DES}}^3$	0.0066	0.0071 ± 0.0097	χ_{DES}^2	502.90	512.4 ± 4.4
m_{DES}^1	0.0135	0.012 ± 0.023	$\Delta z_{\text{s,DES}}^4$	-0.0236	-0.023 ± 0.018	χ_{prior}^2	1.06	13.0 ± 4.9
m_{DES}^2	0.0148	0.015 ± 0.022	$\Omega_{\text{b}} h^2$	0.022230	0.02219 ± 0.00050	χ_{BAO}^2	6.00	7.7 ± 1.8
m_{DES}^3	0.0078	0.009 ± 0.020	$\Omega_{\text{c}} h^2$	0.1098	$0.1050^{+0.0093}_{-0.010}$			
m_{DES}^4	0.0102	0.011 ± 0.021	Ω_{Λ}	0.7081	0.715 ± 0.014			

Best-fit $\chi_{\text{eff}}^2 = 517.86$; $\bar{\chi}_{\text{eff}}^2 = 541.96$; $R - 1 = 0.00592$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 2.04 DR12BAO: 3.94 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.91 WL - DES_1YR_final: 502.90

2.254 base_DESlens_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3106	0.295 ± 0.016	$\alpha_{\text{IA,DES}}$	2.80	> 1.08	S_8	0.8009	0.798 ± 0.020
Ω_b	0.04731	0.0487 ± 0.0018	$\Delta z_{\text{s,DES}}^1$	0.0034	0.003 ± 0.015	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4387	0.437 ± 0.011
H_0	68.49	67.6 ± 1.3	$\Delta z_{\text{s,DES}}^2$	-0.0195	-0.020 ± 0.012	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5876	0.593 ± 0.014
$10^9 A_{\text{s}}$	1.992	$2.30^{+0.24}_{-0.40}$	$\Delta z_{\text{s,DES}}^3$	0.0067	0.007 ± 0.010	χ_{lensing}^2	7.79	9.0 ± 1.5
n_{s}	0.902	< 0.988	$\Delta z_{\text{s,DES}}^4$	-0.0190	-0.018 ± 0.020	$\chi_{6\text{DF}}^2$	0.0002	0.066 ± 0.092
m_{DES}^1	0.0142	0.013 ± 0.023	$\Omega_{\text{b}} h^2$	0.022191	0.02219 ± 0.00050	χ_{MGS}^2	1.68	2.05 ± 0.73
m_{DES}^2	0.0138	0.013 ± 0.022	$\Omega_{\text{c}} h^2$	0.1229	0.112 ± 0.011	χ_{DR12BAO}^2	3.08	4.8 ± 1.6
m_{DES}^3	-0.0018	0.000 ± 0.021	Ω_{Λ}	0.6894	0.705 ± 0.016	χ_{DES}^2	229.27	232.2 ± 2.3
m_{DES}^4	0.0157	0.015 ± 0.021	$\ln(10^{10} A_{\text{s}})$	2.992	$3.13^{+0.12}_{-0.16}$	χ_{prior}^2	0.52	8.4 ± 4.0
$A_{\text{IA,DES}}$	1.30	$0.996^{+0.57}_{-0.63}$	σ_8	0.7871	$0.806^{+0.022}_{-0.027}$	χ_{BAO}^2	4.76	6.9 ± 1.8

Best-fit $\chi_{\text{eff}}^2 = 242.34$; $\bar{\chi}_{\text{eff}}^2 = 256.54$; $R - 1 = 0.00700$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.08 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.79 WL - DES_1YR_final: 229.27

2.255 base_DESwt_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3056	$0.289^{+0.017}_{-0.014}$	$A_{\text{IA,DES}}$	0.350	$0.42^{+0.16}_{-0.20}$	$\ln(10^{10} A_{\text{s}})$	3.000	$3.154^{+0.094}_{-0.16}$
Ω_b	0.04763	0.0492 ± 0.0017	$\alpha_{\text{IA,DES}}$	-3.07	$-0.7^{+2.0}_{-3.4}$	σ_8	0.7686	$0.791^{+0.018}_{-0.027}$
H_0	68.30	67.2 ± 1.1	$\Delta z_{\text{l,DES}}^1$	0.0026	0.0033 ± 0.0077	S_8	0.7757	0.776 ± 0.018
$10^9 A_{\text{s}}$	2.008	$2.36^{+0.18}_{-0.39}$	$\Delta z_{\text{l,DES}}^2$	0.0013	0.0019 ± 0.0067	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4249	0.425 ± 0.010
n_{s}	0.8721	< 0.965	$\Delta z_{\text{l,DES}}^3$	0.0046	0.0046 ± 0.0067	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5714	$0.580^{+0.012}_{-0.014}$
b_{DES}^1	1.487	1.454 ± 0.081	$\Delta z_{\text{l,DES}}^4$	0.0030	0.0025 ± 0.0090	χ_{lensing}^2	8.54	9.2 ± 1.6
b_{DES}^2	1.729	1.693 ± 0.063	$\Delta z_{\text{l,DES}}^5$	0.0002	0.0002 ± 0.0097	$\chi_{6\text{DF}}^2$	0.0013	0.070 ± 0.097
b_{DES}^3	1.716	1.684 ± 0.054	$\Delta z_{\text{s,DES}}^1$	0.0003	-0.004 ± 0.015	χ_{MGS}^2	1.82	2.14 ± 0.72
b_{DES}^4	2.075	2.035 ± 0.063	$\Delta z_{\text{s,DES}}^2$	-0.0302	-0.031 ± 0.011	χ_{DR12BAO}^2	3.23	5.1 ± 1.6
b_{DES}^5	2.147	2.107 ± 0.084	$\Delta z_{\text{s,DES}}^3$	0.0075	0.0083 ± 0.0098	χ_{DES}^2	251.42	260.8 ± 4.5
m_{DES}^1	0.0126	0.011 ± 0.023	$\Delta z_{\text{s,DES}}^4$	-0.0241	-0.023 ± 0.019	χ_{prior}^2	1.35	13.7 ± 5.2
m_{DES}^2	0.0097	0.009 ± 0.023	$\Omega_{\text{b}} h^2$	0.022218	0.02219 ± 0.00050	χ_{BAO}^2	5.05	7.3 ± 1.7
m_{DES}^3	0.0199	0.022 ± 0.021	$\Omega_{\text{c}} h^2$	0.1197	$0.108^{+0.010}_{-0.0090}$			
m_{DES}^4	0.0062	0.007 ± 0.021	Ω_{Λ}	0.6944	$0.711^{+0.014}_{-0.017}$			

Best-fit $\chi_{\text{eff}}^2 = 266.38$; $\bar{\chi}_{\text{eff}}^2 = 291.02$; $R - 1 = 0.00577$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.23 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 8.54 WL - DES_1YR_final: 251.43

2.256 base_plikHM_TTTEEE_lowl_lowE_DES

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022524	0.02252 ± 0.00014	$\Delta z_{l,DES}^1$	0.0030	0.0036 ± 0.0074	z_{drag}	1060.162	1060.12 ± 0.30
$\Omega_c h^2$	0.11811	0.1179 ± 0.0011	$\Delta z_{l,DES}^2$	0.0007	0.0008 ± 0.0066	r_{drag}	147.420	147.49 ± 0.25
$100\theta_{\text{MC}}$	1.041116	1.04112 ± 0.00030	$\Delta z_{l,DES}^3$	0.0035	0.0034 ± 0.0066	k_D	0.140636	0.14056 ± 0.00030
τ	0.0552	0.0546 ± 0.0080	$\Delta z_{l,DES}^4$	0.0007	0.0006 ± 0.0090	$100\theta_D$	0.160639	0.16066 ± 0.00017
$\ln(10^{10} A_s)$	3.0416	3.039 ± 0.016	$\Delta z_{l,DES}^5$	-0.0004	-0.0006 ± 0.0099	z_{eq}	3360.8	3355 ± 24
n_s	0.97003	0.9696 ± 0.0040	$\Delta z_{s,DES}^1$	0.0007	-0.003 ± 0.014	k_{eq}	0.010257	0.010240 ± 0.000074
y_{cal}	1.00041	1.0005 ± 0.0025	$\Delta z_{s,DES}^2$	-0.0301	-0.031 ± 0.011	$100\theta_{\text{eq}}$	0.82136	0.8224 ± 0.0046
A_{217}^{CIB}	47.6	47 ± 7	$\Delta z_{s,DES}^3$	0.0029	0.0041 ± 0.0096	$100\theta_{s,\text{eq}}$	0.45348	0.4540 ± 0.0024
$\xi^{\text{tSZ} \times \text{CIB}}$	0.44	—	$\Delta z_{s,DES}^4$	-0.0301	-0.030 ± 0.018	$H(0.15)$	73.415	73.48 ± 0.42
A_{143}^{tSZ}	7.25	$5.5^{+2.1}_{-1.9}$	H_0	68.215	68.30 ± 0.49	$D_M(0.15)$	636.09	635.4 ± 4.1
A_{100}^{PS}	249.4	259 ± 28	Ω_Λ	0.6964	0.6975 ± 0.0064	$H(0.38)$	83.395	83.44 ± 0.31
A_{143}^{PS}	46.7	45 ± 8	Ω_m	0.3036	0.3025 ± 0.0064	$D_M(0.38)$	1518.9	1517.7 ± 8.3
$A_{143 \times 217}^{\text{PS}}$	46.9	41 ± 9	$\Omega_m h^2$	0.14128	0.1410 ± 0.0010	$H(0.51)$	90.037	90.07 ± 0.25
A_{217}^{PS}	118.5	114 ± 10	$\Omega_m h^3$	0.096375	0.09632 ± 0.00029	$D_M(0.51)$	1968.9	1967.4 ± 9.8
A^{kSZ}	0.00	< 4.37	σ_8	0.8048	0.8030 ± 0.0068	$H(0.61)$	95.598	95.62 ± 0.21
A_{100}^{dustTT}	8.78	8.9 ± 1.8	S_8	0.8097	0.806 ± 0.012	$D_M(0.61)$	2292.1	2291 ± 11
A_{143}^{dustTT}	11.04	11.0 ± 1.8	$\sigma_8 \Omega_m^{0.5}$	0.4435	0.4416 ± 0.0067	$H(2.33)$	235.49	235.33 ± 0.64
$A_{143 \times 217}^{\text{dustTT}}$	19.77	18.7 ± 3.3	$\sigma_8 \Omega_m^{0.25}$	0.5974	0.5955 ± 0.0066	$D_M(2.33)$	5750.0	5749.6 ± 9.7
A_{217}^{dustTT}	94.7	93.7 ± 7.4	$\sigma_8/h^{0.5}$	0.9745	0.9717 ± 0.0096	$f\sigma_8(0.15)$	0.4487	0.4469 ± 0.0063
A_{100}^{dustTE}	0.1149	0.114 ± 0.038	$r_{\text{drag}} h$	100.56	100.73 ± 0.85	$\sigma_8(0.15)$	0.7445	0.7429 ± 0.0061
$A_{100 \times 143}^{\text{dustTE}}$	0.1345	0.135 ± 0.029	$\langle d^2 \rangle^{1/2}$	2.4120	2.408 ± 0.023	$f\sigma_8(0.38)$	0.4686	0.4670 ± 0.0054
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.084	z_{re}	7.71	7.62 ± 0.80	$\sigma_8(0.38)$	0.6608	0.6595 ± 0.0053
A_{143}^{dustTE}	0.223	0.222 ± 0.054	$10^9 A_s$	2.0940	2.090 ± 0.034	$f\sigma_8(0.51)$	0.46816	0.4667 ± 0.0049
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.661 ± 0.080	$10^9 A_s e^{-2\tau}$	1.8750	1.873 ± 0.011	$\sigma_8(0.51)$	0.61875	0.6176 ± 0.0050
A_{217}^{dustTE}	2.071	2.06 ± 0.27	D_{40}	1220.3	1221 ± 12	$f\sigma_8(0.61)$	0.46385	0.4625 ± 0.0045
c_{100}	0.99970	0.99967 ± 0.00061	D_{220}	5741.4	5744 ± 39	$\sigma_8(0.61)$	0.58898	0.5880 ± 0.0048
c_{217}	0.99819	0.99819 ± 0.00063	D_{810}	2538.6	2537 ± 14	$f\sigma_8(2.33)$	0.29728	0.2968 ± 0.0024
b_{DES}^1	1.506	1.508 ± 0.073	D_{1420}	818.89	817.9 ± 4.8	$\sigma_8(2.33)$	0.30684	0.3064 ± 0.0026
b_{DES}^2	1.710	1.710 ± 0.052	D_{2000}	231.56	231.2 ± 1.6	f_{2000}^{143}	28.49	29.3 ± 2.7
b_{DES}^3	1.6967	1.698 ± 0.044	$n_{s,0.002}$	0.97003	0.9696 ± 0.0040	$f_{2000}^{143 \times 217}$	31.72	31.9 ± 1.8
b_{DES}^4	2.058	2.059 ± 0.052	Y_P	0.245453	0.245450 ± 0.000053	f_{2000}^{217}	106.29	106.7 ± 1.8
b_{DES}^5	2.161	2.159 ± 0.076	Y_P^{BBN}	0.246780	0.246777 ± 0.000053	χ_{small}^2	396.08	397.0 ± 1.8
m_{DES}^1	0.0133	0.012 ± 0.023	$10^5 D/H$	2.5577	2.559 ± 0.025	χ_{lowl}^2	22.49	22.59 ± 0.77
m_{DES}^2	0.0137	0.012 ± 0.022	Age/Gyr	13.7679	13.767 ± 0.022	χ_{plik}^2	2348.0	2363.4 ± 6.4
m_{DES}^3	-0.0028	-0.002 ± 0.020	z_*	1089.564	1089.55 ± 0.23	χ_{DES}^2	509.16	518.0 ± 4.9
m_{DES}^4	0.0018	0.003 ± 0.021	r_*	144.803	144.87 ± 0.25	χ_{prior}^2	4.0	25 ± 7
$A_{\text{IA,DES}}$	0.434	$0.47^{+0.15}_{-0.18}$	$100\theta_*$	1.041291	1.04129 ± 0.00030	χ_{CMB}^2	2766.6	2783.0 ± 6.3
$\alpha_{\text{IA,DES}}$	-2.55	$-1.1^{+1.7}_{-2.9}$	$D_M(z_*)/\text{Gpc}$	13.9061	13.912 ± 0.023			

Best-fit $\chi_{\text{eff}}^2 = 3279.69$; $\bar{\chi}_{\text{eff}}^2 = 3325.69$; $R - 1 = 0.00524$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.08 commander_dx12_v3.2_29: 22.49 plik_rd12_HM_v22b_TTTEEE: 2347.99 WL - DES_1YR_final: 509.16

2.257 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022502	0.02251 ± 0.00013	$\Delta z_{l,DES}^2$	0.0005	0.0008 ± 0.0066	k_D	0.140590	0.14057 ± 0.00028
$\Omega_c h^2$	0.11810	0.11801 ± 0.00087	$\Delta z_{l,DES}^3$	0.0034	0.0033 ± 0.0066	$100\theta_D$	0.160668	0.16066 ± 0.00017
$100\theta_{MC}$	1.041121	1.04111 ± 0.00029	$\Delta z_{l,DES}^4$	0.0008	0.0004 ± 0.0091	z_{eq}	3359.9	3358 ± 20
τ	0.0552	0.0543 ± 0.0078	$\Delta z_{l,DES}^5$	-0.0003	-0.0005 ± 0.0099	k_{eq}	0.010255	0.010249 ± 0.000061
$\ln(10^{10} A_s)$	3.0412	3.039 ± 0.016	$\Delta z_{s,DES}^1$	0.0007	-0.003 ± 0.014	$100\theta_{eq}$	0.82145	0.8219 ± 0.0038
n_s	0.96987	0.9693 ± 0.0037	$\Delta z_{s,DES}^2$	-0.0301	-0.031 ± 0.011	$100\theta_{s,eq}$	0.45354	0.4537 ± 0.0019
y_{cal}	1.00029	1.0004 ± 0.0025	$\Delta z_{s,DES}^3$	0.0033	0.0039 ± 0.0096	$H(0.15)$	73.400	73.43 ± 0.35
A_{217}^{CIB}	48.1	47 ± 7	$\Delta z_{s,DES}^4$	-0.0300	-0.030 ± 0.018	$D_M(0.15)$	636.23	635.9 ± 3.4
$\xi^{tSZ \times CIB}$	0.34	—	H_0	68.200	68.24 ± 0.40	$H(0.38)$	83.380	83.40 ± 0.26
A_{143}^{tSZ}	7.33	5.5 ± 2.0	Ω_Λ	0.6963	0.6968 ± 0.0052	$D_M(0.38)$	1519.2	1518.7 ± 6.8
A_{100}^{PS}	250.8	258 ± 28	Ω_m	0.3037	0.3032 ± 0.0052	$H(0.51)$	90.021	90.04 ± 0.21
A_{143}^{PS}	45.5	45 ± 8	$\Omega_m h^2$	0.14125	0.14116 ± 0.00083	$D_M(0.51)$	1969.3	1968.6 ± 8.0
$A_{143 \times 217}^{PS}$	44.5	41 ± 9	$\Omega_m h^3$	0.096330	0.09632 ± 0.00029	$H(0.61)$	95.582	95.59 ± 0.18
A_{217}^{PS}	117.7	114 ± 10	σ_8	0.8046	0.8033 ± 0.0066	$D_M(0.61)$	2292.5	2291.8 ± 8.7
A^{kSZ}	0.00	< 4.37	S_8	0.8095	0.808 ± 0.011	$H(2.33)$	235.46	235.40 ± 0.54
A_{100}^{dustTT}	8.86	8.9 ± 1.8	$\sigma_8 \Omega_m^{0.5}$	0.4434	0.4423 ± 0.0058	$D_M(2.33)$	5750.9	5750.5 ± 8.6
A_{143}^{dustTT}	11.12	10.9 ± 1.8	$\sigma_8 \Omega_m^{0.25}$	0.5973	0.5961 ± 0.0060	$f\sigma_8(0.15)$	0.4486	0.4475 ± 0.0055
$A_{143 \times 217}^{dustTT}$	19.85	18.7 ± 3.3	$\sigma_8/h^{0.5}$	0.9743	0.9724 ± 0.0090	$\sigma_8(0.15)$	0.7443	0.7431 ± 0.0061
A_{217}^{dustTT}	94.9	93.7 ± 7.3	$r_{drag} h$	100.56	100.63 ± 0.68	$f\sigma_8(0.38)$	0.46853	0.4675 ± 0.0049
A_{100}^{dustTE}	0.1134	0.115 ± 0.038	$\langle d^2 \rangle^{1/2}$	2.4118	2.410 ± 0.022	$\sigma_8(0.38)$	0.6606	0.6596 ± 0.0053
$A_{100 \times 143}^{dustTE}$	0.1350	0.135 ± 0.030	z_{re}	7.71	7.60 ± 0.79	$f\sigma_8(0.51)$	0.46806	0.4671 ± 0.0045
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085	$10^9 A_s$	2.0930	2.089 ± 0.033	$\sigma_8(0.51)$	0.61859	0.6176 ± 0.0050
A_{143}^{dustTE}	0.224	0.222 ± 0.054	$10^9 A_s e^{-2\tau}$	1.8741	1.874 ± 0.011	$f\sigma_8(0.61)$	0.46375	0.4628 ± 0.0043
$A_{143 \times 217}^{dustTE}$	0.660	0.662 ± 0.081	D_{40}	1219.9	1222 ± 11	$\sigma_8(0.61)$	0.58882	0.5879 ± 0.0048
A_{217}^{dustTE}	2.058	2.07 ± 0.27	D_{220}	5737.9	5743 ± 38	$f\sigma_8(2.33)$	0.29720	0.2968 ± 0.0024
c_{100}	0.99969	0.99967 ± 0.00062	D_{810}	2537.2	2537 ± 13	$\sigma_8(2.33)$	0.30675	0.3063 ± 0.0025
c_{217}	0.99821	0.99820 ± 0.00063	D_{1420}	818.29	817.8 ± 4.8	f_{2000}^{143}	28.73	29.3 ± 2.7
b_{DES}^1	1.508	1.509 ± 0.073	D_{2000}	231.33	231.1 ± 1.6	$f_{2000}^{143 \times 217}$	31.86	32.0 ± 1.8
b_{DES}^2	1.709	1.709 ± 0.053	$n_{s,0.002}$	0.96987	0.9693 ± 0.0037	f_{2000}^{217}	106.48	106.8 ± 1.8
b_{DES}^3	1.6969	1.697 ± 0.044	Y_P	0.2454451	0.245446 ± 0.000050	χ_{simall}^2	396.08	397.0 ± 1.7
b_{DES}^4	2.058	2.059 ± 0.052	Y_P^{BBN}	0.2467718	0.246773 ± 0.000050	χ_{lowl}^2	22.50	22.63 ± 0.73
b_{DES}^5	2.162	2.159 ± 0.077	$10^5 D/H$	2.5616	2.561 ± 0.024	χ_{plik}^2	2347.8	2362.9 ± 6.2
m_{DES}^1	0.0132	0.011 ± 0.023	Age/Gyr	13.7702	13.769 ± 0.019	χ_{6DF}^2	0.0002	0.021 ± 0.029
m_{DES}^2	0.0141	0.012 ± 0.022	z_*	1089.590	1089.57 ± 0.21	χ_{MGS}^2	1.748	1.84 ± 0.43
m_{DES}^3	-0.0024	-0.003 ± 0.019	r_*	144.823	144.84 ± 0.21	$\chi_{DR12BAO}^2$	3.458	3.74 ± 0.49
m_{DES}^4	0.0026	0.003 ± 0.021	$100\theta_*$	1.041289	1.04128 ± 0.00029	χ_{DES}^2	509.26	518.2 ± 4.8
$A_{IA,DES}$	0.444	$0.47_{-0.18}^{+0.14}$	$D_M(z_*)/Gpc$	13.9080	13.910 ± 0.021	χ_{prior}^2	4.0	25 ± 7
$\alpha_{IA,DES}$	-2.44	$-1.2_{-2.9}^{+1.7}$	z_{drag}	1060.085	1060.11 ± 0.29	χ_{BAO}^2	5.206	5.60 ± 0.52
$\Delta z_{l,DES}^1$	0.0029	0.0036 ± 0.0075	r_{drag}	147.450	147.47 ± 0.23	χ_{CMB}^2	2766.4	2782.5 ± 6.1

Best-fit $\chi_{eff}^2 = 3284.92$; $\bar{\chi}_{eff}^2 = 3331.02$; $R - 1 = 0.00830$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.46 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.08 commander_dx12_v3_2_29: 22.50 plik_rd12_HM_v22b_TTTEEE: 2347.84 WL - DES_1YR_final: 509.26

2.258 base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022522	0.02251 ± 0.00014	$\alpha_{\text{IA,DES}}$	-2.59	$-1.3^{+1.6}_{-2.9}$	$100\theta_*$	1.041243	1.04127 ± 0.00029
$\Omega_c h^2$	0.11831	0.1181 ± 0.0010	$\Delta z_{\text{l,DES}}^1$	0.0029	0.0036 ± 0.0075	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9019	13.907 ± 0.022
$100\theta_{\text{MC}}$	1.041072	1.04109 ± 0.00030	$\Delta z_{\text{l,DES}}^2$	0.0005	0.0008 ± 0.0067	z_{drag}	1060.162	1060.13 ± 0.30
τ	0.0560	0.0569 ± 0.0076	$\Delta z_{\text{l,DES}}^3$	0.0035	0.0034 ± 0.0066	r_{drag}	147.370	147.43 ± 0.24
$\ln(10^{10} A_{\text{s}})$	3.0441	3.046 ± 0.015	$\Delta z_{\text{l,DES}}^4$	0.0008	0.0004 ± 0.0091	k_{D}	0.140689	0.14062 ± 0.00029
n_{s}	0.96914	0.9688 ± 0.0039	$\Delta z_{\text{l,DES}}^5$	-0.0009	-0.0006 ± 0.0099	$100\theta_{\text{D}}$	0.160626	0.16065 ± 0.00017
y_{cal}	1.00055	1.0007 ± 0.0025	$\Delta z_{\text{s,DES}}^1$	0.0007	-0.003 ± 0.014	z_{eq}	3365.5	3361 ± 23
A_{217}^{CIB}	47.3	47 ± 7	$\Delta z_{\text{s,DES}}^2$	-0.0303	-0.031 ± 0.011	k_{eq}	0.010272	0.010259 ± 0.000069
$\xi^{\text{tSZ} \times \text{CIB}}$	0.40	—	$\Delta z_{\text{s,DES}}^3$	0.0030	0.0034 ± 0.0097	$100\theta_{\text{eq}}$	0.82046	0.8213 ± 0.0043
A_{143}^{tSZ}	7.26	$5.5^{+2.2}_{-1.9}$	$\Delta z_{\text{s,DES}}^4$	-0.0310	-0.031 ± 0.018	$100\theta_{\text{s,eq}}$	0.45301	0.4534 ± 0.0022
A_{100}^{PS}	249.8	258 ± 28	H_0	68.127	68.19 ± 0.46	$H(0.15)$	73.340	73.39 ± 0.40
A_{143}^{PS}	46.2	45 ± 8	Ω_{Λ}	0.6952	0.6960 ± 0.0060	$D_{\text{M}}(0.15)$	636.83	636.3 ± 3.9
$A_{143 \times 217}^{\text{PS}}$	46.0	42 ± 9	Ω_{m}	0.3048	0.3040 ± 0.0060	$H(0.38)$	83.342	83.38 ± 0.30
A_{217}^{PS}	118.9	115 ± 10	$\Omega_{\text{m}} h^2$	0.14148	0.14130 ± 0.00095	$D_{\text{M}}(0.38)$	1520.4	1519.4 ± 7.8
A^{kSZ}	0.00	< 4.21	$\Omega_{\text{m}} h^3$	0.096385	0.09634 ± 0.00029	$H(0.51)$	89.997	90.02 ± 0.24
A_{100}^{dustTT}	8.85	8.9 ± 1.8	σ_8	0.8062	0.8062 ± 0.0057	$D_{\text{M}}(0.51)$	1970.6	1969.5 ± 9.2
A_{143}^{dustTT}	11.06	10.9 ± 1.8	S_8	0.8126	0.811 ± 0.010	$H(0.61)$	95.568	95.58 ± 0.20
$A_{143 \times 217}^{\text{dustTT}}$	19.77	18.6 ± 3.3	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4451	0.4444 ± 0.0057	$D_{\text{M}}(0.61)$	2293.9	2293 ± 10
A_{217}^{dustTT}	95.0	93.8 ± 7.3	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5990	0.5986 ± 0.0055	$H(2.33)$	235.61	235.49 ± 0.61
A_{100}^{dustTE}	0.1133	0.115 ± 0.038	$\sigma_8/h^{0.5}$	0.9767	0.9763 ± 0.0080	$D_{\text{M}}(2.33)$	5751.2	5750.8 ± 9.4
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.135 ± 0.030	$r_{\text{drag}} h$	100.40	100.53 ± 0.79	$f\sigma_8(0.15)$	0.4502	0.4496 ± 0.0053
$A_{100 \times 217}^{\text{dustTE}}$	0.484	0.481 ± 0.085	$\langle d^2 \rangle^{1/2}$	2.4188	2.420 ± 0.019	$\sigma_8(0.15)$	0.7456	0.7457 ± 0.0052
A_{143}^{dustTE}	0.223	0.223 ± 0.054	z_{re}	7.79	7.86 ± 0.74	$f\sigma_8(0.38)$	0.46993	0.4695 ± 0.0045
$A_{143 \times 217}^{\text{dustTE}}$	0.663	0.662 ± 0.081	$10^9 A_{\text{s}}$	2.0991	2.102 ± 0.031	$\sigma_8(0.38)$	0.66166	0.6618 ± 0.0047
A_{217}^{dustTE}	2.070	2.07 ± 0.27	$10^9 A_{\text{s}} e^{-2\tau}$	1.8768	1.876 ± 0.010	$f\sigma_8(0.51)$	0.46932	0.4690 ± 0.0040
c_{100}	0.99971	0.99968 ± 0.00061	D_{40}	1223.3	1225 ± 11	$\sigma_8(0.51)$	0.61951	0.6197 ± 0.0044
c_{217}	0.99818	0.99819 ± 0.00063	D_{220}	5746.6	5749 ± 38	$f\sigma_8(0.61)$	0.46491	0.4647 ± 0.0037
b_{DES}^1	1.508	1.505 ± 0.073	D_{810}	2539.5	2539 ± 13	$\sigma_8(0.61)$	0.58966	0.5899 ± 0.0043
b_{DES}^2	1.706	1.704 ± 0.052	D_{1420}	818.88	818.3 ± 4.8	$f\sigma_8(2.33)$	0.29758	0.2977 ± 0.0022
b_{DES}^3	1.6944	1.691 ± 0.044	D_{2000}	231.55	231.3 ± 1.6	$\sigma_8(2.33)$	0.30709	0.3073 ± 0.0024
b_{DES}^4	2.055	2.052 ± 0.051	$n_{\text{s},0.002}$	0.96914	0.9688 ± 0.0039	χ_{lensing}^2	9.04	9.44 ± 0.97
b_{DES}^5	2.159	2.152 ± 0.075	Y_{P}	0.245452	0.245448 ± 0.000052	χ_{simall}^2	396.23	397.3 ± 2.0
m_{DES}^1	0.0137	0.012 ± 0.023	$Y_{\text{P}}^{\text{BBN}}$	0.246779	0.246774 ± 0.000052	χ_{lowl}^2	22.70	22.82 ± 0.76
m_{DES}^2	0.0141	0.012 ± 0.022	$10^5 \text{D}/\text{H}$	2.5580	2.560 ± 0.025	χ_{plik}^2	2347.2	2361.9 ± 6.0
m_{DES}^3	-0.0043	-0.004 ± 0.019	Age/Gyr	13.7704	13.770 ± 0.021	χ_{DES}^2	509.51	518.5 ± 5.0
m_{DES}^4	0.0017	0.001 ± 0.021	z_*	1089.584	1089.58 ± 0.23	χ_{prior}^2	4.2	25 ± 7
$A_{\text{IA,DES}}$	0.439	$0.47^{+0.14}_{-0.18}$	r_*	144.752	144.81 ± 0.23	χ_{CMB}^2	2775.1	2791.5 ± 6.3

Best-fit $\chi_{\text{eff}}^2 = 3288.86$; $\bar{\chi}_{\text{eff}}^2 = 3334.91$; $R - 1 = 0.01020$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.04 simall_100x143_offlike5_EE_Aplanck_B: 396.23 commander_dx12_v3.2_29: 22.70 plik_rd12_HM_v22b_TTTEEE: 2347.17 WL - DES_1YR_final: 509.51

2.259 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022513	0.02251 ± 0.00013	$\Delta z_{l,DES}^2$	0.0005	0.0008 ± 0.0067	k_D	0.140650	0.14062 ± 0.00028
$\Omega_c h^2$	0.11824	0.11818 ± 0.00084	$\Delta z_{l,DES}^3$	0.0034	0.0033 ± 0.0066	$100\theta_D$	0.160643	0.16066 ± 0.00017
$100\theta_{MC}$	1.041084	1.04109 ± 0.00029	$\Delta z_{l,DES}^4$	0.0005	0.0003 ± 0.0091	z_{eq}	3363.5	3362 ± 19
τ	0.0561	0.0568 ± 0.0073	$\Delta z_{l,DES}^5$	-0.0005	-0.0005 ± 0.0099	k_{eq}	0.010266	0.010261 ± 0.000058
$\ln(10^{10} A_s)$	3.0444	3.045 ± 0.014	$\Delta z_{s,DES}^1$	0.00099	-0.003 ± 0.014	$100\theta_{eq}$	0.82080	0.8211 ± 0.0036
n_s	0.96936	0.9687 ± 0.0036	$\Delta z_{s,DES}^2$	-0.0301	-0.031 ± 0.011	$100\theta_{s,eq}$	0.45320	0.4534 ± 0.0019
y_{cal}	1.00068	1.0007 ± 0.0025	$\Delta z_{s,DES}^3$	0.0029	0.0033 ± 0.0096	$H(0.15)$	73.358	73.37 ± 0.33
A_{217}^{CIB}	47.5	47 ± 7	$\Delta z_{s,DES}^4$	-0.0310	-0.031 ± 0.018	$D_M(0.15)$	636.65	636.5 ± 3.3
$\xi^{tSZ \times CIB}$	0.39	—	H_0	68.149	68.17 ± 0.39	$H(0.38)$	83.352	83.36 ± 0.25
A_{143}^{tSZ}	7.28	$5.5^{+2.1}_{-1.9}$	Ω_Λ	0.6955	0.6958 ± 0.0050	$D_M(0.38)$	1520.1	1519.8 ± 6.6
A_{100}^{PS}	250.9	258 ± 28	Ω_m	0.3045	0.3042 ± 0.0050	$H(0.51)$	90.002	90.01 ± 0.21
A_{143}^{PS}	46.4	45 ± 8	$\Omega_m h^2$	0.14140	0.14133 ± 0.00080	$D_M(0.51)$	1970.2	1969.9 ± 7.8
$A_{143 \times 217}^{PS}$	46.1	42 ± 9	$\Omega_m h^3$	0.096359	0.09634 ± 0.00029	$H(0.61)$	95.570	95.57 ± 0.18
A_{217}^{PS}	118.9	115 ± 10	σ_8	0.8062	0.8062 ± 0.0057	$D_M(0.61)$	2293.5	2293.2 ± 8.4
A^{kSZ}	0.00	< 4.22	S_8	0.8121	0.8117 ± 0.0092	$H(2.33)$	235.56	235.51 ± 0.52
A_{100}^{dustTT}	8.88	8.9 ± 1.8	$\sigma_8 \Omega_m^{0.5}$	0.4448	0.4446 ± 0.0050	$D_M(2.33)$	5751.2	5751.2 ± 8.5
A_{143}^{dustTT}	11.06	10.9 ± 1.8	$\sigma_8 \Omega_m^{0.25}$	0.5988	0.5987 ± 0.0051	$f\sigma_8(0.15)$	0.44995	0.4498 ± 0.0048
$A_{143 \times 217}^{dustTT}$	19.75	18.6 ± 3.3	$\sigma_8/h^{0.5}$	0.9766	0.9764 ± 0.0076	$\sigma_8(0.15)$	0.7456	0.7457 ± 0.0052
A_{217}^{dustTT}	94.9	93.8 ± 7.4	$r_{drag} h$	100.45	100.50 ± 0.66	$f\sigma_8(0.38)$	0.46977	0.4696 ± 0.0041
A_{100}^{dustTE}	0.1136	0.115 ± 0.038	$\langle d^2 \rangle^{1/2}$	2.4181	2.420 ± 0.019	$\sigma_8(0.38)$	0.66173	0.6618 ± 0.0047
$A_{100 \times 143}^{dustTE}$	0.1351	0.134 ± 0.030	z_{re}	7.80	7.85 ± 0.72	$f\sigma_8(0.51)$	0.46920	0.4691 ± 0.0038
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085	$10^9 A_s$	2.0998	2.102 ± 0.030	$\sigma_8(0.51)$	0.61959	0.6197 ± 0.0044
A_{143}^{dustTE}	0.223	0.222 ± 0.054	$10^9 A_s e^{-2\tau}$	1.8768	1.876 ± 0.010	$f\sigma_8(0.61)$	0.46482	0.4647 ± 0.0036
$A_{143 \times 217}^{dustTE}$	0.660	0.662 ± 0.080	D_{40}	1222.9	1225 ± 11	$\sigma_8(0.61)$	0.58975	0.5898 ± 0.0042
A_{217}^{dustTE}	2.072	2.07 ± 0.27	D_{220}	5746.3	5749 ± 38	$f\sigma_8(2.33)$	0.29764	0.2977 ± 0.0022
c_{100}	0.99974	0.99968 ± 0.00061	D_{810}	2539.8	2539 ± 13	$\sigma_8(2.33)$	0.30717	0.3072 ± 0.0023
c_{217}	0.99817	0.99819 ± 0.00063	D_{1420}	819.00	818.3 ± 4.7	$\chi^2_{lensing}$	9.08	9.40 ± 0.92
b_{DES}^1	1.507	1.505 ± 0.073	D_{2000}	231.57	231.3 ± 1.6	χ^2_{small}	396.28	397.3 ± 1.9
b_{DES}^2	1.704	1.704 ± 0.052	$n_{s,0.002}$	0.96936	0.9687 ± 0.0036	χ^2_{lowl}	22.65	22.83 ± 0.73
b_{DES}^3	1.6953	1.691 ± 0.044	Y_P	0.2454491	0.245446 ± 0.000050	χ^2_{plik}	2347.3	2361.7 ± 5.9
b_{DES}^4	2.055	2.052 ± 0.051	Y_P^{BBN}	0.2467758	0.246773 ± 0.000050	χ^2_{6DF}	0.0001	0.018 ± 0.025
b_{DES}^5	2.158	2.152 ± 0.075	$10^5 D/H$	2.5596	2.561 ± 0.024	χ^2_{MGS}	1.677	1.76 ± 0.41
m_{DES}^1	0.0137	0.012 ± 0.022	Age/Gyr	13.7707	13.771 ± 0.019	$\chi^2_{DR12BAO}$	3.521	3.78 ± 0.52
m_{DES}^2	0.0137	0.012 ± 0.022	z_*	1089.589	1089.59 ± 0.20	χ^2_{DES}	509.38	518.5 ± 4.9
m_{DES}^3	-0.0044	-0.004 ± 0.019	r_*	144.778	144.80 ± 0.20	χ^2_{prior}	4.2	25 ± 7
m_{DES}^4	0.0015	0.001 ± 0.021	$100\theta_*$	1.041253	1.04126 ± 0.00028	χ^2_{CMB}	2775.3	2791.2 ± 6.1
$A_{IA,DES}$	0.437	$0.47^{+0.14}_{-0.18}$	$D_M(z_*)/Gpc$	13.9042	13.906 ± 0.020	χ^2_{BAO}	5.198	5.55 ± 0.45
$\alpha_{IA,DES}$	-2.62	$-1.3^{+1.6}_{-2.9}$	z_{drag}	1060.123	1060.12 ± 0.29			
$\Delta z_{l,DES}^1$	0.0031	0.0036 ± 0.0075	r_{drag}	147.401	147.42 ± 0.22			

Best-fit $\chi^2_{eff} = 3294.09$; $\bar{\chi}^2_{eff} = 3340.17$; $R - 1 = 0.01031$

χ^2_{eff} : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.52 CMB - smicadx12.Dec5.ftl.mv2.ndclpp.p.teb.consext8: 9.08 small_100x143.offlike5_EE_Aplanck_B: 396.28 commander_dx12.v3.2.29: 22.65 plik_rd12_HM_v22b_TTTEEE: 2347.27 WL - DES_1YR.final: 509.38

2.260 base_plikHM_TTTEEE_lowl_lowE_DES_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02252 ± 0.00014	$\Delta z_{\text{l,DES}}^1$	0.0036 ± 0.0074	z_{drag}	1060.13 ± 0.30
$\Omega_c h^2$	0.1178 ± 0.0011	$\Delta z_{\text{l,DES}}^2$	0.0008 ± 0.0066	r_{drag}	147.50 ± 0.25
$100\theta_{\text{MC}}$	1.04112 ± 0.00030	$\Delta z_{\text{l,DES}}^3$	0.0034 ± 0.0065	k_{D}	0.14055 ± 0.00030
τ	$0.0559^{+0.0053}_{-0.0082}$	$\Delta z_{\text{l,DES}}^4$	0.0006 ± 0.0091	$100\theta_{\text{D}}$	0.16065 ± 0.00017
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.012}_{-0.016}$	$\Delta z_{\text{l,DES}}^5$	-0.0006 ± 0.0099	z_{eq}	3354 ± 24
n_{s}	0.9697 ± 0.0040	$\Delta z_{\text{s,DES}}^1$	-0.003 ± 0.014	k_{eq}	0.010237 ± 0.000073
y_{cal}	1.0005 ± 0.0025	$\Delta z_{\text{s,DES}}^2$	-0.031 ± 0.011	$100\theta_{\text{eq}}$	0.8226 ± 0.0046
A_{217}^{CIB}	47 ± 7	$\Delta z_{\text{s,DES}}^3$	0.0041 ± 0.0096	$100\theta_{\text{s,eq}}$	0.4541 ± 0.0024
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\Delta z_{\text{s,DES}}^4$	-0.030 ± 0.018	$H(0.15)$	73.50 ± 0.42
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	H_0	68.32 ± 0.48	$D_{\text{M}}(0.15)$	635.3 ± 4.1
A_{100}^{PS}	258 ± 28	Ω_{Λ}	0.6978 ± 0.0063	$H(0.38)$	83.45 ± 0.31
A_{143}^{PS}	45 ± 8	Ω_{m}	0.3022 ± 0.0063	$D_{\text{M}}(0.38)$	1517.3 ± 8.2
$A_{143 \times 217}^{\text{PS}}$	41 ± 9	$\Omega_{\text{m}} h^2$	0.1410 ± 0.0010	$H(0.51)$	90.08 ± 0.25
A_{217}^{PS}	114 ± 10	$\Omega_{\text{m}} h^3$	0.09632 ± 0.00030	$D_{\text{M}}(0.51)$	1967.0 ± 9.7
A^{kSZ}	< 4.32	σ_8	$0.8039^{+0.0057}_{-0.0066}$	$H(0.61)$	95.63 ± 0.21
A_{100}^{dustTT}	8.9 ± 1.8	S_8	0.807 ± 0.012	$D_{\text{M}}(0.61)$	2290 ± 10
A_{143}^{dustTT}	11.0 ± 1.8	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4419 ± 0.0066	$H(2.33)$	235.30 ± 0.64
$A_{143 \times 217}^{\text{dustTT}}$	18.7 ± 3.3	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5960 ± 0.0064	$D_{\text{M}}(2.33)$	5749.2 ± 9.6
A_{217}^{dustTT}	93.7 ± 7.4	$\sigma_8/h^{0.5}$	0.9726 ± 0.0092	$f\sigma_8(0.15)$	0.4471 ± 0.0062
A_{100}^{dustTE}	0.114 ± 0.038	$r_{\text{drag}} h$	100.77 ± 0.84	$\sigma_8(0.15)$	$0.7437^{+0.0050}_{-0.0060}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.029	$\langle d^2 \rangle^{1/2}$	2.410 ± 0.023	$f\sigma_8(0.38)$	0.4674 ± 0.0052
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.084	z_{re}	$7.76^{+0.58}_{-0.79}$	$\sigma_8(0.38)$	$0.6603^{+0.0042}_{-0.0052}$
A_{143}^{dustTE}	0.222 ± 0.054	$10^9 A_{\text{s}}$	$2.095^{+0.025}_{-0.033}$	$f\sigma_8(0.51)$	0.4671 ± 0.0047
$A_{143 \times 217}^{\text{dustTE}}$	0.661 ± 0.080	$10^9 A_{\text{s}} e^{-2\tau}$	1.873 ± 0.011	$\sigma_8(0.51)$	$0.6184^{+0.0039}_{-0.0049}$
A_{217}^{dustTE}	2.06 ± 0.27	D_{40}	1221 ± 12	$f\sigma_8(0.61)$	0.4629 ± 0.0043
c_{100}	0.99967 ± 0.00062	D_{220}	5744 ± 39	$\sigma_8(0.61)$	$0.5886^{+0.0037}_{-0.0047}$
c_{217}	0.99819 ± 0.00063	D_{810}	2536 ± 14	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0024}$
b_{DES}^1	1.507 ± 0.073	D_{1420}	817.9 ± 4.8	$\sigma_8(2.33)$	$0.3068^{+0.0019}_{-0.0025}$
b_{DES}^2	1.708 ± 0.052	D_{2000}	231.2 ± 1.6	f_{2000}^{143}	29.2 ± 2.7
b_{DES}^3	1.696 ± 0.044	$n_{\text{s},0.002}$	0.9697 ± 0.0040	$f_{2000}^{143 \times 217}$	31.9 ± 1.8
b_{DES}^4	2.057 ± 0.051	Y_{P}	0.245452 ± 0.000053	f_{2000}^{217}	106.7 ± 1.8
b_{DES}^5	2.157 ± 0.075	$Y_{\text{P}}^{\text{BBN}}$	0.246778 ± 0.000053	χ_{simall}^2	397.0 ± 1.8
m_{DES}^1	0.012 ± 0.023	10^5D/H	2.558 ± 0.025	χ_{lowl}^2	22.59 ± 0.77
m_{DES}^2	0.012 ± 0.022	Age/Gyr	13.767 ± 0.022	χ_{plik}^2	2363.2 ± 6.4
m_{DES}^3	-0.003 ± 0.020	z_*	1089.54 ± 0.23	χ_{DES}^2	518.0 ± 4.9
m_{DES}^4	0.003 ± 0.021	r_*	144.88 ± 0.25	χ_{prior}^2	25 ± 7
$A_{\text{IA,DES}}$	$0.47^{+0.15}_{-0.18}$	$100\theta_*$	1.04130 ± 0.00030	χ_{CMB}^2	2782.8 ± 6.3
$\alpha_{\text{IA,DES}}$	$-1.1^{+1.7}_{-2.9}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.913 ± 0.023		

$\bar{\chi}_{\text{eff}}^2 = 3325.44$; $R - 1 = 0.00547$

2.261 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02251 ± 0.00013	$\Delta z_{\text{l,DES}}^2$	0.0008 ± 0.0066	k_{D}	0.14057 ± 0.00028
$\Omega_c h^2$	0.11798 ± 0.00087	$\Delta z_{\text{l,DES}}^3$	0.0034 ± 0.0066	$100\theta_{\text{D}}$	0.16066 ± 0.00017
$100\theta_{\text{MC}}$	1.04111 ± 0.00029	$\Delta z_{\text{l,DES}}^4$	0.0004 ± 0.0091	z_{eq}	3357 ± 20
τ	$0.0556^{+0.0052}_{-0.0080}$	$\Delta z_{\text{l,DES}}^5$	-0.0005 ± 0.0098	k_{eq}	0.010246 ± 0.000061
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.012}_{-0.016}$	$\Delta z_{\text{s,DES}}^1$	-0.003 ± 0.014	$100\theta_{\text{eq}}$	0.8220 ± 0.0038
n_{s}	0.9694 ± 0.0036	$\Delta z_{\text{s,DES}}^2$	-0.031 ± 0.011	$100\theta_{\text{s,eq}}$	0.4538 ± 0.0019
y_{cal}	1.0004 ± 0.0025	$\Delta z_{\text{s,DES}}^3$	0.0038 ± 0.0096	$H(0.15)$	73.44 ± 0.34
A_{217}^{CIB}	47 ± 7	$\Delta z_{\text{s,DES}}^4$	-0.030 ± 0.018	$D_{\text{M}}(0.15)$	635.8 ± 3.3
$\xi^{\text{tSZ} \times \text{CIB}}$	—	H_0	68.25 ± 0.40	$H(0.38)$	83.41 ± 0.26
A_{143}^{tSZ}	5.5 ± 2.0	Ω_{Λ}	0.6970 ± 0.0051	$D_{\text{M}}(0.38)$	1518.4 ± 6.8
A_{100}^{PS}	258 ± 28	Ω_{m}	0.3030 ± 0.0051	$H(0.51)$	90.04 ± 0.21
A_{143}^{PS}	45 ± 8	$\Omega_{\text{m}} h^2$	0.14113 ± 0.00083	$D_{\text{M}}(0.51)$	1968.3 ± 8.0
$A_{143 \times 217}^{\text{PS}}$	41 ± 9	$\Omega_{\text{m}} h^3$	0.09632 ± 0.00030	$H(0.61)$	95.60 ± 0.18
A_{217}^{PS}	114 ± 10	σ_8	$0.8042^{+0.0054}_{-0.0064}$	$D_{\text{M}}(0.61)$	2291.5 ± 8.6
A^{kSZ}	< 4.32	S_8	0.808 ± 0.010	$H(2.33)$	235.38 ± 0.54
A_{100}^{dustTT}	8.9 ± 1.8	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4427 ± 0.0057	$D_{\text{M}}(2.33)$	5750.3 ± 8.6
A_{143}^{dustTT}	10.9 ± 1.8	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5966 ± 0.0057	$f\sigma_8(0.15)$	0.4479 ± 0.0054
$A_{143 \times 217}^{\text{dustTT}}$	18.7 ± 3.3	$\sigma_8/h^{0.5}$	0.9734 ± 0.0084	$\sigma_8(0.15)$	$0.7439^{+0.0048}_{-0.0058}$
A_{217}^{dustTT}	93.8 ± 7.3	$r_{\text{drag}} h$	100.65 ± 0.68	$f\sigma_8(0.38)$	0.4680 ± 0.0047
A_{100}^{dustTE}	0.115 ± 0.038	$\langle d^2 \rangle^{1/2}$	2.412 ± 0.021	$\sigma_8(0.38)$	$0.6604^{+0.0041}_{-0.0052}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	z_{re}	$7.73^{+0.57}_{-0.78}$	$f\sigma_8(0.51)$	0.4676 ± 0.0042
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.085	$10^9 A_{\text{s}}$	$2.094^{+0.024}_{-0.033}$	$\sigma_8(0.51)$	$0.6184^{+0.0038}_{-0.0048}$
A_{143}^{dustTE}	0.222 ± 0.054	$10^9 A_{\text{s}} e^{-2\tau}$	1.874 ± 0.011	$f\sigma_8(0.61)$	0.4633 ± 0.0040
$A_{143 \times 217}^{\text{dustTE}}$	0.662 ± 0.081	D_{40}	1222 ± 11	$\sigma_8(0.61)$	$0.5887^{+0.0036}_{-0.0046}$
A_{217}^{dustTE}	2.07 ± 0.27	D_{220}	5743 ± 38	$f\sigma_8(2.33)$	$0.2971^{+0.0018}_{-0.0024}$
c_{100}	0.99967 ± 0.00061	D_{810}	2537 ± 13	$\sigma_8(2.33)$	$0.3067^{+0.0019}_{-0.0025}$
c_{217}	0.99820 ± 0.00063	D_{1420}	817.8 ± 4.8	f_{2000}^{143}	29.3 ± 2.7
b_{DES}^1	1.507 ± 0.073	D_{2000}	231.1 ± 1.6	$f_{2000}^{143 \times 217}$	31.9 ± 1.8
b_{DES}^2	1.708 ± 0.052	$n_{\text{s},0.002}$	0.9694 ± 0.0036	f_{2000}^{217}	106.7 ± 1.8
b_{DES}^3	1.695 ± 0.044	Y_{P}	0.245447 ± 0.000050	χ_{simall}^2	396.9 ± 1.7
b_{DES}^4	2.057 ± 0.052	$Y_{\text{P}}^{\text{BBN}}$	0.246774 ± 0.000050	χ_{lowl}^2	22.64 ± 0.74
b_{DES}^5	2.157 ± 0.076	10^5D/H	2.560 ± 0.024	χ_{plik}^2	2362.7 ± 6.2
m_{DES}^1	0.012 ± 0.023	Age/Gyr	13.769 ± 0.019	$\chi_{6\text{DF}}^2$	0.021 ± 0.029
m_{DES}^2	0.012 ± 0.022	z_*	1089.57 ± 0.21	χ_{MGS}^2	1.85 ± 0.43
m_{DES}^3	-0.003 ± 0.019	r_*	144.85 ± 0.21	χ_{DR12BAO}^2	3.73 ± 0.48
m_{DES}^4	0.002 ± 0.021	$100\theta_*$	1.04128 ± 0.00029	χ_{DES}^2	518.2 ± 4.9
$A_{\text{IA,DES}}$	$0.47^{+0.14}_{-0.18}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.911 ± 0.021	χ_{prior}^2	25 ± 7
$\alpha_{\text{IA,DES}}$	$-1.2^{+1.7}_{-2.9}$	z_{drag}	1060.11 ± 0.29	χ_{BAO}^2	5.60 ± 0.53
$\Delta z_{\text{l,DES}}^1$	0.0036 ± 0.0075	r_{drag}	147.47 ± 0.23	χ_{CMB}^2	2782.2 ± 6.1

$\bar{\chi}_{\text{eff}}^2 = 3330.75$; $R - 1 = 0.00777$

2.262 base_plikHM_TTTEEE_lowl_lowE_DES_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02251 ± 0.00014	$\Delta z_{1,\text{DES}}^1$	0.0036 ± 0.0075	z_{drag}	1060.13 ± 0.30
$\Omega_c h^2$	0.11811 ± 0.00099	$\Delta z_{1,\text{DES}}^2$	0.0008 ± 0.0066	r_{drag}	147.43 ± 0.24
$100\theta_{\text{MC}}$	1.04110 ± 0.00030	$\Delta z_{1,\text{DES}}^3$	0.0034 ± 0.0066	k_{D}	0.14061 ± 0.00029
τ	$0.0575^{+0.0060}_{-0.0080}$	$\Delta z_{1,\text{DES}}^4$	0.0004 ± 0.0091	$100\theta_{\text{D}}$	0.16065 ± 0.00017
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.012}_{-0.015}$	$\Delta z_{1,\text{DES}}^5$	-0.0006 ± 0.0099	z_{eq}	3360 ± 22
n_{s}	0.9689 ± 0.0039	$\Delta z_{\text{s,DES}}^1$	-0.003 ± 0.014	k_{eq}	0.010256 ± 0.000068
y_{cal}	1.0007 ± 0.0025	$\Delta z_{\text{s,DES}}^2$	-0.031 ± 0.011	$100\theta_{\text{eq}}$	0.8214 ± 0.0043
A_{217}^{CIB}	47 ± 7	$\Delta z_{\text{s,DES}}^3$	0.0034 ± 0.0097	$100\theta_{\text{s,eq}}$	0.4535 ± 0.0022
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\Delta z_{\text{s,DES}}^4$	-0.031 ± 0.018	$H(0.15)$	73.40 ± 0.39
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	H_0	68.20 ± 0.45	$D_{\text{M}}(0.15)$	636.2 ± 3.8
A_{100}^{PS}	258 ± 28	Ω_{Λ}	0.6962 ± 0.0059	$H(0.38)$	83.38 ± 0.29
A_{143}^{PS}	45 ± 8	Ω_{m}	0.3038 ± 0.0059	$D_{\text{M}}(0.38)$	1519.2 ± 7.7
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	$\Omega_{\text{m}} h^2$	0.14127 ± 0.00093	$H(0.51)$	90.03 ± 0.24
A_{217}^{PS}	115 ± 10	$\Omega_{\text{m}} h^3$	0.09634 ± 0.00029	$D_{\text{M}}(0.51)$	1969.2 ± 9.1
A^{kSZ}	< 4.19	σ_8	$0.8065^{+0.0051}_{-0.0057}$	$H(0.61)$	95.59 ± 0.20
A_{100}^{dustTT}	8.9 ± 1.8	S_8	0.811 ± 0.010	$D_{\text{M}}(0.61)$	2292.4 ± 9.8
A_{143}^{dustTT}	10.9 ± 1.8	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4445 ± 0.0057	$H(2.33)$	235.47 ± 0.60
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5987 ± 0.0054	$D_{\text{M}}(2.33)$	5750.6 ± 9.3
A_{217}^{dustTT}	93.8 ± 7.3	$\sigma_8/h^{0.5}$	0.9766 ± 0.0078	$f\sigma_8(0.15)$	0.4496 ± 0.0053
A_{100}^{dustTE}	0.115 ± 0.038	$r_{\text{drag}} h$	100.56 ± 0.78	$\sigma_8(0.15)$	$0.7460^{+0.0045}_{-0.0053}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134 ± 0.030	$\langle d^2 \rangle^{1/2}$	2.420 ± 0.019	$f\sigma_8(0.38)$	0.4696 ± 0.0044
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.085	z_{re}	$7.92^{+0.63}_{-0.76}$	$\sigma_8(0.38)$	$0.6621^{+0.0040}_{-0.0048}$
A_{143}^{dustTE}	0.222 ± 0.054	$10^9 A_{\text{s}}$	$2.105^{+0.025}_{-0.032}$	$f\sigma_8(0.51)$	0.4691 ± 0.0039
$A_{143 \times 217}^{\text{dustTE}}$	0.662 ± 0.081	$10^9 A_{\text{s}} e^{-2\tau}$	1.876 ± 0.010	$\sigma_8(0.51)$	$0.6200^{+0.0037}_{-0.0046}$
A_{217}^{dustTE}	2.07 ± 0.27	D_{40}	1224 ± 11	$f\sigma_8(0.61)$	0.4648 ± 0.0036
c_{100}	0.99968 ± 0.00061	D_{220}	5749 ± 38	$\sigma_8(0.61)$	$0.5902^{+0.0035}_{-0.0044}$
c_{217}	0.99819 ± 0.00063	D_{810}	2539 ± 13	$f\sigma_8(2.33)$	$0.2979^{+0.0018}_{-0.0023}$
b_{DES}^1	1.504 ± 0.073	D_{1420}	818.3 ± 4.8	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0025}$
b_{DES}^2	1.704 ± 0.052	D_{2000}	231.3 ± 1.6	f_{2000}^{143}	29.1 ± 2.7
b_{DES}^3	1.691 ± 0.044	$n_{\text{s},0.002}$	0.9689 ± 0.0039	$f_{2000}^{143 \times 217}$	31.8 ± 1.9
b_{DES}^4	2.051 ± 0.051	Y_{P}	0.245449 ± 0.000052	f_{2000}^{217}	106.7 ± 1.8
b_{DES}^5	2.151 ± 0.075	$Y_{\text{P}}^{\text{BBN}}$	0.246775 ± 0.000052	χ_{lensing}^2	9.39 ± 0.91
m_{DES}^1	0.012 ± 0.022	10^5D/H	2.560 ± 0.025	χ_{simall}^2	397.3 ± 2.0
m_{DES}^2	0.012 ± 0.022	Age/Gyr	13.770 ± 0.021	χ_{lowl}^2	22.82 ± 0.76
m_{DES}^3	-0.004 ± 0.019	z_*	1089.58 ± 0.22	χ_{plik}^2	2361.8 ± 6.0
m_{DES}^4	0.002 ± 0.021	r_*	144.81 ± 0.23	χ_{DES}^2	518.4 ± 5.0
$A_{\text{IA,DES}}$	$0.47^{+0.14}_{-0.18}$	$100\theta_*$	1.04127 ± 0.00029	χ_{prior}^2	25 ± 7
$\alpha_{\text{IA,DES}}$	$-1.3^{+1.6}_{-2.9}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.907 ± 0.022	χ_{CMB}^2	2791.4 ± 6.3

$$\bar{\chi}_{\text{eff}}^2 = 3334.75; R - 1 = 0.01067$$

2.263 base_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02251 ± 0.00013	$\Delta z_{\text{l,DES}}^3$	0.0034 ± 0.0066	z_{eq}	3361 ± 19
$\Omega_c h^2$	0.11816 ± 0.00083	$\Delta z_{\text{l,DES}}^4$	0.0003 ± 0.0091	k_{eq}	0.010260 ± 0.000058
$100\theta_{\text{MC}}$	1.04109 ± 0.00029	$\Delta z_{\text{l,DES}}^5$	-0.0005 ± 0.0099	$100\theta_{\text{eq}}$	0.8212 ± 0.0036
τ	$0.0573^{+0.0059}_{-0.0076}$	$\Delta z_{\text{s,DES}}^1$	-0.003 ± 0.014	$100\theta_{\text{s,eq}}$	0.4534 ± 0.0018
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.015}$	$\Delta z_{\text{s,DES}}^2$	-0.031 ± 0.011	$H(0.15)$	73.38 ± 0.33
n_s	0.9688 ± 0.0036	$\Delta z_{\text{s,DES}}^3$	0.0033 ± 0.0096	$D_{\text{M}}(0.15)$	636.4 ± 3.2
y_{cal}	1.0007 ± 0.0025	$\Delta z_{\text{s,DES}}^4$	-0.031 ± 0.018	$H(0.38)$	83.37 ± 0.25
A_{217}^{CIB}	47 ± 7	H_0	68.18 ± 0.38	$D_{\text{M}}(0.38)$	1519.6 ± 6.5
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	0.6959 ± 0.0050	$H(0.51)$	90.01 ± 0.21
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	Ω_{m}	0.3041 ± 0.0050	$D_{\text{M}}(0.51)$	1969.7 ± 7.7
A_{100}^{PS}	258 ± 28	$\Omega_{\text{m}} h^2$	0.14131 ± 0.00079	$H(0.61)$	95.58 ± 0.17
A_{143}^{PS}	45 ± 8	$\Omega_{\text{m}} h^3$	0.09634 ± 0.00029	$D_{\text{M}}(0.61)$	2293.0 ± 8.4
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	σ_8	$0.8065^{+0.0050}_{-0.0057}$	$H(2.33)$	235.50 ± 0.51
A_{217}^{PS}	115 ± 10	S_8	0.8119 ± 0.0092	$D_{\text{M}}(2.33)$	5751.1 ± 8.4
A^{kSZ}	< 4.20	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4447 ± 0.0050	$f\sigma_8(0.15)$	0.4498 ± 0.0047
A_{100}^{dustTT}	8.9 ± 1.8	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5989 ± 0.0050	$\sigma_8(0.15)$	$0.7460^{+0.0045}_{-0.0053}$
A_{143}^{dustTT}	10.9 ± 1.8	$\sigma_8/h^{0.5}$	0.9767 ± 0.0074	$f\sigma_8(0.38)$	0.4698 ± 0.0041
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$r_{\text{drag}} h$	100.51 ± 0.65	$\sigma_8(0.38)$	$0.6621^{+0.0040}_{-0.0048}$
A_{217}^{dustTT}	93.8 ± 7.3	$\langle d^2 \rangle^{1/2}$	2.421 ± 0.018	$f\sigma_8(0.51)$	0.4692 ± 0.0037
A_{100}^{dustTE}	0.115 ± 0.038	z_{re}	$7.90^{+0.62}_{-0.74}$	$\sigma_8(0.51)$	$0.6199^{+0.0037}_{-0.0045}$
$A_{100 \times 143}^{\text{dustTE}}$	0.134 ± 0.030	$10^9 A_s$	$2.104^{+0.025}_{-0.031}$	$f\sigma_8(0.61)$	0.4649 ± 0.0035
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.085	$10^9 A_s e^{-2\tau}$	1.876 ± 0.010	$\sigma_8(0.61)$	$0.5901^{+0.0035}_{-0.0043}$
A_{143}^{dustTE}	0.222 ± 0.054	D_{40}	1225 ± 11	$f\sigma_8(2.33)$	$0.2978^{+0.0018}_{-0.0022}$
$A_{143 \times 217}^{\text{dustTE}}$	0.662 ± 0.080	D_{220}	5749 ± 38	$\sigma_8(2.33)$	$0.3074^{+0.0019}_{-0.0024}$
A_{217}^{dustTE}	2.07 ± 0.27	D_{810}	2539 ± 13	f_{2000}^{143}	29.2 ± 2.7
c_{100}	0.99968 ± 0.00061	D_{1420}	818.2 ± 4.7	$f_{2000}^{143 \times 217}$	31.9 ± 1.8
c_{217}	0.99819 ± 0.00063	D_{2000}	231.3 ± 1.6	f_{2000}^{217}	106.7 ± 1.8
b_{DES}^1	1.504 ± 0.073	$n_{\text{s},0.002}$	0.9688 ± 0.0036	χ_{lensing}^2	9.35 ± 0.86
b_{DES}^2	1.704 ± 0.052	Y_{P}	0.245447 ± 0.000050	χ_{simall}^2	397.3 ± 2.0
b_{DES}^3	1.691 ± 0.044	$Y_{\text{P}}^{\text{BBN}}$	0.246773 ± 0.000050	χ_{lowl}^2	22.83 ± 0.73
b_{DES}^4	2.051 ± 0.051	10^5D/H	2.561 ± 0.024	χ_{plik}^2	2361.6 ± 5.9
b_{DES}^5	2.151 ± 0.075	Age/Gyr	13.770 ± 0.019	$\chi_{6\text{DF}}^2$	0.018 ± 0.025
m_{DES}^1	0.012 ± 0.022	z_*	1089.59 ± 0.20	χ_{MGS}^2	1.77 ± 0.40
m_{DES}^2	0.012 ± 0.022	r_*	144.80 ± 0.20	χ_{DR12BAO}^2	3.77 ± 0.50
m_{DES}^3	-0.004 ± 0.019	$100\theta_*$	1.04126 ± 0.00028	χ_{DES}^2	518.5 ± 4.9
m_{DES}^4	0.001 ± 0.021	$D_{\text{M}}(z_*)/\text{Gpc}$	13.906 ± 0.020	χ_{prior}^2	25 ± 7
$A_{\text{IA,DES}}$	$0.47^{+0.14}_{-0.18}$	z_{drag}	1060.12 ± 0.29	χ_{CMB}^2	2791.1 ± 6.1
$\alpha_{\text{IA,DES}}$	$-1.3^{+1.6}_{-2.9}$	r_{drag}	147.43 ± 0.22	χ_{BAO}^2	5.55 ± 0.44
$\Delta z_{\text{l,DES}}^1$	0.0036 ± 0.0075	k_{D}	0.14062 ± 0.00028		
$\Delta z_{\text{l,DES}}^2$	0.0008 ± 0.0066	$100\theta_{\text{D}}$	0.16065 ± 0.00017		

$\bar{\chi}_{\text{eff}}^2 = 3340.03$; $R - 1 = 0.01092$

2.264 base_plikHM_TTTEEE_lowl_lowE_DESlens

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022441	0.02244 ± 0.00014	$\Delta z_{s,\text{DES}}^3$	0.0048	0.004 ± 0.010	z_{eq}	3384.2	3380 ± 25
$\Omega_c h^2$	0.11918	0.1190 ± 0.0011	$\Delta z_{s,\text{DES}}^4$	-0.0218	-0.022 ± 0.020	k_{eq}	0.010329	0.010317 ± 0.000077
$100\theta_{\text{MC}}$	1.040995	1.04103 ± 0.00030	H_0	67.72	67.80 ± 0.50	$100\theta_{\text{eq}}$	0.81677	0.8176 ± 0.0048
τ	0.0533	$0.0534^{+0.0071}_{-0.0079}$	Ω_Λ	0.6898	0.6908 ± 0.0068	$100\theta_{s,\text{eq}}$	0.45114	0.4516 ± 0.0025
$\ln(10^{10} A_s)$	3.0403	3.040 ± 0.016	Ω_m	0.3102	0.3092 ± 0.0068	$H(0.15)$	72.994	73.06 ± 0.43
n_s	0.96784	0.9673 ± 0.0040	$\Omega_m h^2$	0.14226	0.1421 ± 0.0011	$D_M(0.15)$	640.23	639.6 ± 4.3
y_{cal}	1.00045	1.0005 ± 0.0025	$\Omega_m h^3$	0.096347	0.09633 ± 0.00029	$H(0.38)$	83.090	83.13 ± 0.32
A_{217}^{CIB}	47.0	47 ± 7	σ_8	0.8075	0.8066 ± 0.0066	$D_M(0.38)$	1527.2	1526.1 ± 8.6
$\xi^{\text{tSZ} \times \text{CIB}}$	0.44	—	S_8	0.8211	0.819 ± 0.013	$H(0.51)$	89.799	89.83 ± 0.25
A_{143}^{tSZ}	7.23	$5.5^{+2.2}_{-1.9}$	$\sigma_8 \Omega_m^{0.5}$	0.4497	0.4485 ± 0.0069	$D_M(0.51)$	1978.6	1977 ± 10
A_{100}^{PS}	249.9	259 ± 28	$\sigma_8 \Omega_m^{0.25}$	0.6026	0.6015 ± 0.0066	$H(0.61)$	95.412	95.44 ± 0.21
A_{143}^{PS}	47.3	45 ± 8	$\sigma_8/h^{0.5}$	0.9812	0.9797 ± 0.0096	$D_M(0.61)$	2302.5	2301 ± 11
$A_{143 \times 217}^{\text{PS}}$	47.5	42 ± 9	$r_{\text{drag}} h$	99.71	99.85 ± 0.87	$H(2.33)$	236.09	235.98 ± 0.67
A_{217}^{PS}	119.8	115 ± 10	$\langle d^2 \rangle^{1/2}$	2.4261	2.425 ± 0.023	$D_M(2.33)$	5757.8	5757.0 ± 9.7
A^{kSZ}	0.00	< 4.33	z_{re}	7.55	7.54 ± 0.78	$f\sigma_8(0.15)$	0.4544	0.4533 ± 0.0065
A_{100}^{dustTT}	8.81	8.9 ± 1.8	$10^9 A_s$	2.0911	2.091 ± 0.033	$\sigma_8(0.15)$	0.7463	0.7456 ± 0.0060
A_{143}^{dustTT}	11.08	10.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.8797	1.879 ± 0.011	$f\sigma_8(0.38)$	0.4730	0.4720 ± 0.0054
$A_{143 \times 217}^{\text{dustTT}}$	19.89	18.6 ± 3.3	D_{40}	1224.4	1226 ± 12	$\sigma_8(0.38)$	0.6617	0.6612 ± 0.0052
A_{217}^{dustTT}	95.2	93.7 ± 7.4	D_{220}	5734.1	5737 ± 38	$f\sigma_8(0.51)$	0.47172	0.4709 ± 0.0048
A_{100}^{dustTE}	0.1139	0.114 ± 0.038	D_{810}	2539.7	2538 ± 13	$\sigma_8(0.51)$	0.61926	0.6189 ± 0.0049
$A_{100 \times 143}^{\text{dustTE}}$	0.1352	0.135 ± 0.030	D_{1420}	818.52	817.7 ± 4.7	$f\sigma_8(0.61)$	0.46687	0.4661 ± 0.0045
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.482 ± 0.084	D_{2000}	231.35	231.0 ± 1.6	$\sigma_8(0.61)$	0.58928	0.5889 ± 0.0046
A_{143}^{dustTE}	0.225	0.225 ± 0.054	$n_{s,0.002}$	0.96784	0.9673 ± 0.0040	$f\sigma_8(2.33)$	0.29717	0.2970 ± 0.0024
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.664 ± 0.081	Y_P	0.245423	0.245419 ± 0.000053	$\sigma_8(2.33)$	0.30643	0.3063 ± 0.0025
A_{217}^{dustTE}	2.074	2.08 ± 0.27	Y_P^{BBN}	0.246749	0.246746 ± 0.000053	f_{2000}^{143}	28.67	29.4 ± 2.7
c_{100}	0.99972	0.99966 ± 0.00062	$10^5 \text{D}/\text{H}$	2.5725	2.574 ± 0.025	$f_{2000}^{143 \times 217}$	31.88	32.1 ± 1.8
c_{217}	0.99818	0.99820 ± 0.00062	Age/Gyr	13.7848	13.783 ± 0.022	f_{2000}^{217}	106.55	106.9 ± 1.8
m_{DES}^1	0.0151	0.014 ± 0.023	z_*	1089.759	1089.75 ± 0.23	χ_{small}^2	395.86	396.9 ± 1.7
m_{DES}^2	0.0119	0.012 ± 0.022	r_*	144.590	144.64 ± 0.26	χ_{lowl}^2	22.84	22.99 ± 0.83
m_{DES}^3	-0.0072	-0.008 ± 0.020	$100\theta_*$	1.041167	1.04121 ± 0.00029	χ_{plik}^2	2346.0	2360.9 ± 5.9
m_{DES}^4	0.0127	0.011 ± 0.021	$D_M(z_*)/\text{Gpc}$	13.8873	13.891 ± 0.024	χ_{DES}^2	229.20	232.0 ± 2.5
$A_{\text{IA,DES}}$	1.44	1.24 ± 0.50	z_{drag}	1060.047	1060.02 ± 0.29	χ_{prior}^2	2.8	19.5 ± 6.0
$\alpha_{\text{IA,DES}}$	2.49	$1.9^{+2.8}_{-1.0}$	r_{drag}	147.230	147.28 ± 0.26	χ_{CMB}^2	2764.7	2780.7 ± 5.9
$\Delta z_{s,\text{DES}}^1$	0.0046	0.005 ± 0.015	k_D	0.140773	0.14072 ± 0.00030			
$\Delta z_{s,\text{DES}}^2$	-0.0203	-0.021 ± 0.012	$100\theta_D$	0.160699	0.16072 ± 0.00017			

Best-fit $\chi_{\text{eff}}^2 = 2996.67$; $\bar{\chi}_{\text{eff}}^2 = 3032.33$; $R - 1 = 0.00975$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2_29: 22.84 plik_rd12_HM_v22b_TTTEEE: 2346.01 WL - DES_1YR_final: 229.20

2.265 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022468	0.02245 ± 0.00013	$\Delta z_{s,\text{DES}}^4$	-0.0212	-0.022 ± 0.020	$100\theta_{\text{eq}}$	0.81819	0.8187 ± 0.0039
$\Omega_c h^2$	0.11885	0.11875 ± 0.00090	H_0	67.889	67.91 ± 0.41	$100\theta_{s,\text{eq}}$	0.45187	0.4521 ± 0.0020
$100\theta_{\text{MC}}$	1.041073	1.04107 ± 0.00029	Ω_Λ	0.6920	0.6924 ± 0.0054	$H(0.15)$	73.137	73.16 ± 0.35
τ	0.0548	$0.0541^{+0.0069}_{-0.0078}$	Ω_m	0.3080	0.3076 ± 0.0054	$D_M(0.15)$	638.83	638.6 ± 3.5
$\ln(10^{10} A_s)$	3.0430	3.041 ± 0.016	$\Omega_m h^2$	0.14197	0.14185 ± 0.00086	$H(0.38)$	83.196	83.21 ± 0.26
n_s	0.96898	0.9680 ± 0.0037	$\Omega_m h^3$	0.096379	0.09633 ± 0.00029	$D_M(0.38)$	1524.4	1524.1 ± 7.0
y_{cal}	1.00059	1.0006 ± 0.0025	σ_8	0.8078	0.8062 ± 0.0065	$H(0.51)$	89.883	89.89 ± 0.21
A_{217}^{CIB}	46.7	47 ± 7	S_8	0.8185	0.816 ± 0.011	$D_M(0.51)$	1975.3	1974.9 ± 8.2
$\xi^{\text{tSZ} \times \text{CIB}}$	0.56	—	$\sigma_8 \Omega_m^{0.5}$	0.4483	0.4471 ± 0.0059	$H(0.61)$	95.479	95.48 ± 0.18
A_{143}^{tSZ}	7.23	5.5 ± 2.0	$\sigma_8 \Omega_m^{0.25}$	0.6018	0.6004 ± 0.0060	$D_M(0.61)$	2299.0	2298.6 ± 8.8
A_{100}^{PS}	248.1	259 ± 28	$\sigma_8/h^{0.5}$	0.9804	0.9783 ± 0.0089	$H(2.33)$	235.92	235.83 ± 0.56
A_{143}^{PS}	48.6	45 ± 8	$r_{\text{drag}} h$	99.99	100.06 ± 0.70	$D_M(2.33)$	5754.8	5755.2 ± 8.5
$A_{143 \times 217}^{\text{PS}}$	50.4	42 ± 9	$\langle d^2 \rangle^{1/2}$	2.4236	2.422 ± 0.022	$f\sigma_8(0.15)$	0.4532	0.4520 ± 0.0056
A_{217}^{PS}	120.2	114 ± 10	z_{re}	7.70	7.60 ± 0.76	$\sigma_8(0.15)$	0.7468	0.7454 ± 0.0059
A^{kSZ}	0.00	< 4.36	$10^9 A_s$	2.0968	$2.092^{+0.030}_{-0.034}$	$f\sigma_8(0.38)$	0.47223	0.4711 ± 0.0048
A_{100}^{dustTT}	8.84	8.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.8790	1.878 ± 0.010	$\sigma_8(0.38)$	0.6623	$0.6612^{+0.0048}_{-0.0054}$
A_{143}^{dustTT}	11.04	10.9 ± 1.8	D_{40}	1222.6	1225 ± 11	$f\sigma_8(0.51)$	0.47124	0.4702 ± 0.0044
$A_{143 \times 217}^{\text{dustTT}}$	20.11	18.6 ± 3.3	D_{220}	5735.9	5739 ± 38	$\sigma_8(0.51)$	0.61999	$0.6189^{+0.0045}_{-0.0051}$
A_{217}^{dustTT}	95.2	93.6 ± 7.3	D_{810}	2540.5	2538 ± 13	$f\sigma_8(0.61)$	0.46656	0.4656 ± 0.0042
A_{100}^{dustTE}	0.1136	0.114 ± 0.038	D_{1420}	819.21	818.0 ± 4.7	$\sigma_8(0.61)$	0.59003	$0.5890^{+0.0043}_{-0.0048}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1347	0.135 ± 0.030	D_{2000}	231.64	231.1 ± 1.5	$f\sigma_8(2.33)$	0.29763	$0.2972^{+0.0022}_{-0.0025}$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.481 ± 0.084	$n_{s,0.002}$	0.96898	0.9680 ± 0.0037	$\sigma_8(2.33)$	0.30700	$0.3065^{+0.0023}_{-0.0026}$
A_{143}^{dustTE}	0.224	0.224 ± 0.054	Y_{P}	0.2454329	0.245426 ± 0.000049	f_{2000}^{143}	28.40	29.3 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.660	0.663 ± 0.080	$Y_{\text{P}}^{\text{BBN}}$	0.2467596	0.246752 ± 0.000050	$f_{2000}^{143 \times 217}$	31.74	32.0 ± 1.8
A_{217}^{dustTE}	2.072	2.07 ± 0.27	$10^5 \text{D}/\text{H}$	2.5676	2.571 ± 0.024	f_{2000}^{217}	106.29	106.8 ± 1.8
c_{100}	0.99973	0.99967 ± 0.00062	Age/Gyr	13.7782	13.779 ± 0.019	χ_{simall}^2	396.05	396.9 ± 1.7
c_{217}	0.99818	0.99821 ± 0.00061	z_*	1089.697	1089.71 ± 0.21	χ_{lowl}^2	22.68	22.87 ± 0.77
m_{DES}^1	0.0142	0.014 ± 0.023	r_*	144.653	144.69 ± 0.22	χ_{plik}^2	2346.4	2361.0 ± 5.9
m_{DES}^2	0.0126	0.012 ± 0.022	$100\theta_*$	1.041246	1.04124 ± 0.00028	$\chi_{6\text{DF}}^2$	0.0103	0.028 ± 0.038
m_{DES}^3	-0.0062	-0.007 ± 0.020	$D_M(z_*)/\text{Gpc}$	13.8923	13.896 ± 0.021	χ_{MGS}^2	1.407	1.50 ± 0.41
m_{DES}^4	0.0129	0.012 ± 0.021	z_{drag}	1060.085	1060.04 ± 0.28	χ_{DR12BAO}^2	3.94	4.18 ± 0.91
$A_{\text{IA,DES}}$	1.42	1.21 ± 0.50	r_{drag}	147.285	147.33 ± 0.23	χ_{DES}^2	229.06	231.9 ± 2.4
$\alpha_{\text{IA,DES}}$	2.58	$1.85^{+2.9}_{-0.95}$	k_{D}	0.140736	0.14068 ± 0.00028	χ_{prior}^2	2.6	19.4 ± 6.0
$\Delta z_{s,\text{DES}}^1$	0.0046	0.004 ± 0.015	$100\theta_{\text{D}}$	0.160683	0.16071 ± 0.00016	χ_{BAO}^2	5.354	5.71 ± 0.65
$\Delta z_{s,\text{DES}}^2$	-0.0207	-0.021 ± 0.012	z_{eq}	3377.1	3374 ± 21	χ_{CMB}^2	2765.1	2780.8 ± 5.8
$\Delta z_{s,\text{DES}}^3$	0.0053	0.005 ± 0.010	k_{eq}	0.010307	0.010299 ± 0.000063			

Best-fit $\chi_{\text{eff}}^2 = 3002.12$; $\bar{\chi}_{\text{eff}}^2 = 3037.77$; $R - 1 = 0.01621$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.94 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 commander_dx12_v3_2_29: 22.68 plik_rd12_HM_v22b_TTTEEE: 2346.36 WL - DES_1YR_final: 229.06

2.266 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022454	0.02244 ± 0.00014	$\Delta z_{s,\text{DES}}^3$	0.0047	0.004 ± 0.010	z_{eq}	3384.0	3383 ± 24
$\Omega_c h^2$	0.11916	0.1191 ± 0.0010	$\Delta z_{s,\text{DES}}^4$	-0.0220	-0.023 ± 0.020	k_{eq}	0.010328	0.010325 ± 0.000072
$100\theta_{\text{MC}}$	1.041001	1.04102 ± 0.00030	H_0	67.746	67.75 ± 0.48	$100\theta_{\text{eq}}$	0.81685	0.8170 ± 0.0045
τ	0.0554	$0.0546^{+0.0068}_{-0.0078}$	Ω_{Λ}	0.6900	0.6901 ± 0.0064	$100\theta_{s,\text{eq}}$	0.45118	0.4513 ± 0.0023
$\ln(10^{10} A_s)$	3.0447	3.043 ± 0.014	Ω_m	0.3100	0.3099 ± 0.0064	$H(0.15)$	73.015	73.02 ± 0.41
n_s	0.96825	0.9669 ± 0.0040	$\Omega_m h^2$	0.14225	0.14221 ± 0.00098	$D_M(0.15)$	640.04	640.0 ± 4.0
y_{cal}	1.00043	1.0007 ± 0.0025	$\Omega_m h^3$	0.096372	0.09634 ± 0.00029	$H(0.38)$	83.107	83.11 ± 0.30
A_{217}^{CIB}	46.0	47 ± 7	σ_8	0.8093	0.8081 ± 0.0056	$D_M(0.38)$	1526.8	1526.8 ± 8.1
$\xi^{\text{tSZ} \times \text{CIB}}$	0.62	—	S_8	0.8226	0.821 ± 0.011	$H(0.51)$	89.814	89.81 ± 0.24
A_{143}^{tSZ}	7.17	5.5 ± 2.0	$\sigma_8 \Omega_m^{0.5}$	0.4505	0.4498 ± 0.0059	$D_M(0.51)$	1978.1	1978.1 ± 9.6
A_{100}^{PS}	246.9	259 ± 28	$\sigma_8 \Omega_m^{0.25}$	0.6038	0.6029 ± 0.0055	$H(0.61)$	95.426	95.42 ± 0.20
A_{143}^{PS}	49.3	45 ± 8	$\sigma_8/h^{0.5}$	0.9832	0.9818 ± 0.0079	$D_M(0.61)$	2302.0	2302 ± 10
$A_{143 \times 217}^{\text{PS}}$	52.0	42 ± 9	$r_{\text{drag}} h$	99.74	99.76 ± 0.82	$H(2.33)$	236.09	236.06 ± 0.63
A_{217}^{PS}	121.4	115 ± 10	$\langle d^2 \rangle^{1/2}$	2.4304	2.431 ± 0.019	$D_M(2.33)$	5757.1	5757.5 ± 9.4
A^{kSZ}	0.00	< 4.36	z_{re}	7.76	7.66 ± 0.74	$f\sigma_8(0.15)$	0.4553	0.4545 ± 0.0055
A_{100}^{dustTT}	8.78	8.9 ± 1.8	$10^9 A_s$	2.1004	$2.097^{+0.028}_{-0.032}$	$\sigma_8(0.15)$	0.7480	0.7469 ± 0.0052
A_{143}^{dustTT}	11.01	10.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.8802	1.880 ± 0.010	$f\sigma_8(0.38)$	0.47392	0.4732 ± 0.0045
$A_{143 \times 217}^{\text{dustTT}}$	20.06	18.6 ± 3.3	D_{40}	1224.4	1228 ± 11	$\sigma_8(0.38)$	0.66318	0.6623 ± 0.0047
A_{217}^{dustTT}	95.4	93.6 ± 7.3	D_{220}	5734.8	5741 ± 38	$f\sigma_8(0.51)$	0.47270	0.4720 ± 0.0040
A_{100}^{dustTE}	0.1143	0.113 ± 0.038	D_{810}	2540.5	2539 ± 13	$\sigma_8(0.51)$	0.62069	$0.6198^{+0.0041}_{-0.0046}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1335	0.135 ± 0.030	D_{1420}	818.96	817.9 ± 4.7	$f\sigma_8(0.61)$	0.46785	0.4672 ± 0.0037
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.084	D_{2000}	231.57	231.1 ± 1.6	$\sigma_8(0.61)$	0.59064	$0.5898^{+0.0039}_{-0.0044}$
A_{143}^{dustTE}	0.223	0.224 ± 0.054	$n_{s,0.002}$	0.96825	0.9669 ± 0.0040	$f\sigma_8(2.33)$	0.29787	$0.2975^{+0.0020}_{-0.0023}$
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.664 ± 0.080	Y_{P}	0.245428	0.245419 ± 0.000052	$\sigma_8(2.33)$	0.30715	$0.3068^{+0.0022}_{-0.0025}$
A_{217}^{dustTE}	2.081	2.07 ± 0.27	$Y_{\text{P}}^{\text{BBN}}$	0.246754	0.246746 ± 0.000053	f_{2000}^{143}	28.24	29.4 ± 2.7
c_{100}	0.99975	0.99967 ± 0.00062	$10^5 \text{D}/\text{H}$	2.5701	2.574 ± 0.025	$f_{2000}^{143 \times 217}$	31.68	32.1 ± 1.8
c_{217}	0.99817	0.99821 ± 0.00061	Age/Gyr	13.7831	13.784 ± 0.021	f_{2000}^{217}	106.24	106.9 ± 1.8
m_{DES}^1	0.0144	0.014 ± 0.023	z_*	1089.740	1089.76 ± 0.23	χ_{lensing}^2	8.767	9.16 ± 0.65
m_{DES}^2	0.0120	0.012 ± 0.022	r_*	144.586	144.61 ± 0.24	χ_{small}^2	396.20	397.0 ± 1.7
m_{DES}^3	-0.0073	-0.009 ± 0.020	$100\theta_*$	1.041176	1.04120 ± 0.00029	χ_{lowl}^2	22.85	23.12 ± 0.80
m_{DES}^4	0.0119	0.010 ± 0.021	$D_M(z_*)/\text{Gpc}$	13.8868	13.889 ± 0.023	χ_{plik}^2	2345.8	2360.1 ± 5.7
$A_{\text{IA,DES}}$	1.45	1.25 ± 0.49	z_{drag}	1060.085	1060.03 ± 0.29	χ_{DES}^2	229.30	232.1 ± 2.6
$\alpha_{\text{IA,DES}}$	2.50	$1.8^{+2.7}_{-1.1}$	r_{drag}	147.220	147.25 ± 0.24	χ_{prior}^2	2.6	19.7 ± 6.0
$\Delta z_{s,\text{DES}}^1$	0.0045	0.005 ± 0.015	k_{D}	0.140792	0.14075 ± 0.00029	χ_{CMB}^2	2773.6	2789.4 ± 5.9
$\Delta z_{s,\text{DES}}^2$	-0.0204	-0.021 ± 0.012	$100\theta_{\text{D}}$	0.160683	0.16071 ± 0.00017			

Best-fit $\chi_{\text{eff}}^2 = 3005.49$; $\bar{\chi}_{\text{eff}}^2 = 3041.15$; $R - 1 = 0.01376$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 simall_100x143_offlike5_EE_Aplanck_B: 396.20 commander_dx12_v3.2_29: 22.85 plik_rd12_HM_v22b_TTTEEE: 2345.76 WL - DES_1YR_final: 229.30

2.267 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022468	0.02246 ± 0.00013	$\Delta z_{s,\text{DES}}^4$	-0.0211	-0.022 ± 0.020	$100\theta_{\text{eq}}$	0.81832	0.8182 ± 0.0037
$\Omega_c h^2$	0.11882	0.11885 ± 0.00086	H_0	67.889	67.88 ± 0.40	$100\theta_{s,\text{eq}}$	0.45193	0.4519 ± 0.0019
$100\theta_{\text{MC}}$	1.041035	1.04106 ± 0.00029	Ω_Λ	0.6921	0.6919 ± 0.0052	$H(0.15)$	73.135	73.13 ± 0.34
τ	0.0555	$0.0555^{+0.0066}_{-0.0076}$	Ω_m	0.3079	0.3081 ± 0.0052	$D_M(0.15)$	638.84	638.9 ± 3.4
$\ln(10^{10} A_s)$	3.0444	3.044 ± 0.014	$\Omega_m h^2$	0.14193	0.14195 ± 0.00082	$H(0.38)$	83.192	83.19 ± 0.26
n_s	0.96880	0.9676 ± 0.0037	$\Omega_m h^3$	0.096355	0.09635 ± 0.00029	$D_M(0.38)$	1524.4	1524.6 ± 6.8
y_{cal}	1.00060	1.0008 ± 0.0025	σ_8	0.8081	0.8080 ± 0.0057	$H(0.51)$	89.878	89.87 ± 0.21
A_{217}^{CIB}	46.6	47 ± 7	S_8	0.8187	0.8188 ± 0.0093	$D_M(0.51)$	1975.3	1975.6 ± 8.0
$\xi^{\text{tSZ} \times \text{CIB}}$	0.49	—	$\sigma_8 \Omega_m^{0.5}$	0.4484	0.4485 ± 0.0051	$H(0.61)$	95.473	95.47 ± 0.18
A_{143}^{tSZ}	7.30	5.5 ± 2.0	$\sigma_8 \Omega_m^{0.25}$	0.6020	0.6020 ± 0.0051	$D_M(0.61)$	2299.0	2299.3 ± 8.6
A_{100}^{PS}	248.5	259 ± 28	$\sigma_8/h^{0.5}$	0.9808	0.9807 ± 0.0076	$H(2.33)$	235.89	235.90 ± 0.53
A_{143}^{PS}	47.4	45 ± 8	$r_{\text{drag}} h$	99.997	99.99 ± 0.67	$D_M(2.33)$	5755.2	5755.5 ± 8.5
$A_{143 \times 217}^{\text{PS}}$	48.7	42 ± 9	$\langle d^2 \rangle^{1/2}$	2.4254	2.428 ± 0.019	$f\sigma_8(0.15)$	0.45331	0.4533 ± 0.0048
A_{217}^{PS}	120.2	115 ± 10	z_{re}	7.77	7.75 ± 0.72	$\sigma_8(0.15)$	0.7471	0.7469 ± 0.0052
A^{kSZ}	0.00	< 4.29	$10^9 A_s$	2.0997	$2.100^{+0.028}_{-0.031}$	$f\sigma_8(0.38)$	0.47239	0.4724 ± 0.0041
A_{100}^{dustTT}	8.86	8.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.8789	1.879 ± 0.010	$\sigma_8(0.38)$	0.66263	$0.6625^{+0.0043}_{-0.0048}$
A_{143}^{dustTT}	11.04	10.9 ± 1.8	D_{40}	1223.4	1227 ± 11	$f\sigma_8(0.51)$	0.47141	0.4714 ± 0.0038
$A_{143 \times 217}^{\text{dustTT}}$	19.98	18.6 ± 3.3	D_{220}	5737.7	5743 ± 38	$\sigma_8(0.51)$	0.62027	$0.6201^{+0.0041}_{-0.0046}$
A_{217}^{dustTT}	95.3	93.6 ± 7.4	D_{810}	2540.4	2540 ± 13	$f\sigma_8(0.61)$	0.46674	0.4667 ± 0.0036
A_{100}^{dustTE}	0.1138	0.113 ± 0.038	D_{1420}	819.05	818.2 ± 4.7	$\sigma_8(0.61)$	0.59030	$0.5901^{+0.0039}_{-0.0044}$
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.135 ± 0.030	D_{2000}	231.59	231.2 ± 1.5	$f\sigma_8(2.33)$	0.29777	$0.2977^{+0.0020}_{-0.0023}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.480 ± 0.084	$n_{s,0.002}$	0.96880	0.9676 ± 0.0037	$\sigma_8(2.33)$	0.30715	$0.3071^{+0.0021}_{-0.0025}$
A_{143}^{dustTE}	0.224	0.224 ± 0.054	Y_{P}	0.2454330	0.245427 ± 0.000049	f_{2000}^{143}	28.41	29.3 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.663 ± 0.080	$Y_{\text{P}}^{\text{BBN}}$	0.2467597	0.246753 ± 0.000050	$f_{2000}^{143 \times 217}$	31.70	32.0 ± 1.8
A_{217}^{dustTE}	2.078	2.07 ± 0.27	$10^5 \text{D}/\text{H}$	2.5675	2.570 ± 0.024	f_{2000}^{217}	106.38	106.8 ± 1.8
c_{100}	0.99974	0.99968 ± 0.00062	Age/Gyr	13.7792	13.780 ± 0.019	χ_{lensing}^2	8.854	9.17 ± 0.68
c_{217}	0.99818	0.99820 ± 0.00061	z_*	1089.693	1089.71 ± 0.20	χ_{small}^2	396.20	397.1 ± 1.8
m_{DES}^1	0.0139	0.014 ± 0.023	r_*	144.662	144.66 ± 0.21	χ_{lowl}^2	22.73	23.01 ± 0.76
m_{DES}^2	0.0120	0.012 ± 0.022	$100\theta_*$	1.041207	1.04124 ± 0.00029	χ_{plik}^2	2346.1	2360.3 ± 5.7
m_{DES}^3	-0.0065	-0.008 ± 0.020	$D_M(z_*)/\text{Gpc}$	13.8937	13.894 ± 0.020	$\chi_{6\text{DF}}^2$	0.0101	0.030 ± 0.038
m_{DES}^4	0.0134	0.011 ± 0.021	z_{drag}	1060.085	1060.05 ± 0.28	χ_{MGS}^2	1.407	1.45 ± 0.39
$A_{\text{IA,DES}}$	1.42	1.24 ± 0.49	r_{drag}	147.295	147.30 ± 0.22	χ_{DR12BAO}^2	3.93	4.24 ± 0.92
$\alpha_{\text{IA,DES}}$	2.57	$1.8^{+2.8}_{-1.0}$	k_{D}	0.140726	0.14071 ± 0.00027	χ_{DES}^2	229.07	231.9 ± 2.4
$\Delta z_{s,\text{DES}}^1$	0.0049	0.005 ± 0.015	$100\theta_{\text{D}}$	0.160678	0.16070 ± 0.00016	χ_{prior}^2	2.7	19.5 ± 6.0
$\Delta z_{s,\text{DES}}^2$	-0.0205	-0.021 ± 0.012	z_{eq}	3376.3	3377 ± 20	χ_{CMB}^2	2773.9	2789.5 ± 5.8
$\Delta z_{s,\text{DES}}^3$	0.0055	0.005 ± 0.010	k_{eq}	0.010305	0.010306 ± 0.000060	χ_{BAO}^2	5.350	5.73 ± 0.66

Best-fit $\chi_{\text{eff}}^2 = 3011.01$; $\bar{\chi}_{\text{eff}}^2 = 3046.67$; $R - 1 = 0.01525$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.93 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.85 small_100x143.offlike5_EE_Aplanck_B: 396.20 commander_dx12.v3.2.29: 22.73 plik_rd12_HM_v22b_TTTEEE: 2346.15 WL - DES_1YR_final: 229.07

2.268 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02244 ± 0.00014	$\Delta z_{s,\text{DES}}^3$	0.004 ± 0.010	z_{eq}	3379 ± 25
$\Omega_c h^2$	0.1190 ± 0.0011	$\Delta z_{s,\text{DES}}^4$	-0.023 ± 0.020	k_{eq}	0.010313 ± 0.000076
$100\theta_{\text{MC}}$	1.04104 ± 0.00030	H_0	67.82 ± 0.50	$100\theta_{\text{eq}}$	0.8178 ± 0.0047
τ	$0.0548^{+0.0046}_{-0.0083}$	Ω_{Λ}	0.6911 ± 0.0067	$100\theta_{s,\text{eq}}$	0.4517 ± 0.0024
$\ln(10^{10} A_s)$	$3.042^{+0.011}_{-0.016}$	Ω_{m}	0.3089 ± 0.0067	$H(0.15)$	73.08 ± 0.43
n_s	0.9675 ± 0.0040	$\Omega_{\text{m}} h^2$	0.1420 ± 0.0010	$D_{\text{M}}(0.15)$	639.4 ± 4.2
y_{cal}	1.0005 ± 0.0025	$\Omega_{\text{m}} h^3$	0.09633 ± 0.00029	$H(0.38)$	83.15 ± 0.32
A_{217}^{CIB}	47 ± 7	σ_8	$0.8075^{+0.0056}_{-0.0065}$	$D_{\text{M}}(0.38)$	1525.6 ± 8.5
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	0.819 ± 0.013	$H(0.51)$	89.84 ± 0.25
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4488 ± 0.0069	$D_{\text{M}}(0.51)$	1977 ± 10
A_{100}^{PS}	258 ± 28	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6020 ± 0.0065	$H(0.61)$	95.45 ± 0.21
A_{143}^{PS}	45 ± 8	$\sigma_8/h^{0.5}$	0.9805 ± 0.0093	$D_{\text{M}}(0.61)$	2301 ± 11
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	$r_{\text{drag}} h$	99.90 ± 0.86	$H(2.33)$	235.95 ± 0.67
A_{217}^{PS}	115 ± 10	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.023	$D_{\text{M}}(2.33)$	5756.6 ± 9.6
A^{kSZ}	< 4.30	z_{re}	$7.68^{+0.52}_{-0.81}$	$f\sigma_8(0.15)$	0.4535 ± 0.0064
A_{100}^{dustTT}	8.9 ± 1.8	$10^9 A_s$	$2.096^{+0.023}_{-0.033}$	$\sigma_8(0.15)$	$0.7464^{+0.0048}_{-0.0059}$
A_{143}^{dustTT}	10.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.878 ± 0.011	$f\sigma_8(0.38)$	0.4724 ± 0.0053
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	D_{40}	1226 ± 12	$\sigma_8(0.38)$	$0.6619^{+0.0040}_{-0.0052}$
A_{217}^{dustTT}	93.7 ± 7.4	D_{220}	5737 ± 38	$f\sigma_8(0.51)$	0.4713 ± 0.0047
A_{100}^{dustTE}	0.113 ± 0.038	D_{810}	2538 ± 13	$\sigma_8(0.51)$	$0.6196^{+0.0036}_{-0.0049}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	D_{1420}	817.7 ± 4.7	$f\sigma_8(0.61)$	0.4666 ± 0.0043
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.084	D_{2000}	231.1 ± 1.6	$\sigma_8(0.61)$	$0.5896^{+0.0034}_{-0.0047}$
A_{143}^{dustTE}	0.225 ± 0.054	$n_{s,0.002}$	0.9675 ± 0.0040	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0024}$
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080	Y_{P}	0.245421 ± 0.000052	$\sigma_8(2.33)$	$0.3067^{+0.0018}_{-0.0026}$
A_{217}^{dustTE}	2.08 ± 0.27	$Y_{\text{P}}^{\text{BBN}}$	0.246748 ± 0.000053	f_{2000}^{143}	29.3 ± 2.7
c_{100}	0.99966 ± 0.00062	10^5D/H	2.573 ± 0.025	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
c_{217}	0.99820 ± 0.00062	Age/Gyr	13.782 ± 0.022	f_{2000}^{217}	106.8 ± 1.8
m_{DES}^1	0.014 ± 0.023	z_*	1089.74 ± 0.23	χ_{simall}^2	396.8 ± 1.7
m_{DES}^2	0.012 ± 0.022	r_*	144.65 ± 0.25	χ_{lowl}^2	22.99 ± 0.83
m_{DES}^3	-0.008 ± 0.020	$100\theta_*$	1.04122 ± 0.00029	χ_{plik}^2	2360.7 ± 5.9
m_{DES}^4	0.011 ± 0.021	$D_{\text{M}}(z_*)/\text{Gpc}$	13.892 ± 0.024	χ_{DES}^2	232.1 ± 2.5
$A_{\text{IA,DES}}$	1.24 ± 0.50	z_{drag}	1060.02 ± 0.29	χ_{prior}^2	19.5 ± 6.0
$\alpha_{\text{IA,DES}}$	$1.9^{+2.8}_{-1.0}$	r_{drag}	147.29 ± 0.26	χ_{CMB}^2	2780.5 ± 5.8
$\Delta z_{s,\text{DES}}^1$	0.005 ± 0.015	k_{D}	0.14071 ± 0.00030		
$\Delta z_{s,\text{DES}}^2$	-0.021 ± 0.012	$100\theta_{\text{D}}$	0.16071 ± 0.00017		

$\bar{\chi}_{\text{eff}}^2 = 3032.07$; $R - 1 = 0.00937$

2.269 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02246 ± 0.00013	$\Delta z_{\mathrm{s,DES}}^4$	-0.022 ± 0.020	$100\theta_{\mathrm{eq}}$	0.8188 ± 0.0039
$\Omega_{\mathrm{c}}h^2$	0.11872 ± 0.00090	H_0	67.93 ± 0.41	$100\theta_{\mathrm{s,eq}}$	0.4522 ± 0.0020
$100\theta_{\mathrm{MC}}$	1.04107 ± 0.00029	Ω_{Λ}	0.6926 ± 0.0054	$H(0.15)$	73.17 ± 0.35
τ	$0.0551^{+0.0049}_{-0.0081}$	Ω_{m}	0.3074 ± 0.0054	$D_{\mathrm{M}}(0.15)$	638.5 ± 3.4
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016}$	$\Omega_{\mathrm{m}}h^2$	0.14182 ± 0.00086	$H(0.38)$	83.21 ± 0.26
n_{s}	0.9681 ± 0.0037	$\Omega_{\mathrm{m}}h^3$	0.09633 ± 0.00029	$D_{\mathrm{M}}(0.38)$	1523.8 ± 6.9
y_{cal}	1.0006 ± 0.0025	σ_8	$0.8070^{+0.0054}_{-0.0065}$	$H(0.51)$	89.89 ± 0.21
A_{217}^{CIB}	47 ± 7	S_8	0.817 ± 0.011	$D_{\mathrm{M}}(0.51)$	1974.6 ± 8.1
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4474 ± 0.0058	$H(0.61)$	95.48 ± 0.18
A_{143}^{tSZ}	5.5 ± 2.0	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6009 ± 0.0058	$D_{\mathrm{M}}(0.61)$	2298.3 ± 8.8
A_{100}^{PS}	258 ± 28	$\sigma_8/h^{0.5}$	0.9791 ± 0.0085	$H(2.33)$	235.81 ± 0.56
A_{143}^{PS}	45 ± 8	$r_{\mathrm{drag}}h$	100.08 ± 0.70	$D_{\mathrm{M}}(2.33)$	5755.0 ± 8.5
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.021	$f\sigma_8(0.15)$	0.4523 ± 0.0055
A_{217}^{PS}	114 ± 10	z_{re}	$7.71^{+0.54}_{-0.80}$	$\sigma_8(0.15)$	$0.7461^{+0.0048}_{-0.0060}$
A^{kSZ}	< 4.35	$10^9 A_{\mathrm{s}}$	$2.097^{+0.024}_{-0.033}$	$f\sigma_8(0.38)$	0.4715 ± 0.0047
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.010	$\sigma_8(0.38)$	$0.6618^{+0.0040}_{-0.0053}$
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	D_{40}	1225 ± 11	$f\sigma_8(0.51)$	0.4706 ± 0.0043
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	D_{220}	5739 ± 38	$\sigma_8(0.51)$	$0.6195^{+0.0037}_{-0.0050}$
$A_{217}^{\mathrm{dust}TT}$	93.6 ± 7.3	D_{810}	2538 ± 13	$f\sigma_8(0.61)$	0.4659 ± 0.0040
$A_{100}^{\mathrm{dust}TE}$	0.113 ± 0.038	D_{1420}	817.9 ± 4.7	$\sigma_8(0.61)$	$0.5896^{+0.0035}_{-0.0048}$
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.030	D_{2000}	231.2 ± 1.5	$f\sigma_8(2.33)$	$0.2975^{+0.0018}_{-0.0024}$
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.481 ± 0.084	$n_{\mathrm{s},0.002}$	0.9681 ± 0.0037	$\sigma_8(2.33)$	$0.3069^{+0.0018}_{-0.0026}$
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.054	Y_{P}	0.245427 ± 0.000049	f_{2000}^{143}	29.3 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.663 ± 0.080	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246754 ± 0.000050	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	$10^5 \mathrm{D}/\mathrm{H}$	2.570 ± 0.024	f_{2000}^{217}	106.8 ± 1.7
c_{100}	0.99966 ± 0.00062	$\mathrm{Age}/\mathrm{Gyr}$	13.779 ± 0.019	χ_{simall}^2	396.9 ± 1.7
c_{217}	0.99820 ± 0.00061	z_*	1089.70 ± 0.20	χ_{lowl}^2	22.88 ± 0.77
m_{DES}^1	0.014 ± 0.023	r_*	144.70 ± 0.22	χ_{plik}^2	2360.8 ± 5.9
m_{DES}^2	0.012 ± 0.022	$100\theta_*$	1.04125 ± 0.00029	$\chi_{6\mathrm{DF}}^2$	0.027 ± 0.036
m_{DES}^3	-0.007 ± 0.020	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.897 ± 0.021	χ_{MGS}^2	1.51 ± 0.41
m_{DES}^4	0.011 ± 0.021	z_{drag}	1060.04 ± 0.28	$\chi_{\mathrm{DR12BAO}}^2$	4.15 ± 0.88
$A_{\mathrm{IA,DES}}$	1.22 ± 0.50	r_{drag}	147.34 ± 0.23	χ_{DES}^2	231.9 ± 2.4
$\alpha_{\mathrm{IA,DES}}$	$1.84^{+2.9}_{-0.98}$	k_{D}	0.14067 ± 0.00028	χ_{prior}^2	19.4 ± 6.0
$\Delta z_{\mathrm{s,DES}}^1$	0.004 ± 0.015	$100\theta_{\mathrm{D}}$	0.16071 ± 0.00016	χ_{BAO}^2	5.69 ± 0.63
$\Delta z_{\mathrm{s,DES}}^2$	-0.021 ± 0.012	z_{eq}	3374 ± 21	χ_{CMB}^2	2780.5 ± 5.7
$\Delta z_{\mathrm{s,DES}}^3$	0.005 ± 0.010	k_{eq}	0.010297 ± 0.000063		

$\bar{\chi}_{\mathrm{eff}}^2 = 3037.53$; $R - 1 = 0.01574$

2.270 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02244 ± 0.00014	$\Delta z_{s,\text{DES}}^3$	0.004 ± 0.010	z_{eq}	3382 ± 23
$\Omega_c h^2$	0.1191 ± 0.0010	$\Delta z_{s,\text{DES}}^4$	-0.023 ± 0.020	k_{eq}	0.010321 ± 0.000070
$100\theta_{\text{MC}}$	1.04103 ± 0.00030	H_0	67.77 ± 0.47	$100\theta_{\text{eq}}$	0.8173 ± 0.0044
τ	$0.0555^{+0.0051}_{-0.0080}$	Ω_{Λ}	0.6904 ± 0.0062	$100\theta_{s,\text{eq}}$	0.4514 ± 0.0022
$\ln(10^{10} A_s)$	$3.045^{+0.011}_{-0.015}$	Ω_{m}	0.3096 ± 0.0062	$H(0.15)$	73.04 ± 0.40
n_s	0.9671 ± 0.0039	$\Omega_{\text{m}} h^2$	0.14216 ± 0.00097	$D_{\text{M}}(0.15)$	639.8 ± 4.0
y_{cal}	1.0006 ± 0.0025	$\Omega_{\text{m}} h^3$	0.09634 ± 0.00029	$H(0.38)$	83.12 ± 0.30
A_{217}^{CIB}	47 ± 7	σ_8	$0.8086^{+0.0049}_{-0.0056}$	$D_{\text{M}}(0.38)$	1526.4 ± 8.0
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	0.821 ± 0.011	$H(0.51)$	89.82 ± 0.24
A_{143}^{tSZ}	5.5 ± 2.0	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4499 ± 0.0059	$D_{\text{M}}(0.51)$	1977.7 ± 9.4
A_{100}^{PS}	259 ± 28	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6031 ± 0.0054	$H(0.61)$	95.43 ± 0.20
A_{143}^{PS}	45 ± 8	$\sigma_8/h^{0.5}$	0.9823 ± 0.0078	$D_{\text{M}}(0.61)$	2302 ± 10
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	$r_{\text{drag}} h$	99.80 ± 0.80	$H(2.33)$	236.03 ± 0.62
A_{217}^{PS}	115 ± 10	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.019	$D_{\text{M}}(2.33)$	5757.1 ± 9.4
A^{kSZ}	< 4.34	z_{re}	$7.75^{+0.55}_{-0.78}$	$f\sigma_8(0.15)$	0.4546 ± 0.0055
A_{100}^{dustTT}	8.9 ± 1.8	$10^9 A_s$	$2.100^{+0.023}_{-0.032}$	$\sigma_8(0.15)$	$0.7474^{+0.0043}_{-0.0052}$
A_{143}^{dustTT}	10.9 ± 1.8	$10^9 A_s e^{-2\tau}$	1.880 ± 0.010	$f\sigma_8(0.38)$	0.4733 ± 0.0044
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	D_{40}	1228 ± 11	$\sigma_8(0.38)$	$0.6627^{+0.0037}_{-0.0048}$
A_{217}^{dustTT}	93.6 ± 7.3	D_{220}	5741 ± 38	$f\sigma_8(0.51)$	0.4722 ± 0.0039
A_{100}^{dustTE}	0.113 ± 0.038	D_{810}	2539 ± 13	$\sigma_8(0.51)$	$0.6203^{+0.0035}_{-0.0045}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	D_{1420}	817.9 ± 4.7	$f\sigma_8(0.61)$	0.4674 ± 0.0036
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.084	D_{2000}	231.1 ± 1.6	$\sigma_8(0.61)$	$0.5903^{+0.0033}_{-0.0044}$
A_{143}^{dustTE}	0.224 ± 0.054	$n_{s,0.002}$	0.9671 ± 0.0039	$f\sigma_8(2.33)$	$0.2977^{+0.0017}_{-0.0023}$
$A_{143 \times 217}^{\text{dustTE}}$	0.663 ± 0.080	Y_{P}	0.245421 ± 0.000052	$\sigma_8(2.33)$	$0.3070^{+0.0018}_{-0.0025}$
A_{217}^{dustTE}	2.07 ± 0.27	$Y_{\text{P}}^{\text{BBN}}$	0.246747 ± 0.000052	f_{2000}^{143}	29.3 ± 2.7
c_{100}	0.99967 ± 0.00062	10^5D/H	2.573 ± 0.025	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
c_{217}	0.99820 ± 0.00061	Age/Gyr	13.783 ± 0.021	f_{2000}^{217}	106.9 ± 1.8
m_{DES}^1	0.014 ± 0.023	z_*	1089.75 ± 0.23	χ_{lensing}^2	9.12 ± 0.60
m_{DES}^2	0.012 ± 0.022	r_*	144.62 ± 0.23	χ_{simall}^2	396.9 ± 1.8
m_{DES}^3	-0.009 ± 0.020	$100\theta_*$	1.04120 ± 0.00029	χ_{lowl}^2	23.12 ± 0.80
m_{DES}^4	0.010 ± 0.021	$D_{\text{M}}(z_*)/\text{Gpc}$	13.890 ± 0.022	χ_{plik}^2	2360.0 ± 5.7
$A_{\text{IA,DES}}$	1.26 ± 0.49	z_{drag}	1060.03 ± 0.29	χ_{DES}^2	232.1 ± 2.5
$\alpha_{\text{IA,DES}}$	$1.8^{+2.7}_{-1.1}$	r_{drag}	147.26 ± 0.24	χ_{prior}^2	19.6 ± 6.1
$\Delta z_{s,\text{DES}}^1$	0.005 ± 0.015	k_{D}	0.14074 ± 0.00028	χ_{CMB}^2	2789.2 ± 5.8
$\Delta z_{s,\text{DES}}^2$	-0.021 ± 0.012	$100\theta_{\text{D}}$	0.16071 ± 0.00017		

$\bar{\chi}_{\text{eff}}^2 = 3040.94$; $R - 1 = 0.01565$

2.271 base_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02246 ± 0.00013	$\Delta z_{s,\text{DES}}^4$	-0.022 ± 0.020	$100\theta_{\text{eq}}$	0.8184 ± 0.0037
$\Omega_c h^2$	0.11882 ± 0.00086	H_0	67.89 ± 0.39	$100\theta_{s,\text{eq}}$	0.4520 ± 0.0019
$100\theta_{\text{MC}}$	1.04106 ± 0.00029	Ω_Λ	0.6920 ± 0.0052	$H(0.15)$	73.14 ± 0.34
τ	$0.0562^{+0.0054}_{-0.0077}$	Ω_{m}	0.3080 ± 0.0052	$D_{\text{M}}(0.15)$	638.8 ± 3.3
$\ln(10^{10} A_{\text{s}})$	$3.046^{+0.012}_{-0.015}$	$\Omega_{\text{m}} h^2$	0.14192 ± 0.00082	$H(0.38)$	83.19 ± 0.25
n_{s}	0.9677 ± 0.0037	$\Omega_{\text{m}} h^3$	0.09635 ± 0.00029	$D_{\text{M}}(0.38)$	1524.4 ± 6.7
y_{cal}	1.0007 ± 0.0025	σ_8	$0.8083^{+0.0049}_{-0.0057}$	$H(0.51)$	89.88 ± 0.21
A_{217}^{CIB}	47 ± 7	S_8	0.8190 ± 0.0093	$D_{\text{M}}(0.51)$	1975.3 ± 7.9
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4486 ± 0.0051	$H(0.61)$	95.47 ± 0.18
A_{143}^{tSZ}	5.5 ± 2.0	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6022 ± 0.0050	$D_{\text{M}}(0.61)$	2299.0 ± 8.6
A_{100}^{PS}	259 ± 28	$\sigma_8/h^{0.5}$	0.9811 ± 0.0074	$H(2.33)$	235.88 ± 0.53
A_{143}^{PS}	45 ± 8	$r_{\text{drag}} h$	100.01 ± 0.67	$D_{\text{M}}(2.33)$	5755.3 ± 8.5
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.018	$f\sigma_8(0.15)$	0.4534 ± 0.0048
A_{217}^{PS}	115 ± 10	z_{re}	$7.82^{+0.58}_{-0.75}$	$\sigma_8(0.15)$	$0.7473^{+0.0044}_{-0.0053}$
A^{kSZ}	< 4.29	$10^9 A_{\text{s}}$	$2.102^{+0.024}_{-0.031}$	$f\sigma_8(0.38)$	0.4725 ± 0.0041
A_{100}^{dustTT}	8.9 ± 1.8	$10^9 A_{\text{s}} e^{-2\tau}$	1.879 ± 0.010	$\sigma_8(0.38)$	$0.6628^{+0.0039}_{-0.0048}$
A_{143}^{dustTT}	10.9 ± 1.8	D_{40}	1227 ± 11	$f\sigma_8(0.51)$	0.4715 ± 0.0037
$A_{143 \times 217}^{\text{dustTT}}$	18.5 ± 3.3	D_{220}	5743 ± 38	$\sigma_8(0.51)$	$0.6204^{+0.0036}_{-0.0046}$
A_{217}^{dustTT}	93.6 ± 7.4	D_{810}	2539 ± 13	$f\sigma_8(0.61)$	0.4669 ± 0.0035
A_{100}^{dustTE}	0.113 ± 0.038	D_{1420}	818.2 ± 4.7	$\sigma_8(0.61)$	$0.5905^{+0.0034}_{-0.0044}$
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	D_{2000}	231.2 ± 1.5	$f\sigma_8(2.33)$	$0.2979^{+0.0018}_{-0.0023}$
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.084	$n_{\text{s},0.002}$	0.9677 ± 0.0037	$\sigma_8(2.33)$	$0.3072^{+0.0019}_{-0.0025}$
A_{143}^{dustTE}	0.224 ± 0.054	Y_{P}	0.245427 ± 0.000049	f_{2000}^{143}	29.2 ± 2.7
$A_{143 \times 217}^{\text{dustTE}}$	0.663 ± 0.080	$Y_{\text{P}}^{\text{BBN}}$	0.246754 ± 0.000049	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
A_{217}^{dustTE}	2.07 ± 0.27	10^5D/H	2.570 ± 0.024	f_{2000}^{217}	106.8 ± 1.8
c_{100}	0.99967 ± 0.00062	Age/Gyr	13.779 ± 0.019	χ_{lensing}^2	9.13 ± 0.62
c_{217}	0.99820 ± 0.00061	z_*	1089.71 ± 0.20	χ_{small}^2	397.1 ± 1.8
m_{DES}^1	0.014 ± 0.023	r_*	144.67 ± 0.21	χ_{lowl}^2	23.01 ± 0.76
m_{DES}^2	0.012 ± 0.022	$100\theta_*$	1.04124 ± 0.00029	χ_{plik}^2	2360.2 ± 5.7
m_{DES}^3	-0.008 ± 0.020	$D_{\text{M}}(z_*)/\text{Gpc}$	13.894 ± 0.020	$\chi_{6\text{DF}}^2$	0.028 ± 0.037
m_{DES}^4	0.011 ± 0.021	z_{drag}	1060.05 ± 0.28	χ_{MGS}^2	1.46 ± 0.39
$A_{\text{IA,DES}}$	1.24 ± 0.49	r_{drag}	147.31 ± 0.22	χ_{DR12BAO}^2	4.21 ± 0.89
$\alpha_{\text{IA,DES}}$	$1.8^{+2.8}_{-1.0}$	k_{D}	0.14071 ± 0.00027	χ_{DES}^2	231.9 ± 2.4
$\Delta z_{s,\text{DES}}^1$	0.005 ± 0.015	$100\theta_{\text{D}}$	0.16070 ± 0.00016	χ_{prior}^2	19.5 ± 6.0
$\Delta z_{s,\text{DES}}^2$	-0.021 ± 0.012	z_{eq}	3376 ± 19	χ_{CMB}^2	2789.4 ± 5.8
$\Delta z_{s,\text{DES}}^3$	0.005 ± 0.010	k_{eq}	0.010304 ± 0.000059	χ_{BAO}^2	5.71 ± 0.63

$\bar{\chi}_{\text{eff}}^2 = 3046.49$; $R - 1 = 0.01631$

2.272 base_BAO_Cooke17

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022095	0.02225 ± 0.00050	r_*	137.0	129.8 ± 8.3	$D_M(0.38)$	1447	1378 ± 81
$\Omega_c h^2$	0.1527	$0.194^{+0.036}_{-0.056}$	$100\theta_*$	1.0813	$1.112^{+0.039}_{-0.036}$	$H(0.51)$	96.4	$103.3^{+6.9}_{-9.0}$
$100\theta_{MC}$	1.0811	$1.112^{+0.039}_{-0.035}$	$D_M(z_*)/\text{Gpc}$	12.67	$11.7^{+1.1}_{-1.2}$	$D_M(0.51)$	1869	1774 ± 110
H_0	70.69	$73.7^{+3.0}_{-3.9}$	z_{drag}	1061.54	$1064.2^{+2.8}_{-3.3}$	$H(0.61)$	102.8	$110.6^{+7.8}_{-10}$
Ω_Λ	0.649	$0.607^{+0.054}_{-0.048}$	r_{drag}	139.5	132.2 ± 8.5	$D_M(0.61)$	2171	2057 ± 130
Ω_m	0.351	$0.393^{+0.048}_{-0.054}$	k_D	0.1489	$0.1583^{+0.0096}_{-0.012}$	$H(2.33)$	260.9	287^{+27}_{-34}
$\Omega_m h^2$	0.1754	$0.217^{+0.036}_{-0.056}$	$100\theta_D$	0.1665	0.1707 ± 0.0053	$D_M(2.33)$	5329	4980 ± 410
$\Omega_m h^3$	0.1240	$0.161^{+0.029}_{-0.051}$	z_{eq}	4177	5159^{+900}_{-1000}	χ^2_{Cooke17}	0.045	1.0 ± 1.4
$r_{\text{drag}} h$	98.64	97.2 ± 2.1	k_{eq}	0.01275	$0.0157^{+0.0026}_{-0.0041}$	$\chi^2_{6\text{DF}}$	0.092	0.42 ± 0.42
Y_P	0.245282	0.24533 ± 0.00021	$100\theta_{\text{eq}}$	0.726	$0.659^{+0.071}_{-0.091}$	χ^2_{MGS}	0.982	0.70 ± 0.65
Y_P^{BBN}	0.246608	0.24666 ± 0.00021	$100\theta_{s,\text{eq}}$	0.4042	$0.369^{+0.038}_{-0.048}$	χ^2_{DR12BAO}	2.18	3.8 ± 1.7
$10^5 \text{D}/\text{H}$	2.638	2.611 ± 0.094	$H(0.15)$	76.89	$80.9^{+4.0}_{-5.3}$	χ^2_{BAO}	3.26	5.0 ± 1.9
Age/Gyr	12.75	11.91 ± 0.99	$D_M(0.15)$	610.6	584 ± 30			
z_*	1093.01	$1095.7^{+3.0}_{-3.7}$	$H(0.38)$	88.6	$94.5^{+5.8}_{-7.6}$			

Best-fit $\chi^2_{\text{eff}} = 3.30$; $\bar{\chi}^2_{\text{eff}} = 5.96$; $R - 1 = 0.00985$

χ^2_{eff} : Abund - D.Cooke2017: 0.04 BAO - 6DF: 0.09 MGS: 0.98 DR12BAO: 2.18

2.273 base_BAO_Cooke17_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022221	0.02223 ± 0.00050	r_*	143.27	143.0 ± 3.8	$D_M(0.38)$	1503.6	1501 ± 41
$\Omega_c h^2$	0.1250	$0.127^{+0.014}_{-0.016}$	$100\theta_*$	1.0507	1.052 ± 0.019	$H(0.51)$	91.32	$91.6^{+3.0}_{-3.3}$
$100\theta_{MC}$	1.0505	1.052 ± 0.019	$D_M(z_*)/\text{Gpc}$	13.64	13.61 ± 0.60	$D_M(0.51)$	1948	1944 ± 56
H_0	68.74	$68.9^{+1.5}_{-1.7}$	z_{drag}	1059.93	1060.0 ± 1.6	$H(0.61)$	97.06	97.4 ± 3.5
Ω_Λ	0.6870	0.686 ± 0.019	r_{drag}	145.95	145.7 ± 3.9	$D_M(0.61)$	2266	2262 ± 67
Ω_m	0.3130	0.314 ± 0.019	k_D	0.14196	0.1423 ± 0.0043	$H(2.33)$	240.6	242 ± 12
$\Omega_m h^2$	0.1479	$0.150^{+0.014}_{-0.016}$	$100\theta_D$	0.16230	0.1625 ± 0.0026	$D_M(2.33)$	5659	5648 ± 210
$\Omega_m h^3$	0.1016	$0.103^{+0.011}_{-0.014}$	z_{eq}	3518	3559^{+330}_{-390}	χ^2_{Cooke17}	0.002	1.0 ± 1.4
$r_{\text{drag}} h$	100.33	100.3 ± 1.2	k_{eq}	0.01074	$0.0109^{+0.0010}_{-0.0012}$	χ^2_{JLA}	1035.14	1036.0 ± 1.5
Y_P	0.245335	$0.24532^{+0.00022}_{-0.00020}$	$100\theta_{\text{eq}}$	0.8001	$0.799^{+0.042}_{-0.049}$	$\chi^2_{6\text{DF}}$	0.0002	0.051 ± 0.073
Y_P^{BBN}	0.246661	$0.24665^{+0.00022}_{-0.00020}$	$100\theta_{s,\text{eq}}$	0.4428	$0.442^{+0.022}_{-0.025}$	χ^2_{MGS}	1.68	1.75 ± 0.66
$10^5 \text{D}/\text{H}$	2.614	2.616 ± 0.094	$H(0.15)$	74.13	$74.3^{+1.9}_{-2.1}$	χ^2_{DR12BAO}	2.95	4.0 ± 1.6
Age/Gyr	13.55	13.52 ± 0.51	$D_M(0.15)$	630.6	630 ± 16	χ^2_{BAO}	4.63	5.8 ± 1.8
z_*	1090.55	1090.7 ± 1.4	$H(0.38)$	84.46	$84.7^{+2.6}_{-2.9}$			

Best-fit $\chi^2_{\text{eff}} = 1039.76$; $\bar{\chi}^2_{\text{eff}} = 1042.72$; $R - 1 = 0.00647$

χ^2_{eff} : Abund - D.Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.95 SN - JLA Pantheon18: 1035.14

2.274 base_BAO_Cooke17_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02217	0.02227 ± 0.00050	z_*	1091.08	$1091.4^{+1.7}_{-1.9}$	$D_{\text{M}}(0.38)$	1493	1481 ± 50
$\Omega_{\text{c}}h^2$	0.1306	$0.136^{+0.018}_{-0.024}$	r_*	141.9	140.8 ± 4.9	$H(0.51)$	92.31	$93.4^{+3.7}_{-4.5}$
$100\theta_{\text{MC}}$	1.0571	1.062 ± 0.024	$100\theta_*$	1.0573	1.062 ± 0.024	$D_{\text{M}}(0.51)$	1932	1916 ± 68
α_{JLA}	0.1411	0.1410 ± 0.0066	$D_{\text{M}}(z_*)/\text{Gpc}$	13.43	13.28 ± 0.76	$H(0.61)$	98.19	$99.4^{+4.2}_{-5.1}$
β_{JLA}	3.096	3.097 ± 0.081	z_{drag}	1060.24	1060.8 ± 1.9	$D_{\text{M}}(0.61)$	2247	2228 ± 82
H_0	69.08	$69.6^{+1.8}_{-2.2}$	r_{drag}	144.6	143.5 ± 5.0	$H(2.33)$	244.8	249^{+14}_{-17}
Ω_{Λ}	0.6786	$0.673^{+0.028}_{-0.026}$	k_{D}	0.1434	$0.1448^{+0.0052}_{-0.0061}$	$D_{\text{M}}(2.33)$	5590	5535 ± 260
Ω_{m}	0.3214	$0.327^{+0.026}_{-0.028}$	$100\theta_{\text{D}}$	0.16323	0.1638 ± 0.0032	χ^2_{Cooke17}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1534	$0.159^{+0.018}_{-0.024}$	z_{eq}	3650	3784^{+400}_{-600}	χ^2_{JLA}	695.68	698.5 ± 2.7
$\Omega_{\text{m}}h^3$	0.1060	$0.111^{+0.014}_{-0.020}$	k_{eq}	0.01114	$0.0115^{+0.0013}_{-0.0017}$	$\chi^2_{6\text{DF}}$	0.0085	0.08 ± 0.11
$r_{\text{drag}}h$	99.89	99.8 ± 1.4	$100\theta_{\text{eq}}$	0.783	$0.774^{+0.054}_{-0.061}$	χ^2_{MGS}	1.47	1.54 ± 0.71
Y_{P}	0.245314	$0.24534^{+0.00023}_{-0.00020}$	$100\theta_{\text{s,eq}}$	0.4342	$0.429^{+0.028}_{-0.032}$	χ^2_{DR12BAO}	2.73	3.7 ± 1.5
$Y_{\text{P}}^{\text{BBN}}$	0.246640	$0.24667^{+0.00023}_{-0.00020}$	$H(0.15)$	74.64	$75.3^{+2.3}_{-2.7}$	χ^2_{BAO}	4.21	5.3 ± 1.8
$10^5\text{D}/\text{H}$	2.623	2.608 ± 0.094	$D_{\text{M}}(0.15)$	626.9	622 ± 19			
Age/Gyr	13.38	13.25 ± 0.64	$H(0.38)$	85.27	$86.2^{+3.1}_{-3.8}$			

Best-fit $\chi^2_{\text{eff}} = 699.89$; $\bar{\chi}^2_{\text{eff}} = 704.85$; $R - 1 = 0.01324$
 χ^2_{eff} : Abund - D.Cooke2017: 0.00 BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 2.73 SN - JLA December_2013: 695.68

2.275 base_BAO_Cooke17_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02219	$0.02222^{+0.00046}_{-0.00053}$	r_*	145.15	145.11 ± 0.62	$D_{\text{M}}(0.38)$	1523.6	1523 ± 11
$\Omega_{\text{c}}h^2$	0.11776	0.1178 ± 0.0016	$100\theta_*$	1.04111	1.04111 ± 0.00062	$H(0.51)$	89.777	$89.80^{+0.39}_{-0.44}$
$100\theta_{\text{MC}}$	1.04091	1.04091 ± 0.00062	$D_{\text{M}}(z_*)/\text{Gpc}$	13.942	13.938 ± 0.061	$D_{\text{M}}(0.51)$	1974.9	1975 ± 13
H_0	68.00	68.00 ± 0.64	z_{drag}	1059.36	1059.4 ± 1.2	$H(0.61)$	95.327	$95.35^{+0.36}_{-0.42}$
Ω_{Λ}	0.6959	0.6956 ± 0.0084	r_{drag}	147.89	147.84 ± 0.77	$D_{\text{M}}(0.61)$	2299.0	2299 ± 15
Ω_{m}	0.3041	0.3044 ± 0.0084	k_{D}	0.13989	0.1400 ± 0.0011	$H(2.33)$	234.90	235.0 ± 1.3
$\Omega_{\text{m}}h^2$	0.14059	0.1407 ± 0.0018	$100\theta_{\text{D}}$	0.16108	0.16105 ± 0.00071	$D_{\text{M}}(2.33)$	5766.1	5765^{+23}_{-21}
$\Omega_{\text{m}}h^3$	0.09560	0.0957 ± 0.0011	z_{eq}	3344.3	3347 ± 43	χ^2_{Cooke17}	0.00	0.99 ± 1.3
$r_{\text{drag}}h$	100.56	100.5 ± 1.1	k_{eq}	0.010207	0.01021 ± 0.00013	χ^2_{JLA}	1034.789	1034.94 ± 0.28
Y_{P}	0.245322	0.24532 ± 0.00021	$100\theta_{\text{eq}}$	0.8233	0.8230 ± 0.0073	$\chi^2_{6\text{DF}}$	0.0002	0.051 ± 0.072
$Y_{\text{P}}^{\text{BBN}}$	0.246648	0.24665 ± 0.00022	$100\theta_{\text{s,eq}}$	0.45472	0.4546 ± 0.0039	χ^2_{MGS}	1.75	1.81 ± 0.68
$10^5\text{D}/\text{H}$	2.620	2.617 ± 0.094	$H(0.15)$	73.19	73.20 ± 0.56	χ^2_{DR12BAO}	3.42	4.2 ± 1.2
Age/Gyr	13.806	$13.803^{+0.055}_{-0.049}$	$D_{\text{M}}(0.15)$	638.1	638.1 ± 5.4	χ^2_{prior}	0.00	1.1 ± 1.6
z_*	1089.95	1089.93 ± 0.62	$H(0.38)$	83.148	83.16 ± 0.45	χ^2_{BAO}	5.17	6.1 ± 1.3

Best-fit $\chi^2_{\text{eff}} = 1039.96$; $\bar{\chi}^2_{\text{eff}} = 1043.12$; $R - 1 = 0.00669$
 χ^2_{eff} : Abund - D.Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.42 SN - JLA Pantheon18: 1034.79

2.276 base_BAO_Cooke17_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02216	$0.02224^{+0.00047}_{-0.00053}$	r_*	145.14	145.04 ± 0.63	$D_{\text{M}}(0.38)$	1525.0	1524 ± 12
$\Omega_{\text{c}}h^2$	0.11790	0.1180 ± 0.0017	$100\theta_*$	1.04110	1.04111 ± 0.00059	$H(0.51)$	89.733	89.79 ± 0.42
$100\theta_{\text{MC}}$	1.04088	1.04091 ± 0.00059	$D_{\text{M}}(z_*)/\text{Gpc}$	13.941	13.932 ± 0.062	$D_{\text{M}}(0.51)$	1976.5	1976 ± 14
H_0	67.92	67.95 ± 0.67	z_{drag}	1059.32	1059.5 ± 1.2	$H(0.61)$	95.290	95.35 ± 0.40
Ω_{Λ}	0.6950	0.6946 ± 0.0089	r_{drag}	147.88	147.77 ± 0.78	$D_{\text{M}}(0.61)$	2300.8	2300 ± 15
Ω_{m}	0.3050	0.3054 ± 0.0089	k_{D}	0.13988	0.1401 ± 0.0011	$H(2.33)$	234.96	235.1 ± 1.3
$\Omega_{\text{m}}h^2$	0.14071	0.1409 ± 0.0019	$100\theta_{\text{D}}$	0.16111	0.16102 ± 0.00072	$D_{\text{M}}(2.33)$	5767.8	5764 ± 22
$\Omega_{\text{m}}h^3$	0.09556	$0.0957^{+0.0010}_{-0.0011}$	z_{eq}	3347.0	3352 ± 44	χ^2_{Cooke17}	0.01	1.0 ± 1.5
$r_{\text{drag}}h$	100.44	100.4 ± 1.2	k_{eq}	0.010216	0.01023 ± 0.00014	$\chi^2_{6\text{DF}}$	0.0001	0.057 ± 0.079
Y_{P}	0.245311	0.24533 ± 0.00022	$100\theta_{\text{eq}}$	0.8227	0.8221 ± 0.0076	χ^2_{MGS}	1.68	1.74 ± 0.70
$Y_{\text{P}}^{\text{BBN}}$	0.246637	0.24666 ± 0.00022	$100\theta_{\text{s,eq}}$	0.45444	0.4541 ± 0.0040	χ^2_{DR12BAO}	3.48	4.4 ± 1.5
$10^5\text{D}/\text{H}$	2.625	2.613 ± 0.095	$H(0.15)$	73.12	73.16 ± 0.59	χ^2_{prior}	0.00	0.97 ± 1.3
Age/Gyr	13.810	$13.802^{+0.055}_{-0.050}$	$D_{\text{M}}(0.15)$	638.8	638.5 ± 5.7	χ^2_{BAO}	5.16	6.2 ± 1.4
z_*	1090.00	1089.92 ± 0.64	$H(0.38)$	83.096	83.14 ± 0.47			

Best-fit $\chi^2_{\text{eff}} = 5.17$; $\bar{\chi}^2_{\text{eff}} = 8.20$; $R - 1 = 0.00680$

χ^2_{eff} : Abund - D.Cooke2017: 0.01 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.48

3 Alens

3.1 base_Alens_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022700	0.02260 ± 0.00029 (+2.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4291	0.432 ± 0.016 (-2.1 σ)	$100\theta_{s,eq}$	0.4579	0.4569 ± 0.0055 (+1.9 σ)
$\Omega_c h^2$	0.11613	0.1166 ± 0.0025 (-1.9 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5840	0.586 ± 0.015 (-2.2 σ)	$H(0.15)$	74.25	74.0 ± 1.0 (+2.3 σ)
$100\theta_{MC}$	1.04143	1.04139 ± 0.00053 (+1.3 σ)	$\sigma_8/h^{0.5}$	0.9556	0.958 ± 0.020 (-2.2 σ)	$D_M(0.15)$	628.1	630.4 ± 9.8 (-2.2 σ)
τ	0.0519	$0.0500^{+0.0087}_{-0.0074}$ (-0.3 σ)	$r_{drag}h$	102.21	101.8 ± 2.0 (+2.1 σ)	$H(0.38)$	84.01	$83.84^{+0.72}_{-0.80}$ (+2.3 σ)
A_L	1.263	1.243 ± 0.096	$\langle d^2 \rangle^{1/2}$	2.656	2.640 ± 0.077 (+4.9 σ)	$D_M(0.38)$	1502.8	1507 ± 20 (-2.2 σ)
$\ln(10^{10} A_s)$	3.0300	$3.027^{+0.018}_{-0.016}$ (-0.8 σ)	z_{re}	7.30	$7.11^{+0.93}_{-0.71}$ (-0.5 σ)	$H(0.51)$	90.52	$90.39^{+0.57}_{-0.65}$ (+2.4 σ)
n_s	0.9769	0.9741 ± 0.0071 (+2.0 σ)	$10^9 A_s$	2.0697	$2.064^{+0.038}_{-0.033}$ (-0.8 σ)	$D_M(0.51)$	1949.9	1955 ± 23 (-2.2 σ)
y_{cal}	0.99986	1.0000 ± 0.0025 (-0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8656	1.867 ± 0.014 (-1.3 σ)	$H(0.61)$	95.99	$95.88^{+0.46}_{-0.54}$ (+2.5 σ)
A_{217}^{CIB}	42.5	45 ± 7 (-0.4 σ)	D_{40}	1203.3	1209 ± 17 (-1.6 σ)	$D_M(0.61)$	2271.5	2277 ± 25 (-2.2 σ)
$\xi^{tSZ \times CIB}$	0.999	> 0.417 (+0.2 σ)	D_{220}	5737.0	5736 ± 42 (+0.6 σ)	$H(2.33)$	234.39	234.6 ± 1.4 (-1.6 σ)
A_{143}^{tSZ}	6.83	$5.6^{+2.1}_{-1.8}$ (+0.3 σ)	D_{810}	2527.7	2527 ± 14 (-0.7 σ)	$D_M(2.33)$	5733.4	5739^{+23}_{-21} (-2.4 σ)
A_{100}^{PS}	238.2	250 ± 30 (-0.5 σ)	D_{1420}	815.8	814.3 ± 5.1 (-0.0 σ)	$f\sigma_8(0.15)$	0.4351	0.437 ± 0.015 (-2.2 σ)
A_{143}^{PS}	48.5	42 ± 8 (-0.9 σ)	D_{2000}	233.15	232.3 ± 2.0 (+1.5 σ)	$\sigma_8(0.15)$	0.7364	$0.7361^{+0.0096}_{-0.0086}$ (-1.8 σ)
$A_{143 \times 217}^{PS}$	56.6	41 ± 9 (-0.3 σ)	$n_{s,0.002}$	0.9769	0.9741 ± 0.0071 (+2.0 σ)	$f\sigma_8(0.38)$	0.4575	0.459 ± 0.012 (-2.2 σ)
A_{217}^{PS}	123.0	115 ± 10 (-0.0 σ)	Y_P	0.245516	$0.24549^{+0.00010}_{-0.00012}$ (+2.0 σ)	$\sigma_8(0.38)$	0.6550	$0.6543^{+0.0075}_{-0.0066}$ (-1.5 σ)
A^{kSZ}	0.00	< 3.28 (-0.4 σ)	Y_P^{BBN}	0.246843	$0.24681^{+0.00010}_{-0.00012}$ (+2.0 σ)	$f\sigma_8(0.51)$	0.4584	0.459 ± 0.011 (-2.2 σ)
A_{100}^{dustTT}	8.91	8.9 ± 1.8 (-0.0 σ)	$10^5 D/H$	2.527	2.544 ± 0.052 (-2.1 σ)	$\sigma_8(0.51)$	0.6139	$0.6131^{+0.0067}_{-0.0058}$ (-1.3 σ)
A_{143}^{dustTT}	10.60	10.5 ± 1.8 (-0.1 σ)	Age/Gyr	13.7323	$13.745^{+0.051}_{-0.046}$ (-2.3 σ)	$f\sigma_8(0.61)$	0.4552	0.4559 ± 0.0094 (-2.2 σ)
$A_{143 \times 217}^{dustTT}$	19.58	17.9 ± 3.3 (-0.1 σ)	z_*	1089.18	1089.34 ± 0.52 (-2.4 σ)	$\sigma_8(0.61)$	0.5847	$0.5838^{+0.0062}_{-0.0053}$ (-1.2 σ)
A_{217}^{dustTT}	95.6	93.6 ± 7.3 (+0.0 σ)	r_*	145.19	145.13 ± 0.52 (+1.4 σ)	$f\sigma_8(2.33)$	0.29562	$0.2951^{+0.0029}_{-0.0025}$ (-0.8 σ)
c_{100}	0.99973	0.99962 ± 0.00062 (+0.0 σ)	$100\theta_*$	1.04157	1.04156 ± 0.00051 (+1.3 σ)	$\sigma_8(2.33)$	0.30570	$0.3050^{+0.0029}_{-0.0025}$ (-0.3 σ)
c_{217}	0.99813	0.99817 ± 0.00063 (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9391	13.934 ± 0.048 (+1.3 σ)	f_{2000}^{143}	25.13	27 ± 3 (-1.5 σ)
H_0	69.18	68.9 ± 1.2 (+2.2 σ)	z_{drag}	1060.43	1060.23 ± 0.56 (+1.8 σ)	$f_{2000}^{143 \times 217}$	29.23	30.0 ± 2.4 (-1.8 σ)
Ω_Λ	0.7085	0.705 ± 0.015 (+2.0 σ)	r_{drag}	147.75	147.73 ± 0.50 (+1.1 σ)	f_{2000}^{217}	103.90	105.0 ± 2.2 (-1.6 σ)
Ω_m	0.2915	0.295 ± 0.015 (-2.0 σ)	k_D	0.14041	0.14037 ± 0.00052 (-0.3 σ)	χ_{small}^2	395.66	396.8 ± 1.6 (-0.1 σ)
$\Omega_m h^2$	0.13947	0.1399 ± 0.0023 (-1.8 σ)	$100\theta_D$	0.160513	0.16063 ± 0.00030 (-1.7 σ)	χ_{lowl}^2	21.34	21.8 ± 1.1 (-1.6 σ)
$\Omega_m h^3$	0.09648	0.09638 ± 0.00050 (+1.1 σ)	z_{eq}	3318	3328 ± 55 (-1.8 σ)	χ_{plik}^2	752.9	767.3 ± 5.6 (-0.8 σ)
σ_8	0.7948	0.795 ± 0.011 (-1.9 σ)	k_{eq}	0.010126	0.01016 ± 0.00017 (-1.8 σ)	χ_{prior}^2	0.97	7.1 ± 3.5 (-0.1 σ)
S_8	0.7834	0.788 ± 0.029 (-2.1 σ)	$100\theta_{eq}$	0.8301	0.828 ± 0.011 (+1.9 σ)	χ_{CMB}^2	1169.9	1186.0 ± 5.8 (-1.1 σ)

Best-fit $\chi_{eff}^2 = 1170.89$; $\Delta\chi_{eff}^2 = -8.69$; $\bar{\chi}_{eff}^2 = 1193.04$; $\Delta\bar{\chi}_{eff}^2 = -6.54$; $R - 1 = 0.00760$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.21) commander_dx12_v3.2.29: 21.34 (Δ -2.26) plik_rd12_HM_v22.TT: 752.92 (Δ -5.83)

3.2 base_Alens_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022567	0.02249 ± 0.00022 (+1.4 σ)	$\sigma_8/h^{0.5}$	0.9675	0.967 ± 0.013 (-1.3 σ)	$D_M(0.38)$	1515.3	1517 ± 10 (-1.3 σ)
$\Omega_c h^2$	0.11772	0.1179 ± 0.0013 (-0.9 σ)	$r_{\text{drag}} h$	100.91	100.8 ± 1.0 (+1.1 σ)	$H(0.51)$	90.149	90.08 ± 0.33 (+1.4 σ)
$100\theta_{\text{MC}}$	1.041226	1.04122 ± 0.00043 (+0.6 σ)	$\langle d^2 \rangle^{1/2}$	2.652	2.630 ± 0.076 (+7.2 σ)	$D_M(0.51)$	1964.6	1967 ± 12 (-1.3 σ)
τ	0.0507	$0.0492^{+0.0086}_{-0.0072}$ (-0.6 σ)	z_{re}	7.24	$7.07^{+0.93}_{-0.71}$ (-0.7 σ)	$H(0.61)$	95.690	95.62 ± 0.28 (+1.5 σ)
A_L	1.231	1.211 ± 0.078	$10^9 A_s$	2.0732	$2.066^{+0.037}_{-0.032}$ (-0.7 σ)	$D_M(0.61)$	2287.5	2290 ± 13 (-1.3 σ)
$\ln(10^{10} A_s)$	3.0317	$3.028^{+0.018}_{-0.015}$ (-0.7 σ)	$10^9 A_s e^{-2\tau}$	1.8731	1.872 ± 0.011 (-0.4 σ)	$H(2.33)$	235.28	235.31 ± 0.79 (-0.5 σ)
n_s	0.97299	0.9709 ± 0.0044 (+1.0 σ)	D_{40}	1211.7	1215 ± 13 (-0.8 σ)	$D_M(2.33)$	5745.9	5749 ± 14 (-1.4 σ)
y_{cal}	0.999996	0.99998 ± 0.0025 (-0.2 σ)	D_{220}	5730.6	5730 ± 40 (+0.2 σ)	$f\sigma_8(0.15)$	0.4444	0.4445 ± 0.0084 (-1.3 σ)
A_{217}^{CIB}	42.8	45 ± 7 (-0.4 σ)	D_{810}	2530.5	2528 ± 14 (-0.5 σ)	$\sigma_8(0.15)$	0.7405	$0.7392^{+0.0078}_{-0.0067}$ (-1.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	> 0.406 (+0.2 σ)	D_{1420}	815.53	813.8 ± 5.0 (-0.3 σ)	$f\sigma_8(0.38)$	0.4648	0.4646 ± 0.0072 (-1.3 σ)
A_{143}^{tSZ}	6.67	$5.6^{+2.1}_{-1.8}$ (+0.2 σ)	D_{2000}	232.70	231.7 ± 1.8 (+1.0 σ)	$\sigma_8(0.38)$	0.6576	$0.6563^{+0.0065}_{-0.0055}$ (-0.9 σ)
A_{100}^{PS}	239.7	251 ± 30 (-0.4 σ)	$n_{s,0.002}$	0.97299	0.9709 ± 0.0044 (+1.0 σ)	$f\sigma_8(0.51)$	0.4647	0.4643 ± 0.0065 (-1.2 σ)
A_{143}^{PS}	50.3	43 ± 8 (-0.7 σ)	Y_P	0.245468	0.245441 ± 0.000086 (+1.3 σ)	$\sigma_8(0.51)$	0.6159	$0.6146^{+0.0060}_{-0.0051}$ (-0.8 σ)
$A_{143 \times 217}^{\text{PS}}$	57.4	42 ± 9 (-0.2 σ)	Y_P^{BBN}	0.246795	0.246767 ± 0.000087 (+1.3 σ)	$f\sigma_8(0.61)$	0.4606	0.4602 ± 0.0060 (-1.2 σ)
A_{217}^{PS}	123.5	115 ± 10 (+0.1 σ)	$10^5 \text{D}/\text{H}$	2.5502	2.564 ± 0.040 (-1.4 σ)	$\sigma_8(0.61)$	0.5863	$0.5851^{+0.0057}_{-0.0048}$ (-0.8 σ)
A^{kSZ}	0.00	< 3.44 (-0.4 σ)	Age/Gyr	13.7589	13.767 ± 0.031 (-1.4 σ)	$f\sigma_8(2.33)$	0.29604	$0.2954^{+0.0028}_{-0.0024}$ (-0.7 σ)
A_{100}^{dustTT}	8.85	8.9 ± 1.8 (-0.0 σ)	z_*	1089.476	1089.58 ± 0.33 (-1.5 σ)	$\sigma_8(2.33)$	0.30567	$0.3049^{+0.0028}_{-0.0024}$ (-0.5 σ)
A_{143}^{dustTT}	10.67	10.5 ± 1.8 (-0.1 σ)	r_*	144.872	144.89 ± 0.32 (+0.2 σ)	f_{2000}^{143}	25.87	27 ± 3 (-1.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.73	18.0 ± 3.2 (-0.1 σ)	$100\theta_*$	1.041387	1.04139 ± 0.00042 (+0.5 σ)	$f_{2000}^{143 \times 217}$	29.80	30.5 ± 2.2 (-1.4 σ)
A_{217}^{dustTT}	95.9	93.7 ± 7.2 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9115	13.913 ± 0.031 (+0.1 σ)	f_{2000}^{217}	104.42	105.5 ± 2.0 (-1.3 σ)
c_{100}	0.99966	0.99961 ± 0.00061 (+0.0 σ)	z_{drag}	1060.238	1060.07 ± 0.48 (+1.3 σ)	χ_{small}^2	395.68	396.8 ± 1.6 (-0.1 σ)
c_{217}	0.99814	0.99819 ± 0.00064 (-0.1 σ)	r_{drag}	147.477	147.52 ± 0.34 (-0.1 σ)	χ_{lowl}^2	21.89	22.23 ± 0.80 (-0.9 σ)
H_0	68.43	68.31 ± 0.60 (+1.3 σ)	k_D	0.140607	0.14051 ± 0.00045 (+0.5 σ)	χ_{plik}^2	752.7	766.3 ± 5.3 (-1.1 σ)
Ω_Λ	0.6990	0.6977 ± 0.0076 (+1.1 σ)	$100\theta_D$	0.160609	0.16071 ± 0.00027 (-1.2 σ)	$\chi_{6\text{DF}}^2$	0.0076	0.046 ± 0.066 (-0.2 σ)
Ω_m	0.3010	0.3023 ± 0.0076 (-1.1 σ)	z_{eq}	3352.4	3354 ± 29 (-0.7 σ)	χ_{MGS}^2	1.97	1.95 ± 0.64 (+1.2 σ)
$\Omega_m h^2$	0.14093	0.1410 ± 0.0012 (-0.7 σ)	k_{eq}	0.010232	0.010238 ± 0.000089 (-0.7 σ)	χ_{DR12BAO}^2	3.382	4.05 ± 0.96 (-0.5 σ)
$\Omega_m h^3$	0.096432	0.09632 ± 0.00049 (+0.9 σ)	$100\theta_{\text{eq}}$	0.8231	0.8226 ± 0.0055 (+0.9 σ)	χ_{prior}^2	1.02	7.1 ± 3.5 (-0.1 σ)
σ_8	0.8003	$0.7990^{+0.0088}_{-0.0076}$ (-1.1 σ)	$100\theta_{s,\text{eq}}$	0.45435	0.4541 ± 0.0028 (+0.8 σ)	χ_{BAO}^2	5.35	6.0 ± 1.2 (-0.1 σ)
S_8	0.8016	0.802 ± 0.016 (-1.3 σ)	$H(0.15)$	73.60	73.50 ± 0.52 (+1.3 σ)	χ_{CMB}^2	1170.2	1185.3 ± 5.6 (-1.3 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4391	0.4393 ± 0.0088 (-1.3 σ)	$D_M(0.15)$	634.32	635.3 ± 5.0 (-1.3 σ)			
$\sigma_8 \Omega_m^{0.25}$	0.5928	0.5924 ± 0.0088 (-1.3 σ)	$H(0.38)$	83.533	83.45 ± 0.40 (+1.4 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1176.61$; $\Delta\chi_{\text{eff}}^2 = -9.14$; $\bar{\chi}_{\text{eff}}^2 = 1198.50$; $\Delta\bar{\chi}_{\text{eff}}^2 = -7.53$; $R - 1 = 0.01593$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.97 (Δ 0.69) DR12BAO: 3.38 (Δ -0.80) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.21) commander_dx12_v3_2_29: 21.89 (Δ -0.93) plik_rd12_HM_v22_TT: 752.66 (Δ -7.44)

3.3 base_Alens_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.023009	0.02292 ± 0.00027 (+2.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5656	0.568 ± 0.012 (-2.2 σ)	$D_M(0.15)$	615.3	617.4 ± 8.1 (-2.3 σ)
$\Omega_c h^2$	0.11302	0.1135 ± 0.0020 (-1.9 σ)	$\sigma_8/h^{0.5}$	0.9302	0.933 ± 0.018 (-2.3 σ)	$H(0.38)$	85.05	84.88 ± 0.68 (+2.5 σ)
$100\theta_{MC}$	1.04193	1.04189 ± 0.00051 (+1.3 σ)	$r_{drag}h$	104.90	104.5 ± 1.7 (+2.2 σ)	$D_M(0.38)$	1476.7	1481 ± 17 (-2.4 σ)
τ	0.0520	0.0520 ± 0.0087 (-0.5 σ)	$\langle d^2 \rangle^{1/2}$	2.680	2.668 ± 0.075 (+7.3 σ)	$H(0.51)$	91.37	91.23 ± 0.56 (+2.6 σ)
A_L	1.351	1.329 ± 0.093	z_{re}	7.21	$7.20^{+0.88}_{-0.73}$ (-0.7 σ)	$D_M(0.51)$	1919.0	1924 ± 20 (-2.4 σ)
$\ln(10^{10} A_s)$	3.0238	3.024 ± 0.018 (-1.0 σ)	$10^9 A_s$	2.0568	2.058 ± 0.037 (-0.9 σ)	$H(0.61)$	96.677	96.56 ± 0.47 (+2.7 σ)
n_s	0.9852	0.9826 ± 0.0063 (+2.2 σ)	$10^9 A_s e^{-2\tau}$	1.8537	1.854 ± 0.013 (-1.2 σ)	$D_M(0.61)$	2238.0	2243 ± 21 (-2.4 σ)
y_{cal}	0.99995	1.0000 ± 0.0026 (-0.2 σ)	D_{40}	1187.1	1192 ± 15 (-1.6 σ)	$H(2.33)$	232.71	232.9 ± 1.2 (-1.5 σ)
A_{217}^{CIB}	41.8	44 ± 7 (-0.5 σ)	D_{220}	5758.1	5755 ± 41 (+0.6 σ)	$D_M(2.33)$	5704.7	5710 ± 20 (-2.6 σ)
$\xi^{tSZ \times CIB}$	0.999	> 0.442 (+0.3 σ)	D_{810}	2525.0	2523 ± 14 (-0.9 σ)	$f\sigma_8(0.15)$	0.4159	0.419 ± 0.012 (-2.2 σ)
A_{143}^{tSZ}	6.87	5.8 ± 1.9 (+0.3 σ)	D_{1420}	817.4	815.7 ± 5.2 (-0.2 σ)	$\sigma_8(0.15)$	0.7269	0.7278 ± 0.0088 (-1.8 σ)
A_{100}^{PS}	233.7	245 ± 30 (-0.6 σ)	D_{2000}	234.60	233.7 ± 2.0 (+1.8 σ)	$f\sigma_8(0.38)$	0.4419	0.444 ± 0.011 (-2.3 σ)
A_{143}^{PS}	44.0	38 ± 8 (-1.1 σ)	$n_{s,0.002}$	0.9852	0.9826 ± 0.0063 (+2.2 σ)	$\sigma_8(0.38)$	0.6486	0.6491 ± 0.0071 (-1.6 σ)
$A_{143 \times 217}^{PS}$	53.2	39 ± 9 (-0.4 σ)	Y_P	0.245654	$0.24562^{+0.00011}_{-0.00013}$ (+2.6 σ)	$f\sigma_8(0.51)$	0.4450	0.4467 ± 0.0093 (-2.2 σ)
A_{217}^{PS}	121.0	114.3 ± 9.8 (+0.0 σ)	Y_P^{BBN}	0.246982	$0.24694^{+0.00011}_{-0.00013}$ (+2.6 σ)	$\sigma_8(0.51)$	0.6088	0.6091 ± 0.0064 (-1.5 σ)
A^{kSZ}	0.00	< 2.80 (-0.5 σ)	$10^5 D/H$	2.4714	2.488 ± 0.047 (-2.5 σ)	$f\sigma_8(0.61)$	0.4433	0.4448 ± 0.0084 (-2.2 σ)
A_{100}^{dustTT}	8.96	8.9 ± 1.8 (-0.1 σ)	Age/Gyr	13.6707	13.683 ± 0.044 (-2.6 σ)	$\sigma_8(0.61)$	0.5805	0.5807 ± 0.0059 (-1.4 σ)
A_{143}^{dustTT}	10.61	10.4 ± 1.8 (-0.1 σ)	z_*	1088.536	1088.69 ± 0.44 (-2.7 σ)	$f\sigma_8(2.33)$	0.29429	0.2943 ± 0.0028 (-1.0 σ)
$A_{143 \times 217}^{dustTT}$	19.33	17.8 ± 3.3 (-0.1 σ)	r_*	145.770	145.73 ± 0.46 (+1.2 σ)	$\sigma_8(2.33)$	0.30530	0.3051 ± 0.0028 (-0.6 σ)
A_{217}^{dustTT}	95.4	93.7 ± 7.5 (+0.1 σ)	$100\theta_*$	1.04205	1.04203 ± 0.00050 (+1.2 σ)	f_{2000}^{143}	23.14	25 ± 3 (-1.8 σ)
c_{100}	0.99973	0.99964 ± 0.00061 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9887	13.985 ± 0.042 (+1.1 σ)	$f_{2000}^{143 \times 217}$	27.59	28.4 ± 2.3 (-2.2 σ)
c_{217}	0.99813	0.99813 ± 0.00063 (-0.2 σ)	z_{drag}	1060.89	1060.72 ± 0.54 (+2.1 σ)	f_{2000}^{217}	102.52	103.7 ± 2.1 (-2.0 σ)
H_0	70.76	70.5 ± 1.0 (+2.4 σ)	r_{drag}	148.252	148.24 ± 0.45 (+0.8 σ)	χ_{small}^2	395.66	396.8 ± 1.6 (-0.3 σ)
Ω_Λ	0.7270	0.724 ± 0.012 (+2.1 σ)	k_D	0.14010	0.14005 ± 0.00050 (-0.0 σ)	χ_{lowl}^2	20.46	20.80 ± 0.67 (-1.6 σ)
Ω_m	0.2730	0.276 ± 0.012 (-2.1 σ)	$100\theta_D$	0.160297	0.16040 ± 0.00028 (-1.9 σ)	χ_{plik}^2	755.6	769.6 ± 6.0 (-0.9 σ)
$\Omega_m h^2$	0.13668	0.1370 ± 0.0019 (-1.7 σ)	z_{eq}	3250.7	3259 ± 46 (-1.7 σ)	$\chi_{H073p45}^2$	2.63	3.5 ± 2.2 (-1.8 σ)
$\Omega_m h^3$	0.09671	0.09661 ± 0.00051 (+1.3 σ)	k_{eq}	0.009922	0.00995 ± 0.00014 (-1.7 σ)	χ_{prior}^2	1.01	7.1 ± 3.5 (-0.1 σ)
σ_8	0.7825	0.784 ± 0.010 (-1.9 σ)	$100\theta_{eq}$	0.8441	0.8423 ± 0.0094 (+1.9 σ)	χ_{CMB}^2	1171.7	1187.2 ± 6.0 (-1.3 σ)
S_8	0.7464	0.752 ± 0.024 (-2.2 σ)	$100\theta_{s,eq}$	0.46497	0.4641 ± 0.0048 (+1.9 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4088	0.412 ± 0.013 (-2.2 σ)	$H(0.15)$	75.63	75.41 ± 0.89 (+2.4 σ)			

Best-fit $\chi_{eff}^2 = 1175.32$; $\Delta\chi_{eff}^2 = -16.25$; $\bar{\chi}_{eff}^2 = 1197.77$; $\Delta\bar{\chi}_{eff}^2 = -14.31$; $R - 1 = 0.01750$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.42) commander_dx12_v3_2_29: 20.46 (Δ -1.62) plik_rd12_HM_v22_TT: 755.56 (Δ -7.46) Hubble - H073p45: 2.63 (Δ -6.36)

3.4 base_Alens_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02261 \pm 0.00029 \quad (+2.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.433 \pm 0.016 \quad (-2.1\sigma)$	$100\theta_{s,eq}$	$0.4571 \pm 0.0056 \quad (+1.9\sigma)$
$\Omega_c h^2$	$0.1166 \pm 0.0025 \quad (-1.9\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.587 \pm 0.014 \quad (-2.1\sigma)$	$H(0.15)$	$74.1 \pm 1.0 \quad (+2.3\sigma)$
$100\theta_{MC}$	$1.04141 \pm 0.00053 \quad (+1.3\sigma)$	$\sigma_8/h^{0.5}$	$0.960 \pm 0.020 \quad (-2.1\sigma)$	$D_M(0.15)$	$630.1 \pm 9.9 \quad (-2.2\sigma)$
τ	$0.0533^{+0.0038}_{-0.0077} \quad (-0.1\sigma)$	$r_{drag}h$	$101.9 \pm 2.0 \quad (+2.1\sigma)$	$H(0.38)$	$83.86^{+0.72}_{-0.81} \quad (+2.4\sigma)$
A_L	$1.236^{+0.089}_{-0.10}$	$\langle d^2 \rangle^{1/2}$	$2.640 \pm 0.077 \quad (+4.9\sigma)$	$D_M(0.38)$	$1507 \pm 20 \quad (-2.2\sigma)$
$\ln(10^{10} A_s)$	$3.033^{+0.011}_{-0.015} \quad (-0.7\sigma)$	z_{re}	$7.46^{+0.38}_{-0.81} \quad (-0.3\sigma)$	$H(0.51)$	$90.40^{+0.58}_{-0.66} \quad (+2.4\sigma)$
n_s	$0.9744 \pm 0.0071 \quad (+2.0\sigma)$	$10^9 A_s$	$2.077^{+0.023}_{-0.032} \quad (-0.7\sigma)$	$D_M(0.51)$	$1955 \pm 24 \quad (-2.2\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.867 \pm 0.014 \quad (-1.3\sigma)$	$H(0.61)$	$95.89^{+0.46}_{-0.54} \quad (+2.5\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.4\sigma)$	D_{40}	$1209 \pm 17 \quad (-1.6\sigma)$	$D_M(0.61)$	$2277 \pm 26 \quad (-2.3\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.418 \quad (+0.2\sigma)$	D_{220}	$5736 \pm 42 \quad (+0.6\sigma)$	$H(2.33)$	$234.6 \pm 1.4 \quad (-1.7\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (+0.3\sigma)$	D_{810}	$2527 \pm 14 \quad (-0.7\sigma)$	$D_M(2.33)$	$5738^{+24}_{-21} \quad (-2.4\sigma)$
A_{100}^{PS}	$250 \pm 30 \quad (-0.5\sigma)$	D_{1420}	$814.4 \pm 5.0 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.438 \pm 0.015 \quad (-2.1\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (-0.9\sigma)$	D_{2000}	$232.3 \pm 2.0 \quad (+1.5\sigma)$	$\sigma_8(0.15)$	$0.7383 \pm 0.0083 \quad (-1.7\sigma)$
$A_{143 \times 217}^{PS}$	$41 \pm 9 \quad (-0.3\sigma)$	$n_{s,0.002}$	$0.9744 \pm 0.0071 \quad (+2.0\sigma)$	$f\sigma_8(0.38)$	$0.460 \pm 0.012 \quad (-2.1\sigma)$
A_{217}^{PS}	$114.9 \pm 9.9 \quad (-0.0\sigma)$	Y_P	$0.24549^{+0.00010}_{-0.00012} \quad (+2.0\sigma)$	$\sigma_8(0.38)$	$0.6563 \pm 0.0061 \quad (-1.4\sigma)$
A^{kSZ}	$< 3.26 \quad (-0.4\sigma)$	Y_P^{BBN}	$0.24681^{+0.00010}_{-0.00012} \quad (+2.0\sigma)$	$f\sigma_8(0.51)$	$0.461 \pm 0.010 \quad (-2.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	$2.543 \pm 0.052 \quad (-2.1\sigma)$	$\sigma_8(0.51)$	$0.6150 \pm 0.0053 \quad (-1.2\sigma)$
A_{143}^{dustTT}	$10.5 \pm 1.8 \quad (-0.1\sigma)$	Age/Gyr	$13.743^{+0.052}_{-0.046} \quad (-2.3\sigma)$	$f\sigma_8(0.61)$	$0.4571 \pm 0.0092 \quad (-2.1\sigma)$
$A_{143 \times 217}^{dustTT}$	$17.9 \pm 3.3 \quad (-0.1\sigma)$	z_*	$1089.33 \pm 0.53 \quad (-2.4\sigma)$	$\sigma_8(0.61)$	$0.5857 \pm 0.0048 \quad (-1.1\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (+0.1\sigma)$	r_*	$145.14 \pm 0.53 \quad (+1.4\sigma)$	$f\sigma_8(2.33)$	$0.2960^{+0.0019}_{-0.0023} \quad (-0.7\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_*$	$1.04157 \pm 0.00051 \quad (+1.3\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0017}_{-0.0024} \quad (-0.2\sigma)$
c_{217}	$0.99818 \pm 0.00063 \quad (-0.1\sigma)$	$D_M(z_*)/Gpc$	$13.935 \pm 0.048 \quad (+1.3\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.5\sigma)$
H_0	$69.0 \pm 1.2 \quad (+2.2\sigma)$	z_{drag}	$1060.24 \pm 0.56 \quad (+1.8\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.4 \quad (-1.8\sigma)$
Ω_Λ	$0.705 \pm 0.015 \quad (+2.0\sigma)$	r_{drag}	$147.74 \pm 0.51 \quad (+1.1\sigma)$	f_{2000}^{217}	$105.0 \pm 2.2 \quad (-1.6\sigma)$
Ω_m	$0.295 \pm 0.015 \quad (-2.0\sigma)$	k_D	$0.14036 \pm 0.00052 \quad (-0.3\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
$\Omega_m h^2$	$0.1398 \pm 0.0023 \quad (-1.8\sigma)$	$100\theta_D$	$0.16063 \pm 0.00030 \quad (-1.7\sigma)$	χ_{lowl}^2	$21.9 \pm 1.1 \quad (-1.6\sigma)$
$\Omega_m h^3$	$0.09638 \pm 0.00050 \quad (+1.1\sigma)$	z_{eq}	$3326 \pm 55 \quad (-1.8\sigma)$	χ_{plik}^2	$767.3 \pm 5.6 \quad (-0.7\sigma)$
σ_8	$0.797 \pm 0.010 \quad (-1.9\sigma)$	k_{eq}	$0.01015 \pm 0.00017 \quad (-1.8\sigma)$	χ_{prior}^2	$7.1 \pm 3.5 \quad (-0.1\sigma)$
S_8	$0.790 \pm 0.029 \quad (-2.1\sigma)$	$100\theta_{eq}$	$0.828 \pm 0.011 \quad (+1.9\sigma)$	χ_{CMB}^2	$1185.5 \pm 5.7 \quad (-1.2\sigma)$

$\bar{\chi}_{eff}^2 = 1192.62$; $\Delta\bar{\chi}_{eff}^2 = -6.69$; $R - 1 = 0.00588$

3.5 base_Alens_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02249 \pm 0.00022 \quad (+1.4\sigma)$	$\sigma_8/h^{0.5}$	$0.970 \pm 0.011 \quad (-1.2\sigma)$	$D_M(0.38)$	$1517 \pm 10 \quad (-1.3\sigma)$
$\Omega_c h^2$	$0.1179 \pm 0.0013 \quad (-0.9\sigma)$	$r_{\text{drag}} h$	$100.8 \pm 1.0 \quad (+1.1\sigma)$	$H(0.51)$	$90.08 \pm 0.33 \quad (+1.4\sigma)$
$100\theta_{\text{MC}}$	$1.04122 \pm 0.00043 \quad (+0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.629 \pm 0.076 \quad (+7.4\sigma)$	$D_M(0.51)$	$1967 \pm 12 \quad (-1.3\sigma)$
τ	$0.0526^{+0.0038}_{-0.0072} \quad (-0.4\sigma)$	z_{re}	$7.44^{+0.36}_{-0.80} \quad (-0.5\sigma)$	$H(0.61)$	$95.63 \pm 0.28 \quad (+1.4\sigma)$
A_L	1.202 ± 0.076	$10^9 A_s$	$2.080^{+0.021}_{-0.030} \quad (-0.5\sigma)$	$D_M(0.61)$	$2290 \pm 13 \quad (-1.3\sigma)$
$\ln(10^{10} A_s)$	$3.035^{+0.010}_{-0.015} \quad (-0.5\sigma)$	$10^9 A_s e^{-2\tau}$	$1.872 \pm 0.011 \quad (-0.4\sigma)$	$H(2.33)$	$235.30 \pm 0.79 \quad (-0.5\sigma)$
n_s	$0.9710 \pm 0.0044 \quad (+1.1\sigma)$	D_{40}	$1216 \pm 13 \quad (-0.8\sigma)$	$D_M(2.33)$	$5749 \pm 14 \quad (-1.4\sigma)$
y_{cal}	$0.99999 \pm 0.0025 \quad (-0.2\sigma)$	D_{220}	$5729 \pm 40 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4460 \pm 0.0079 \quad (-1.2\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.4\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.7418^{+0.0054}_{-0.0063} \quad (-0.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.408 \quad (+0.1\sigma)$	D_{1420}	$813.9 \pm 4.9 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4662 \pm 0.0066 \quad (-1.1\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (+0.2\sigma)$	D_{2000}	$231.8 \pm 1.8 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6585^{+0.0043}_{-0.0053} \quad (-0.7\sigma)$
A_{100}^{PS}	$251 \pm 30 \quad (-0.4\sigma)$	$n_{s,0.002}$	$0.9710 \pm 0.0044 \quad (+1.1\sigma)$	$f\sigma_8(0.51)$	$0.4659 \pm 0.0058 \quad (-1.1\sigma)$
A_{143}^{PS}	$43 \pm 8 \quad (-0.7\sigma)$	Y_P	$0.245440 \pm 0.000086 \quad (+1.3\sigma)$	$\sigma_8(0.51)$	$0.6167^{+0.0038}_{-0.0048} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.2\sigma)$	Y_P^{BBN}	$0.246767 \pm 0.000086 \quad (+1.3\sigma)$	$f\sigma_8(0.61)$	$0.4617 \pm 0.0052 \quad (-1.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 D/H$	$2.564 \pm 0.040 \quad (-1.3\sigma)$	$\sigma_8(0.61)$	$0.5871^{+0.0035}_{-0.0045} \quad (-0.6\sigma)$
A^{kSZ}	$< 3.40 \quad (-0.4\sigma)$	Age/Gyr	$13.767 \pm 0.031 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0017}_{-0.0023} \quad (-0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1089.58 \pm 0.33 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0017}_{-0.0023} \quad (-0.3\sigma)$
A_{143}^{dustTT}	$10.5 \pm 1.8 \quad (-0.1\sigma)$	r_*	$144.89 \pm 0.32 \quad (+0.2\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.0 \pm 3.2 \quad (-0.1\sigma)$	$100\theta_*$	$1.04140 \pm 0.00042 \quad (+0.5\sigma)$	$f_{2000}^{143 \times 217}$	$30.5 \pm 2.2 \quad (-1.4\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.2 \quad (+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.913 \pm 0.031 \quad (+0.1\sigma)$	f_{2000}^{217}	$105.4 \pm 2.0 \quad (-1.3\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1060.07 \pm 0.48 \quad (+1.2\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
c_{217}	$0.99819 \pm 0.00064 \quad (-0.1\sigma)$	r_{drag}	$147.52 \pm 0.34 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.29 \pm 0.80 \quad (-0.9\sigma)$
H_0	$68.32 \pm 0.60 \quad (+1.3\sigma)$	k_D	$0.14050 \pm 0.00045 \quad (+0.5\sigma)$	χ_{plik}^2	$766.2 \pm 5.3 \quad (-1.1\sigma)$
Ω_Λ	$0.6978 \pm 0.0076 \quad (+1.1\sigma)$	$100\theta_D$	$0.16071 \pm 0.00027 \quad (-1.2\sigma)$	$\chi_{6\text{DF}}^2$	$0.046 \pm 0.067 \quad (-0.2\sigma)$
Ω_m	$0.3022 \pm 0.0076 \quad (-1.1\sigma)$	z_{eq}	$3354 \pm 29 \quad (-0.7\sigma)$	χ_{MGS}^2	$1.96 \pm 0.64 \quad (+1.1\sigma)$
$\Omega_m h^2$	$0.1410 \pm 0.0012 \quad (-0.7\sigma)$	k_{eq}	$0.010237 \pm 0.000089 \quad (-0.7\sigma)$	χ_{DR12BAO}^2	$4.04 \pm 0.96 \quad (-0.4\sigma)$
$\Omega_m h^3$	$0.09632 \pm 0.00048 \quad (+0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8226 \pm 0.0055 \quad (+0.8\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.1\sigma)$
σ_8	$0.8017 \pm 0.0069 \quad (-0.9\sigma)$	$100\theta_{s,\text{eq}}$	$0.4542 \pm 0.0028 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.0 \pm 1.2 \quad (-0.1\sigma)$
S_8	$0.805 \pm 0.015 \quad (-1.2\sigma)$	$H(0.15)$	$73.50 \pm 0.52 \quad (+1.3\sigma)$	χ_{CMB}^2	$1184.9 \pm 5.5 \quad (-1.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.4407 \pm 0.0084 \quad (-1.2\sigma)$	$D_M(0.15)$	$635.3 \pm 5.0 \quad (-1.3\sigma)$		
$\sigma_8 \Omega_m^{0.25}$	$0.5944 \pm 0.0080 \quad (-1.1\sigma)$	$H(0.38)$	$83.45 \pm 0.39 \quad (+1.4\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1198.08$; $\Delta\bar{\chi}_{\text{eff}}^2 = -7.68$; $R - 1 = 0.01471$

3.6 base_Alens_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02292 \pm 0.00027 \quad (+2.5\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.569 \pm 0.012 \quad (-2.2\sigma)$	$D_{\text{M}}(0.15)$	$617.2 \pm 8.1 \quad (-2.4\sigma)$
$\Omega_{\text{c}}h^2$	$0.1134 \pm 0.0020 \quad (-2.0\sigma)$	$\sigma_8/h^{0.5}$	$0.936 \pm 0.017 \quad (-2.3\sigma)$	$H(0.38)$	$84.90 \pm 0.68 \quad (+2.6\sigma)$
$100\theta_{\text{MC}}$	$1.04190 \pm 0.00051 \quad (+1.4\sigma)$	$r_{\text{drag}}h$	$104.6 \pm 1.7 \quad (+2.2\sigma)$	$D_{\text{M}}(0.38)$	$1480 \pm 17 \quad (-2.5\sigma)$
τ	$0.0548^{+0.0043}_{-0.0077} \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.670 \pm 0.075 \quad (+7.6\sigma)$	$H(0.51)$	$91.24 \pm 0.56 \quad (+2.7\sigma)$
A_{L}	1.325 ± 0.093	z_{re}	$7.50^{+0.39}_{-0.83} \quad (-0.6\sigma)$	$D_{\text{M}}(0.51)$	$1923 \pm 20 \quad (-2.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.030^{+0.011}_{-0.016} \quad (-0.8\sigma)$	$10^9 A_{\text{s}}$	$2.069^{+0.023}_{-0.034} \quad (-0.8\sigma)$	$H(0.61)$	$96.57 \pm 0.46 \quad (+2.8\sigma)$
n_{s}	$0.9829 \pm 0.0064 \quad (+2.3\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.854 \pm 0.013 \quad (-1.2\sigma)$	$D_{\text{M}}(0.61)$	$2243 \pm 21 \quad (-2.5\sigma)$
y_{cal}	$1.0001 \pm 0.0026 \quad (-0.2\sigma)$	D_{40}	$1192 \pm 16 \quad (-1.7\sigma)$	$H(2.33)$	$232.9 \pm 1.2 \quad (-1.6\sigma)$
A_{217}^{CIB}	$44 \pm 7 \quad (-0.6\sigma)$	D_{220}	$5755 \pm 41 \quad (+0.5\sigma)$	$D_{\text{M}}(2.33)$	$5710 \pm 20 \quad (-2.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.442 \quad (+0.3\sigma)$	D_{810}	$2523 \pm 14 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.419 \pm 0.012 \quad (-2.3\sigma)$
A_{143}^{tSZ}	$5.8 \pm 1.9 \quad (+0.3\sigma)$	D_{1420}	$815.7 \pm 5.1 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7296 \pm 0.0080 \quad (-1.8\sigma)$
A_{100}^{PS}	$245 \pm 30 \quad (-0.6\sigma)$	D_{2000}	$233.7 \pm 2.0 \quad (+1.8\sigma)$	$f\sigma_8(0.38)$	$0.445 \pm 0.010 \quad (-2.3\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-1.1\sigma)$	$n_{\text{s},0.002}$	$0.9829 \pm 0.0064 \quad (+2.3\sigma)$	$\sigma_8(0.38)$	$0.6508 \pm 0.0061 \quad (-1.6\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$39 \pm 9 \quad (-0.3\sigma)$	Y_{P}	$0.24562 \pm 0.00012 \quad (+2.6\sigma)$	$f\sigma_8(0.51)$	$0.4477 \pm 0.0091 \quad (-2.3\sigma)$
A_{217}^{PS}	$114.2 \pm 9.8 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24694 \pm 0.00012 \quad (+2.6\sigma)$	$\sigma_8(0.51)$	$0.6108^{+0.0051}_{-0.0058} \quad (-1.4\sigma)$
A^{kSZ}	$< 2.78 \quad (-0.5\sigma)$	$10^5 \text{D}/\text{H}$	$2.488 \pm 0.047 \quad (-2.5\sigma)$	$f\sigma_8(0.61)$	$0.4458 \pm 0.0082 \quad (-2.2\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (-0.1\sigma)$	Age/Gyr	$13.682 \pm 0.044 \quad (-2.7\sigma)$	$\sigma_8(0.61)$	$0.5822^{+0.0046}_{-0.0053} \quad (-1.3\sigma)$
A_{143}^{dustTT}	$10.4 \pm 1.8 \quad (-0.1\sigma)$	z_*	$1088.68 \pm 0.44 \quad (-2.7\sigma)$	$f\sigma_8(2.33)$	$0.2951^{+0.0020}_{-0.0025} \quad (-0.9\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$17.8 \pm 3.3 \quad (-0.1\sigma)$	r_*	$145.74 \pm 0.46 \quad (+1.2\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0018}_{-0.0025} \quad (-0.5\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.5 \quad (+0.1\sigma)$	$100\theta_*$	$1.04203 \pm 0.00049 \quad (+1.3\sigma)$	f_{2000}^{143}	$25 \pm 3 \quad (-1.9\sigma)$
c_{100}	$0.99963 \pm 0.00062 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.986 \pm 0.042 \quad (+1.1\sigma)$	$f_{2000}^{143 \times 217}$	$28.4 \pm 2.3 \quad (-2.2\sigma)$
c_{217}	$0.99813 \pm 0.00063 \quad (-0.2\sigma)$	z_{drag}	$1060.72 \pm 0.54 \quad (+2.1\sigma)$	f_{2000}^{217}	$103.6 \pm 2.1 \quad (-2.0\sigma)$
H_0	$70.5 \pm 1.0 \quad (+2.5\sigma)$	r_{drag}	$148.25 \pm 0.45 \quad (+0.9\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.4\sigma)$
Ω_{Λ}	$0.724 \pm 0.012 \quad (+2.1\sigma)$	k_{D}	$0.14004 \pm 0.00050 \quad (-0.0\sigma)$	χ_{lowl}^2	$20.81 \pm 0.68 \quad (-1.6\sigma)$
Ω_{m}	$0.276 \pm 0.012 \quad (-2.1\sigma)$	$100\theta_{\text{D}}$	$0.16040 \pm 0.00029 \quad (-1.9\sigma)$	χ_{plik}^2	$769.7 \pm 6.0 \quad (-0.9\sigma)$
$\Omega_{\text{m}}h^2$	$0.1370 \pm 0.0019 \quad (-1.8\sigma)$	z_{eq}	$3258 \pm 45 \quad (-1.8\sigma)$	χ_{H073p45}^2	$3.4 \pm 2.2 \quad (-1.9\sigma)$
$\Omega_{\text{m}}h^3$	$0.09660 \pm 0.00051 \quad (+1.3\sigma)$	k_{eq}	$0.00994 \pm 0.00014 \quad (-1.8\sigma)$	χ_{prior}^2	$7.1 \pm 3.5 \quad (-0.1\sigma)$
σ_8	$0.7857 \pm 0.0096 \quad (-2.0\sigma)$	$100\theta_{\text{eq}}$	$0.8426 \pm 0.0094 \quad (+2.0\sigma)$	χ_{CMB}^2	$1186.9 \pm 6.0 \quad (-1.3\sigma)$
S_8	$0.753 \pm 0.024 \quad (-2.3\sigma)$	$100\theta_{\text{s,eq}}$	$0.4643 \pm 0.0048 \quad (+1.9\sigma)$		
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.412 \pm 0.013 \quad (-2.3\sigma)$	$H(0.15)$	$75.44 \pm 0.89 \quad (+2.5\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 1197.44; \Delta\bar{\chi}_{\text{eff}}^2 = -14.36; R - 1 = 0.01845$$

3.7 base_Alens_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022631	0.02259 ± 0.00017 (+1.5 σ)	$\Omega_{\text{m}}h^2$	0.14113	0.1413 ± 0.0014 (-1.5 σ)	k_{eq}	0.010247	0.01026 ± 0.00011 (-1.5 σ)
$\Omega_{\text{c}}h^2$	0.11786	0.1181 ± 0.0016 (-1.5 σ)	$\Omega_{\text{m}}h^3$	0.096556	0.09650 ± 0.00030 (+0.6 σ)	$100\theta_{\text{eq}}$	0.8224	0.8214 ± 0.0067 (+1.5 σ)
$100\theta_{\text{MC}}$	1.041184	1.04114 ± 0.00032 (+0.7 σ)	σ_8	0.8010	0.7997 ± 0.0090 (-1.7 σ)	$100\theta_{\text{s,eq}}$	0.45392	0.4534 ± 0.0034 (+1.5 σ)
τ	0.0511	$0.0492^{+0.0088}_{-0.0073}$ (-0.7 σ)	S_8	0.8030	0.804 ± 0.019 (-1.9 σ)	$H(0.15)$	73.60	73.48 ± 0.62 (+1.7 σ)
A_{L}	1.191	1.180 ± 0.065	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4398	0.440 ± 0.011 (-1.9 σ)	$D_{\text{M}}(0.15)$	634.4	635.6 ± 6.0 (-1.6 σ)
$\ln(10^{10}A_{\text{s}})$	3.0331	$3.029^{+0.018}_{-0.015}$ (-1.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5935	0.593 ± 0.010 (-1.9 σ)	$H(0.38)$	83.545	83.46 ± 0.45 (+1.7 σ)
n_{s}	0.97286	0.9708 ± 0.0048 (+1.4 σ)	$\sigma_8/h^{0.5}$	0.9683	0.968 ± 0.014 (-1.9 σ)	$D_{\text{M}}(0.38)$	1515.3	1518 ± 12 (-1.7 σ)
y_{cal}	0.99999	1.0000 ± 0.0024 (-0.2 σ)	$r_{\text{drag}}h$	100.82	100.6 ± 1.2 (+1.6 σ)	$H(0.51)$	90.168	90.10 ± 0.36 (+1.7 σ)
A_{217}^{CIB}	42.2	45 ± 7 (-0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.612	2.600 ± 0.058 (+5.5 σ)	$D_{\text{M}}(0.51)$	1964.6	1967 ± 14 (-1.7 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	> 0.436 (+0.2 σ)	z_{re}	7.27	$7.05^{+0.95}_{-0.71}$ (-0.8 σ)	$H(0.61)$	95.716	95.66 ± 0.29 (+1.7 σ)
A_{143}^{tSZ}	6.93	$5.8^{+2.0}_{-1.8}$ (+0.2 σ)	$10^9 A_{\text{s}}$	2.0761	$2.068^{+0.037}_{-0.032}$ (-1.0 σ)	$D_{\text{M}}(0.61)$	2287.3	2290 ± 15 (-1.7 σ)
A_{100}^{PS}	237.2	249 ± 30 (-0.3 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8743	1.874 ± 0.012 (-0.8 σ)	$H(2.33)$	235.43	235.55 ± 0.91 (-1.4 σ)
A_{143}^{PS}	49.1	42 ± 8 (-0.5 σ)	D_{40}	1212.9	1217 ± 13 (-1.2 σ)	$D_{\text{M}}(2.33)$	5744.0	5747 ± 13 (-1.7 σ)
$A_{143 \times 217}^{\text{PS}}$	57.2	42^{+10}_{-9} (-0.1 σ)	D_{220}	5737.3	5739 ± 38 (+0.2 σ)	$f\sigma_8(0.15)$	0.4451	0.4456 ± 0.0099 (-1.9 σ)
A_{217}^{PS}	124.1	116.2 ± 9.9 (+0.1 σ)	D_{810}	2533.2	2531 ± 13 (-0.6 σ)	$\sigma_8(0.15)$	0.7411	0.7398 ± 0.0078 (-1.6 σ)
A^{kSZ}	0.00	< 3.04 (-0.3 σ)	D_{1420}	817.03	815.6 ± 4.7 (-0.3 σ)	$f\sigma_8(0.38)$	0.4655	0.4654 ± 0.0083 (-1.9 σ)
A_{100}^{dustTT}	8.72	8.8 ± 1.8 (-0.0 σ)	D_{2000}	232.94	232.2 ± 1.6 (+0.8 σ)	$\sigma_8(0.38)$	0.6580	0.6566 ± 0.0064 (-1.4 σ)
A_{143}^{dustTT}	10.68	10.6 ± 1.8 (-0.2 σ)	$n_{\text{s},0.002}$	0.97286	0.9708 ± 0.0048 (+1.4 σ)	$f\sigma_8(0.51)$	0.4652	0.4650 ± 0.0073 (-1.9 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.80	18.1 ± 3.2 (-0.1 σ)	Y_{P}	0.245491	0.245477 ± 0.000066 (+1.5 σ)	$\sigma_8(0.51)$	0.6163	$0.6149^{+0.0060}_{-0.0052}$ (-1.3 σ)
A_{217}^{dustTT}	95.7	93.7 ± 7.2 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246818	0.246804 ± 0.000067 (+1.5 σ)	$f\sigma_8(0.61)$	0.4611	0.4608 ± 0.0067 (-1.9 σ)
A_{100}^{dustTE}	0.1125	0.114 ± 0.038 (-0.0 σ)	10^5D/H	2.5389	2.546 ± 0.031 (-1.5 σ)	$\sigma_8(0.61)$	0.5867	$0.5853^{+0.0056}_{-0.0049}$ (-1.2 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.134 ± 0.030 (-0.0 σ)	Age/Gyr	13.7542	13.761 ± 0.028 (-1.6 σ)	$f\sigma_8(2.33)$	0.29620	$0.2954^{+0.0027}_{-0.0024}$ (-1.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.479 ± 0.085 (-0.0 σ)	z_*	1089.410	1089.48 ± 0.32 (-1.7 σ)	$\sigma_8(2.33)$	0.30582	$0.3050^{+0.0028}_{-0.0024}$ (-0.7 σ)
A_{143}^{dustTE}	0.224	0.222 ± 0.054 (-0.1 σ)	r_*	144.787	144.76 ± 0.33 (+1.2 σ)	f_{2000}^{143}	25.45	26.7 ± 2.9 (-1.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.659	0.661 ± 0.080 (-0.1 σ)	$100\theta_*$	1.041338	1.04130 ± 0.00032 (+0.7 σ)	$f_{2000}^{143 \times 217}$	29.48	29.9 ± 2.0 (-1.2 σ)
A_{217}^{dustTE}	2.051	2.05 ± 0.27 (-0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9039	13.902 ± 0.031 (+1.2 σ)	f_{2000}^{217}	104.23	105.0 ± 1.9 (-1.1 σ)
c_{100}	0.99976	0.99969 ± 0.00061 (+0.0 σ)	z_{drag}	1060.390	1060.30 ± 0.33 (+1.3 σ)	χ_{small}^2	395.67	396.9 ± 1.6 (-0.1 σ)
c_{217}	0.99810	0.99812 ± 0.00062 (-0.1 σ)	r_{drag}	147.369	147.35 ± 0.32 (+1.0 σ)	χ_{lowl}^2	21.96	22.32 ± 0.89 (-1.3 σ)
H_0	68.42	68.28 ± 0.72 (+1.7 σ)	k_{D}	0.140770	0.14076 ± 0.00033 (-0.5 σ)	χ_{plik}^2	2337.1	2353.8 ± 5.7 (-1.0 σ)
Ω_{Λ}	0.6985	0.6967 ± 0.0094 (+1.6 σ)	$100\theta_{\text{D}}$	0.160510	0.16056 ± 0.00019 (-1.2 σ)	χ_{prior}^2	1.38	11.3 ± 4.4 (-0.1 σ)
Ω_{m}	0.3015	0.3033 ± 0.0094 (-1.6 σ)	z_{eq}	3357.2	3362 ± 35 (-1.5 σ)	χ_{CMB}^2	2754.7	2773.0 ± 6.0 (-1.2 σ)

Best-fit $\chi_{\text{eff}}^2 = 2756.11$; $\Delta\chi_{\text{eff}}^2 = -9.66$; $\bar{\chi}_{\text{eff}}^2 = 2784.27$; $\Delta\bar{\chi}_{\text{eff}}^2 = -7.49$; $R - 1 = 0.01070$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.38) commander_dx12_v3.2.29: 21.96 (Δ -1.30) plik_rd12_HM_v22b_TTTEEE: 2337.11 (Δ -7.54)

3.8 base_Alens_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022617	0.02258 ± 0.00015 (+1.2 σ)	σ_8	0.8011	0.8000 ± 0.0081 (-1.4 σ)	$D_M(0.15)$	635.07	635.9 ± 4.1 (-1.3 σ)
$\Omega_c h^2$	0.11802	0.1182 ± 0.0011 (-1.1 σ)	S_8	0.8046	0.805 ± 0.014 (-1.6 σ)	$H(0.38)$	83.492	83.43 ± 0.32 (+1.3 σ)
$100\theta_{MC}$	1.041150	1.04113 ± 0.00029 (+0.4 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4407	0.4410 ± 0.0078 (-1.6 σ)	$D_M(0.38)$	1516.7	1518.5 ± 8.4 (-1.3 σ)
τ	0.0507	$0.0491^{+0.0089}_{-0.0074}$ (-0.9 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5942	0.5940 ± 0.0079 (-1.6 σ)	$H(0.51)$	90.126	90.07 ± 0.26 (+1.3 σ)
A_L	1.185	1.177 ± 0.060	$\sigma_8/h^{0.5}$	0.9691	0.969 ± 0.012 (-1.6 σ)	$D_M(0.51)$	1966.2	1968.3 ± 9.9 (-1.3 σ)
$\ln(10^{10} A_s)$	3.0325	$3.029^{+0.018}_{-0.016}$ (-1.0 σ)	$r_{drag} h$	100.68	100.53 ± 0.84 (+1.2 σ)	$H(0.61)$	95.682	95.64 ± 0.21 (+1.3 σ)
n_s	0.97216	0.9705 ± 0.0039 (+0.9 σ)	$\langle d^2 \rangle^{1/2}$	2.607	2.599 ± 0.058 (+6.7 σ)	$D_M(0.61)$	2289.1	2291 ± 11 (-1.3 σ)
y_{cal}	0.99994	1.0000 ± 0.0025 (-0.2 σ)	z_{re}	7.23	$7.04^{+0.96}_{-0.72}$ (-1.0 σ)	$H(2.33)$	235.52	235.60 ± 0.64 (-0.9 σ)
A_{217}^{CIB}	42.4	45 ± 7 (-0.3 σ)	$10^9 A_s$	2.0749	$2.068^{+0.038}_{-0.033}$ (-1.0 σ)	$D_M(2.33)$	5745.5	5747.7 ± 9.9 (-1.3 σ)
$\xi^{tSZ \times CIB}$	0.997	> 0.440 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8747	1.875 ± 0.011 (-0.5 σ)	$f\sigma_8(0.15)$	0.4459	0.4461 ± 0.0074 (-1.6 σ)
A_{143}^{tSZ}	6.86	$5.8^{+2.1}_{-1.8}$ (+0.1 σ)	D_{40}	1214.3	1217 ± 12 (-0.9 σ)	$\sigma_8(0.15)$	0.7412	0.7400 ± 0.0073 (-1.3 σ)
A_{100}^{PS}	237.9	249 ± 30 (-0.3 σ)	D_{220}	5737.3	5738 ± 38 (+0.1 σ)	$f\sigma_8(0.38)$	0.4660	0.4659 ± 0.0064 (-1.6 σ)
A_{143}^{PS}	49.8	42 ± 8 (-0.4 σ)	D_{810}	2533.0	2531 ± 13 (-0.6 σ)	$\sigma_8(0.38)$	0.6580	$0.6568^{+0.0063}_{-0.0056}$ (-1.2 σ)
$A_{143 \times 217}^{PS}$	57.6	42^{+10}_{-9} (-0.0 σ)	D_{1420}	816.75	815.5 ± 4.7 (-0.5 σ)	$f\sigma_8(0.51)$	0.4657	0.4654 ± 0.0059 (-1.6 σ)
A_{217}^{PS}	124.3	116.3 ± 9.9 (+0.1 σ)	D_{2000}	232.76	232.2 ± 1.6 (+0.7 σ)	$\sigma_8(0.51)$	0.6161	$0.6150^{+0.0059}_{-0.0051}$ (-1.1 σ)
A^{kSZ}	0.00	< 3.11 (-0.3 σ)	$n_{s,0.002}$	0.97216	0.9705 ± 0.0039 (+0.9 σ)	$f\sigma_8(0.61)$	0.4615	0.4611 ± 0.0055 (-1.6 σ)
A_{100}^{dustTT}	8.76	8.8 ± 1.8 (-0.0 σ)	Y_P	0.245486	0.245473 ± 0.000056 (+1.2 σ)	$\sigma_8(0.61)$	0.5865	$0.5854^{+0.0055}_{-0.0048}$ (-1.1 σ)
A_{143}^{dustTT}	10.62	10.6 ± 1.8 (-0.2 σ)	Y_P^{BBN}	0.246813	0.246800 ± 0.000057 (+1.2 σ)	$f\sigma_8(2.33)$	0.29608	$0.2955^{+0.0028}_{-0.0024}$ (-1.0 σ)
$A_{143 \times 217}^{dustTT}$	19.71	18.1 ± 3.2 (-0.1 σ)	$10^5 D/H$	2.5414	2.548 ± 0.027 (-1.2 σ)	$\sigma_8(2.33)$	0.30565	$0.3050^{+0.0028}_{-0.0024}$ (-0.9 σ)
A_{217}^{dustTT}	95.4	93.7 ± 7.2 (-0.0 σ)	Age/Gyr	13.7574	13.763 ± 0.022 (-1.2 σ)	f_{2000}^{143}	25.75	26.7 ± 2.8 (-0.9 σ)
A_{100}^{dustTE}	0.1146	0.114 ± 0.039 (+0.0 σ)	z_*	1089.441	1089.50 ± 0.24 (-1.3 σ)	$f_{2000}^{143 \times 217}$	29.74	30.0 ± 2.0 (-1.0 σ)
$A_{100 \times 143}^{dustTE}$	0.1336	0.135 ± 0.030 (-0.0 σ)	r_*	144.755	144.74 ± 0.24 (+0.7 σ)	f_{2000}^{217}	104.44	105.1 ± 1.8 (-1.0 σ)
$A_{100 \times 217}^{dustTE}$	0.480	0.479 ± 0.086 (+0.0 σ)	$100\theta_*$	1.041305	1.04129 ± 0.00029 (+0.4 σ)	χ_{small}^2	395.67	396.9 ± 1.7 (-0.2 σ)
A_{143}^{dustTE}	0.220	0.222 ± 0.054 (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9013	13.900 ± 0.023 (+0.6 σ)	χ_{lowl}^2	22.06	22.34 ± 0.75 (-1.0 σ)
$A_{143 \times 217}^{dustTE}$	0.659	0.660 ± 0.080 (-0.1 σ)	z_{drag}	1060.352	1060.29 ± 0.31 (+1.0 σ)	χ_{plik}^2	2337.1	2353.2 ± 5.6 (-1.1 σ)
A_{217}^{dustTE}	2.048	2.06 ± 0.27 (-0.1 σ)	r_{drag}	147.342	147.34 ± 0.25 (+0.5 σ)	χ_{6DF}^2	0.0016	0.030 ± 0.043 (-0.4 σ)
c_{100}	0.99975	0.99969 ± 0.00060 (+0.0 σ)	k_D	0.140789	0.14076 ± 0.00029 (-0.0 σ)	χ_{MGS}^2	1.82	1.79 ± 0.52 (+1.3 σ)
c_{217}	0.99814	0.99813 ± 0.00063 (-0.1 σ)	$100\theta_D$	0.160519	0.16056 ± 0.00018 (-1.0 σ)	$\chi_{DR12BAO}^2$	3.428	3.95 ± 0.79 (-0.6 σ)
H_0	68.333	68.23 ± 0.49 (+1.3 σ)	z_{eq}	3360.8	3364 ± 24 (-1.0 σ)	χ_{prior}^2	1.30	11.3 ± 4.4 (-0.1 σ)
Ω_Λ	0.6974	0.6962 ± 0.0064 (+1.2 σ)	k_{eq}	0.010258	0.010268 ± 0.000073 (-1.0 σ)	χ_{BAO}^2	5.249	5.77 ± 0.76 (-0.4 σ)
Ω_m	0.3026	0.3038 ± 0.0064 (-1.2 σ)	$100\theta_{eq}$	0.82163	0.8209 ± 0.0046 (+1.1 σ)	χ_{CMB}^2	2754.9	2772.4 ± 5.8 (-1.3 σ)
$\Omega_m h^2$	0.14128	0.1414 ± 0.0010 (-1.0 σ)	$100\theta_{s,eq}$	0.45355	0.4532 ± 0.0024 (+1.0 σ)			
$\Omega_m h^3$	0.096543	0.09649 ± 0.00030 (+0.5 σ)	$H(0.15)$	73.525	73.44 ± 0.43 (+1.3 σ)			

Best-fit $\chi_{eff}^2 = 2761.40$; $\Delta\chi_{eff}^2 = -10.51$; $\bar{\chi}_{eff}^2 = 2789.54$; $\Delta\bar{\chi}_{eff}^2 = -8.37$; $R - 1 = 0.01310$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.82 (Δ 0.60) DR12BAO: 3.43 (Δ -0.99) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.54) commander_dx12_v3_2_29: 22.06 (Δ -0.81) plik_rd12_HM_v22b_TTTEEE: 2337.12 (Δ -8.38)

3.9 base_Alens_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022780	0.02274 ± 0.00016 (+1.8 σ)	$\Omega_m h^3$	0.096631	0.09658 ± 0.00031 (+0.7 σ)	$100\theta_{s,eq}$	0.45736	$0.4571^{+0.0033}_{-0.0029}$ (+1.7 σ)
$\Omega_c h^2$	0.11629	$0.1164^{+0.0013}_{-0.0015}$ (-1.7 σ)	σ_8	0.7953	0.7938 ± 0.0086 (-1.9 σ)	$H(0.15)$	74.24	74.17 ± 0.56 (+1.9 σ)
$100\theta_{MC}$	1.041348	$1.04135^{+0.00030}_{-0.00033}$ (+0.9 σ)	S_8	0.7848	$0.785^{+0.016}_{-0.018}$ (-2.2 σ)	$D_M(0.15)$	628.2	$628.9^{+4.9}_{-5.6}$ (-1.9 σ)
τ	0.0519	$0.0501^{+0.0087}_{-0.0071}$ (-0.9 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4298	$0.4297^{+0.0088}_{-0.0098}$ (-2.2 σ)	$H(0.38)$	84.021	83.97 ± 0.42 (+2.0 σ)
A_L	1.229	1.220 ± 0.064	$\sigma_8 \Omega_m^{0.25}$	0.5847	0.5841 ± 0.0092 (-2.2 σ)	$D_M(0.38)$	1502.8	1504^{+10}_{-11} (-1.9 σ)
$\ln(10^{10} A_s)$	3.0310	$3.027^{+0.018}_{-0.015}$ (-1.2 σ)	$\sigma_8/h^{0.5}$	0.9564	0.955 ± 0.013 (-2.2 σ)	$H(0.51)$	90.546	90.50 ± 0.33 (+2.0 σ)
n_s	0.97691	0.9750 ± 0.0044 (+1.5 σ)	$r_{drag} h$	102.10	$102.0^{+1.2}_{-1.0}$ (+1.8 σ)	$D_M(0.51)$	1949.8	1951^{+12}_{-13} (-1.9 σ)
y_{cal}	0.99991	0.99996 ± 0.0024 (-0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.622	2.612 ± 0.057 (+6.8 σ)	$H(0.61)$	96.018	95.98 ± 0.27 (+2.0 σ)
A_{217}^{CIB}	41.8	44 ± 7 (-0.4 σ)	z_{re}	7.29	$7.09^{+0.92}_{-0.69}$ (-1.0 σ)	$D_M(0.61)$	2271.4	2273 ± 14 (-1.9 σ)
$\xi^{tSZ \times CIB}$	0.9998	> 0.451 (+0.2 σ)	$10^9 A_s$	2.0717	2.064 ± 0.036 (-1.2 σ)	$H(2.33)$	234.57	$234.62^{+0.75}_{-0.86}$ (-1.5 σ)
A_{143}^{tSZ}	7.03	$5.9^{+2.0}_{-1.8}$ (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8675	1.867 ± 0.012 (-0.9 σ)	$D_M(2.33)$	5731.3	5733 ± 12 (-2.0 σ)
A_{100}^{PS}	233.8	246 ± 30 (-0.4 σ)	D_{40}	1204.5	1208 ± 13 (-1.3 σ)	$f\sigma_8(0.15)$	0.4358	0.4356 ± 0.0088 (-2.2 σ)
A_{143}^{PS}	46.5	40 ± 8 (-0.6 σ)	D_{220}	5745.4	5748 ± 37 (+0.2 σ)	$\sigma_8(0.15)$	0.7369	0.7354 ± 0.0075 (-1.8 σ)
$A_{143 \times 217}^{PS}$	55.7	41 ± 9 (-0.1 σ)	D_{810}	2530.9	2529 ± 13 (-0.7 σ)	$f\sigma_8(0.38)$	0.4581	0.4576 ± 0.0075 (-2.2 σ)
A_{217}^{PS}	123.3	115.8 ± 9.9 (+0.1 σ)	D_{1420}	817.54	816.1 ± 4.6 (-0.5 σ)	$\sigma_8(0.38)$	0.6553	$0.6539^{+0.0063}_{-0.0057}$ (-1.6 σ)
A^{kSZ}	0.00	< 2.76 (-0.4 σ)	D_{2000}	233.55	232.8 ± 1.6 (+0.9 σ)	$f\sigma_8(0.51)$	0.4590	0.4584 ± 0.0068 (-2.2 σ)
A_{100}^{dustTT}	8.60	8.9 ± 1.8 (+0.0 σ)	$n_{s,0.002}$	0.97691	0.9750 ± 0.0044 (+1.5 σ)	$\sigma_8(0.51)$	0.6142	$0.6128^{+0.0058}_{-0.0052}$ (-1.5 σ)
A_{143}^{dustTT}	10.61	10.5 ± 1.8 (-0.2 σ)	Y_P	0.245548	$0.245537^{+0.000061}_{-0.000071}$ (+1.9 σ)	$f\sigma_8(0.61)$	0.4557	0.4550 ± 0.0062 (-2.2 σ)
$A_{143 \times 217}^{dustTT}$	19.57	18.0 ± 3.2 (-0.2 σ)	Y_P^{BBN}	0.246875	$0.246864^{+0.000061}_{-0.000072}$ (+1.9 σ)	$\sigma_8(0.61)$	0.5850	$0.5836^{+0.0054}_{-0.0049}$ (-1.4 σ)
A_{217}^{dustTT}	95.3	93.5 ± 7.3 (-0.0 σ)	$10^5 D/H$	2.5125	2.519 ± 0.029 (-1.8 σ)	$f\sigma_8(2.33)$	0.29573	$0.2950^{+0.0027}_{-0.0023}$ (-1.2 σ)
A_{100}^{dustTE}	0.1126	0.115 ± 0.039 (+0.0 σ)	Age/Gyr	13.7269	13.731 ± 0.027 (-1.9 σ)	$\sigma_8(2.33)$	0.30578	$0.3050^{+0.0027}_{-0.0024}$ (-0.9 σ)
$A_{100 \times 143}^{dustTE}$	0.1334	0.136 ± 0.030 (+0.0 σ)	z_*	1089.093	$1089.15^{+0.27}_{-0.30}$ (-2.0 σ)	f_{2000}^{143}	24.33	26 ± 3 (-1.1 σ)
$A_{100 \times 217}^{dustTE}$	0.484	0.479 ± 0.086 (+0.0 σ)	r_*	145.082	145.08 ± 0.30 (+1.3 σ)	$f_{2000}^{143 \times 217}$	28.64	29.1 ± 2.0 (-1.3 σ)
A_{143}^{dustTE}	0.215	0.219 ± 0.054 (-0.1 σ)	$100\theta_*$	1.041500	$1.04150^{+0.00029}_{-0.00033}$ (+0.8 σ)	f_{2000}^{217}	103.54	104.3 ± 1.9 (-1.2 σ)
$A_{143 \times 217}^{dustTE}$	0.657	0.658 ± 0.081 (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9301	13.930 ± 0.028 (+1.2 σ)	χ_{small}^2	395.65	396.8 ± 1.6 (-0.3 σ)
A_{217}^{dustTE}	2.030	2.04 ± 0.27 (-0.1 σ)	z_{drag}	1060.619	1060.53 ± 0.32 (+1.5 σ)	χ_{lowl}^2	21.38	21.66 ± 0.71 (-1.4 σ)
c_{100}	0.99974	0.99970 ± 0.00062 (+0.1 σ)	r_{drag}	147.622	147.63 ± 0.29 (+1.1 σ)	χ_{plik}^2	2338.7	2355.3 ± 6.1 (-0.9 σ)
c_{217}	0.99809	0.99809 ± 0.00063 (-0.1 σ)	k_D	0.140609	0.14057 ± 0.00032 (-0.4 σ)	$\chi_{H073p45}^2$	6.67	7.1 ± 2.1 (-1.7 σ)
H_0	69.16	$69.08^{+0.68}_{-0.61}$ (+1.9 σ)	$100\theta_D$	0.160391	0.16044 ± 0.00018 (-1.4 σ)	χ_{prior}^2	1.44	11.3 ± 4.3 (-0.1 σ)
Ω_Λ	0.7079	$0.7069^{+0.0087}_{-0.0073}$ (+1.8 σ)	z_{eq}	3323.3	3326^{+28}_{-33} (-1.6 σ)	χ_{CMB}^2	2755.8	2773.8 ± 6.1 (-1.2 σ)
Ω_m	0.2921	$0.2931^{+0.0073}_{-0.0087}$ (-1.8 σ)	k_{eq}	0.010143	$0.010150^{+0.000087}_{-0.00010}$ (-1.6 σ)			
$\Omega_m h^2$	0.13972	$0.1398^{+0.0012}_{-0.0014}$ (-1.6 σ)	$100\theta_{eq}$	0.8292	$0.8287^{+0.0064}_{-0.0057}$ (+1.7 σ)			

Best-fit $\chi_{eff}^2 = 2763.88$; $\Delta\chi_{eff}^2 = -14.05$; $\bar{\chi}_{eff}^2 = 2792.09$; $\Delta\bar{\chi}_{eff}^2 = -12.07$; $R - 1 = 0.02684$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.82) commander_dx12.v3.2.29: 21.38 (Δ -1.16) plik_rd12_HM.v22b_TTTEEE: 2338.75 (Δ -8.01) Hubble
- H073p45: 6.67 (Δ -3.91)

3.10 base_Alens_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02259 \pm 0.00017 \quad (+1.5\sigma)$	$\Omega_{\text{m}}h^2$	$0.1413 \pm 0.0014 \quad (-1.5\sigma)$	k_{eq}	$0.01026 \pm 0.00011 \quad (-1.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1181 \pm 0.0016 \quad (-1.5\sigma)$	$\Omega_{\text{m}}h^3$	$0.09650 \pm 0.00030 \quad (+0.6\sigma)$	$100\theta_{\text{eq}}$	$0.8215 \pm 0.0067 \quad (+1.5\sigma)$
$100\theta_{\text{MC}}$	$1.04114 \pm 0.00032 \quad (+0.7\sigma)$	σ_8	$0.8023^{+0.0071}_{-0.0079} \quad (-1.5\sigma)$	$100\theta_{\text{s,eq}}$	$0.4535 \pm 0.0034 \quad (+1.5\sigma)$
τ	$0.0527^{+0.0034}_{-0.0076} \quad (-0.4\sigma)$	S_8	$0.806 \pm 0.019 \quad (-1.8\sigma)$	$H(0.15)$	$73.49 \pm 0.62 \quad (+1.7\sigma)$
A_{L}	1.173 ± 0.064	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.442 \pm 0.010 \quad (-1.8\sigma)$	$D_{\text{M}}(0.15)$	$635.5 \pm 6.0 \quad (-1.6\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.036^{+0.010}_{-0.015} \quad (-0.7\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5953 \pm 0.0095 \quad (-1.8\sigma)$	$H(0.38)$	$83.46 \pm 0.46 \quad (+1.7\sigma)$
n_{s}	$0.9709 \pm 0.0048 \quad (+1.4\sigma)$	$\sigma_8/h^{0.5}$	$0.971 \pm 0.013 \quad (-1.8\sigma)$	$D_{\text{M}}(0.38)$	$1518 \pm 12 \quad (-1.7\sigma)$
y_{cal}	$1.0000 \pm 0.0024 \quad (-0.2\sigma)$	$r_{\text{drag}}h$	$100.6 \pm 1.2 \quad (+1.6\sigma)$	$H(0.51)$	$90.10 \pm 0.36 \quad (+1.7\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.601 \pm 0.059 \quad (+5.6\sigma)$	$D_{\text{M}}(0.51)$	$1967 \pm 14 \quad (-1.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.432 \quad (+0.2\sigma)$	z_{re}	$7.43^{+0.31}_{-0.84} \quad (-0.5\sigma)$	$H(0.61)$	$95.66 \pm 0.29 \quad (+1.7\sigma)$
A_{143}^{tSZ}	$5.8^{+2.0}_{-1.8} \quad (+0.2\sigma)$	$10^9 A_{\text{s}}$	$2.082^{+0.021}_{-0.032} \quad (-0.7\sigma)$	$D_{\text{M}}(0.61)$	$2290 \pm 15 \quad (-1.7\sigma)$
A_{100}^{PS}	$249 \pm 28 \quad (-0.3\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.874 \pm 0.012 \quad (-0.8\sigma)$	$H(2.33)$	$235.53 \pm 0.91 \quad (-1.4\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (-0.5\sigma)$	D_{40}	$1217 \pm 13 \quad (-1.1\sigma)$	$D_{\text{M}}(2.33)$	$5747 \pm 13 \quad (-1.6\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42^{+10}_{-9} \quad (-0.1\sigma)$	D_{220}	$5739 \pm 38 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4469 \pm 0.0096 \quad (-1.8\sigma)$
A_{217}^{PS}	$116.1 \pm 9.9 \quad (+0.1\sigma)$	D_{810}	$2531 \pm 13 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.7422^{+0.0059}_{-0.0068} \quad (-1.4\sigma)$
A^{kSZ}	$< 3.03 \quad (-0.3\sigma)$	D_{1420}	$815.5 \pm 4.7 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4669 \pm 0.0078 \quad (-1.8\sigma)$
A_{100}^{dustTT}	$8.8 \pm 1.8 \quad (-0.0\sigma)$	D_{2000}	$232.2 \pm 1.6 \quad (+0.8\sigma)$	$\sigma_8(0.38)$	$0.6588^{+0.0044}_{-0.0055} \quad (-1.2\sigma)$
A_{143}^{dustTT}	$10.6 \pm 1.8 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9709 \pm 0.0048 \quad (+1.4\sigma)$	$f\sigma_8(0.51)$	$0.4665 \pm 0.0068 \quad (-1.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.1 \pm 3.3 \quad (-0.1\sigma)$	Y_{P}	$0.245477 \pm 0.000067 \quad (+1.5\sigma)$	$\sigma_8(0.51)$	$0.6170^{+0.0039}_{-0.0050} \quad (-1.1\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246804 \pm 0.000067 \quad (+1.5\sigma)$	$f\sigma_8(0.61)$	$0.4622 \pm 0.0061 \quad (-1.7\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	10^5D/H	$2.546 \pm 0.031 \quad (-1.5\sigma)$	$\sigma_8(0.61)$	$0.5873^{+0.0035}_{-0.0047} \quad (-1.0\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	Age/Gyr	$13.760 \pm 0.029 \quad (-1.6\sigma)$	$f\sigma_8(2.33)$	$0.2965^{+0.0016}_{-0.0023} \quad (-0.7\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.086 \quad (-0.0\sigma)$	z_*	$1089.48 \pm 0.32 \quad (-1.7\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0016}_{-0.0023} \quad (-0.5\sigma)$
A_{143}^{dustTE}	$0.221 \pm 0.054 \quad (-0.1\sigma)$	r_*	$144.76 \pm 0.33 \quad (+1.2\sigma)$	f_{2000}^{143}	$26.7 \pm 2.9 \quad (-1.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.660 \pm 0.080 \quad (-0.1\sigma)$	$100\theta_*$	$1.04130 \pm 0.00032 \quad (+0.7\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.0 \quad (-1.2\sigma)$
A_{217}^{dustTE}	$2.05 \pm 0.27 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.902 \pm 0.031 \quad (+1.2\sigma)$	f_{2000}^{217}	$105.0 \pm 1.9 \quad (-1.1\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1060.30 \pm 0.33 \quad (+1.3\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
c_{217}	$0.99812 \pm 0.00063 \quad (-0.1\sigma)$	r_{drag}	$147.36 \pm 0.32 \quad (+1.0\sigma)$	χ_{lowl}^2	$22.38 \pm 0.90 \quad (-1.2\sigma)$
H_0	$68.29 \pm 0.72 \quad (+1.7\sigma)$	k_{D}	$0.14075 \pm 0.00033 \quad (-0.5\sigma)$	χ_{plik}^2	$2353.8 \pm 5.7 \quad (-1.0\sigma)$
Ω_{Λ}	$0.6969 \pm 0.0094 \quad (+1.6\sigma)$	$100\theta_{\text{D}}$	$0.16056 \pm 0.00019 \quad (-1.2\sigma)$	χ_{prior}^2	$11.3 \pm 4.4 \quad (-0.1\sigma)$
Ω_{m}	$0.3031 \pm 0.0094 \quad (-1.6\sigma)$	z_{eq}	$3361 \pm 35 \quad (-1.5\sigma)$	χ_{CMB}^2	$2772.6 \pm 5.8 \quad (-1.3\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2783.87$; $\Delta\bar{\chi}_{\text{eff}}^2 = -7.66$; $R - 1 = 0.01066$

3.11 base_Alens_plikHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02258 \pm 0.00015 \quad (+1.2\sigma)$	σ_8	$0.8028^{+0.0059}_{-0.0069} \quad (-1.1\sigma)$	$D_M(0.15)$	$635.9 \pm 4.2 \quad (-1.3\sigma)$
$\Omega_c h^2$	$0.1182 \pm 0.0011 \quad (-1.1\sigma)$	S_8	$0.808 \pm 0.013 \quad (-1.4\sigma)$	$H(0.38)$	$83.43 \pm 0.32 \quad (+1.3\sigma)$
$100\theta_{MC}$	$1.04113 \pm 0.00029 \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4425 \pm 0.0073 \quad (-1.4\sigma)$	$D_M(0.38)$	$1518.4 \pm 8.4 \quad (-1.3\sigma)$
τ	$0.0527^{+0.0035}_{-0.0076} \quad (-0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.5960 \pm 0.0071 \quad (-1.4\sigma)$	$H(0.51)$	$90.07 \pm 0.26 \quad (+1.3\sigma)$
A_L	1.170 ± 0.058	$\sigma_8/h^{0.5}$	$0.972 \pm 0.010 \quad (-1.4\sigma)$	$D_M(0.51)$	$1968.2 \pm 9.9 \quad (-1.3\sigma)$
$\ln(10^{10} A_s)$	$3.036^{+0.010}_{-0.015} \quad (-0.7\sigma)$	$r_{drag} h$	$100.54 \pm 0.85 \quad (+1.2\sigma)$	$H(0.61)$	$95.64 \pm 0.21 \quad (+1.3\sigma)$
n_s	$0.9706 \pm 0.0039 \quad (+1.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.600 \pm 0.058 \quad (+7.0\sigma)$	$D_M(0.61)$	$2291 \pm 11 \quad (-1.3\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	z_{re}	$7.43^{+0.29}_{-0.87} \quad (-0.6\sigma)$	$H(2.33)$	$235.60 \pm 0.64 \quad (-0.9\sigma)$
A_{217}^{CIB}	$44 \pm 7 \quad (-0.3\sigma)$	$10^9 A_s$	$2.083^{+0.021}_{-0.031} \quad (-0.7\sigma)$	$D_M(2.33)$	$5747.6 \pm 9.9 \quad (-1.2\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.434 \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.874 \pm 0.011 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.4476 \pm 0.0069 \quad (-1.4\sigma)$
A_{143}^{tSZ}	$5.8^{+2.1}_{-1.7} \quad (+0.1\sigma)$	D_{40}	$1218 \pm 12 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.7426^{+0.0050}_{-0.0061} \quad (-1.1\sigma)$
A_{100}^{PS}	$250 \pm 28 \quad (-0.3\sigma)$	D_{220}	$5738 \pm 38 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4675 \pm 0.0058 \quad (-1.4\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (-0.4\sigma)$	D_{810}	$2531 \pm 13 \quad (-0.6\sigma)$	$\sigma_8(0.38)$	$0.6591^{+0.0040}_{-0.0052} \quad (-0.9\sigma)$
$A_{143 \times 217}^{PS}$	$42^{+10}_{-9} \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 4.7 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4670 \pm 0.0052 \quad (-1.4\sigma)$
A_{217}^{PS}	$116.4 \pm 9.9 \quad (+0.1\sigma)$	D_{2000}	$232.2 \pm 1.6 \quad (+0.7\sigma)$	$\sigma_8(0.51)$	$0.6172^{+0.0036}_{-0.0048} \quad (-0.9\sigma)$
A^{kSZ}	$< 3.06 \quad (-0.3\sigma)$	$n_{s,0.002}$	$0.9706 \pm 0.0039 \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.4627 \pm 0.0047 \quad (-1.3\sigma)$
A_{100}^{dustTT}	$8.8 \pm 1.9 \quad (-0.0\sigma)$	Y_P	$0.245473 \pm 0.000056 \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.5875^{+0.0033}_{-0.0046} \quad (-0.8\sigma)$
A_{143}^{dustTT}	$10.6 \pm 1.8 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.246800 \pm 0.000056 \quad (+1.2\sigma)$	$f\sigma_8(2.33)$	$0.2965^{+0.0016}_{-0.0023} \quad (-0.7\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.2 \pm 3.3 \quad (-0.1\sigma)$	$10^5 D/H$	$2.548 \pm 0.026 \quad (-1.2\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0016}_{-0.0023} \quad (-0.6\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.3 \quad (+0.0\sigma)$	Age/Gyr	$13.762 \pm 0.022 \quad (-1.2\sigma)$	f_{2000}^{143}	$26.7 \pm 2.9 \quad (-0.9\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.039 \quad (+0.0\sigma)$	z_*	$1089.50 \pm 0.24 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$30.0 \pm 2.0 \quad (-1.1\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	r_*	$144.74 \pm 0.24 \quad (+0.7\sigma)$	f_{2000}^{217}	$105.1 \pm 1.8 \quad (-1.0\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.479 \pm 0.086 \quad (+0.0\sigma)$	$100\theta_*$	$1.04129 \pm 0.00029 \quad (+0.4\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
A_{143}^{dustTE}	$0.221 \pm 0.053 \quad (-0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.900 \pm 0.023 \quad (+0.6\sigma)$	χ_{lowl}^2	$22.40 \pm 0.75 \quad (-0.9\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.659 \pm 0.080 \quad (-0.1\sigma)$	z_{drag}	$1060.29 \pm 0.31 \quad (+1.0\sigma)$	χ_{plik}^2	$2353.2 \pm 5.5 \quad (-1.1\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.1\sigma)$	r_{drag}	$147.34 \pm 0.25 \quad (+0.5\sigma)$	χ_{6DF}^2	$0.030 \pm 0.043 \quad (-0.4\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14076 \pm 0.00029 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.79 \pm 0.52 \quad (+1.3\sigma)$
c_{217}	$0.99812 \pm 0.00063 \quad (-0.1\sigma)$	$100\theta_D$	$0.16056 \pm 0.00018 \quad (-1.0\sigma)$	$\chi_{DR12BAO}^2$	$3.95 \pm 0.79 \quad (-0.6\sigma)$
H_0	$68.24 \pm 0.50 \quad (+1.3\sigma)$	z_{eq}	$3364 \pm 24 \quad (-1.0\sigma)$	χ_{prior}^2	$11.3 \pm 4.4 \quad (-0.1\sigma)$
Ω_Λ	$0.6962 \pm 0.0064 \quad (+1.2\sigma)$	k_{eq}	$0.010267 \pm 0.000073 \quad (-1.0\sigma)$	χ_{BAO}^2	$5.78 \pm 0.76 \quad (-0.4\sigma)$
Ω_m	$0.3038 \pm 0.0064 \quad (-1.2\sigma)$	$100\theta_{eq}$	$0.8210 \pm 0.0046 \quad (+1.1\sigma)$	χ_{CMB}^2	$2772.0 \pm 5.7 \quad (-1.4\sigma)$
$\Omega_m h^2$	$0.1414 \pm 0.0010 \quad (-1.0\sigma)$	$100\theta_{s,eq}$	$0.4532 \pm 0.0024 \quad (+1.0\sigma)$		
$\Omega_m h^3$	$0.09649 \pm 0.00030 \quad (+0.5\sigma)$	$H(0.15)$	$73.44 \pm 0.43 \quad (+1.3\sigma)$		

$$\bar{\chi}_{eff}^2 = 2789.13; \Delta \bar{\chi}_{eff}^2 = -8.59; R - 1 = 0.01550$$

3.12 base_Alens_plikHM_TTTEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02274 \pm 0.00016 \quad (+1.9\sigma)$	$\Omega_m h^3$	$0.09658 \pm 0.00030 \quad (+0.7\sigma)$	$100\theta_{s,eq}$	$0.4572 \pm 0.0031 \quad (+1.7\sigma)$
$\Omega_c h^2$	$0.1164^{+0.0013}_{-0.0015} \quad (-1.8\sigma)$	σ_8	$0.7962^{+0.0065}_{-0.0076} \quad (-1.8\sigma)$	$H(0.15)$	$74.19 \pm 0.56 \quad (+2.0\sigma)$
$100\theta_{MC}$	$1.04136^{+0.00030}_{-0.00034} \quad (+0.9\sigma)$	S_8	$0.787^{+0.015}_{-0.018} \quad (-2.1\sigma)$	$D_M(0.15)$	$628.7 \pm 5.3 \quad (-1.9\sigma)$
τ	$0.0534^{+0.0040}_{-0.0071} \quad (-0.6\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4309^{+0.0084}_{-0.0096} \quad (-2.1\sigma)$	$H(0.38)$	$83.98 \pm 0.42 \quad (+2.0\sigma)$
A_L	1.214 ± 0.065	$\sigma_8 \Omega_m^{0.25}$	$0.5857^{+0.0080}_{-0.0091} \quad (-2.1\sigma)$	$D_M(0.38)$	$1504 \pm 11 \quad (-2.0\sigma)$
$\ln(10^{10} A_s)$	$3.033^{+0.011}_{-0.015} \quad (-0.9\sigma)$	$\sigma_8/h^{0.5}$	$0.958^{+0.011}_{-0.013} \quad (-2.1\sigma)$	$H(0.51)$	$90.51 \pm 0.34 \quad (+2.1\sigma)$
n_s	$0.9751 \pm 0.0044 \quad (+1.5\sigma)$	$r_{drag} h$	$102.0 \pm 1.1 \quad (+1.9\sigma)$	$D_M(0.51)$	$1951 \pm 13 \quad (-2.0\sigma)$
y_{cal}	$0.9999 \pm 0.0024 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.614 \pm 0.058 \quad (+7.1\sigma)$	$H(0.61)$	$95.99 \pm 0.28 \quad (+2.1\sigma)$
A_{217}^{CIB}	$44 \pm 7 \quad (-0.3\sigma)$	z_{re}	$7.44^{+0.35}_{-0.80} \quad (-0.7\sigma)$	$D_M(0.61)$	$2273 \pm 14 \quad (-2.0\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.446 \quad (+0.2\sigma)$	$10^9 A_s$	$2.077^{+0.022}_{-0.030} \quad (-0.9\sigma)$	$H(2.33)$	$234.60^{+0.76}_{-0.86} \quad (-1.6\sigma)$
A_{143}^{tSZ}	$5.9^{+2.0}_{-1.7} \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.867 \pm 0.012 \quad (-1.0\sigma)$	$D_M(2.33)$	$5733 \pm 12 \quad (-2.0\sigma)$
A_{100}^{PS}	$246 \pm 30 \quad (-0.4\sigma)$	D_{40}	$1208 \pm 13 \quad (-1.3\sigma)$	$f\sigma_8(0.15)$	$0.4368^{+0.0080}_{-0.0091} \quad (-2.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.6\sigma)$	D_{220}	$5747^{+39}_{-35} \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7376^{+0.0055}_{-0.0065} \quad (-1.6\sigma)$
$A_{143 \times 217}^{PS}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2528 \pm 13 \quad (-0.8\sigma)$	$f\sigma_8(0.38)$	$0.4589^{+0.0066}_{-0.0075} \quad (-2.1\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.1\sigma)$	D_{1420}	$816.0 \pm 4.6 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.6559^{+0.0043}_{-0.0053} \quad (-1.4\sigma)$
A^{kSZ}	$< 2.75 \quad (-0.4\sigma)$	D_{2000}	$232.8 \pm 1.5 \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.4597^{+0.0058}_{-0.0066} \quad (-2.1\sigma)$
A_{100}^{dustTT}	$8.8 \pm 1.8 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9751 \pm 0.0044 \quad (+1.5\sigma)$	$\sigma_8(0.51)$	$0.6147^{+0.0038}_{-0.0048} \quad (-1.3\sigma)$
A_{143}^{dustTT}	$10.6 \pm 1.8 \quad (-0.2\sigma)$	Y_P	$0.245537^{+0.000059}_{-0.000071} \quad (+1.9\sigma)$	$f\sigma_8(0.61)$	$0.4563^{+0.0053}_{-0.0060} \quad (-2.1\sigma)$
$A_{143 \times 217}^{dustTT}$	$17.9 \pm 3.3 \quad (-0.2\sigma)$	Y_P^{BBN}	$0.246864^{+0.000059}_{-0.000072} \quad (+1.9\sigma)$	$\sigma_8(0.61)$	$0.5854^{+0.0035}_{-0.0045} \quad (-1.2\sigma)$
A_{217}^{dustTT}	$93.5 \pm 7.4 \quad (-0.0\sigma)$	$10^5 D/H$	$2.519 \pm 0.029 \quad (-1.8\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0017}_{-0.0022} \quad (-1.0\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.039 \quad (+0.0\sigma)$	Age/Gyr	$13.731 \pm 0.027 \quad (-2.0\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0016}_{-0.0022} \quad (-0.7\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	z_*	$1089.15 \pm 0.29 \quad (-2.0\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-1.1\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.480 \pm 0.087 \quad (+0.0\sigma)$	r_*	$145.09 \pm 0.30 \quad (+1.3\sigma)$	$f_{2000}^{143 \times 217}$	$29.1 \pm 2.0 \quad (-1.3\sigma)$
A_{143}^{dustTE}	$0.219 \pm 0.054 \quad (-0.1\sigma)$	$100\theta_*$	$1.04151^{+0.00029}_{-0.00033} \quad (+0.8\sigma)$	f_{2000}^{217}	$104.3 \pm 1.9 \quad (-1.3\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.659 \pm 0.081 \quad (-0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.930 \pm 0.028 \quad (+1.3\sigma)$	χ_{small}^2	$396.3 \pm 1.0 \quad (-0.5\sigma)$
A_{217}^{dustTE}	$2.04 \pm 0.27 \quad (-0.1\sigma)$	z_{drag}	$1060.53 \pm 0.32 \quad (+1.5\sigma)$	χ_{lowl}^2	$21.71 \pm 0.72 \quad (-1.4\sigma)$
c_{100}	$0.99970 \pm 0.00062 \quad (+0.1\sigma)$	r_{drag}	$147.64 \pm 0.29 \quad (+1.1\sigma)$	χ_{plik}^2	$2355.4 \pm 6.1 \quad (-0.9\sigma)$
c_{217}	$0.99808 \pm 0.00062 \quad (-0.1\sigma)$	k_D	$0.14056 \pm 0.00031 \quad (-0.5\sigma)$	$\chi_{H073p45}^2$	$7.0 \pm 2.1 \quad (-1.7\sigma)$
H_0	$69.10 \pm 0.65 \quad (+2.0\sigma)$	$100\theta_D$	$0.16044 \pm 0.00018 \quad (-1.4\sigma)$	χ_{prior}^2	$11.3 \pm 4.4 \quad (-0.1\sigma)$
Ω_Λ	$0.7072^{+0.0086}_{-0.0075} \quad (+1.8\sigma)$	z_{eq}	$3325^{+29}_{-33} \quad (-1.6\sigma)$	χ_{CMB}^2	$2773.4 \pm 6.1 \quad (-1.3\sigma)$
Ω_m	$0.2928^{+0.0075}_{-0.0086} \quad (-1.8\sigma)$	k_{eq}	$0.010148^{+0.000088}_{-0.00010} \quad (-1.6\sigma)$		
$\Omega_m h^2$	$0.1398^{+0.0012}_{-0.0014} \quad (-1.6\sigma)$	$100\theta_{eq}$	$0.8289 \pm 0.0061 \quad (+1.8\sigma)$		

$$\bar{\chi}_{eff}^2 = 2791.77; \Delta\bar{\chi}_{eff}^2 = -12.12; R - 1 = 0.03556$$

3.13 base_Alens_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022700	0.02263 ± 0.00029 (+2.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4286	0.430 ± 0.016 (-2.2 σ)	$H(0.15)$	74.25	74.1 ± 1.1 (+2.3 σ)
$\Omega_c h^2$	0.11620	0.1164 ± 0.0025 (-1.9 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5833	0.584 ± 0.015 (-2.2 σ)	$D_M(0.15)$	628.1	629 ± 10 (-2.2 σ)
$100\theta_{MC}$	1.04149	1.04144 ± 0.00054 (+1.3 σ)	$\sigma_8/h^{0.5}$	0.9543	0.956 ± 0.021 (-2.2 σ)	$H(0.38)$	84.02	83.92 ± 0.79 (+2.4 σ)
τ	0.0502	$0.0503^{+0.0087}_{-0.0076}$ (-0.2 σ)	$r_{drag}h$	102.20	102.0 ± 2.1 (+2.1 σ)	$D_M(0.38)$	1502.7	1505 ± 20 (-2.2 σ)
A_L	1.270	$1.246^{+0.092}_{-0.10}$	$\langle d^2 \rangle^{1/2}$	2.656	2.636 ± 0.079 (+4.9 σ)	$H(0.51)$	90.53	90.45 ± 0.64 (+2.4 σ)
$\ln(10^{10} A_s)$	3.0260	$3.026^{+0.019}_{-0.016}$ (-0.8 σ)	z_{re}	7.14	$7.13^{+0.93}_{-0.72}$ (-0.4 σ)	$D_M(0.51)$	1949.8	1953 ± 24 (-2.2 σ)
n_s	0.9776	0.9756 ± 0.0073 (+2.0 σ)	$10^9 A_s$	2.0614	$2.062^{+0.038}_{-0.034}$ (-0.8 σ)	$H(0.61)$	96.00	95.93 ± 0.52 (+2.5 σ)
y_{cal}	0.99990	1.0001 ± 0.0025 (-0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8643	1.864 ± 0.014 (-1.3 σ)	$D_M(0.61)$	2271.4	2275 ± 26 (-2.2 σ)
A_{100}^{PS}	217.0	229 ± 25 (-0.6 σ)	D_{40}	1200.1	1204 ± 17 (-1.6 σ)	$H(2.33)$	234.44	234.5 ± 1.4 (-1.7 σ)
A_{143}^{PS}	44.2	33 ± 9 (-0.9 σ)	D_{220}	5727.4	5728 ± 43 (+0.6 σ)	$D_M(2.33)$	5732.6	5737 ± 23 (-2.4 σ)
A_{217}^{PS}	109.9	104 ± 10 (+0.2 σ)	D_{810}	2526.2	2525 ± 14 (-0.7 σ)	$f\sigma_8(0.15)$	0.4346	0.436 ± 0.015 (-2.2 σ)
A_{217}^{CIB}	36.7	37 ± 7 (-0.6 σ)	D_{1420}	815.6	814.3 ± 5.2 (-0.0 σ)	$\sigma_8(0.15)$	0.7354	0.7354 ± 0.0093 (-1.8 σ)
A_{143}^{tSZ}	6.24	4.2 ± 2.1 (+0.2 σ)	D_{2000}	233.18	232.3 ± 2.1 (+1.5 σ)	$f\sigma_8(0.38)$	0.4569	0.458 ± 0.012 (-2.2 σ)
$r_{143 \times 217}^{PS}$	0.796	0.68 ± 0.14 (+0.2 σ)	$n_{s,0.002}$	0.9776	0.9756 ± 0.0073 (+2.0 σ)	$\sigma_8(0.38)$	0.6541	0.6539 ± 0.0072 (-1.5 σ)
$r_{143 \times 217}^{CIB}$	0.739	0.50 ± 0.27 (-0.3 σ)	Y_P	0.245516	$0.24549^{+0.00011}_{-0.00012}$ (+2.1 σ)	$f\sigma_8(0.51)$	0.4579	0.458 ± 0.011 (-2.2 σ)
$\xi^{tSZ \times CIB}$	0.996	—	Y_P^{BBN}	0.246843	$0.24682^{+0.00011}_{-0.00013}$ (+2.1 σ)	$\sigma_8(0.51)$	0.6130	0.6128 ± 0.0064 (-1.3 σ)
A^{kSZ}	0.00	< 5.18 (-0.4 σ)	$10^5 D/H$	2.527	2.540 ± 0.053 (-2.2 σ)	$f\sigma_8(0.61)$	0.4546	0.4550 ± 0.0095 (-2.2 σ)
A_{100}^{dust}	1.010	1.01 ± 0.19 (-0.0 σ)	Age/Gyr	13.730	13.740 ± 0.050 (-2.3 σ)	$\sigma_8(0.61)$	0.5839	$0.5836^{+0.0060}_{-0.0055}$ (-1.2 σ)
A_{143}^{dust}	0.948	0.95 ± 0.18 (-0.1 σ)	z_*	1089.18	1089.29 ± 0.53 (-2.4 σ)	$f\sigma_8(2.33)$	0.29521	$0.2950^{+0.0028}_{-0.0025}$ (-0.8 σ)
A_{217}^{dust}	0.990	0.98 ± 0.10 (+0.1 σ)	r_*	145.17	145.18 ± 0.53 (+1.4 σ)	$\sigma_8(2.33)$	0.30527	0.3050 ± 0.0028 (-0.3 σ)
$A_{143 \times 217}^{dust}$	1.016	1.02 ± 0.16 (-0.1 σ)	$100\theta_*$	1.04165	1.04161 ± 0.00052 (+1.2 σ)	f_{2000}^{143}	25.22	26 ± 3 (-1.5 σ)
c_{100}	0.99788	0.9975 ± 0.0010 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9362	13.938 ± 0.048 (+1.3 σ)	f_{2000}^{217}	103.32	104.3 ± 2.4 (-1.6 σ)
c_{217}	1.00076	1.0008 ± 0.0016 (-0.3 σ)	z_{drag}	1060.43	1060.27 ± 0.56 (+1.9 σ)	$f_{2000}^{143 \times 217}$	28.50	29.2 ± 2.6 (-1.8 σ)
H_0	69.18	69.0 ± 1.2 (+2.2 σ)	r_{drag}	147.74	147.77 ± 0.50 (+1.1 σ)	χ_{small}^2	395.71	396.8 ± 1.6 (-0.1 σ)
Ω_Λ	0.7084	$0.707^{+0.016}_{-0.014}$ (+2.0 σ)	k_D	0.14043	0.14034 ± 0.00051 (-0.4 σ)	χ_{lowl}^2	21.18	21.6 ± 1.0 (-1.5 σ)
Ω_m	0.2916	$0.293^{+0.014}_{-0.016}$ (-2.0 σ)	$100\theta_D$	0.160522	0.16061 ± 0.00030 (-1.7 σ)	$\chi_{CamSpec}^2$	7046.0	7059.9 ± 5.3 (-0.6 σ)
$\Omega_m h^2$	0.13955	0.1397 ± 0.0023 (-1.8 σ)	z_{eq}	3319	3322 ± 55 (-1.8 σ)	χ_{prior}^2	1.37	7.2 ± 3.3 (-0.1 σ)
$\Omega_m h^3$	0.09654	0.09640 ± 0.00050 (+1.0 σ)	k_{eq}	0.010131	0.01014 ± 0.00017 (-1.8 σ)	χ_{CMB}^2	7462.8	7478.3 ± 5.5 (-1.0 σ)
σ_8	0.7937	0.794 ± 0.011 (-1.9 σ)	$100\theta_{eq}$	0.8298	0.829 ± 0.011 (+2.0 σ)			
S_8	0.7825	0.785 ± 0.029 (-2.2 σ)	$100\theta_{s,eq}$	0.4578	0.4575 ± 0.0056 (+1.9 σ)			

Best-fit $\chi_{eff}^2 = 7464.21$; $\Delta\chi_{eff}^2 = -7.53$; $\bar{\chi}_{eff}^2 = 7485.53$; $\Delta\bar{\chi}_{eff}^2 = -6.01$; $R - 1 = 0.00653$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.71 (Δ -0.12) commander_dx12.v3.2.29: 21.18 (Δ -2.22) CamSpec like_10.7HM: 7045.95 (Δ -4.38)

3.14 base_Alens_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02250 \pm 0.00022 \quad (+1.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5921 \pm 0.0088 \quad (-1.2\sigma)$	$H(0.38)$	$83.47 \pm 0.41 \quad (+1.4\sigma)$
$\Omega_{\text{c}}h^2$	$0.1178 \pm 0.0013 \quad (-0.9\sigma)$	$\sigma_8/h^{0.5}$	$0.966 \pm 0.013 \quad (-1.2\sigma)$	$D_{\text{M}}(0.38)$	$1517 \pm 10 \quad (-1.3\sigma)$
$100\theta_{\text{MC}}$	$1.04124 \pm 0.00043 \quad (+0.5\sigma)$	$r_{\text{drag}}h$	$100.8 \pm 1.0 \quad (+1.1\sigma)$	$H(0.51)$	$90.10 \pm 0.34 \quad (+1.4\sigma)$
τ	$0.0495^{+0.0089}_{-0.0072} \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.624 \pm 0.077 \quad (+7.2\sigma)$	$D_{\text{M}}(0.51)$	$1966 \pm 12 \quad (-1.3\sigma)$
A_{L}	1.209 ± 0.079	z_{re}	$7.10^{+0.96}_{-0.70} \quad (-0.6\sigma)$	$H(0.61)$	$95.64 \pm 0.29 \quad (+1.4\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.028^{+0.019}_{-0.016} \quad (-0.7\sigma)$	$10^9 A_{\text{s}}$	$2.065^{+0.039}_{-0.033} \quad (-0.7\sigma)$	$D_{\text{M}}(0.61)$	$2289 \pm 13 \quad (-1.3\sigma)$
n_{s}	$0.9719 \pm 0.0047 \quad (+1.1\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.4\sigma)$	$H(2.33)$	$235.27 \pm 0.79 \quad (-0.6\sigma)$
y_{cal}	$1.0001 \pm 0.0026 \quad (-0.2\sigma)$	D_{40}	$1212 \pm 13 \quad (-0.8\sigma)$	$D_{\text{M}}(2.33)$	$5749 \pm 14 \quad (-1.4\sigma)$
A_{100}^{PS}	$230 \pm 25 \quad (-0.4\sigma)$	D_{220}	$5720 \pm 42 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4441 \pm 0.0085 \quad (-1.2\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.7\sigma)$	D_{810}	$2526 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.7392^{+0.0078}_{-0.0069} \quad (-0.9\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.2\sigma)$	D_{1420}	$813.7 \pm 5.2 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4643 \pm 0.0072 \quad (-1.2\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.5\sigma)$	D_{2000}	$231.8 \pm 2.0 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6563^{+0.0066}_{-0.0058} \quad (-0.8\sigma)$
A_{143}^{tSZ}	$4.1 \pm 2.0 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9719 \pm 0.0047 \quad (+1.1\sigma)$	$f\sigma_8(0.51)$	$0.4641 \pm 0.0065 \quad (-1.2\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	Y_{P}	$0.245443 \pm 0.000088 \quad (+1.3\sigma)$	$\sigma_8(0.51)$	$0.6146^{+0.0061}_{-0.0053} \quad (-0.8\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.52^{+0.35}_{-0.27} \quad (-0.3\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246770 \pm 0.000088 \quad (+1.3\sigma)$	$f\sigma_8(0.61)$	$0.4600 \pm 0.0060 \quad (-1.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 \text{D}/\text{H}$	$2.563 \pm 0.041 \quad (-1.4\sigma)$	$\sigma_8(0.61)$	$0.5851^{+0.0057}_{-0.0050} \quad (-0.7\sigma)$
A^{kSZ}	$< 5.21 \quad (-0.3\sigma)$	Age/Gyr	$13.765 \pm 0.032 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2954^{+0.0028}_{-0.0025} \quad (-0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.57 \pm 0.34 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3050^{+0.0029}_{-0.0025} \quad (-0.5\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.1\sigma)$	r_*	$144.90 \pm 0.32 \quad (+0.2\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	$100\theta_*$	$1.04141 \pm 0.00043 \quad (+0.4\sigma)$	f_{2000}^{217}	$104.8 \pm 2.2 \quad (-1.3\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.914 \pm 0.031 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.4 \quad (-1.4\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	z_{drag}	$1060.08 \pm 0.49 \quad (+1.3\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.1\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.2\sigma)$	r_{drag}	$147.53 \pm 0.34 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.00 \pm 0.80 \quad (-0.9\sigma)$
H_0	$68.35 \pm 0.61 \quad (+1.3\sigma)$	k_{D}	$0.14050 \pm 0.00045 \quad (+0.5\sigma)$	χ_{CamSpec}^2	$7058.9 \pm 5.2 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6982 \pm 0.0077 \quad (+1.1\sigma)$	$100\theta_{\text{D}}$	$0.16070 \pm 0.00027 \quad (-1.2\sigma)$	$\chi_{6\text{DF}}^2$	$0.049 \pm 0.069 \quad (-0.1\sigma)$
Ω_{m}	$0.3018 \pm 0.0077 \quad (-1.1\sigma)$	z_{eq}	$3353 \pm 29 \quad (-0.7\sigma)$	χ_{MGS}^2	$1.99 \pm 0.65 \quad (+1.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1409 \pm 0.0012 \quad (-0.7\sigma)$	k_{eq}	$0.010233 \pm 0.000089 \quad (-0.7\sigma)$	χ_{DR12BAO}^2	$4.06 \pm 0.98 \quad (-0.4\sigma)$
$\Omega_{\text{m}}h^3$	$0.09633 \pm 0.00050 \quad (+0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8229 \pm 0.0056 \quad (+0.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.4 \quad (-0.1\sigma)$
σ_8	$0.7989^{+0.0088}_{-0.0079} \quad (-1.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4543 \pm 0.0029 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
S_8	$0.801 \pm 0.016 \quad (-1.2\sigma)$	$H(0.15)$	$73.53 \pm 0.53 \quad (+1.3\sigma)$	χ_{CMB}^2	$7477.8 \pm 5.4 \quad (-1.1\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4389 \pm 0.0089 \quad (-1.2\sigma)$	$D_{\text{M}}(0.15)$	$635.0 \pm 5.2 \quad (-1.3\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 7491.23$; $\Delta\bar{\chi}_{\text{eff}}^2 = -6.32$; $R - 1 = 0.01433$

3.15 base_Alens_CamSpecHM_TT_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}} h^2$	$0.02293 \pm 0.00025 \quad (+2.5\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.411^{+0.012}_{-0.013} \quad (-2.4\sigma)$	$H(0.15)$	$75.48 \pm 0.85 \quad (+2.5\sigma)$
$\Omega_{\text{c}} h^2$	$0.1133 \pm 0.0020 \quad (-2.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.567 \pm 0.012 \quad (-2.4\sigma)$	$D_{\text{M}}(0.15)$	$616.7^{+7.4}_{-8.3} \quad (-2.4\sigma)$
$100\theta_{\text{MC}}$	$1.04192 \pm 0.00048 \quad (+1.3\sigma)$	$\sigma_8/h^{0.5}$	$0.932 \pm 0.017 \quad (-2.4\sigma)$	$H(0.38)$	$84.94 \pm 0.65 \quad (+2.6\sigma)$
τ	$0.0524 \pm 0.0089 \quad (-0.4\sigma)$	$r_{\text{drag}} h$	$104.7 \pm 1.7 \quad (+2.3\sigma)$	$D_{\text{M}}(0.38)$	$1480 \pm 16 \quad (-2.4\sigma)$
A_{L}	1.334 ± 0.097	$\langle d^2 \rangle^{1/2}$	$2.667 \pm 0.077 \quad (+7.9\sigma)$	$H(0.51)$	$91.27 \pm 0.53 \quad (+2.7\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.023 \pm 0.018 \quad (-0.9\sigma)$	z_{re}	$7.24^{+0.91}_{-0.81} \quad (-0.6\sigma)$	$D_{\text{M}}(0.51)$	$1922 \pm 19 \quad (-2.5\sigma)$
n_{s}	$0.9839 \pm 0.0061 \quad (+2.3\sigma)$	$10^9 A_{\text{s}}$	$2.056 \pm 0.037 \quad (-0.9\sigma)$	$H(0.61)$	$96.60 \pm 0.44 \quad (+2.7\sigma)$
y_{cal}	$1.0001 \pm 0.0024 \quad (-0.3\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.852 \pm 0.013 \quad (-1.3\sigma)$	$D_{\text{M}}(0.61)$	$2242 \pm 20 \quad (-2.5\sigma)$
A_{100}^{PS}	$225 \pm 25 \quad (-0.6\sigma)$	D_{40}	$1188^{+14}_{-16} \quad (-1.8\sigma)$	$H(2.33)$	$232.8 \pm 1.1 \quad (-1.7\sigma)$
A_{143}^{PS}	$30 \pm 8 \quad (-1.2\sigma)$	D_{220}	$5746 \pm 41 \quad (+0.5\sigma)$	$D_{\text{M}}(2.33)$	$5709 \pm 19 \quad (-2.6\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.3\sigma)$	D_{810}	$2521 \pm 14 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.418 \pm 0.012 \quad (-2.4\sigma)$
A_{217}^{CIB}	$35^{+7}_{-7} \quad (-0.7\sigma)$	D_{1420}	$815.5 \pm 5.0 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.7274 \pm 0.0084 \quad (-2.0\sigma)$
A_{143}^{tSZ}	$4.4 \pm 2.1 \quad (+0.3\sigma)$	D_{2000}	$233.8 \pm 2.0 \quad (+1.8\sigma)$	$f\sigma_8(0.38)$	$0.443 \pm 0.010 \quad (-2.4\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.69 \pm 0.14 \quad (+0.3\sigma)$	$n_{\text{s},0.002}$	$0.9839 \pm 0.0061 \quad (+2.3\sigma)$	$\sigma_8(0.38)$	$0.6489 \pm 0.0068 \quad (-1.7\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.47^{+0.26}_{-0.35} \quad (-0.3\sigma)$	Y_{P}	$0.24562 \pm 0.00011 \quad (+2.6\sigma)$	$f\sigma_8(0.51)$	$0.4461 \pm 0.0088 \quad (-2.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.24695 \pm 0.00011 \quad (+2.6\sigma)$	$\sigma_8(0.51)$	$0.6090 \pm 0.0061 \quad (-1.6\sigma)$
A^{kSZ}	$< 4.70 \quad (-0.5\sigma)$	$10^5 \text{D}/\text{H}$	$2.486 \pm 0.044 \quad (-2.4\sigma)$	$f\sigma_8(0.61)$	$0.4442 \pm 0.0080 \quad (-2.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	Age/Gyr	$13.680 \pm 0.041 \quad (-2.6\sigma)$	$\sigma_8(0.61)$	$0.5805 \pm 0.0057 \quad (-1.4\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.2\sigma)$	z_*	$1088.65^{+0.40}_{-0.45} \quad (-2.6\sigma)$	$f\sigma_8(2.33)$	$0.2943 \pm 0.0027 \quad (-1.1\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	r_*	$145.76 \pm 0.44 \quad (+1.4\sigma)$	$\sigma_8(2.33)$	$0.3052 \pm 0.0028 \quad (-0.6\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.01 \pm 0.16 \quad (-0.1\sigma)$	$100\theta_*$	$1.04206 \pm 0.00047 \quad (+1.2\sigma)$	f_{2000}^{143}	$24 \pm 3 \quad (-2.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.987 \pm 0.041 \quad (+1.2\sigma)$	f_{2000}^{217}	$102.9 \pm 2.3 \quad (-2.0\sigma)$
c_{217}	$1.0006 \pm 0.0016 \quad (-0.4\sigma)$	z_{drag}	$1060.74 \pm 0.51 \quad (+2.1\sigma)$	$f_{2000}^{143 \times 217}$	$27.6 \pm 2.4 \quad (-2.2\sigma)$
H_0	$70.60 \pm 0.97 \quad (+2.4\sigma)$	r_{drag}	$148.26 \pm 0.44 \quad (+1.0\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.2\sigma)$
Ω_{Λ}	$0.725^{+0.012}_{-0.010} \quad (+2.2\sigma)$	k_{D}	$0.14004 \pm 0.00048 \quad (-0.1\sigma)$	χ_{lowl}^2	$20.64 \pm 0.59 \quad (-1.6\sigma)$
Ω_{m}	$0.275^{+0.010}_{-0.012} \quad (-2.2\sigma)$	$100\theta_{\text{D}}$	$0.16039 \pm 0.00027 \quad (-1.9\sigma)$	χ_{CamSpec}^2	$7062.5 \pm 5.7 \quad (-0.7\sigma)$
$\Omega_{\text{m}} h^2$	$0.1369 \pm 0.0018 \quad (-1.9\sigma)$	z_{eq}	$3256 \pm 44 \quad (-1.9\sigma)$	χ_{H073p45}^2	$3.3 \pm 2.1 \quad (-1.9\sigma)$
$\Omega_{\text{m}} h^3$	$0.09662 \pm 0.00048 \quad (+1.3\sigma)$	k_{eq}	$0.00994 \pm 0.00013 \quad (-1.9\sigma)$	χ_{prior}^2	$6.9 \pm 3.1 \quad (-0.2\sigma)$
σ_8	$0.7832 \pm 0.0098 \quad (-2.1\sigma)$	$100\theta_{\text{eq}}$	$0.8430 \pm 0.0091 \quad (+2.1\sigma)$	χ_{CMB}^2	$7479.9 \pm 5.8 \quad (-1.1\sigma)$
S_8	$0.750^{+0.021}_{-0.024} \quad (-2.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4645 \pm 0.0046 \quad (+2.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 7490.17; \Delta \bar{\chi}_{\text{eff}}^2 = -12.71; R - 1 = 0.03353$$

3.16 base_Alens_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02263 \pm 0.00029 \quad (+2.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.431 \pm 0.016 \quad (-2.1\sigma)$	$H(0.15)$	$74.1 \pm 1.1 \quad (+2.3\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1164 \pm 0.0025 \quad (-1.9\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.586 \pm 0.015 \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$629 \pm 10 \quad (-2.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04144 \pm 0.00053 \quad (+1.2\sigma)$	$\sigma_8/h^{0.5}$	$0.958 \pm 0.020 \quad (-2.1\sigma)$	$H(0.38)$	$83.93 \pm 0.79 \quad (+2.3\sigma)$
τ	$0.0535^{+0.0039}_{-0.0079} \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$102.1 \pm 2.1 \quad (+2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1505 \pm 20 \quad (-2.2\sigma)$
A_{L}	1.239 ± 0.097	$\langle d^2 \rangle^{1/2}$	$2.635 \pm 0.078 \quad (+4.9\sigma)$	$H(0.51)$	$90.46 \pm 0.64 \quad (+2.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.032^{+0.012}_{-0.015} \quad (-0.7\sigma)$	z_{re}	$7.47^{+0.37}_{-0.83} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1953 \pm 24 \quad (-2.2\sigma)$
n_{s}	$0.9758 \pm 0.0073 \quad (+2.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.075^{+0.024}_{-0.032} \quad (-0.7\sigma)$	$H(0.61)$	$95.93 \pm 0.52 \quad (+2.4\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.864 \pm 0.015 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2274 \pm 26 \quad (-2.2\sigma)$
A_{100}^{PS}	$228 \pm 25 \quad (-0.6\sigma)$	D_{40}	$1205 \pm 17 \quad (-1.6\sigma)$	$H(2.33)$	$234.5 \pm 1.4 \quad (-1.7\sigma)$
A_{143}^{PS}	$33 \pm 9 \quad (-0.9\sigma)$	D_{220}	$5727 \pm 43 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5736 \pm 23 \quad (-2.4\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.2\sigma)$	D_{810}	$2525 \pm 14 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.437 \pm 0.015 \quad (-2.1\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.6\sigma)$	D_{1420}	$814.3 \pm 5.2 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7376 \pm 0.0083 \quad (-1.7\sigma)$
A_{143}^{tSZ}	$4.2 \pm 2.1 \quad (+0.2\sigma)$	D_{2000}	$232.4 \pm 2.1 \quad (+1.5\sigma)$	$f\sigma_8(0.38)$	$0.459 \pm 0.012 \quad (-2.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.14 \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.9758 \pm 0.0073 \quad (+2.0\sigma)$	$\sigma_8(0.38)$	$0.6559 \pm 0.0061 \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.50 \pm 0.27 \quad (-0.3\sigma)$	Y_{P}	$0.24549^{+0.00011}_{-0.00012} \quad (+2.1\sigma)$	$f\sigma_8(0.51)$	$0.460 \pm 0.010 \quad (-2.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24682^{+0.00011}_{-0.00012} \quad (+2.1\sigma)$	$\sigma_8(0.51)$	$0.6147 \pm 0.0053 \quad (-1.3\sigma)$
A^{kSZ}	$< 5.15 \quad (-0.4\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.540 \pm 0.053 \quad (-2.2\sigma)$	$f\sigma_8(0.61)$	$0.4563 \pm 0.0092 \quad (-2.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.739 \pm 0.050 \quad (-2.3\sigma)$	$\sigma_8(0.61)$	$0.5854^{+0.0045}_{-0.0051} \quad (-1.1\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.1\sigma)$	z_*	$1089.29 \pm 0.53 \quad (-2.4\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0019}_{-0.0024} \quad (-0.7\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	r_*	$145.19 \pm 0.53 \quad (+1.4\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0018}_{-0.0024} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	$100\theta_*$	$1.04161 \pm 0.00052 \quad (+1.2\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-1.5\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.939 \pm 0.048 \quad (+1.3\sigma)$	f_{2000}^{217}	$104.3 \pm 2.4 \quad (-1.6\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.3\sigma)$	z_{drag}	$1060.27 \pm 0.56 \quad (+1.8\sigma)$	$f_{2000}^{143 \times 217}$	$29.1 \pm 2.6 \quad (-1.8\sigma)$
H_0	$69.1 \pm 1.2 \quad (+2.2\sigma)$	r_{drag}	$147.78 \pm 0.50 \quad (+1.1\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
Ω_{Λ}	$0.707^{+0.016}_{-0.014} \quad (+2.0\sigma)$	k_{D}	$0.14033 \pm 0.00051 \quad (-0.4\sigma)$	χ_{lowl}^2	$21.6 \pm 1.1 \quad (-1.5\sigma)$
Ω_{m}	$0.293^{+0.014}_{-0.016} \quad (-2.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16061 \pm 0.00030 \quad (-1.7\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7059.9 \pm 5.3 \quad (-0.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1396 \pm 0.0023 \quad (-1.8\sigma)$	z_{eq}	$3321 \pm 55 \quad (-1.8\sigma)$	χ_{prior}^2	$7.2 \pm 3.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09640 \pm 0.00050 \quad (+1.0\sigma)$	k_{eq}	$0.01014 \pm 0.00017 \quad (-1.8\sigma)$	χ_{CMB}^2	$7477.9 \pm 5.4 \quad (-1.0\sigma)$
σ_8	$0.796 \pm 0.010 \quad (-1.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.829 \pm 0.011 \quad (+2.0\sigma)$		
S_8	$0.787 \pm 0.029 \quad (-2.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4576 \pm 0.0056 \quad (+1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7485.10; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -6.16; R - 1 = 0.00928$$

3.17 base_Alens_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02250 \pm 0.00022 \quad (+1.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.5940 \pm 0.0081 \quad (-1.1\sigma)$	$H(0.38)$	$83.48 \pm 0.41 \quad (+1.4\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1178 \pm 0.0013 \quad (-0.9\sigma)$	$\sigma_8 / h^{0.5}$	$0.969 \pm 0.011 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517 \pm 10 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04123 \pm 0.00043 \quad (+0.4\sigma)$	$r_{\mathrm{drag}} h$	$100.8 \pm 1.0 \quad (+1.1\sigma)$	$H(0.51)$	$90.10 \pm 0.34 \quad (+1.4\sigma)$
τ	$0.0528^{+0.0040}_{-0.0074} \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.624 \pm 0.076 \quad (+7.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 12 \quad (-1.3\sigma)$
A_{L}	1.201 ± 0.077	z_{re}	$7.45^{+0.34}_{-0.86} \quad (-0.4\sigma)$	$H(0.61)$	$95.64 \pm 0.29 \quad (+1.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.034^{+0.011}_{-0.015} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.078^{+0.023}_{-0.031} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289 \pm 13 \quad (-1.3\sigma)$
n_{s}	$0.9721 \pm 0.0046 \quad (+1.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.4\sigma)$	$H(2.33)$	$235.26 \pm 0.79 \quad (-0.6\sigma)$
y_{cal}	$1.0001 \pm 0.0026 \quad (-0.2\sigma)$	D_{40}	$1212 \pm 13 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 14 \quad (-1.4\sigma)$
A_{100}^{PS}	$230 \pm 25 \quad (-0.4\sigma)$	D_{220}	$5719 \pm 42 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4455 \pm 0.0080 \quad (-1.2\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.7\sigma)$	D_{810}	$2526 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.7416^{+0.0057}_{-0.0064} \quad (-0.8\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.2\sigma)$	D_{1420}	$813.8 \pm 5.2 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4658 \pm 0.0066 \quad (-1.1\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.4\sigma)$	D_{2000}	$231.8 \pm 2.0 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6584^{+0.0046}_{-0.0053} \quad (-0.7\sigma)$
A_{143}^{tSZ}	$4.1 \pm 2.0 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9721 \pm 0.0046 \quad (+1.1\sigma)$	$f\sigma_8(0.51)$	$0.4656 \pm 0.0059 \quad (-1.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	Y_{P}	$0.245442 \pm 0.000087 \quad (+1.3\sigma)$	$\sigma_8(0.51)$	$0.6166^{+0.0041}_{-0.0049} \quad (-0.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.34}_{-0.27} \quad (-0.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246769 \pm 0.000088 \quad (+1.3\sigma)$	$f\sigma_8(0.61)$	$0.4614 \pm 0.0053 \quad (-1.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.563 \pm 0.041 \quad (-1.4\sigma)$	$\sigma_8(0.61)$	$0.5870^{+0.0038}_{-0.0046} \quad (-0.6\sigma)$
A^{kSZ}	$< 5.20 \quad (-0.3\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.765 \pm 0.032 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0018}_{-0.0023} \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.57 \pm 0.33 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0018}_{-0.0024} \quad (-0.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.1\sigma)$	r_*	$144.91 \pm 0.32 \quad (+0.3\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	$100\theta_*$	$1.04141 \pm 0.00042 \quad (+0.4\sigma)$	f_{2000}^{217}	$104.8 \pm 2.2 \quad (-1.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.915 \pm 0.031 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.4 \quad (-1.3\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	z_{drag}	$1060.07 \pm 0.49 \quad (+1.2\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.2\sigma)$	r_{drag}	$147.54 \pm 0.34 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.05 \pm 0.80 \quad (-0.9\sigma)$
H_0	$68.35 \pm 0.61 \quad (+1.3\sigma)$	k_{D}	$0.14049 \pm 0.00045 \quad (+0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7058.9 \pm 5.2 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6983 \pm 0.0077 \quad (+1.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16071 \pm 0.00027 \quad (-1.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.049 \pm 0.070 \quad (-0.1\sigma)$
Ω_{m}	$0.3017 \pm 0.0077 \quad (-1.1\sigma)$	z_{eq}	$3352 \pm 29 \quad (-0.7\sigma)$	χ_{MGS}^2	$2.00 \pm 0.65 \quad (+1.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1409 \pm 0.0012 \quad (-0.7\sigma)$	k_{eq}	$0.010232 \pm 0.000089 \quad (-0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.06 \pm 0.98 \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09632 \pm 0.00049 \quad (+0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8230 \pm 0.0056 \quad (+0.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.4 \quad (-0.1\sigma)$
σ_8	$0.8015 \pm 0.0070 \quad (-0.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4543 \pm 0.0028 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (+0.0\sigma)$
S_8	$0.804 \pm 0.016 \quad (-1.2\sigma)$	$H(0.15)$	$73.53 \pm 0.53 \quad (+1.3\sigma)$	χ_{CMB}^2	$7477.4 \pm 5.3 \quad (-1.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4402 \pm 0.0085 \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.0 \pm 5.1 \quad (-1.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7490.78$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = -6.53$; $R - 1 = 0.01851$

3.18 base_Alens_CamSpecHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02293 \pm 0.00025 \quad (+2.5\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.412^{+0.011}_{-0.013} \quad (-2.3\sigma)$	$H(0.15)$	$75.49 \pm 0.84 \quad (+2.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1133 \pm 0.0020 \quad (-2.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.569 \pm 0.011 \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$616.6^{+7.2}_{-8.2} \quad (-2.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04192 \pm 0.00048 \quad (+1.3\sigma)$	$\sigma_8/h^{0.5}$	$0.935 \pm 0.016 \quad (-2.3\sigma)$	$H(0.38)$	$84.94 \pm 0.64 \quad (+2.6\sigma)$
τ	$0.0553^{+0.0045}_{-0.0083} \quad (-0.2\sigma)$	$r_{\mathrm{drag}} h$	$104.7 \pm 1.7 \quad (+2.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1479^{+15}_{-17} \quad (-2.4\sigma)$
A_{L}	1.326 ± 0.095	$\langle d^2 \rangle^{1/2}$	$2.666 \pm 0.077 \quad (+7.9\sigma)$	$H(0.51)$	$91.27 \pm 0.52 \quad (+2.6\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.029^{+0.012}_{-0.016} \quad (-0.8\sigma)$	z_{re}	$7.54^{+0.37}_{-0.92} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1922^{+18}_{-20} \quad (-2.4\sigma)$
n_{s}	$0.9840^{+0.0064}_{-0.0058} \quad (+2.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.068^{+0.024}_{-0.034} \quad (-0.8\sigma)$	$H(0.61)$	$96.60 \pm 0.44 \quad (+2.7\sigma)$
y_{cal}	$1.0000 \pm 0.0024 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.851 \pm 0.013 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2242 \pm 20 \quad (-2.5\sigma)$
A_{100}^{PS}	$225 \pm 25 \quad (-0.6\sigma)$	D_{40}	$1188^{+14}_{-16} \quad (-1.8\sigma)$	$H(2.33)$	$232.8 \pm 1.1 \quad (-1.7\sigma)$
A_{143}^{PS}	$30 \pm 8 \quad (-1.2\sigma)$	D_{220}	$5744 \pm 41 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5709 \pm 19 \quad (-2.6\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.3\sigma)$	D_{810}	$2520 \pm 14 \quad (-1.0\sigma)$	$f\sigma_8(0.15)$	$0.419^{+0.011}_{-0.012} \quad (-2.3\sigma)$
A_{217}^{CIB}	$35^{+6}_{-7} \quad (-0.7\sigma)$	D_{1420}	$815.4^{+5.3}_{-4.8} \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.7294 \pm 0.0075 \quad (-1.9\sigma)$
A_{143}^{tSZ}	$4.4 \pm 2.1 \quad (+0.3\sigma)$	D_{2000}	$233.7^{+2.0}_{-1.9} \quad (+1.7\sigma)$	$f\sigma_8(0.38)$	$0.4443 \pm 0.0097 \quad (-2.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.69 \pm 0.14 \quad (+0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.9840^{+0.0064}_{-0.0058} \quad (+2.3\sigma)$	$\sigma_8(0.38)$	$0.6507^{+0.0054}_{-0.0062} \quad (-1.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.48 \pm 0.27 \quad (-0.3\sigma)$	Y_{P}	$0.24562 \pm 0.00011 \quad (+2.6\sigma)$	$f\sigma_8(0.51)$	$0.4472 \pm 0.0085 \quad (-2.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24695 \pm 0.00011 \quad (+2.6\sigma)$	$\sigma_8(0.51)$	$0.6107^{+0.0048}_{-0.0055} \quad (-1.5\sigma)$
A^{kSZ}	$< 4.62 \quad (-0.5\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.486 \pm 0.044 \quad (-2.4\sigma)$	$f\sigma_8(0.61)$	$0.4454 \pm 0.0076 \quad (-2.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.680 \pm 0.041 \quad (-2.6\sigma)$	$\sigma_8(0.61)$	$0.5822^{+0.0043}_{-0.0051} \quad (-1.3\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.2\sigma)$	z_*	$1088.65^{+0.39}_{-0.45} \quad (-2.6\sigma)$	$f\sigma_8(2.33)$	$0.2951^{+0.0020}_{-0.0025} \quad (-0.9\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	r_*	$145.77 \pm 0.44 \quad (+1.4\sigma)$	$\sigma_8(2.33)$	$0.3060^{+0.0019}_{-0.0025} \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.00 \pm 0.17 \quad (-0.1\sigma)$	$100\theta_*$	$1.04206 \pm 0.00047 \quad (+1.2\sigma)$	f_{2000}^{143}	$24 \pm 3 \quad (-2.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.988 \pm 0.041 \quad (+1.2\sigma)$	f_{2000}^{217}	$102.9 \pm 2.3 \quad (-2.0\sigma)$
c_{217}	$1.0005 \pm 0.0016 \quad (-0.4\sigma)$	z_{drag}	$1060.74 \pm 0.51 \quad (+2.1\sigma)$	$f_{2000}^{143 \times 217}$	$27.5 \pm 2.4 \quad (-2.2\sigma)$
H_0	$70.61 \pm 0.96 \quad (+2.4\sigma)$	r_{drag}	$148.27 \pm 0.44 \quad (+1.0\sigma)$	χ_{small}^2	$396.5 \pm 1.3 \quad (-0.3\sigma)$
Ω_{Λ}	$0.725^{+0.012}_{-0.010} \quad (+2.2\sigma)$	k_{D}	$0.14003 \pm 0.00048 \quad (-0.1\sigma)$	χ_{lowl}^2	$20.65 \pm 0.61 \quad (-1.6\sigma)$
Ω_{m}	$0.275^{+0.010}_{-0.012} \quad (-2.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16039 \pm 0.00027 \quad (-1.9\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.6 \pm 5.8 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1369 \pm 0.0018 \quad (-1.9\sigma)$	z_{eq}	$3255 \pm 44 \quad (-1.9\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$3.3 \pm 2.1 \quad (-1.9\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09661 \pm 0.00048 \quad (+1.3\sigma)$	k_{eq}	$0.00993 \pm 0.00013 \quad (-1.9\sigma)$	χ_{prior}^2	$6.9 \pm 3.1 \quad (-0.2\sigma)$
σ_8	$0.7854 \pm 0.0090 \quad (-2.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8432 \pm 0.0090 \quad (+2.1\sigma)$	χ_{CMB}^2	$7479.7 \pm 5.9 \quad (-1.1\sigma)$
S_8	$0.752^{+0.021}_{-0.024} \quad (-2.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4645 \pm 0.0046 \quad (+2.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7489.90; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -12.74; R - 1 = 0.05184$$

3.19 base_Alens_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022542	0.02251 ± 0.00019 (+1.4 σ)	σ_8	0.8000	0.7988 ± 0.0085 (-1.3 σ)	$100\theta_{\text{eq}}$	0.8228	0.8224 ± 0.0067 (+1.3 σ)
$\Omega_c h^2$	0.11776	0.1179 ± 0.0016 (-1.3 σ)	S_8	0.8023	0.802 ± 0.019 (-1.5 σ)	$100\theta_{\text{s,eq}}$	0.45424	0.4540 ± 0.0034 (+1.2 σ)
$100\theta_{\text{MC}}$	1.041089	1.04108 ± 0.00033 (+0.6 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4394	0.439 ± 0.010 (-1.5 σ)	$H(0.15)$	73.53	73.46 ± 0.63 (+1.4 σ)
τ	0.0508	$0.0496^{+0.0083}_{-0.0073}$ (-0.4 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5929	0.5925 ± 0.0098 (-1.5 σ)	$D_{\text{M}}(0.15)$	635.0	635.6 ± 6.2 (-1.4 σ)
A_{L}	1.155	1.149 ± 0.072	$\sigma_8/h^{0.5}$	0.9676	0.967 ± 0.014 (-1.5 σ)	$H(0.38)$	83.471	83.42 ± 0.47 (+1.5 σ)
$\ln(10^{10} A_{\text{s}})$	3.0309	$3.028^{+0.017}_{-0.015}$ (-0.7 σ)	$r_{\text{drag}} h$	100.81	100.7 ± 1.2 (+1.3 σ)	$D_{\text{M}}(0.38)$	1516.8	1518 ± 12 (-1.4 σ)
n_{s}	0.9725	0.9713 ± 0.0051 (+1.2 σ)	$\langle d^2 \rangle^{1/2}$	2.570	2.561 ± 0.065 (+4.5 σ)	$H(0.51)$	90.092	90.05 ± 0.38 (+1.5 σ)
y_{cal}	1.00007	1.0000 ± 0.0025 (-0.2 σ)	z_{re}	7.25	$7.11^{+0.89}_{-0.71}$ (-0.5 σ)	$D_{\text{M}}(0.51)$	1966.4	1968 ± 15 (-1.4 σ)
A_{100}^{PS}	223.5	232 ± 25 (-0.3 σ)	$10^9 A_{\text{s}}$	2.0716	2.065 ± 0.035 (-0.7 σ)	$H(0.61)$	95.637	95.60 ± 0.31 (+1.5 σ)
A_{143}^{PS}	46.5	36 ± 8 (-0.5 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8715	1.870 ± 0.012 (-0.7 σ)	$D_{\text{M}}(0.61)$	2289.4	2291 ± 16 (-1.4 σ)
A_{217}^{PS}	109.5	105^{+10}_{-10} (+0.2 σ)	D_{40}	1211.5	1213 ± 14 (-1.1 σ)	$H(2.33)$	235.27	235.32 ± 0.90 (-1.1 σ)
A_{217}^{CIB}	37.8	37^{+7}_{-8} (-0.3 σ)	D_{220}	5726.1	5723 ± 39 (+0.1 σ)	$D_{\text{M}}(2.33)$	5748.6	5750 ± 14 (-1.4 σ)
A_{143}^{tSZ}	6.07	$4.1^{+2.0}_{-2.4}$ (+0.1 σ)	D_{810}	2531.0	2528 ± 14 (-0.5 σ)	$f\sigma_8(0.15)$	0.4447	0.4447 ± 0.0097 (-1.5 σ)
$r_{143 \times 217}^{\text{PS}}$	0.792	0.68 ± 0.13 (+0.2 σ)	D_{1420}	816.09	814.6 ± 4.8 (-0.2 σ)	$\sigma_8(0.15)$	0.7402	0.7390 ± 0.0074 (-1.1 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.703	$0.51^{+0.34}_{-0.27}$ (-0.2 σ)	D_{2000}	232.14	231.5 ± 1.7 (+0.8 σ)	$f\sigma_8(0.38)$	0.4650	0.4647 ± 0.0080 (-1.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.94	—	$n_{\text{s},0.002}$	0.9725	0.9713 ± 0.0051 (+1.2 σ)	$\sigma_8(0.38)$	0.6572	0.6560 ± 0.0061 (-1.0 σ)
A^{kSZ}	0.17	< 5.28 (-0.3 σ)	Y_{P}	0.245459	0.245447 ± 0.000075 (+1.3 σ)	$f\sigma_8(0.51)$	0.4647	0.4643 ± 0.0071 (-1.5 σ)
A_{100}^{dust}	1.021	1.01 ± 0.20 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246786	0.246773 ± 0.000075 (+1.3 σ)	$\sigma_8(0.51)$	0.6155	0.6143 ± 0.0056 (-0.9 σ)
A_{143}^{dust}	0.946	0.95 ± 0.17 (-0.1 σ)	$10^5 \text{D}/\text{H}$	2.5545	2.561 ± 0.035 (-1.3 σ)	$f\sigma_8(0.61)$	0.4606	0.4601 ± 0.0064 (-1.5 σ)
A_{217}^{dust}	0.993	0.98 ± 0.10 (+0.1 σ)	Age/Gyr	13.7653	13.769 ± 0.031 (-1.4 σ)	$\sigma_8(0.61)$	0.5859	0.5848 ± 0.0052 (-0.8 σ)
$A_{143 \times 217}^{\text{dust}}$	1.050	1.02 ± 0.16 (-0.1 σ)	z_*	1089.509	1089.56 ± 0.34 (-1.5 σ)	$f\sigma_8(2.33)$	0.29580	0.2952 ± 0.0026 (-0.7 σ)
c_{100}	0.99794	0.9975 ± 0.0011 (+0.0 σ)	r_*	144.881	144.88 ± 0.33 (+0.9 σ)	$\sigma_8(2.33)$	0.30540	0.3048 ± 0.0026 (-0.5 σ)
c_{217}	1.00093	1.0009 ± 0.0016 (-0.1 σ)	$100\theta_*$	1.041265	1.04125 ± 0.00033 (+0.6 σ)	f_{2000}^{143}	26.72	27 ± 3 (-0.9 σ)
c_{TE}	0.9917	0.9924 ± 0.0053 (-0.9 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9139	13.914 ± 0.030 (+0.9 σ)	f_{2000}^{217}	104.43	105.1 ± 2.1 (-1.0 σ)
c_{EE}	0.99020	0.9903 ± 0.0049 (-0.4 σ)	z_{drag}	1060.162	1060.10 ± 0.38 (+1.2 σ)	$f_{2000}^{143 \times 217}$	29.81	30.0 ± 2.2 (-1.1 σ)
H_0	68.35	68.28 ± 0.73 (+1.4 σ)	r_{drag}	147.495	147.50 ± 0.32 (+0.7 σ)	χ_{simall}^2	395.68	396.8 ± 1.5 (-0.1 σ)
Ω_{Λ}	0.6983	0.6973 ± 0.0095 (+1.3 σ)	k_{D}	0.140571	0.14054 ± 0.00034 (-0.2 σ)	χ_{lowl}^2	21.90	22.12 ± 0.89 (-1.1 σ)
Ω_{m}	0.3017	0.3027 ± 0.0095 (-1.3 σ)	$100\theta_{\text{D}}$	0.160623	0.16066 ± 0.00022 (-1.1 σ)	χ_{CamSpec}^2	11496.5	11512.3 ± 5.7 (-0.4 σ)
$\Omega_{\text{m}} h^2$	0.14095	0.1410 ± 0.0014 (-1.2 σ)	z_{eq}	3352.8	3355 ± 34 (-1.2 σ)	χ_{prior}^2	1.85	7.7 ± 3.3 (-0.0 σ)
$\Omega_{\text{m}} h^3$	0.096334	0.09629 ± 0.00034 (+0.6 σ)	k_{eq}	0.010233	0.01024 ± 0.00010 (-1.2 σ)	χ_{CMB}^2	11914.1	11931.2 ± 5.8 (-0.6 σ)

Best-fit $\chi_{\text{eff}}^2 = 11915.94$; $\Delta\chi_{\text{eff}}^2 = -4.82$; $\bar{\chi}_{\text{eff}}^2 = 11938.97$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.49$; $R - 1 = 0.01096$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.22) commander_dx12_v3.2.29: 21.90 (Δ -1.10) CamSpec like_10.7HM_1400_unified: 11496.51 (Δ -3.14)

3.20 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02249 \pm 0.00017 \quad (+1.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4405 \pm 0.0076 \quad (-1.2\sigma)$	$H(0.38)$	$83.37 \pm 0.33 \quad (+1.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1181 \pm 0.0011 \quad (-0.9\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5934 \pm 0.0077 \quad (-1.2\sigma)$	$D_{\text{M}}(0.38)$	$1519.5 \pm 8.5 \quad (-1.1\sigma)$
$100\theta_{\text{MC}}$	$1.04106 \pm 0.00030 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.968 \pm 0.011 \quad (-1.2\sigma)$	$H(0.51)$	$90.01 \pm 0.27 \quad (+1.1\sigma)$
τ	$0.0494_{-0.0073}^{+0.0084} \quad (-0.6\sigma)$	$r_{\text{drag}}h$	$100.56 \pm 0.85 \quad (+0.9\sigma)$	$D_{\text{M}}(0.51)$	$1970 \pm 10 \quad (-1.1\sigma)$
A_{L}	1.145 ± 0.065	$\langle d^2 \rangle^{1/2}$	$2.560 \pm 0.064 \quad (+5.4\sigma)$	$H(0.61)$	$95.57 \pm 0.22 \quad (+1.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.028_{-0.016}^{+0.017} \quad (-0.7\sigma)$	z_{re}	$7.09_{-0.71}^{+0.91} \quad (-0.6\sigma)$	$D_{\text{M}}(0.61)$	$2293 \pm 11 \quad (-1.1\sigma)$
n_{s}	$0.9708 \pm 0.0042 \quad (+0.9\sigma)$	$10^9 A_{\text{s}}$	$2.065 \pm 0.036 \quad (-0.7\sigma)$	$H(2.33)$	$235.42 \pm 0.64 \quad (-0.7\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.871 \pm 0.011 \quad (-0.5\sigma)$	$D_{\text{M}}(2.33)$	$5752 \pm 11 \quad (-1.1\sigma)$
A_{100}^{PS}	$232 \pm 25 \quad (-0.3\sigma)$	D_{40}	$1214 \pm 12 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4456 \pm 0.0072 \quad (-1.2\sigma)$
A_{143}^{PS}	$36 \pm 8 \quad (-0.4\sigma)$	D_{220}	$5722 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7394 \pm 0.0069 \quad (-0.9\sigma)$
A_{217}^{PS}	$105_{-10}^{+10} \quad (+0.2\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4655 \pm 0.0062 \quad (-1.2\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.3\sigma)$	D_{1420}	$814.6 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6563 \pm 0.0060 \quad (-0.8\sigma)$
A_{143}^{tSZ}	$4.1_{-2.4}^{+2.0} \quad (+0.1\sigma)$	D_{2000}	$231.4 \pm 1.7 \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.4650 \pm 0.0057 \quad (-1.2\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	$n_{\text{s},0.002}$	$0.9708 \pm 0.0042 \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.6145 \pm 0.0055 \quad (-0.8\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.52_{-0.27}^{+0.35} \quad (-0.2\sigma)$	Y_{P}	$0.245441_{-0.000057}^{+0.000063} \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.4607 \pm 0.0053 \quad (-1.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246768_{-0.000057}^{+0.000063} \quad (+1.0\sigma)$	$\sigma_8(0.61)$	$0.5850 \pm 0.0052 \quad (-0.8\sigma)$
A^{kSZ}	$< 5.37 \quad (-0.2\sigma)$	$10^5\text{D}/\text{H}$	$2.563 \pm 0.030 \quad (-1.1\sigma)$	$f\sigma_8(2.33)$	$0.2953 \pm 0.0026 \quad (-0.7\sigma)$
A_{100}^{dust}	$1.00 \pm 0.20 \quad (-0.0\sigma)$	Age/Gyr	$13.772 \pm 0.024 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3047_{-0.0024}^{+0.0027} \quad (-0.6\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.1\sigma)$	z_*	$1089.60 \pm 0.26 \quad (-1.2\sigma)$	f_{2000}^{143}	$27.2 \pm 2.9 \quad (-0.8\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	r_*	$144.84 \pm 0.25 \quad (+0.5\sigma)$	f_{2000}^{217}	$105.1 \pm 2.0 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	$100\theta_*$	$1.04123 \pm 0.00030 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$30.1 \pm 2.1 \quad (-1.0\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.910 \pm 0.024 \quad (+0.4\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.1\sigma)$	z_{drag}	$1060.08 \pm 0.35 \quad (+0.9\sigma)$	χ_{lowl}^2	$22.17 \pm 0.76 \quad (-0.9\sigma)$
c_{TE}	$0.9925 \pm 0.0053 \quad (-0.9\sigma)$	r_{drag}	$147.47 \pm 0.26 \quad (+0.3\sigma)$	χ_{CamSpec}^2	$11511.8 \pm 5.5 \quad (-0.5\sigma)$
c_{EE}	$0.9903 \pm 0.0050 \quad (-0.4\sigma)$	k_{D}	$0.14056 \pm 0.00032 \quad (+0.2\sigma)$	$\chi_{6\text{DF}}^2$	$0.030 \pm 0.044 \quad (-0.3\sigma)$
H_0	$68.19 \pm 0.50 \quad (+1.0\sigma)$	$100\theta_{\text{D}}$	$0.16067 \pm 0.00020 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.81 \pm 0.53 \quad (+1.0\sigma)$
Ω_{Λ}	$0.6963 \pm 0.0065 \quad (+1.0\sigma)$	z_{eq}	$3359 \pm 24 \quad (-0.8\sigma)$	χ_{DR12BAO}^2	$3.93 \pm 0.78 \quad (-0.5\sigma)$
Ω_{m}	$0.3037 \pm 0.0065 \quad (-1.0\sigma)$	k_{eq}	$0.010251 \pm 0.000073 \quad (-0.8\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1412 \pm 0.0010 \quad (-0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8216 \pm 0.0046 \quad (+0.8\sigma)$	χ_{BAO}^2	$5.77 \pm 0.77 \quad (-0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.09628 \pm 0.00033 \quad (+0.6\sigma)$	$100\theta_{\text{s,eq}}$	$0.4536 \pm 0.0024 \quad (+0.8\sigma)$	χ_{CMB}^2	$11930.7 \pm 5.7 \quad (-0.7\sigma)$
σ_8	$0.7994 \pm 0.0078 \quad (-1.0\sigma)$	$H(0.15)$	$73.39 \pm 0.43 \quad (+1.1\sigma)$		
S_8	$0.804 \pm 0.014 \quad (-1.2\sigma)$	$D_{\text{M}}(0.15)$	$636.3 \pm 4.2 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11944.29; \Delta\bar{\chi}_{\text{eff}}^2 = -3.99; R - 1 = 0.01598$$

3.21 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02268 \pm 0.00018 \quad (+1.7\sigma)$	S_8	$0.783 \pm 0.017 \quad (-1.8\sigma)$	$H(0.15)$	$74.20 \pm 0.59 \quad (+1.7\sigma)$
$\Omega_c h^2$	$0.1161 \pm 0.0014 \quad (-1.5\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4286 \pm 0.0094 \quad (-1.8\sigma)$	$D_M(0.15)$	$628.6 \pm 5.6 \quad (-1.7\sigma)$
$100\theta_{MC}$	$1.04132 \pm 0.00034 \quad (+0.8\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.5830 \pm 0.0091 \quad (-1.8\sigma)$	$H(0.38)$	$83.97 \pm 0.44 \quad (+1.8\sigma)$
τ	$0.0508 \pm 0.0081 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.954 \pm 0.013 \quad (-1.8\sigma)$	$D_M(0.38)$	$1504 \pm 11 \quad (-1.7\sigma)$
A_L	1.195 ± 0.074	$r_{\text{drag}} h$	$102.1 \pm 1.2 \quad (+1.6\sigma)$	$H(0.51)$	$90.49 \pm 0.36 \quad (+1.8\sigma)$
$\ln(10^{10} A_s)$	$3.026^{+0.017}_{-0.015} \quad (-0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.579 \pm 0.067 \quad (+6.2\sigma)$	$D_M(0.51)$	$1951 \pm 13 \quad (-1.7\sigma)$
n_s	$0.9760 \pm 0.0048 \quad (+1.5\sigma)$	z_{re}	$7.18^{+0.85}_{-0.74} \quad (-0.7\sigma)$	$H(0.61)$	$95.95 \pm 0.30 \quad (+1.9\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.3\sigma)$	$10^9 A_s$	$2.063 \pm 0.035 \quad (-0.9\sigma)$	$D_M(0.61)$	$2273 \pm 15 \quad (-1.7\sigma)$
A_{100}^{PS}	$228 \pm 24 \quad (-0.5\sigma)$	$10^9 A_s e^{-2\tau}$	$1.863 \pm 0.011 \quad (-0.8\sigma)$	$H(2.33)$	$234.37 \pm 0.83 \quad (-1.2\sigma)$
A_{143}^{PS}	$33 \pm 8 \quad (-0.6\sigma)$	D_{40}	$1204 \pm 13 \quad (-1.3\sigma)$	$D_M(2.33)$	$5735 \pm 13 \quad (-1.8\sigma)$
A_{217}^{PS}	$105^{+10}_{-10} \quad (+0.2\sigma)$	D_{220}	$5733 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4345 \pm 0.0089 \quad (-1.8\sigma)$
A_{217}^{CIB}	$36^{+7}_{-8} \quad (-0.4\sigma)$	D_{810}	$2526 \pm 13 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.7348^{+0.0073}_{-0.0066} \quad (-1.4\sigma)$
A_{143}^{tSZ}	$4.2 \pm 2.1 \quad (+0.1\sigma)$	D_{1420}	$815.5 \pm 4.7 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4567 \pm 0.0075 \quad (-1.8\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	D_{2000}	$232.4 \pm 1.6 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6535^{+0.0061}_{-0.0055} \quad (-1.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.50 \pm 0.27 \quad (-0.2\sigma)$	$n_{s,0.002}$	$0.9760 \pm 0.0048 \quad (+1.5\sigma)$	$f\sigma_8(0.51)$	$0.4576 \pm 0.0067 \quad (-1.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245513^{+0.000063}_{-0.000076} \quad (+1.7\sigma)$	$\sigma_8(0.51)$	$0.6125^{+0.0056}_{-0.0050} \quad (-1.1\sigma)$
A^{kSZ}	$< 4.89 \quad (-0.3\sigma)$	Y_P^{BBN}	$0.246840^{+0.000063}_{-0.000077} \quad (+1.7\sigma)$	$f\sigma_8(0.61)$	$0.4543 \pm 0.0061 \quad (-1.7\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 D/H$	$2.530 \pm 0.032 \quad (-1.7\sigma)$	$\sigma_8(0.61)$	$0.5834^{+0.0053}_{-0.0047} \quad (-1.1\sigma)$
A_{143}^{dust}	$0.94 \pm 0.18 \quad (-0.1\sigma)$	Age/Gyr	$13.737 \pm 0.029 \quad (-1.8\sigma)$	$f\sigma_8(2.33)$	$0.2949^{+0.0026}_{-0.0023} \quad (-0.9\sigma)$
A_{217}^{dust}	$0.99 \pm 0.10 \quad (+0.1\sigma)$	z_*	$1089.20 \pm 0.31 \quad (-1.9\sigma)$	$\sigma_8(2.33)$	$0.3050^{+0.0027}_{-0.0024} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.01 \pm 0.16 \quad (-0.1\sigma)$	r_*	$145.20 \pm 0.31 \quad (+1.0\sigma)$	f_{2000}^{143}	$25.9 \pm 2.8 \quad (-1.2\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04147 \pm 0.00033 \quad (+0.7\sigma)$	f_{2000}^{217}	$104.2 \pm 2.0 \quad (-1.2\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.2\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.941 \pm 0.029 \quad (+0.9\sigma)$	$f_{2000}^{143 \times 217}$	$29.0 \pm 2.1 \quad (-1.4\sigma)$
c_{TE}	$0.9913 \pm 0.0052 \quad (-1.2\sigma)$	z_{drag}	$1060.38 \pm 0.37 \quad (+1.5\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.2\sigma)$
c_{EE}	$0.9899 \pm 0.0050 \quad (-0.5\sigma)$	r_{drag}	$147.77 \pm 0.31 \quad (+0.7\sigma)$	χ_{lowl}^2	$21.45 \pm 0.71 \quad (-1.3\sigma)$
H_0	$69.13 \pm 0.68 \quad (+1.7\sigma)$	k_D	$0.14038 \pm 0.00034 \quad (-0.1\sigma)$	χ_{CamSpec}^2	$11514.4 \pm 6.3 \quad (-0.3\sigma)$
Ω_Λ	$0.7080 \pm 0.0084 \quad (+1.6\sigma)$	$100\theta_D$	$0.16053 \pm 0.00020 \quad (-1.4\sigma)$	χ_{H073p45}^2	$7.0 \pm 2.1 \quad (-1.5\sigma)$
Ω_m	$0.2920 \pm 0.0084 \quad (-1.6\sigma)$	z_{eq}	$3318 \pm 32 \quad (-1.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1395 \pm 0.0013 \quad (-1.3\sigma)$	k_{eq}	$0.010126 \pm 0.000096 \quad (-1.3\sigma)$	χ_{CMB}^2	$11932.6 \pm 6.3 \quad (-0.5\sigma)$
$\Omega_m h^3$	$0.09640 \pm 0.00034 \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8300 \pm 0.0063 \quad (+1.4\sigma)$		
σ_8	$0.7931 \pm 0.0083 \quad (-1.5\sigma)$	$100\theta_{s,\text{eq}}$	$0.4579 \pm 0.0032 \quad (+1.4\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11947.36; \Delta\bar{\chi}_{\text{eff}}^2 = -6.91; R - 1 = 0.04484$$

3.22 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02251 \pm 0.00019 \quad (+1.3\sigma)$	σ_8	$0.8011^{+0.0069}_{-0.0077} \quad (-1.2\sigma)$	$100\theta_{\text{eq}}$	$0.8226 \pm 0.0068 \quad (+1.3\sigma)$
$\Omega_c h^2$	$0.1178 \pm 0.0016 \quad (-1.3\sigma)$	S_8	$0.804 \pm 0.019 \quad (-1.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4541 \pm 0.0034 \quad (+1.2\sigma)$
$100\theta_{\text{MC}}$	$1.04108 \pm 0.00034 \quad (+0.6\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.441 \pm 0.010 \quad (-1.4\sigma)$	$H(0.15)$	$73.48 \pm 0.64 \quad (+1.4\sigma)$
τ	$0.0526^{+0.0035}_{-0.0076} \quad (-0.3\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.5941 \pm 0.0094 \quad (-1.4\sigma)$	$D_{\text{M}}(0.15)$	$635.5 \pm 6.2 \quad (-1.4\sigma)$
A_{L}	1.144 ± 0.070	$\sigma_8/h^{0.5}$	$0.970 \pm 0.013 \quad (-1.4\sigma)$	$H(0.38)$	$83.43 \pm 0.47 \quad (+1.4\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.034^{+0.010}_{-0.015} \quad (-0.6\sigma)$	$r_{\text{drag}} h$	$100.7 \pm 1.3 \quad (+1.3\sigma)$	$D_{\text{M}}(0.38)$	$1518 \pm 13 \quad (-1.4\sigma)$
n_{s}	$0.9715 \pm 0.0052 \quad (+1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.562 \pm 0.065 \quad (+4.6\sigma)$	$H(0.51)$	$90.06 \pm 0.38 \quad (+1.5\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	z_{re}	$7.43^{+0.34}_{-0.82} \quad (-0.4\sigma)$	$D_{\text{M}}(0.51)$	$1968 \pm 15 \quad (-1.4\sigma)$
A_{100}^{PS}	$231 \pm 25 \quad (-0.3\sigma)$	$10^9 A_{\text{s}}$	$2.078^{+0.020}_{-0.031} \quad (-0.6\sigma)$	$H(0.61)$	$95.61 \pm 0.31 \quad (+1.5\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.5\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.7\sigma)$	$D_{\text{M}}(0.61)$	$2291 \pm 16 \quad (-1.4\sigma)$
A_{217}^{PS}	$105^{+10}_{-10} \quad (+0.2\sigma)$	D_{40}	$1213 \pm 14 \quad (-1.0\sigma)$	$H(2.33)$	$235.29 \pm 0.90 \quad (-1.1\sigma)$
A_{217}^{CIB}	$37^{+7}_{-8} \quad (-0.3\sigma)$	D_{220}	$5723 \pm 39 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5750 \pm 14 \quad (-1.4\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4} \quad (+0.1\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.4458 \pm 0.0095 \quad (-1.4\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	D_{1420}	$814.7 \pm 4.9 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7412^{+0.0056}_{-0.0066} \quad (-1.1\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.51^{+0.33}_{-0.28} \quad (-0.2\sigma)$	D_{2000}	$231.5 \pm 1.8 \quad (+0.8\sigma)$	$f\sigma_8(0.38)$	$0.4659 \pm 0.0077 \quad (-1.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s},0.002}$	$0.9715 \pm 0.0052 \quad (+1.2\sigma)$	$\sigma_8(0.38)$	$0.6580^{+0.0042}_{-0.0054} \quad (-0.9\sigma)$
A^{kSZ}	$< 5.25 \quad (-0.3\sigma)$	Y_{P}	$0.245447 \pm 0.000075 \quad (+1.3\sigma)$	$f\sigma_8(0.51)$	$0.4656 \pm 0.0067 \quad (-1.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246773 \pm 0.000075 \quad (+1.3\sigma)$	$\sigma_8(0.51)$	$0.6162^{+0.0037}_{-0.0049} \quad (-0.8\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.561 \pm 0.035 \quad (-1.3\sigma)$	$f\sigma_8(0.61)$	$0.4614 \pm 0.0060 \quad (-1.4\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	Age/Gyr	$13.769 \pm 0.031 \quad (-1.4\sigma)$	$\sigma_8(0.61)$	$0.5866^{+0.0034}_{-0.0046} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	z_*	$1089.56 \pm 0.35 \quad (-1.5\sigma)$	$f\sigma_8(2.33)$	$0.2961^{+0.0015}_{-0.0023} \quad (-0.6\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$144.89 \pm 0.33 \quad (+0.9\sigma)$	$\sigma_8(2.33)$	$0.3057^{+0.0016}_{-0.0023} \quad (-0.3\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.1\sigma)$	$100\theta_*$	$1.04125 \pm 0.00033 \quad (+0.6\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-0.9\sigma)$
c_{TE}	$0.9924 \pm 0.0053 \quad (-0.9\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.914 \pm 0.030 \quad (+0.9\sigma)$	f_{2000}^{217}	$105.0 \pm 2.1 \quad (-1.0\sigma)$
c_{EE}	$0.9903 \pm 0.0049 \quad (-0.4\sigma)$	z_{drag}	$1060.10 \pm 0.38 \quad (+1.1\sigma)$	$f_{2000}^{143 \times 217}$	$30.0 \pm 2.2 \quad (-1.1\sigma)$
H_0	$68.29 \pm 0.74 \quad (+1.4\sigma)$	r_{drag}	$147.51 \pm 0.32 \quad (+0.7\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6975 \pm 0.0095 \quad (+1.3\sigma)$	k_{D}	$0.14053 \pm 0.00034 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.16 \pm 0.90 \quad (-1.1\sigma)$
Ω_{m}	$0.3025 \pm 0.0095 \quad (-1.3\sigma)$	$100\theta_{\text{D}}$	$0.16066 \pm 0.00022 \quad (-1.1\sigma)$	χ_{CamSpec}^2	$11512.3 \pm 5.7 \quad (-0.4\sigma)$
$\Omega_{\text{m}} h^2$	$0.1410 \pm 0.0014 \quad (-1.2\sigma)$	z_{eq}	$3354 \pm 35 \quad (-1.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.09628 \pm 0.00034 \quad (+0.6\sigma)$	k_{eq}	$0.01024 \pm 0.00011 \quad (-1.2\sigma)$	χ_{CMB}^2	$11930.9 \pm 5.7 \quad (-0.6\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11938.62; \Delta\bar{\chi}_{\text{eff}}^2 = -3.57; R - 1 = 0.01153$$

3.23 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02249 \pm 0.00017 \quad (+1.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4418 \pm 0.0073 \quad (-1.1\sigma)$	$H(0.38)$	$83.37 \pm 0.33 \quad (+1.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0011 \quad (-0.9\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5952 \pm 0.0070 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1519.3 \pm 8.6 \quad (-1.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04106 \pm 0.00030 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.971 \pm 0.010 \quad (-1.1\sigma)$	$H(0.51)$	$90.01 \pm 0.27 \quad (+1.1\sigma)$
τ	$0.0526^{+0.0036}_{-0.0074} \quad (-0.4\sigma)$	$r_{\mathrm{drag}}h$	$100.58 \pm 0.85 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1969 \pm 10 \quad (-1.1\sigma)$
A_{L}	1.138 ± 0.063	$\langle d^2 \rangle^{1/2}$	$2.560 \pm 0.064 \quad (+5.7\sigma)$	$H(0.61)$	$95.57 \pm 0.23 \quad (+1.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.0341^{+0.0098}_{-0.015} \quad (-0.6\sigma)$	z_{re}	$7.44^{+0.34}_{-0.81} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2293 \pm 11 \quad (-1.1\sigma)$
n_{s}	$0.9710 \pm 0.0042 \quad (+0.9\sigma)$	$10^9 A_{\mathrm{s}}$	$2.078^{+0.020}_{-0.031} \quad (-0.6\sigma)$	$H(2.33)$	$235.40 \pm 0.64 \quad (-0.7\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.871 \pm 0.011 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5752 \pm 11 \quad (-1.1\sigma)$
A_{100}^{PS}	$232 \pm 24 \quad (-0.3\sigma)$	D_{40}	$1214 \pm 12 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4470 \pm 0.0069 \quad (-1.1\sigma)$
A_{143}^{PS}	$36 \pm 8 \quad (-0.4\sigma)$	D_{220}	$5722 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7418^{+0.0047}_{-0.0061} \quad (-0.8\sigma)$
A_{217}^{PS}	$105^{+10}_{-10} \quad (+0.2\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4669 \pm 0.0058 \quad (-1.1\sigma)$
A_{217}^{CIB}	$37^{+7}_{-8} \quad (-0.3\sigma)$	D_{1420}	$814.6 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6584^{+0.0037}_{-0.0052} \quad (-0.7\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4} \quad (+0.1\sigma)$	D_{2000}	$231.5 \pm 1.7 \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.4664 \pm 0.0051 \quad (-1.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.13 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9710 \pm 0.0042 \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.6165^{+0.0034}_{-0.0048} \quad (-0.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.35}_{-0.27} \quad (-0.2\sigma)$	Y_{P}	$0.245441^{+0.000064}_{-0.000057} \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.4621 \pm 0.0047 \quad (-1.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246767^{+0.000064}_{-0.000057} \quad (+1.0\sigma)$	$\sigma_8(0.61)$	$0.5868^{+0.0031}_{-0.0045} \quad (-0.6\sigma)$
A^{kSZ}	$< 5.35 \quad (-0.2\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.564 \pm 0.030 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2962^{+0.0015}_{-0.0022} \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.772 \pm 0.024 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3057^{+0.0015}_{-0.0023} \quad (-0.4\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.1\sigma)$	z_*	$1089.60 \pm 0.26 \quad (-1.2\sigma)$	f_{2000}^{143}	$27.2 \pm 2.9 \quad (-0.8\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	r_*	$144.85 \pm 0.25 \quad (+0.5\sigma)$	f_{2000}^{217}	$105.1 \pm 2.0 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.1\sigma)$	$100\theta_*$	$1.04124 \pm 0.00029 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$30.1 \pm 2.1 \quad (-1.0\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.911 \pm 0.024 \quad (+0.4\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.2\sigma)$	z_{drag}	$1060.08 \pm 0.35 \quad (+0.9\sigma)$	χ_{lowl}^2	$22.22 \pm 0.77 \quad (-0.8\sigma)$
c_{TE}	$0.9925 \pm 0.0052 \quad (-0.9\sigma)$	r_{drag}	$147.48 \pm 0.26 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11511.7 \pm 5.5 \quad (-0.5\sigma)$
c_{EE}	$0.9904 \pm 0.0049 \quad (-0.4\sigma)$	k_{D}	$0.14055 \pm 0.00032 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.031 \pm 0.044 \quad (-0.2\sigma)$
H_0	$68.20 \pm 0.51 \quad (+1.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16068 \pm 0.00020 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.82 \pm 0.53 \quad (+1.0\sigma)$
Ω_{Λ}	$0.6964 \pm 0.0065 \quad (+1.0\sigma)$	z_{eq}	$3358 \pm 24 \quad (-0.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.93 \pm 0.78 \quad (-0.5\sigma)$
Ω_{m}	$0.3036 \pm 0.0065 \quad (-1.0\sigma)$	k_{eq}	$0.010249 \pm 0.000074 \quad (-0.8\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1412 \pm 0.0010 \quad (-0.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8217 \pm 0.0047 \quad (+0.8\sigma)$	χ_{BAO}^2	$5.78 \pm 0.79 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09628 \pm 0.00033 \quad (+0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4537 \pm 0.0024 \quad (+0.8\sigma)$	χ_{CMB}^2	$11930.3 \pm 5.6 \quad (-0.7\sigma)$
σ_8	$0.8019^{+0.0055}_{-0.0069} \quad (-0.9\sigma)$	$H(0.15)$	$73.40 \pm 0.44 \quad (+1.1\sigma)$		
S_8	$0.807 \pm 0.013 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.3 \pm 4.3 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.89; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.10; R - 1 = 0.01823$$

3.24 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02268 \pm 0.00018 \quad (+1.7\sigma)$	S_8	$0.785^{+0.015}_{-0.018} \quad (-1.7\sigma)$	$H(0.15)$	$74.20^{+0.60}_{-0.54} \quad (+1.7\sigma)$
$\Omega_c h^2$	$0.1161 \pm 0.0014 \quad (-1.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4297^{+0.0083}_{-0.0096} \quad (-1.7\sigma)$	$D_M(0.15)$	$628.6^{+5.1}_{-5.8} \quad (-1.7\sigma)$
$100\theta_{MC}$	$1.04132 \pm 0.00033 \quad (+0.8\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.5846^{+0.0078}_{-0.0090} \quad (-1.7\sigma)$	$H(0.38)$	$83.97 \pm 0.42 \quad (+1.8\sigma)$
τ	$0.0536^{+0.0042}_{-0.0073} \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.957^{+0.011}_{-0.013} \quad (-1.7\sigma)$	$D_M(0.38)$	$1504^{+10}_{-12} \quad (-1.7\sigma)$
A_L	1.188 ± 0.071	$r_{\text{drag}} h$	$102.2 \pm 1.1 \quad (+1.6\sigma)$	$H(0.51)$	$90.49 \pm 0.34 \quad (+1.8\sigma)$
$\ln(10^{10} A_s)$	$3.032^{+0.011}_{-0.014} \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.579 \pm 0.066 \quad (+6.3\sigma)$	$D_M(0.51)$	$1951^{+12}_{-14} \quad (-1.7\sigma)$
n_s	$0.9761 \pm 0.0048 \quad (+1.5\sigma)$	z_{re}	$7.47^{+0.37}_{-0.82} \quad (-0.5\sigma)$	$H(0.61)$	$95.95 \pm 0.28 \quad (+1.8\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.3\sigma)$	$10^9 A_s$	$2.074^{+0.022}_{-0.030} \quad (-0.7\sigma)$	$D_M(0.61)$	$2273^{+13}_{-15} \quad (-1.7\sigma)$
A_{100}^{PS}	$228 \pm 24 \quad (-0.5\sigma)$	$10^9 A_s e^{-2\tau}$	$1.863 \pm 0.011 \quad (-0.8\sigma)$	$H(2.33)$	$234.36 \pm 0.81 \quad (-1.2\sigma)$
A_{143}^{PS}	$33 \pm 8 \quad (-0.7\sigma)$	D_{40}	$1204 \pm 13 \quad (-1.2\sigma)$	$D_M(2.33)$	$5736 \pm 13 \quad (-1.8\sigma)$
A_{217}^{PS}	$105^{+10}_{-10} \quad (+0.2\sigma)$	D_{220}	$5733 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4357^{+0.0078}_{-0.0090} \quad (-1.7\sigma)$
A_{217}^{CIB}	$36 \pm 7 \quad (-0.4\sigma)$	D_{810}	$2526 \pm 13 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.7369^{+0.0053}_{-0.0064} \quad (-1.3\sigma)$
A_{143}^{tSZ}	$4.2^{+2.1}_{-2.3} \quad (+0.1\sigma)$	D_{1420}	$815.6 \pm 4.7 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4580^{+0.0065}_{-0.0074} \quad (-1.7\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.2\sigma)$	D_{2000}	$232.4 \pm 1.6 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6553^{+0.0042}_{-0.0052} \quad (-1.1\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.49 \pm 0.27 \quad (-0.2\sigma)$	$n_{s,0.002}$	$0.9761 \pm 0.0048 \quad (+1.5\sigma)$	$f\sigma_8(0.51)$	$0.4589^{+0.0057}_{-0.0065} \quad (-1.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245512^{+0.000064}_{-0.000072} \quad (+1.7\sigma)$	$\sigma_8(0.51)$	$0.6142^{+0.0038}_{-0.0047} \quad (-1.0\sigma)$
A^{kSZ}	$< 4.93 \quad (-0.3\sigma)$	Y_P^{BBN}	$0.246839^{+0.000064}_{-0.000072} \quad (+1.7\sigma)$	$f\sigma_8(0.61)$	$0.4556^{+0.0052}_{-0.0058} \quad (-1.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 D/H$	$2.530 \pm 0.031 \quad (-1.7\sigma)$	$\sigma_8(0.61)$	$0.5850^{+0.0035}_{-0.0044} \quad (-0.9\sigma)$
A_{143}^{dust}	$0.94 \pm 0.18 \quad (-0.1\sigma)$	Age/Gyr	$13.737 \pm 0.028 \quad (-1.8\sigma)$	$f\sigma_8(2.33)$	$0.2958^{+0.0017}_{-0.0022} \quad (-0.7\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	z_*	$1089.20^{+0.28}_{-0.32} \quad (-1.8\sigma)$	$\sigma_8(2.33)$	$0.3058^{+0.0017}_{-0.0022} \quad (-0.5\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.01 \pm 0.16 \quad (-0.1\sigma)$	r_*	$145.20 \pm 0.31 \quad (+1.0\sigma)$	f_{2000}^{143}	$25.8 \pm 2.8 \quad (-1.2\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04147 \pm 0.00032 \quad (+0.7\sigma)$	f_{2000}^{217}	$104.2 \pm 2.0 \quad (-1.2\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.2\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.942 \pm 0.028 \quad (+0.9\sigma)$	$f_{2000}^{143 \times 217}$	$29.0 \pm 2.1 \quad (-1.4\sigma)$
c_{TE}	$0.9913 \pm 0.0052 \quad (-1.1\sigma)$	z_{drag}	$1060.37 \pm 0.36 \quad (+1.4\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.4\sigma)$
c_{EE}	$0.9900 \pm 0.0049 \quad (-0.5\sigma)$	r_{drag}	$147.78 \pm 0.30 \quad (+0.7\sigma)$	χ_{lowl}^2	$21.48 \pm 0.72 \quad (-1.3\sigma)$
H_0	$69.13^{+0.69}_{-0.62} \quad (+1.7\sigma)$	k_D	$0.14037 \pm 0.00034 \quad (-0.1\sigma)$	χ_{CamSpec}^2	$11514.2 \pm 5.9 \quad (-0.3\sigma)$
Ω_Λ	$0.7080^{+0.0087}_{-0.0075} \quad (+1.5\sigma)$	$100\theta_D$	$0.16053 \pm 0.00020 \quad (-1.3\sigma)$	χ_{H073p45}^2	$6.9 \pm 2.1 \quad (-1.5\sigma)$
Ω_m	$0.2920^{+0.0075}_{-0.0087} \quad (-1.5\sigma)$	z_{eq}	$3317 \pm 31 \quad (-1.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1395 \pm 0.0013 \quad (-1.3\sigma)$	k_{eq}	$0.010125 \pm 0.000094 \quad (-1.3\sigma)$	χ_{CMB}^2	$11932.1 \pm 5.9 \quad (-0.6\sigma)$
$\Omega_m h^3$	$0.09640 \pm 0.00033 \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8301 \pm 0.0061 \quad (+1.4\sigma)$		
σ_8	$0.7953^{+0.0063}_{-0.0074} \quad (-1.4\sigma)$	$100\theta_{s,\text{eq}}$	$0.4579 \pm 0.0031 \quad (+1.4\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11946.84; \Delta\bar{\chi}_{\text{eff}}^2 = -7.17; R - 1 = 0.04629$$

3.25 base_Alens_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022146	0.02219 ± 0.00037 (-1.2σ)	$r_{\text{drag}} h$	99.57	99.7 ± 2.0 (-0.9σ)	$100\theta_{\text{s,eq}}$	0.4514	0.4514 ± 0.0055 (-0.7σ)
$\Omega_c h^2$	0.11933	0.1193 ± 0.0026 $(+0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	2.089	$2.09^{+0.31}_{-0.23}$ (-7.0σ)	$H(0.15)$	72.78	72.8 ± 1.1 (-1.0σ)
$100\theta_{\text{MC}}$	1.04120	1.04124 ± 0.00052 (-0.3σ)	z_{re}	7.14	$7.04^{+0.94}_{-0.74}$ (-0.1σ)	$D_{\text{M}}(0.15)$	642.3	642 ± 10 $(+1.0\sigma)$
τ	0.0487	$0.0482^{+0.0085}_{-0.0077}$ (-0.2σ)	$10^9 A_{\text{s}}$	2.0217	2.021 ± 0.045 (-0.6σ)	$H(0.38)$	82.89	82.96 ± 0.79 (-1.0σ)
A_{L}	0.740	0.76 ± 0.22	$10^9 A_{\text{s}} e^{-2\tau}$	1.8340	1.835 ± 0.024 (-0.9σ)	$D_{\text{M}}(0.38)$	1531.6	1530 ± 21 $(+1.0\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0065	3.006 ± 0.022 (-0.6σ)	D_{40}	1244.6	1242 ± 38 $(+1.1\sigma)$	$H(0.51)$	89.61	89.67 ± 0.63 (-1.0σ)
n_{s}	0.9471	0.949 ± 0.020 (-1.6σ)	D_{220}	5679	5677 ± 59 (-0.3σ)	$D_{\text{M}}(0.51)$	1984.0	1983 ± 25 $(+1.0\sigma)$
A_{100}^{dustTE}	0.1114	0.115 ± 0.038 $(+0.0\sigma)$	D_{810}	2473.1	2475 ± 38 (-1.2σ)	$H(0.61)$	95.23	$95.29^{+0.49}_{-0.54}$ (-1.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1373	0.137 ± 0.029 $(+0.0\sigma)$	D_{1420}	789.8	791 ± 18 (-1.3σ)	$D_{\text{M}}(0.61)$	2308.6	2307 ± 27 $(+1.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.474	0.476 ± 0.084 (-0.0σ)	D_{2000}	218.8	219.7 ± 8.3 (-1.9σ)	$H(2.33)$	235.92	236.0 ± 1.5 $(+0.6\sigma)$
A_{143}^{dustTE}	0.228	0.224 ± 0.054 $(+0.1\sigma)$	$n_{\text{s},0.002}$	0.9471	0.949 ± 0.020 (-1.6σ)	$D_{\text{M}}(2.33)$	5768.1	5765 ± 24 $(+1.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.654	0.656 ± 0.080 (-0.0σ)	Y_{P}	0.245303	$0.24531^{+0.00018}_{-0.00014}$ (-1.3σ)	$f\sigma_8(0.15)$	0.4455	0.445 ± 0.013 $(+0.4\sigma)$
A_{217}^{dustTE}	2.028	2.03 ± 0.27 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246630	$0.24664^{+0.00018}_{-0.00014}$ (-1.3σ)	$\sigma_8(0.15)$	0.7297	0.730 ± 0.010 (-0.4σ)
c_{100}	1.00015	1.00017 ± 0.00070 (-0.0σ)	10^5D/H	2.628	2.622 ± 0.070 $(+1.2\sigma)$	$f\sigma_8(0.38)$	0.4633	0.463 ± 0.011 $(+0.2\sigma)$
c_{217}	0.99802	0.99800 ± 0.00065 $(+0.0\sigma)$	Age/Gyr	13.809	13.803 ± 0.054 $(+1.1\sigma)$	$\sigma_8(0.38)$	0.6468	0.6468 ± 0.0091 (-0.6σ)
y_{cal}	1.00017	1.0001 ± 0.0025 $(+0.0\sigma)$	z_*	1090.15	1090.10 ± 0.65 $(+1.2\sigma)$	$f\sigma_8(0.51)$	0.4619	0.4616 ± 0.0091 $(+0.1\sigma)$
H_0	67.50	67.6 ± 1.2 (-1.0σ)	r_*	144.78	144.75 ± 0.52 (-0.4σ)	$\sigma_8(0.51)$	0.6052	0.6053 ± 0.0086 (-0.7σ)
Ω_{Λ}	0.6881	$0.688^{+0.017}_{-0.015}$ (-0.9σ)	$100\theta_*$	1.04140	1.04145 ± 0.00051 (-0.2σ)	$f\sigma_8(0.61)$	0.4570	0.4568 ± 0.0082 $(+0.0\sigma)$
Ω_{m}	0.3119	$0.312^{+0.015}_{-0.017}$ $(+0.9\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9020	13.899 ± 0.049 (-0.4σ)	$\sigma_8(0.61)$	0.5759	0.5760 ± 0.0082 (-0.7σ)
$\Omega_{\text{m}} h^2$	0.14212	0.1421 ± 0.0023 $(+0.7\sigma)$	z_{drag}	1059.36	1059.46 ± 0.75 (-1.1σ)	$f\sigma_8(2.33)$	0.29034	0.2904 ± 0.0043 (-0.9σ)
$\Omega_{\text{m}} h^3$	0.09593	0.09602 ± 0.00060 (-0.6σ)	r_{drag}	147.52	147.48 ± 0.51 (-0.2σ)	$\sigma_8(2.33)$	0.29931	0.2994 ± 0.0047 (-1.0σ)
σ_8	0.7897	0.790 ± 0.011 (-0.3σ)	k_{D}	0.14024	0.14031 ± 0.00059 (-0.2σ)	χ_{small}^2	395.64	396.9 ± 1.7 $(+0.0\sigma)$
S_8	0.8053	0.805 ± 0.026 $(+0.5\sigma)$	$100\theta_{\text{D}}$	0.161135	0.16109 ± 0.00045 $(+1.1\sigma)$	χ_{plikTE}^2	851.43	859.6 ± 4.0 (-0.0σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4411	0.441 ± 0.015 $(+0.5\sigma)$	z_{eq}	3381	3381 ± 56 $(+0.7\sigma)$	χ_{prior}^2	0.54	7.4 ± 3.7 (-0.0σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5902	0.590 ± 0.013 $(+0.2\sigma)$	k_{eq}	0.010318	0.01032 ± 0.00017 $(+0.7\sigma)$	χ_{CMB}^2	1247.07	1256.5 ± 4.4 (-0.0σ)
$\sigma_8/h^{0.5}$	0.9612	0.961 ± 0.018 $(+0.1\sigma)$	$100\theta_{\text{eq}}$	0.8167	0.817 ± 0.011 (-0.8σ)			

Best-fit $\chi_{\text{eff}}^2 = 1247.61$; $\Delta\chi_{\text{eff}}^2 = -1.38$; $\bar{\chi}_{\text{eff}}^2 = 1263.86$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.15$; $R - 1 = 0.00958$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.64 (Δ -0.05) plik_r12_HM_v22_TE: 851.43 (Δ -1.42)

3.26 base_Alens_plikHM_TE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022242	0.02226 ± 0.00029 (-0.8σ)	$\langle d^2 \rangle^{1/2}$	2.141	$2.13^{+0.28}_{-0.22}$ (-8.1σ)	$D_M(0.15)$	639.0	638.8 ± 5.3 $(+0.6\sigma)$
$\Omega_c h^2$	0.11854	0.1186 ± 0.0013 $(+0.4\sigma)$	z_{re}	7.17	$7.05^{+0.94}_{-0.73}$ $(+0.0\sigma)$	$H(0.38)$	83.139	83.16 ± 0.42 (-0.6σ)
$100\theta_{\text{MC}}$	1.041285	1.04132 ± 0.00046 (-0.0σ)	$10^9 A_s$	2.0265	2.023 ± 0.044 (-0.5σ)	$D_M(0.38)$	1525.0	1525 ± 11 $(+0.6\sigma)$
τ	0.0493	$0.0485^{+0.0085}_{-0.0074}$ (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8362	1.836 ± 0.024 (-1.1σ)	$H(0.51)$	89.806	89.83 ± 0.36 (-0.7σ)
A_L	0.787	0.79 ± 0.19	D_{40}	1235.5	1234 ± 30 $(+0.7\sigma)$	$D_M(0.51)$	1976.2	1976 ± 13 $(+0.6\sigma)$
$\ln(10^{10} A_s)$	3.0089	3.007 ± 0.022 (-0.5σ)	D_{220}	5684	5681 ± 58 (-0.2σ)	$H(0.61)$	95.386	95.41 ± 0.31 (-0.7σ)
n_s	0.9524	0.953 ± 0.015 (-1.2σ)	D_{810}	2480.6	2480 ± 35 (-1.1σ)	$D_M(0.61)$	2300.2	2300 ± 14 $(+0.6\sigma)$
y_{cal}	1.00025	1.0001 ± 0.0025 $(+0.0\sigma)$	D_{1420}	794.0	794 ± 16 (-1.1σ)	$H(2.33)$	235.50	235.54 ± 0.81 $(+0.1\sigma)$
A_{100}^{dustTE}	0.1153	0.115 ± 0.038 $(+0.0\sigma)$	D_{2000}	220.8	221.0 ± 7.2 (-1.5σ)	$D_M(2.33)$	5761.0	5760 ± 16 $(+0.7\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1358	0.137 ± 0.030 $(+0.0\sigma)$	$n_{s,0.002}$	0.9524	0.953 ± 0.015 (-1.2σ)	$f\sigma_8(0.15)$	0.4421	0.4417 ± 0.0084 (-0.1σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.476	0.476 ± 0.085 (-0.0σ)	Y_P	0.245343	$0.24534^{+0.00013}_{-0.00011}$ (-0.9σ)	$\sigma_8(0.15)$	0.7298	0.729 ± 0.010 (-0.6σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.055 $(+0.0\sigma)$	Y_P^{BBN}	0.246670	$0.24667^{+0.00014}_{-0.00011}$ (-0.9σ)	$f\sigma_8(0.38)$	0.4609	0.4606 ± 0.0075 (-0.2σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.651	0.656 ± 0.080 (-0.0σ)	10^5D/H	2.610	2.608 ± 0.055 $(+0.8\sigma)$	$\sigma_8(0.38)$	0.6474	0.6469 ± 0.0090 (-0.7σ)
A_{217}^{dustTE}	2.017	2.03 ± 0.27 (-0.0σ)	Age/Gyr	13.7934	13.790 ± 0.037 $(+0.7\sigma)$	$f\sigma_8(0.51)$	0.4601	0.4597 ± 0.0071 (-0.3σ)
c_{100}	1.00015	1.00019 ± 0.00070 $(+0.0\sigma)$	z_*	1089.953	1089.94 ± 0.42 $(+0.9\sigma)$	$\sigma_8(0.51)$	0.6060	0.6056 ± 0.0084 (-0.7σ)
c_{217}	0.99802	0.99800 ± 0.00065 $(+0.0\sigma)$	r_*	144.907	144.89 ± 0.34 $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.4556	0.4552 ± 0.0068 (-0.4σ)
H_0	67.88	67.91 ± 0.63 (-0.6σ)	$100\theta_*$	1.041482	1.04152 ± 0.00046 $(+0.0\sigma)$	$\sigma_8(0.61)$	0.5768	0.5764 ± 0.0080 (-0.7σ)
Ω_Λ	0.6931	0.6931 ± 0.0079 (-0.5σ)	$D_M(z_*)/\text{Gpc}$	13.9136	13.911 ± 0.033 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.29099	0.2908 ± 0.0041 (-0.7σ)
Ω_m	0.3069	0.3069 ± 0.0079 $(+0.5\sigma)$	z_{drag}	1059.55	1059.57 ± 0.66 (-0.8σ)	$\sigma_8(2.33)$	0.30020	0.3000 ± 0.0043 (-0.8σ)
$\Omega_m h^2$	0.14143	0.1415 ± 0.0012 $(+0.2\sigma)$	r_{drag}	147.620	147.60 ± 0.39 $(+0.3\sigma)$	χ_{simall}^2	395.63	396.8 ± 1.7 (-0.0σ)
$\Omega_m h^3$	0.09601	0.09606 ± 0.00058 (-0.5σ)	k_D	0.14021	0.14025 ± 0.00056 (-0.5σ)	χ_{plikTE}^2	851.63	858.9 ± 3.8 (-0.1σ)
σ_8	0.7893	0.789 ± 0.011 (-0.6σ)	$100\theta_D$	0.161040	0.16103 ± 0.00039 $(+0.8\sigma)$	$\chi_{6\text{DF}}^2$	0.0031	0.046 ± 0.064 $(+0.2\sigma)$
S_8	0.7983	0.798 ± 0.016 (-0.1σ)	z_{eq}	3364.3	3365 ± 29 $(+0.2\sigma)$	χ_{MGS}^2	1.54	1.62 ± 0.60 (-0.4σ)
$\sigma_8 \Omega_m^{0.5}$	0.4372	0.4369 ± 0.0088 (-0.1σ)	k_{eq}	0.010268	0.010271 ± 0.000090 $(+0.2\sigma)$	χ_{DR12BAO}^2	3.63	4.3 ± 1.3 $(+0.4\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5874	0.5870 ± 0.0094 (-0.3σ)	$100\theta_{\text{eq}}$	0.8201	0.8200 ± 0.0056 (-0.3σ)	χ_{prior}^2	0.46	7.4 ± 3.7 (-0.0σ)
$\sigma_8/h^{0.5}$	0.9579	0.957 ± 0.014 (-0.3σ)	$100\theta_{s,\text{eq}}$	0.45302	0.4530 ± 0.0028 (-0.2σ)	χ_{BAO}^2	5.176	6.0 ± 1.1 $(+0.1\sigma)$
$r_{\text{drag}} h$	100.21	100.2 ± 1.0 (-0.4σ)	$H(0.15)$	73.11	73.14 ± 0.55 (-0.6σ)	χ_{CMB}^2	1247.26	1255.8 ± 4.1 (-0.1σ)

Best-fit $\chi_{\text{eff}}^2 = 1252.89$; $\Delta\chi_{\text{eff}}^2 = -1.34$; $\bar{\chi}_{\text{eff}}^2 = 1269.15$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.27$; $R - 1 = 0.01278$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.54 (Δ -0.21) DR12BAO: 3.63 (Δ 0.19) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.63 (Δ -0.03) plik_rd12_HM.v22_TE: 851.63 (Δ -1.31)

3.27 base_Alens_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02220 \pm 0.00037 \quad (-1.2\sigma)$	$r_{\mathrm{drag}} h$	$99.7 \pm 2.1 \quad (-0.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0056 \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192 \pm 0.0026 \quad (+0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.10^{+0.31}_{-0.24} \quad (-7.2\sigma)$	$H(0.15)$	$72.9 \pm 1.1 \quad (-1.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04126 \pm 0.00052 \quad (-0.3\sigma)$	z_{re}	$7.43^{+0.32}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641 \pm 10 \quad (+1.0\sigma)$
τ	$0.0518^{+0.0036}_{-0.0076} \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.036^{+0.033}_{-0.040} \quad (-0.7\sigma)$	$H(0.38)$	$82.99 \pm 0.79 \quad (-1.0\sigma)$
A_{L}	0.76 ± 0.22	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.836 \pm 0.024 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1530 \pm 21 \quad (+1.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.014^{+0.017}_{-0.019} \quad (-0.7\sigma)$	D_{40}	$1241 \pm 37 \quad (+1.1\sigma)$	$H(0.51)$	$89.70^{+0.59}_{-0.66} \quad (-1.0\sigma)$
n_{s}	$0.950 \pm 0.020 \quad (-1.6\sigma)$	D_{220}	$5677 \pm 59 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 25 \quad (+1.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	D_{810}	$2477 \pm 38 \quad (-1.2\sigma)$	$H(0.61)$	$95.31^{+0.48}_{-0.55} \quad (-1.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.137 \pm 0.030 \quad (+0.0\sigma)$	D_{1420}	$792 \pm 18 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2306 \pm 27 \quad (+1.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.476 \pm 0.084 \quad (-0.0\sigma)$	D_{2000}	$220.1 \pm 8.3 \quad (-1.9\sigma)$	$H(2.33)$	$235.9 \pm 1.5 \quad (+0.6\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.055 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.950 \pm 0.020 \quad (-1.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 24 \quad (+1.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.656 \pm 0.080 \quad (-0.0\sigma)$	Y_{P}	$0.24532^{+0.00018}_{-0.00014} \quad (-1.2\sigma)$	$f\sigma_8(0.15)$	$0.446 \pm 0.013 \quad (+0.4\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.03 \pm 0.27 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00018}_{-0.00014} \quad (-1.2\sigma)$	$\sigma_8(0.15)$	$0.7324 \pm 0.0092 \quad (-0.5\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.070 \quad (+1.2\sigma)$	$f\sigma_8(0.38)$	$0.464 \pm 0.010 \quad (+0.3\sigma)$
c_{217}	$0.99800 \pm 0.00065 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.800 \pm 0.054 \quad (+1.1\sigma)$	$\sigma_8(0.38)$	$0.6493 \pm 0.0081 \quad (-0.7\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	z_*	$1090.07 \pm 0.65 \quad (+1.2\sigma)$	$f\sigma_8(0.51)$	$0.4631 \pm 0.0089 \quad (+0.2\sigma)$
H_0	$67.6 \pm 1.2 \quad (-1.0\sigma)$	r_*	$144.77 \pm 0.53 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6077 \pm 0.0076 \quad (-0.8\sigma)$
Ω_{Λ}	$0.689 \pm 0.016 \quad (-0.9\sigma)$	$100\theta_*$	$1.04146 \pm 0.00051 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4582 \pm 0.0079 \quad (+0.1\sigma)$
Ω_{m}	$0.311 \pm 0.016 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.049 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.5782^{+0.0068}_{-0.0076} \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1420 \pm 0.0024 \quad (+0.7\sigma)$	z_{drag}	$1059.49 \pm 0.75 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2916^{+0.0036}_{-0.0040} \quad (-1.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09603 \pm 0.00060 \quad (-0.6\sigma)$	r_{drag}	$147.49 \pm 0.52 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3007 \pm 0.0043 \quad (-1.2\sigma)$
σ_8	$0.793 \pm 0.010 \quad (-0.3\sigma)$	k_{D}	$0.14031 \pm 0.00059 \quad (-0.2\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (+0.0\sigma)$
S_8	$0.807 \pm 0.026 \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16108 \pm 0.00045 \quad (+1.1\sigma)$	χ_{plikTE}^2	$859.6 \pm 4.1 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.442 \pm 0.014 \quad (+0.5\sigma)$	z_{eq}	$3379 \pm 56 \quad (+0.7\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.592 \pm 0.013 \quad (+0.2\sigma)$	k_{eq}	$0.01031 \pm 0.00017 \quad (+0.7\sigma)$	χ_{CMB}^2	$1256.1 \pm 4.3 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.964 \pm 0.017 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.817 \pm 0.011 \quad (-0.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1263.45$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.20$; $R - 1 = 0.01017$

3.28 base_Alens_plikHM_TE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02226 \pm 0.00029 \quad (-0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.13^{+0.27}_{-0.22} \quad (-9.0\sigma)$	$D_{\text{M}}(0.15)$	$638.7 \pm 5.3 \quad (+0.6\sigma)$
$\Omega_{\text{c}}h^2$	$0.1186 \pm 0.0013 \quad (+0.4\sigma)$	z_{re}	$7.44^{+0.34}_{-0.81} \quad (+0.0\sigma)$	$H(0.38)$	$83.17 \pm 0.42 \quad (-0.7\sigma)$
$100\theta_{\text{MC}}$	$1.04133 \pm 0.00045 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.037^{+0.032}_{-0.039} \quad (-0.7\sigma)$	$D_{\text{M}}(0.38)$	$1524 \pm 11 \quad (+0.6\sigma)$
τ	$0.0520^{+0.0036}_{-0.0073} \quad (-0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.836 \pm 0.024 \quad (-1.1\sigma)$	$H(0.51)$	$89.83 \pm 0.36 \quad (-0.7\sigma)$
A_{L}	0.79 ± 0.19	D_{40}	$1235 \pm 30 \quad (+0.8\sigma)$	$D_{\text{M}}(0.51)$	$1976 \pm 13 \quad (+0.6\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.014^{+0.016}_{-0.019} \quad (-0.7\sigma)$	D_{220}	$5680 \pm 59 \quad (-0.2\sigma)$	$H(0.61)$	$95.41 \pm 0.32 \quad (-0.7\sigma)$
n_{s}	$0.953 \pm 0.016 \quad (-1.3\sigma)$	D_{810}	$2481 \pm 35 \quad (-1.1\sigma)$	$D_{\text{M}}(0.61)$	$2299 \pm 14 \quad (+0.7\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	D_{1420}	$794 \pm 16 \quad (-1.1\sigma)$	$H(2.33)$	$235.54 \pm 0.81 \quad (+0.1\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	D_{2000}	$221.1 \pm 7.3 \quad (-1.6\sigma)$	$D_{\text{M}}(2.33)$	$5760 \pm 16 \quad (+0.7\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.137 \pm 0.030 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.953 \pm 0.016 \quad (-1.3\sigma)$	$f\sigma_8(0.15)$	$0.4433 \pm 0.0079 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.477 \pm 0.085 \quad (-0.0\sigma)$	Y_{P}	$0.24534^{+0.00013}_{-0.00011} \quad (-0.9\sigma)$	$\sigma_8(0.15)$	$0.7319^{+0.0084}_{-0.0094} \quad (-0.7\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.055 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24667^{+0.00013}_{-0.00011} \quad (-0.9\sigma)$	$f\sigma_8(0.38)$	$0.4622^{+0.0065}_{-0.0073} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.656 \pm 0.080 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.607 \pm 0.055 \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.6493 \pm 0.0080 \quad (-0.8\sigma)$
A_{217}^{dustTE}	$2.03 \pm 0.27 \quad (-0.0\sigma)$	Age/Gyr	$13.790 \pm 0.037 \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4614^{+0.0060}_{-0.0068} \quad (-0.4\sigma)$
c_{100}	$1.00019 \pm 0.00069 \quad (+0.0\sigma)$	z_*	$1089.94 \pm 0.43 \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.6078 \pm 0.0076 \quad (-0.8\sigma)$
c_{217}	$0.99801 \pm 0.00063 \quad (+0.0\sigma)$	r_*	$144.89 \pm 0.34 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4569^{+0.0057}_{-0.0064} \quad (-0.4\sigma)$
H_0	$67.91 \pm 0.63 \quad (-0.6\sigma)$	$100\theta_*$	$1.04153 \pm 0.00045 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5785 \pm 0.0072 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6932 \pm 0.0079 \quad (-0.5\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.911 \pm 0.033 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2919 \pm 0.0037 \quad (-0.9\sigma)$
Ω_{m}	$0.3068 \pm 0.0079 \quad (+0.5\sigma)$	z_{drag}	$1059.57 \pm 0.66 \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3011 \pm 0.0039 \quad (-1.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1415 \pm 0.0012 \quad (+0.2\sigma)$	r_{drag}	$147.60 \pm 0.39 \quad (+0.3\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^3$	$0.09607 \pm 0.00059 \quad (-0.6\sigma)$	k_{D}	$0.14025 \pm 0.00057 \quad (-0.5\sigma)$	χ_{plikTE}^2	$859.0 \pm 3.8 \quad (-0.1\sigma)$
σ_8	$0.7916^{+0.0091}_{-0.010} \quad (-0.7\sigma)$	$100\theta_{\text{D}}$	$0.16103 \pm 0.00039 \quad (+0.9\sigma)$	$\chi_{6\text{DF}}^2$	$0.045 \pm 0.064 \quad (+0.1\sigma)$
S_8	$0.800 \pm 0.015 \quad (-0.1\sigma)$	z_{eq}	$3365 \pm 30 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.63 \pm 0.60 \quad (-0.4\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4384 \pm 0.0083 \quad (-0.1\sigma)$	k_{eq}	$0.010271 \pm 0.000090 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$4.3 \pm 1.3 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5891^{+0.0081}_{-0.0091} \quad (-0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8200 \pm 0.0056 \quad (-0.3\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.961^{+0.012}_{-0.013} \quad (-0.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4530 \pm 0.0029 \quad (-0.3\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.1\sigma)$
$r_{\text{drag}}h$	$100.2 \pm 1.0 \quad (-0.4\sigma)$	$H(0.15)$	$73.14 \pm 0.55 \quad (-0.6\sigma)$	χ_{CMB}^2	$1255.4 \pm 4.0 \quad (-0.1\sigma)$
$\bar{\chi}_{\text{eff}}^2 = 1268.67; \Delta\bar{\chi}_{\text{eff}}^2 = -0.32; R - 1 = 0.01556$					

3.29 base_Alens_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02434	0.0245 ± 0.0013 (+0.5 σ)	D_{40}	1224.7	1222 ± 31 (−0.3 σ)	$D_M(0.15)$	614.1	612^{+22}_{-25} (−0.5 σ)
$\Omega_c h^2$	0.11397	$0.1135^{+0.0045}_{-0.0051}$ (−0.5 σ)	D_{220}	6006	6026 ± 200 (+0.4 σ)	$H(0.38)$	85.36	85.7 ± 2.1 (+0.5 σ)
$100\theta_{MC}$	1.04001	1.04006 ± 0.00090 (+0.1 σ)	D_{810}	2590.4	2595 ± 39 (+0.1 σ)	$D_M(0.38)$	1472.9	1467 ± 49 (−0.5 σ)
τ	0.0541	0.0531 ± 0.0093 (+0.0 σ)	D_{1420}	844.3	847 ± 19 (+0.2 σ)	$H(0.51)$	91.75	$92.1^{+1.7}_{-1.9}$ (+0.5 σ)
A_L	1.307	$1.32^{+0.24}_{-0.27}$	D_{2000}	244.7	245.8 ± 7.9 (+0.6 σ)	$D_M(0.51)$	1913	1907 ± 58 (−0.5 σ)
$\ln(10^{10} A_s)$	3.0553	3.054 ± 0.023 (+0.1 σ)	$n_{s,0.002}$	0.9858	0.989 ± 0.016 (+0.6 σ)	$H(0.61)$	97.13	$97.4^{+1.5}_{-1.7}$ (+0.5 σ)
n_s	0.9858	0.989 ± 0.016 (+0.6 σ)	Y_P	0.246154	$0.24625^{+0.00055}_{-0.00044}$ (+0.5 σ)	$D_M(0.61)$	2231	2223 ± 64 (−0.5 σ)
y_{cal}	0.99985	0.9999 ± 0.0025 (−0.0 σ)	Y_P^{BBN}	0.24748	$0.24758^{+0.00055}_{-0.00045}$ (+0.5 σ)	$H(2.33)$	234.50	$234.4^{+1.9}_{-2.2}$ (−0.4 σ)
H_0	70.87	71.3 ± 2.9 (+0.5 σ)	$10^5 D/H$	2.255	$2.24^{+0.18}_{-0.21}$ (−0.4 σ)	$D_M(2.33)$	5676	5664 ± 73 (−0.5 σ)
Ω_Λ	0.7233	$0.725^{+0.033}_{-0.025}$ (+0.5 σ)	Age/Gyr	13.599	13.58 ± 0.16 (−0.5 σ)	$f\sigma_8(0.15)$	0.4231	$0.420^{+0.028}_{-0.032}$ (−0.5 σ)
Ω_m	0.2767	$0.275^{+0.025}_{-0.033}$ (−0.5 σ)	z_*	1087.14	$1087.0^{+1.6}_{-1.8}$ (−0.5 σ)	$\sigma_8(0.15)$	0.7346	$0.732^{+0.016}_{-0.014}$ (−0.4 σ)
$\Omega_m h^2$	0.13896	$0.1387^{+0.0035}_{-0.0040}$ (−0.5 σ)	r_*	144.49	144.45 ± 0.65 (+0.2 σ)	$f\sigma_8(0.38)$	0.4486	0.446 ± 0.024 (−0.5 σ)
$\Omega_m h^3$	0.09847	0.0988 ± 0.0019 (+0.4 σ)	$100\theta_*$	1.03999	1.04003 ± 0.00087 (+0.0 σ)	$\sigma_8(0.38)$	0.6551	$0.653^{+0.012}_{-0.010}$ (−0.3 σ)
σ_8	0.7912	0.788 ± 0.019 (−0.4 σ)	$D_M(z_*)/\text{Gpc}$	13.893	13.889 ± 0.061 (+0.2 σ)	$f\sigma_8(0.51)$	0.4513	0.448 ± 0.021 (−0.5 σ)
S_8	0.760	$0.755^{+0.053}_{-0.062}$ (−0.5 σ)	z_{drag}	1063.94	1064.3 ± 2.5 (+0.4 σ)	$\sigma_8(0.51)$	0.6147	$0.6130^{+0.0098}_{-0.0085}$ (−0.3 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4162	$0.413^{+0.029}_{-0.034}$ (−0.5 σ)	r_{drag}	146.53	146.45 ± 0.72 (−0.0 σ)	$f\sigma_8(0.61)$	0.4493	0.447 ± 0.018 (−0.5 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5738	0.571 ± 0.028 (−0.5 σ)	k_D	0.14280	0.1429 ± 0.0013 (+0.3 σ)	$\sigma_8(0.61)$	0.5859	$0.5844^{+0.0087}_{-0.0076}$ (−0.2 σ)
$\sigma_8/h^{0.5}$	0.9399	0.935 ± 0.041 (−0.5 σ)	$100\theta_D$	0.15836	$0.1583^{+0.0011}_{-0.0014}$ (−0.4 σ)	$f\sigma_8(2.33)$	0.29688	0.2963 ± 0.0037 (−0.1 σ)
$r_{drag} h$	103.84	104.4 ± 4.3 (+0.5 σ)	z_{eq}	3305	3300^{+83}_{-95} (−0.5 σ)	$\sigma_8(2.33)$	0.30778	0.3074 ± 0.0037 (+0.1 σ)
$\langle d^2 \rangle^{1/2}$	2.684	$2.67^{+0.25}_{-0.22}$ (+3.9 σ)	k_{eq}	0.010088	$0.01007^{+0.00025}_{-0.00029}$ (−0.5 σ)	χ_{small}^2	395.57	396.7 ± 1.6 (+0.0 σ)
z_{re}	7.16	$7.00^{+0.91}_{-0.73}$ (−0.1 σ)	$100\theta_{eq}$	0.8360	0.838 ± 0.020 (+0.5 σ)	χ_{plikEE}^2	737.57	743.5 ± 3.4 (−0.1 σ)
$10^9 A_s$	2.1229	2.122 ± 0.049 (+0.1 σ)	$100\theta_{s,eq}$	0.4596	0.4606 ± 0.0097 (+0.5 σ)	χ_{prior}^2	0.004	0.99 ± 1.4 (+0.0 σ)
$10^9 A_s e^{-2\tau}$	1.9051	1.907 ± 0.025 (+0.2 σ)	$H(0.15)$	75.81	76.2 ± 2.6 (+0.5 σ)	χ_{CMB}^2	1133.14	1140.3 ± 3.8 (−0.1 σ)

Best-fit $\chi_{eff}^2 = 1133.14$; $\Delta\chi_{eff}^2 = -1.41$; $\bar{\chi}_{eff}^2 = 1141.29$; $\Delta\bar{\chi}_{eff}^2 = -0.32$; $R - 1 = 0.00947$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.57 (Δ -0.02) plik_rd12_HM_v22_EE: 737.57 (Δ -1.39)

3.30 base_Alens_plikHM_EE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02352	0.02355 ± 0.00065 (+0.1 σ)	D_{810}	2576.8	2577 ± 33 (−0.1 σ)	$D_M(0.51)$	1954.5	1954 ± 18 (−0.1 σ)
$\Omega_c h^2$	0.11747	0.1174 ± 0.0015 (−0.1 σ)	D_{1420}	836.5	836 ± 15 (−0.1 σ)	$H(0.61)$	96.10	96.12 ± 0.55 (+0.1 σ)
$100\theta_{MC}$	1.03980	1.03976 ± 0.00081 (−0.1 σ)	D_{2000}	240.9	240.9 ± 5.6 (+0.4 σ)	$D_M(0.61)$	2275.9	2275 ± 20 (−0.1 σ)
τ	0.0521	$0.0510^{+0.0087}_{-0.0078}$ (−0.1 σ)	$n_{s,0.002}$	0.9786	0.978 ± 0.010 (+0.3 σ)	$H(2.33)$	235.93	235.92 ± 0.97 (−0.1 σ)
A_L	1.234	1.24 ± 0.23	Y_P	0.245872	$0.24587^{+0.00026}_{-0.00023}$ (+0.1 σ)	$D_M(2.33)$	5722.7	5722 ± 29 (−0.1 σ)
$\ln(10^{10} A_s)$	3.0511	$3.049^{+0.022}_{-0.019}$ (+0.0 σ)	Y_P^{BBN}	0.247200	$0.24720^{+0.00026}_{-0.00024}$ (+0.1 σ)	$f\sigma_8(0.15)$	0.4449	0.4440 ± 0.0097 (−0.1 σ)
n_s	0.9786	0.978 ± 0.010 (+0.3 σ)	$10^5 D/H$	2.386	2.38 ± 0.11 (−0.1 σ)	$\sigma_8(0.15)$	0.7438	0.7427 ± 0.0090 (−0.0 σ)
y_{cal}	0.99977	0.9999 ± 0.0025 (−0.0 σ)	Age/Gyr	13.704	13.703 ± 0.067 (−0.1 σ)	$f\sigma_8(0.38)$	0.4659	0.4650 ± 0.0083 (−0.1 σ)
H_0	68.83	68.86 ± 0.85 (+0.1 σ)	z_*	1088.33	1088.31 ± 0.79 (−0.1 σ)	$\sigma_8(0.38)$	0.6607	0.6597 ± 0.0077 (+0.0 σ)
Ω_Λ	0.7011	0.7012 ± 0.0091 (+0.1 σ)	r_*	144.21	144.20 ± 0.51 (−0.0 σ)	$f\sigma_8(0.51)$	0.4660	0.4651 ± 0.0075 (−0.1 σ)
Ω_m	0.2989	0.2988 ± 0.0091 (−0.1 σ)	$100\theta_*$	1.03988	1.03982 ± 0.00082 (−0.1 σ)	$\sigma_8(0.51)$	0.6189	0.6180 ± 0.0071 (+0.0 σ)
$\Omega_m h^2$	0.14163	0.1416 ± 0.0014 (−0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.8679	13.868 ± 0.049 (+0.0 σ)	$f\sigma_8(0.61)$	0.4620	0.4612 ± 0.0069 (−0.1 σ)
$\Omega_m h^3$	0.09748	0.0975 ± 0.0012 (+0.0 σ)	z_{drag}	1062.37	1062.4 ± 1.4 (+0.1 σ)	$\sigma_8(0.61)$	0.5893	0.5884 ± 0.0068 (+0.0 σ)
σ_8	0.8036	0.802 ± 0.010 (−0.0 σ)	r_{drag}	146.50	146.49 ± 0.68 (−0.0 σ)	$f\sigma_8(2.33)$	0.29761	0.2972 ± 0.0034 (+0.0 σ)
S_8	0.8022	0.801 ± 0.019 (−0.1 σ)	k_D	0.14232	0.1423 ± 0.0011 (+0.1 σ)	$\sigma_8(2.33)$	0.30739	0.3070 ± 0.0035 (+0.1 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4394	0.439 ± 0.010 (−0.1 σ)	$100\theta_D$	0.15917	0.15916 ± 0.00082 (−0.1 σ)	χ_{small}^2	395.62	396.8 ± 1.6 (+0.0 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5942	0.593 ± 0.010 (−0.1 σ)	z_{eq}	3369.1	3368 ± 33 (−0.1 σ)	χ_{plikEE}^2	738.06	743.1 ± 3.4 (−0.0 σ)
$\sigma_8/h^{0.5}$	0.9686	0.967 ± 0.015 (−0.1 σ)	k_{eq}	0.010283	0.01028 ± 0.00010 (−0.1 σ)	χ_{6DF}^2	0.0042	0.060 ± 0.084 (+0.1 σ)
$r_{drag} h$	100.83	100.9 ± 1.1 (+0.1 σ)	$100\theta_{eq}$	0.8216	0.8218 ± 0.0060 (+0.1 σ)	χ_{MGS}^2	1.89	2.00 ± 0.72 (+0.1 σ)
$\langle d^2 \rangle^{1/2}$	2.662	$2.66^{+0.25}_{-0.23}$ (+7.2 σ)	$100\theta_{s,eq}$	0.45282	0.4529 ± 0.0031 (+0.1 σ)	$\chi_{DR12BAO}^2$	3.60	4.4 ± 1.2 (−0.0 σ)
z_{re}	7.18	$7.04^{+0.89}_{-0.75}$ (−0.1 σ)	$H(0.15)$	74.00	74.03 ± 0.77 (+0.1 σ)	χ_{prior}^2	0.01	1.0 ± 1.4 (−0.0 σ)
$10^9 A_s$	2.1139	$2.111^{+0.046}_{-0.042}$ (+0.0 σ)	$D_M(0.15)$	630.7	630.5 ± 7.2 (−0.1 σ)	χ_{BAO}^2	5.50	6.5 ± 1.4 (+0.1 σ)
$10^9 A_s e^{-2\tau}$	1.9046	1.906 ± 0.024 (+0.1 σ)	$H(0.38)$	83.93	83.96 ± 0.65 (+0.1 σ)	χ_{CMB}^2	1133.68	1139.9 ± 3.7 (−0.0 σ)
D_{40}	1225.0	1227 ± 31 (−0.1 σ)	$D_M(0.38)$	1507.3	1507 ± 15 (−0.1 σ)			
D_{220}	5885	5895 ± 130 (+0.0 σ)	$H(0.51)$	90.55	90.57 ± 0.59 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1139.18$; $\Delta\chi_{\text{eff}}^2 = -0.98$; $\bar{\chi}_{\text{eff}}^2 = 1147.38$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.02$; $R - 1 = 0.01879$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.89 (Δ 0.00) DR12BAO: 3.60 (Δ 0.00) CMB - small_100x143_offlike5_EE_Aplanck_B: 395.62 (Δ 0.01) plik_rd12_HM_v22_EE: 738.06 (Δ -0.98)

3.31 base_Alens_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.0245 \pm 0.0013 \quad (+0.5\sigma)$	D_{40}	$1221 \pm 31 \quad (-0.2\sigma)$	$D_{\text{M}}(0.15)$	$612^{+22}_{-24} \quad (-0.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1136^{+0.0045}_{-0.0051} \quad (-0.5\sigma)$	D_{220}	$6020 \pm 200 \quad (+0.3\sigma)$	$H(0.38)$	$85.7 \pm 2.1 \quad (+0.5\sigma)$
$100\theta_{\text{MC}}$	$1.04006 \pm 0.00090 \quad (+0.1\sigma)$	D_{810}	$2594 \pm 38 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1468 \pm 48 \quad (-0.5\sigma)$
τ	$0.0570^{+0.0051}_{-0.0080} \quad (+0.2\sigma)$	D_{1420}	$847 \pm 19 \quad (+0.2\sigma)$	$H(0.51)$	$92.0^{+1.7}_{-1.9} \quad (+0.5\sigma)$
A_{L}	$1.31^{+0.23}_{-0.26}$	D_{2000}	$245.7 \pm 7.9 \quad (+0.6\sigma)$	$D_{\text{M}}(0.51)$	$1907 \pm 58 \quad (-0.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.062^{+0.018}_{-0.020} \quad (+0.2\sigma)$	$n_{\text{s},0.002}$	$0.989 \pm 0.016 \quad (+0.6\sigma)$	$H(0.61)$	$97.4^{+1.5}_{-1.7} \quad (+0.5\sigma)$
n_{s}	$0.989 \pm 0.016 \quad (+0.6\sigma)$	Y_{P}	$0.24623^{+0.00055}_{-0.00044} \quad (+0.4\sigma)$	$D_{\text{M}}(0.61)$	$2224 \pm 64 \quad (-0.5\sigma)$
y_{cal}	$0.9999 \pm 0.0025 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24756^{+0.00055}_{-0.00044} \quad (+0.4\sigma)$	$H(2.33)$	$234.4^{+1.9}_{-2.2} \quad (-0.4\sigma)$
H_0	$71.2 \pm 2.9 \quad (+0.5\sigma)$	$10^5\text{D}/\text{H}$	$2.24^{+0.18}_{-0.21} \quad (-0.4\sigma)$	$D_{\text{M}}(2.33)$	$5665 \pm 72 \quad (-0.5\sigma)$
Ω_{Λ}	$0.725^{+0.033}_{-0.025} \quad (+0.5\sigma)$	Age/Gyr	$13.58 \pm 0.16 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.422^{+0.028}_{-0.032} \quad (-0.4\sigma)$
Ω_{m}	$0.275^{+0.025}_{-0.033} \quad (-0.5\sigma)$	z_*	$1087.0^{+1.6}_{-1.8} \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.735 \pm 0.015 \quad (-0.3\sigma)$
$\Omega_{\text{m}}h^2$	$0.1387^{+0.0035}_{-0.0040} \quad (-0.4\sigma)$	r_*	$144.47 \pm 0.65 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.447 \pm 0.024 \quad (-0.4\sigma)$
$\Omega_{\text{m}}h^3$	$0.0987^{+0.0017}_{-0.0020} \quad (+0.4\sigma)$	$100\theta_*$	$1.04003 \pm 0.00087 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.656^{+0.010}_{-0.0095} \quad (-0.3\sigma)$
σ_8	$0.791 \pm 0.019 \quad (-0.4\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.891 \pm 0.061 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.450 \pm 0.021 \quad (-0.4\sigma)$
S_8	$0.758^{+0.052}_{-0.062} \quad (-0.4\sigma)$	z_{drag}	$1064.2 \pm 2.5 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6154 \pm 0.0084 \quad (-0.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.415^{+0.029}_{-0.034} \quad (-0.4\sigma)$	r_{drag}	$146.48 \pm 0.72 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.448 \pm 0.018 \quad (-0.4\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.573 \pm 0.028 \quad (-0.4\sigma)$	k_{D}	$0.1429 \pm 0.0013 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5867 \pm 0.0075 \quad (-0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.939 \pm 0.040 \quad (-0.4\sigma)$	$100\theta_{\text{D}}$	$0.1583^{+0.0011}_{-0.0014} \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2974 \pm 0.0032 \quad (-0.0\sigma)$
$r_{\text{drag}}h$	$104.3 \pm 4.3 \quad (+0.5\sigma)$	z_{eq}	$3299^{+83}_{-96} \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3086 \pm 0.0032 \quad (+0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.67^{+0.25}_{-0.22} \quad (+3.8\sigma)$	k_{eq}	$0.01007^{+0.00025}_{-0.00029} \quad (-0.4\sigma)$	χ_{small}^2	$396.4 \pm 1.3 \quad (-0.1\sigma)$
z_{re}	$7.39^{+0.27}_{-0.84} \quad (-0.1\sigma)$	$100\theta_{\text{eq}}$	$0.838 \pm 0.020 \quad (+0.5\sigma)$	χ_{plikEE}^2	$743.5 \pm 3.4 \quad (-0.1\sigma)$
$10^9 A_{\text{s}}$	$2.137^{+0.038}_{-0.044} \quad (+0.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4606 \pm 0.0097 \quad (+0.5\sigma)$	χ_{prior}^2	$0.99 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\text{s}}e^{-2\tau}$	$1.906 \pm 0.025 \quad (+0.1\sigma)$	$H(0.15)$	$76.2 \pm 2.6 \quad (+0.5\sigma)$	χ_{CMB}^2	$1139.9 \pm 3.6 \quad (-0.1\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 1140.89$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.42$; $R - 1 = 0.00557$

3.32 base_Alens_plikHM_EE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02354 \pm 0.00064 \quad (+0.2\sigma)$	D_{810}	$2577 \pm 33 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1954 \pm 18 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1174 \pm 0.0015 \quad (-0.2\sigma)$	D_{1420}	$836 \pm 14 \quad (-0.1\sigma)$	$H(0.61)$	$96.11 \pm 0.55 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03975 \pm 0.00081 \quad (-0.2\sigma)$	D_{2000}	$240.9 \pm 5.6 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2275 \pm 20 \quad (-0.1\sigma)$
τ	$0.0546^{+0.0042}_{-0.0072} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.978 \pm 0.010 \quad (+0.3\sigma)$	$H(2.33)$	$235.90 \pm 0.98 \quad (-0.1\sigma)$
A_{L}	1.23 ± 0.22	Y_{P}	$0.24587^{+0.00026}_{-0.00023} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5722 \pm 29 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.056 \pm 0.018 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24719^{+0.00026}_{-0.00024} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4455 \pm 0.0094 \quad (-0.1\sigma)$
n_{s}	$0.978 \pm 0.010 \quad (+0.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.39 \pm 0.11 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7453 \pm 0.0078 \quad (+0.0\sigma)$
y_{cal}	$0.9999 \pm 0.0025 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.703 \pm 0.067 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4666 \pm 0.0079 \quad (-0.1\sigma)$
H_0	$68.86 \pm 0.85 \quad (+0.1\sigma)$	z_*	$1088.32 \pm 0.78 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6620 \pm 0.0067 \quad (+0.1\sigma)$
Ω_{Λ}	$0.7013 \pm 0.0090 \quad (+0.2\sigma)$	r_*	$144.21 \pm 0.51 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4667 \pm 0.0070 \quad (-0.1\sigma)$
Ω_{m}	$0.2987 \pm 0.0090 \quad (-0.2\sigma)$	$100\theta_*$	$1.03981 \pm 0.00082 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6202 \pm 0.0061 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1416 \pm 0.0014 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.869 \pm 0.050 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4628 \pm 0.0064 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0975 \pm 0.0012 \quad (+0.1\sigma)$	z_{drag}	$1062.4 \pm 1.4 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5905 \pm 0.0058 \quad (+0.1\sigma)$
σ_8	$0.8051 \pm 0.0089 \quad (+0.0\sigma)$	r_{drag}	$146.50 \pm 0.67 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2982 \pm 0.0029 \quad (+0.1\sigma)$
S_8	$0.803 \pm 0.018 \quad (-0.1\sigma)$	k_{D}	$0.1423 \pm 0.0011 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3081^{+0.0028}_{-0.0031} \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4400 \pm 0.0099 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.15916 \pm 0.00081 \quad (-0.2\sigma)$	χ_{small}^2	$396.4 \pm 1.3 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5952 \pm 0.0096 \quad (-0.1\sigma)$	z_{eq}	$3368 \pm 33 \quad (-0.1\sigma)$	χ_{plikEE}^2	$743.1 \pm 3.4 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.970 \pm 0.014 \quad (-0.0\sigma)$	k_{eq}	$0.01028 \pm 0.00010 \quad (-0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.060 \pm 0.084 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.9 \pm 1.1 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8219 \pm 0.0060 \quad (+0.1\sigma)$	χ_{MGS}^2	$2.00 \pm 0.72 \quad (+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.66^{+0.25}_{-0.22} \quad (+7.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4530 \pm 0.0031 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.2 \quad (-0.0\sigma)$
z_{re}	$7.41^{+0.29}_{-0.85} \quad (-0.1\sigma)$	$H(0.15)$	$74.03 \pm 0.77 \quad (+0.1\sigma)$	χ_{prior}^2	$1.0 \pm 1.5 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.125 \pm 0.038 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$630.5 \pm 7.2 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.5 \pm 1.4 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.905 \pm 0.024 \quad (+0.1\sigma)$	$H(0.38)$	$83.96 \pm 0.65 \quad (+0.1\sigma)$	χ_{CMB}^2	$1139.5 \pm 3.6 \quad (-0.1\sigma)$
D_{40}	$1227 \pm 31 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1507 \pm 15 \quad (-0.1\sigma)$		
D_{220}	$5892 \pm 130 \quad (+0.1\sigma)$	$H(0.51)$	$90.57 \pm 0.59 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1146.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.07$; $R - 1 = 0.01334$

3.33 base_Alens_CamSpecHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022329	0.02238 ± 0.00039 (-0.4σ)	D_{40}	1216.0	1209 ± 38 $(+0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	635.9	634 ± 11 $(+0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11774	0.1174 ± 0.0026 $(+0.2\sigma)$	D_{220}	5715	5710 ± 63 (-0.1σ)	$H(0.38)$	83.37	83.51 ± 0.82 (-0.3σ)
$100\theta_{\mathrm{MC}}$	1.04130	1.04137 ± 0.00053 (-0.1σ)	D_{810}	2532.4	2536 ± 40 (-0.4σ)	$D_{\mathrm{M}}(0.38)$	1518.8	1516 ± 21 $(+0.3\sigma)$
τ	0.0504	0.0500 ± 0.0090 (-0.0σ)	D_{1420}	816.5	819 ± 20 (-0.5σ)	$H(0.51)$	89.99	90.10 ± 0.67 (-0.3σ)
A_{L}	0.890	$0.93^{+0.21}_{-0.24}$	D_{2000}	229.3	230.7 ± 9.1 (-0.6σ)	$D_{\mathrm{M}}(0.51)$	1968.9	1965 ± 25 $(+0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0276	3.027 ± 0.023 (-0.2σ)	$n_{\mathrm{s},0.002}$	0.9689	0.973 ± 0.021 (-0.5σ)	$H(0.61)$	95.53	95.63 ± 0.56 (-0.3σ)
n_{s}	0.9689	0.973 ± 0.021 (-0.5σ)	Y_{P}	0.245379	0.24539 ± 0.00017 (-0.4σ)	$D_{\mathrm{M}}(0.61)$	2292.3	2288 ± 27 $(+0.3\sigma)$
y_{cal}	1.00006	0.99997 ± 0.0025 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246705	0.24672 ± 0.00017 (-0.4σ)	$H(2.33)$	235.07	234.9 ± 1.4 $(+0.2\sigma)$
H_0	68.25	68.4 ± 1.3 (-0.3σ)	$10^5\mathrm{D}/\mathrm{H}$	2.593	2.586 ± 0.073 $(+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	5755.0	5751 ± 25 $(+0.4\sigma)$
Ω_{Λ}	0.6979	$0.700^{+0.016}_{-0.015}$ (-0.3σ)	Age/Gyr	13.780	13.771 ± 0.057 $(+0.4\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	0.4442	0.443 ± 0.014 $(+0.1\sigma)$
Ω_{m}	0.3021	0.300 ± 0.016 $(+0.3\sigma)$	z_{*}	1089.77	1089.69 ± 0.66 $(+0.4\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	0.7388	0.739 ± 0.011 (-0.1σ)
$\Omega_{\mathrm{m}}h^2$	0.14072	0.1404 ± 0.0023 $(+0.2\sigma)$	r_{*}	145.05	145.10 ± 0.52 (-0.1σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4643	0.463 ± 0.011 $(+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09604	0.09610 ± 0.00064 (-0.2σ)	$100\theta_{*}$	1.04150	1.04155 ± 0.00052 (-0.1σ)	$\sigma_{\mathrm{s}}(0.38)$	0.6560	0.6559 ± 0.0095 (-0.2σ)
σ_{s}	0.7986	0.798 ± 0.012 (-0.1σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9269	13.931 ± 0.049 (-0.1σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.4640	0.4630 ± 0.0096 $(+0.0\sigma)$
S_{s}	0.8013	0.798 ± 0.027 $(+0.1\sigma)$	z_{drag}	1059.67	1059.77 ± 0.80 (-0.4σ)	$\sigma_{\mathrm{s}}(0.51)$	0.6143	0.6144 ± 0.0090 (-0.2σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4389	0.437 ± 0.015 $(+0.1\sigma)$	r_{drag}	147.74	147.77 ± 0.52 (-0.0σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.4599	0.4590 ± 0.0087 $(+0.0\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5920	0.591 ± 0.013 $(+0.1\sigma)$	k_{D}	0.14016	0.14015 ± 0.00061 (-0.1σ)	$\sigma_{\mathrm{s}}(0.61)$	0.5848	0.5849 ± 0.0086 (-0.2σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9666	0.965 ± 0.018 $(+0.0\sigma)$	$100\theta_{\mathrm{D}}$	0.160947	0.16091 ± 0.00047 $(+0.4\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	0.29522	0.2954 ± 0.0045 (-0.3σ)
$r_{\mathrm{drag}}h$	100.83	101.1 ± 2.1 (-0.3σ)	z_{eq}	3347	3341 ± 56 $(+0.2\sigma)$	$\sigma_{\mathrm{s}}(2.33)$	0.30478	0.3051 ± 0.0050 (-0.3σ)
$\langle d^2 \rangle^{1/2}$	2.259	$2.28^{+0.27}_{-0.22}$ (-2.2σ)	k_{eq}	0.010216	0.01020 ± 0.00017 $(+0.2\sigma)$	χ_{simall}^2	395.66	396.9 ± 1.7 $(+0.0\sigma)$
z_{re}	7.25	$7.17^{+0.94}_{-0.78}$ (-0.0σ)	$100\theta_{\mathrm{eq}}$	0.8234	0.825 ± 0.011 (-0.2σ)	$\chi_{\mathrm{CamSpec}}^2$	2575.80	2581.9 ± 3.5 $(+0.3\sigma)$
$10^9 A_{\mathrm{s}}$	2.0647	2.064 ± 0.048 (-0.2σ)	$100\theta_{\mathrm{s,eq}}$	0.4547	0.4555 ± 0.0056 (-0.2σ)	χ_{prior}^2	10.03	11.0 ± 1.4 (-0.0σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8667	1.867 ± 0.025 (-0.3σ)	$H(0.15)$	73.43	73.6 ± 1.1 (-0.3σ)	χ_{CMB}^2	2971.46	2978.8 ± 3.9 $(+0.3\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 2981.49$; $\Delta\chi_{\mathrm{eff}}^2 = -0.15$; $\bar{\chi}_{\mathrm{eff}}^2 = 2989.81$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.90$; $R - 1 = 0.00461$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.01) CamSpec like_10.7HM_1400_unified: 2575.80 (Δ -0.15)

3.34 base_Alens_CamSpecHM_TE_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00031 \quad (-0.5\sigma)$	D_{810}	$2530 \pm 37 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 13 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0013 \quad (+0.2\sigma)$	D_{1420}	$816 \pm 17 \quad (-0.7\sigma)$	$H(0.61)$	$95.48 \pm 0.33 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04130 \pm 0.00048 \quad (-0.0\sigma)$	D_{2000}	$229.0^{+7.3}_{-8.2} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 14 \quad (+0.4\sigma)$
τ	$0.0496 \pm 0.0087 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.016 \quad (-0.8\sigma)$	$H(2.33)$	$235.25 \pm 0.82 \quad (+0.0\sigma)$
A_{L}	0.89 ± 0.19	Y_{P}	$0.24536^{+0.00013}_{-0.00011} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757 \pm 17 \quad (+0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.026 \pm 0.023 \quad (-0.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24669^{+0.00013}_{-0.00011} \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.4456 \pm 0.0086 \quad (-0.1\sigma)$
n_{s}	$0.968 \pm 0.016 \quad (-0.8\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.600 \pm 0.058 \quad (+0.5\sigma)$	$\sigma_8(0.15)$	$0.739 \pm 0.011 \quad (-0.4\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.785 \pm 0.038 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.4653 \pm 0.0078 \quad (-0.2\sigma)$
H_0	$68.11 \pm 0.64 \quad (-0.3\sigma)$	z_*	$1089.85 \pm 0.44 \quad (+0.5\sigma)$	$\sigma_8(0.38)$	$0.6558 \pm 0.0095 \quad (-0.4\sigma)$
Ω_{Λ}	$0.6959 \pm 0.0079 \quad (-0.3\sigma)$	r_*	$144.99 \pm 0.35 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4648 \pm 0.0074 \quad (-0.2\sigma)$
Ω_{m}	$0.3041 \pm 0.0079 \quad (+0.3\sigma)$	$100\theta_*$	$1.04149 \pm 0.00047 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6141 \pm 0.0089 \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.921 \pm 0.034 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4605 \pm 0.0071 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09604 \pm 0.00062 \quad (-0.4\sigma)$	z_{drag}	$1059.63 \pm 0.69 \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.5845 \pm 0.0085 \quad (-0.4\sigma)$
σ_8	$0.799 \pm 0.012 \quad (-0.3\sigma)$	r_{drag}	$147.69 \pm 0.40 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2950 \pm 0.0043 \quad (-0.5\sigma)$
S_8	$0.804 \pm 0.016 \quad (-0.1\sigma)$	k_{D}	$0.14018 \pm 0.00059 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3045 \pm 0.0046 \quad (-0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4405 \pm 0.0089 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00041 \quad (+0.5\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5932 \pm 0.0097 \quad (-0.2\sigma)$	z_{eq}	$3354 \pm 30 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$2581.1 \pm 3.3 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.968 \pm 0.015 \quad (-0.2\sigma)$	k_{eq}	$0.010238 \pm 0.000091 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.044 \pm 0.063 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.6 \pm 1.0 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8221 \pm 0.0056 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.84 \pm 0.63 \quad (-0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.24^{+0.25}_{-0.20} \quad (-4.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4540 \pm 0.0029 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.1 \pm 1.0 \quad (+0.2\sigma)$
z_{re}	$7.16^{+0.90}_{-0.81} \quad (+0.0\sigma)$	$H(0.15)$	$73.31 \pm 0.56 \quad (-0.4\sigma)$	χ_{prior}^2	$11.0 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.061 \pm 0.047 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.1 \pm 5.4 \quad (+0.3\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.866 \pm 0.025 \quad (-0.7\sigma)$	$H(0.38)$	$83.28 \pm 0.44 \quad (-0.4\sigma)$	χ_{CMB}^2	$2978.0 \pm 3.7 \quad (+0.3\sigma)$
D_{40}	$1217 \pm 31 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521 \pm 11 \quad (+0.4\sigma)$		
D_{220}	$5707 \pm 62 \quad (-0.1\sigma)$	$H(0.51)$	$89.92 \pm 0.37 \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2995.04$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.94$; $R - 1 = 0.00758$

3.35 base_Alens_CamSpecHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02239 \pm 0.00040 \quad (-0.4\sigma)$	D_{40}	$1209 \pm 38 \quad (+0.4\sigma)$	$D_{\text{M}}(0.15)$	$634 \pm 10 \quad (+0.3\sigma)$
$\Omega_{\text{c}}h^2$	$0.1173 \pm 0.0026 \quad (+0.3\sigma)$	D_{220}	$5709 \pm 63 \quad (-0.1\sigma)$	$H(0.38)$	$83.52 \pm 0.82 \quad (-0.3\sigma)$
$100\theta_{\text{MC}}$	$1.04137 \pm 0.00053 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 40 \quad (-0.4\sigma)$	$D_{\text{M}}(0.38)$	$1515 \pm 21 \quad (+0.3\sigma)$
τ	$0.0533^{+0.0041}_{-0.0081} \quad (-0.0\sigma)$	D_{1420}	$819 \pm 20 \quad (-0.5\sigma)$	$H(0.51)$	$90.12 \pm 0.67 \quad (-0.3\sigma)$
A_{L}	$0.93^{+0.21}_{-0.24}$	D_{2000}	$230.9 \pm 9.2 \quad (-0.6\sigma)$	$D_{\text{M}}(0.51)$	$1965 \pm 25 \quad (+0.3\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.034^{+0.018}_{-0.021} \quad (-0.2\sigma)$	$n_{\text{s},0.002}$	$0.973 \pm 0.021 \quad (-0.5\sigma)$	$H(0.61)$	$95.64 \pm 0.56 \quad (-0.3\sigma)$
n_{s}	$0.973 \pm 0.021 \quad (-0.5\sigma)$	Y_{P}	$0.24539 \pm 0.00017 \quad (-0.4\sigma)$	$D_{\text{M}}(0.61)$	$2288 \pm 27 \quad (+0.3\sigma)$
y_{cal}	$0.99995 \pm 0.0025 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24672 \pm 0.00017 \quad (-0.4\sigma)$	$H(2.33)$	$234.9 \pm 1.4 \quad (+0.2\sigma)$
H_0	$68.5 \pm 1.3 \quad (-0.3\sigma)$	$10^5\text{D}/\text{H}$	$2.585 \pm 0.073 \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5750 \pm 26 \quad (+0.4\sigma)$
Ω_{Λ}	$0.700^{+0.016}_{-0.015} \quad (-0.3\sigma)$	Age/Gyr	$13.770 \pm 0.057 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.444 \pm 0.013 \quad (+0.1\sigma)$
Ω_{m}	$0.300^{+0.015}_{-0.016} \quad (+0.3\sigma)$	z_*	$1089.68 \pm 0.66 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.7409 \pm 0.0099 \quad (-0.2\sigma)$
$\Omega_{\text{m}}h^2$	$0.1404 \pm 0.0023 \quad (+0.2\sigma)$	r_*	$145.11 \pm 0.52 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.464 \pm 0.011 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.09610 \pm 0.00064 \quad (-0.2\sigma)$	$100\theta_*$	$1.04156 \pm 0.00052 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6581^{+0.0082}_{-0.0092} \quad (-0.2\sigma)$
σ_8	$0.801 \pm 0.011 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.932 \pm 0.049 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4643 \pm 0.0092 \quad (+0.0\sigma)$
S_8	$0.800 \pm 0.026 \quad (+0.1\sigma)$	z_{drag}	$1059.78 \pm 0.80 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6164^{+0.0078}_{-0.0087} \quad (-0.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.438 \pm 0.014 \quad (+0.1\sigma)$	r_{drag}	$147.78 \pm 0.51 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4604 \pm 0.0083 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.592 \pm 0.013 \quad (+0.1\sigma)$	k_{D}	$0.14014 \pm 0.00061 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5869^{+0.0075}_{-0.0084} \quad (-0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.968 \pm 0.018 \quad (+0.0\sigma)$	$100\theta_{\text{D}}$	$0.16090 \pm 0.00047 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0040}_{-0.0044} \quad (-0.3\sigma)$
$r_{\text{drag}}h$	$101.2 \pm 2.1 \quad (-0.3\sigma)$	z_{eq}	$3339 \pm 55 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3061^{+0.0044}_{-0.0049} \quad (-0.4\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.28^{+0.27}_{-0.22} \quad (-2.3\sigma)$	k_{eq}	$0.01019 \pm 0.00017 \quad (+0.2\sigma)$	χ_{small}^2	$396.5 \pm 1.3 \quad (+0.0\sigma)$
z_{re}	$7.52^{+0.38}_{-0.87} \quad (+0.0\sigma)$	$100\theta_{\text{eq}}$	$0.825 \pm 0.011 \quad (-0.2\sigma)$	χ_{CamSpec}^2	$2581.9 \pm 3.5 \quad (+0.3\sigma)$
$10^9 A_{\text{s}}$	$2.078^{+0.036}_{-0.045} \quad (-0.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4556 \pm 0.0056 \quad (-0.2\sigma)$	χ_{prior}^2	$11.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\text{s}}e^{-2\tau}$	$1.868 \pm 0.025 \quad (-0.3\sigma)$	$H(0.15)$	$73.6 \pm 1.1 \quad (-0.3\sigma)$	χ_{CMB}^2	$2978.4 \pm 3.8 \quad (+0.3\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2989.43$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.91$; $R - 1 = 0.00501$

3.36 base_Alens_CamSpecHM_TE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00031 \quad (-0.6\sigma)$	D_{810}	$2531 \pm 37 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 13 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0013 \quad (+0.2\sigma)$	D_{1420}	$816 \pm 18 \quad (-0.7\sigma)$	$H(0.61)$	$95.48 \pm 0.33 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04130 \pm 0.00048 \quad (-0.0\sigma)$	D_{2000}	$229.2 \pm 7.9 \quad (-1.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 14 \quad (+0.4\sigma)$
τ	$0.0528^{+0.0038}_{-0.0079} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.969 \pm 0.016 \quad (-0.8\sigma)$	$H(2.33)$	$235.24 \pm 0.82 \quad (+0.0\sigma)$
A_{L}	0.88 ± 0.19	Y_{P}	$0.24536^{+0.00014}_{-0.00011} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757 \pm 17 \quad (+0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.032^{+0.018}_{-0.021} \quad (-0.4\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24669^{+0.00014}_{-0.00011} \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.4470 \pm 0.0082 \quad (-0.1\sigma)$
n_{s}	$0.969 \pm 0.016 \quad (-0.8\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.600 \pm 0.058 \quad (+0.6\sigma)$	$\sigma_8(0.15)$	$0.7414 \pm 0.0098 \quad (-0.5\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.785 \pm 0.039 \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.4668 \pm 0.0074 \quad (-0.2\sigma)$
H_0	$68.12 \pm 0.64 \quad (-0.4\sigma)$	z_*	$1089.84 \pm 0.45 \quad (+0.6\sigma)$	$\sigma_8(0.38)$	$0.6580^{+0.0083}_{-0.0092} \quad (-0.5\sigma)$
Ω_{Λ}	$0.6960 \pm 0.0079 \quad (-0.3\sigma)$	r_*	$144.99 \pm 0.34 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4663 \pm 0.0069 \quad (-0.2\sigma)$
Ω_{m}	$0.3040 \pm 0.0079 \quad (+0.3\sigma)$	$100\theta_*$	$1.04149 \pm 0.00048 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6161 \pm 0.0082 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.922 \pm 0.034 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4620 \pm 0.0066 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09603 \pm 0.00062 \quad (-0.4\sigma)$	z_{drag}	$1059.63 \pm 0.70 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.5865^{+0.0074}_{-0.0083} \quad (-0.5\sigma)$
σ_8	$0.802 \pm 0.011 \quad (-0.4\sigma)$	r_{drag}	$147.69 \pm 0.40 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2960 \pm 0.0040 \quad (-0.6\sigma)$
S_8	$0.807 \pm 0.016 \quad (-0.1\sigma)$	k_{D}	$0.14018 \pm 0.00059 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3055 \pm 0.0043 \quad (-0.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4419 \pm 0.0086 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00042 \quad (+0.6\sigma)$	χ_{small}^2	$396.5 \pm 1.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5951 \pm 0.0092 \quad (-0.2\sigma)$	z_{eq}	$3354 \pm 30 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$2581.2 \pm 3.3 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.971 \pm 0.014 \quad (-0.2\sigma)$	k_{eq}	$0.010236 \pm 0.000090 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.044 \pm 0.063 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.6 \pm 1.0 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8222 \pm 0.0056 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.85 \pm 0.63 \quad (-0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.24^{+0.25}_{-0.20} \quad (-5.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4541 \pm 0.0029 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.1 \pm 1.0 \quad (+0.2\sigma)$
z_{re}	$7.50^{+0.34}_{-0.89} \quad (+0.1\sigma)$	$H(0.15)$	$73.31 \pm 0.56 \quad (-0.4\sigma)$	χ_{prior}^2	$11.0 \pm 1.5 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.075^{+0.036}_{-0.044} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.0 \pm 5.4 \quad (+0.4\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.866 \pm 0.025 \quad (-0.7\sigma)$	$H(0.38)$	$83.29 \pm 0.44 \quad (-0.4\sigma)$	χ_{CMB}^2	$2977.7 \pm 3.6 \quad (+0.3\sigma)$
D_{40}	$1217 \pm 31 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521 \pm 11 \quad (+0.4\sigma)$		
D_{220}	$5707 \pm 62 \quad (-0.2\sigma)$	$H(0.51)$	$89.92 \pm 0.37 \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2994.70$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.00$; $R - 1 = 0.00997$

3.37 base_Alens_CamSpecHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02349	0.0236 ± 0.0013 (+0.3 σ)	D_{40}	1258.1	1257 ± 31 (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	633.9	632^{+22}_{-25} (−0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11795	$0.1177^{+0.0046}_{-0.0052}$ (−0.3 σ)	D_{220}	5982	5998 ± 200 (+0.2 σ)	$H(0.38)$	83.67	83.9 ± 2.0 (+0.3 σ)
$100\theta_{\mathrm{MC}}$	1.03926	1.03932 ± 0.00086 (+0.0 σ)	D_{810}	2599.9	2601 ± 39 (+0.1 σ)	$D_{\mathrm{M}}(0.38)$	1513.9	1510 ± 49 (−0.3 σ)
τ	0.0509	0.0505 ± 0.0089 (+0.0 σ)	D_{1420}	841.1	842 ± 19 (+0.1 σ)	$H(0.51)$	90.32	$90.6^{+1.6}_{-1.8}$ (+0.3 σ)
A_{L}	1.136	$1.16^{+0.22}_{-0.25}$	D_{2000}	240.9	241.6 ± 8.0 (+0.4 σ)	$D_{\mathrm{M}}(0.51)$	1962	1957 ± 59 (−0.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0595	3.059 ± 0.022 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9702	0.972 ± 0.015 (+0.4 σ)	$H(0.61)$	95.90	$96.1^{+1.3}_{-1.6}$ (+0.3 σ)
n_{s}	0.9702	0.972 ± 0.015 (+0.4 σ)	Y_{P}	0.245862	$0.24589^{+0.00045}_{-0.00054}$ (+0.3 σ)	$D_{\mathrm{M}}(0.61)$	2285	2279 ± 64 (−0.3 σ)
y_{cal}	1.00002	0.9999 ± 0.0025 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.247190	$0.24722^{+0.00045}_{-0.00054}$ (+0.3 σ)	$H(2.33)$	236.17	$236.2^{+2.0}_{-2.4}$ (−0.3 σ)
H_0	68.45	68.7 ± 2.9 (+0.3 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.390	$2.38^{+0.18}_{-0.22}$ (−0.3 σ)	$D_{\mathrm{M}}(2.33)$	5732	5723 ± 69 (−0.3 σ)
Ω_{Λ}	0.6967	$0.697^{+0.037}_{-0.028}$ (+0.3 σ)	Age/Gyr	13.725	13.71 ± 0.16 (−0.3 σ)	$f\sigma_{\mathrm{s}}(0.15)$	0.4489	$0.447^{+0.029}_{-0.032}$ (−0.3 σ)
Ω_{m}	0.3033	$0.303^{+0.028}_{-0.037}$ (−0.3 σ)	z_{*}	1088.40	$1088.3^{+1.6}_{-2.0}$ (−0.3 σ)	$\sigma_{\mathrm{s}}(0.15)$	0.7453	$0.743^{+0.015}_{-0.014}$ (−0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14209	$0.1420^{+0.0036}_{-0.0042}$ (−0.3 σ)	r_{*}	144.10	144.06 ± 0.67 (+0.2 σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4690	0.467 ± 0.024 (−0.3 σ)
$\Omega_{\mathrm{m}}h^3$	0.09726	$0.0975^{+0.0017}_{-0.0019}$ (+0.3 σ)	$100\theta_{*}$	1.03933	1.03938 ± 0.00083 (+0.0 σ)	$\sigma_{\mathrm{s}}(0.38)$	0.6616	$0.660^{+0.011}_{-0.0094}$ (−0.2 σ)
σ_{s}	0.8057	0.804 ± 0.019 (−0.3 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.865	13.861 ± 0.064 (+0.2 σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.4685	0.466 ± 0.021 (−0.3 σ)
S_{s}	0.810	$0.807^{+0.056}_{-0.065}$ (−0.3 σ)	z_{drag}	1062.34	1062.6 ± 2.5 (+0.3 σ)	$\sigma_{\mathrm{s}}(0.51)$	0.6195	$0.6182^{+0.0091}_{-0.0080}$ (−0.2 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4437	$0.442^{+0.031}_{-0.036}$ (−0.3 σ)	r_{drag}	146.40	146.32 ± 0.71 (+0.0 σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.4643	0.462 ± 0.018 (−0.3 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5979	0.596 ± 0.029 (−0.3 σ)	k_{D}	0.14241	0.1425 ± 0.0013 (+0.2 σ)	$\sigma_{\mathrm{s}}(0.61)$	0.5897	$0.5886^{+0.0081}_{-0.0073}$ (−0.2 σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9738	0.970 ± 0.041 (−0.3 σ)	$100\theta_{\mathrm{D}}$	0.15911	$0.1590^{+0.0012}_{-0.0015}$ (−0.3 σ)	$f\sigma_{\mathrm{s}}(2.33)$	0.29765	0.2972 ± 0.0035 (−0.1 σ)
$r_{\mathrm{drag}}h$	100.21	100.6 ± 4.2 (+0.3 σ)	z_{eq}	3380	3377^{+86}_{-100} (−0.3 σ)	$\sigma_{\mathrm{s}}(2.33)$	0.30724	0.3070 ± 0.0038 (+0.1 σ)
$\langle d^2 \rangle^{1/2}$	2.590	$2.60^{+0.26}_{-0.23}$ (+2.0 σ)	k_{eq}	0.010316	$0.01031^{+0.00026}_{-0.00031}$ (−0.3 σ)	χ_{small}^2	395.60	396.8 ± 1.6 (−0.0 σ)
z_{re}	7.07	6.97 ± 0.88 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8191	0.821 ± 0.020 (+0.3 σ)	$\chi_{\mathrm{CamSpec}}^2$	1886.12	1892.2 ± 3.5 (+0.2 σ)
$10^9 A_{\mathrm{s}}$	2.1316	2.132 ± 0.047 (+0.0 σ)	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4515	0.4521 ± 0.0097 (+0.3 σ)	χ_{prior}^2	10.03	11.0 ± 1.4 (−0.0 σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.9254	1.927 ± 0.025 (+0.1 σ)	$H(0.15)$	73.66	73.9 ± 2.5 (+0.3 σ)	χ_{CMB}^2	2281.72	2289.0 ± 3.9 (+0.2 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 2291.75$; $\Delta\chi_{\mathrm{eff}}^2 = -0.42$; $\bar{\chi}_{\mathrm{eff}}^2 = 2300.05$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.70$; $R - 1 = 0.00814$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.60 (Δ -0.02) CamSpec like_10.7HM_1400_unified: 1886.12 (Δ -0.39)

3.38 base_Alens_CamSpecHM_EE_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02361 \pm 0.00066 \quad (+0.1\sigma)$	D_{810}	$2601 \pm 34 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1956 \pm 18 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1175 \pm 0.0015 \quad (-0.2\sigma)$	D_{1420}	$842 \pm 14 \quad (-0.1\sigma)$	$H(0.61)$	$96.06 \pm 0.56 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03935 \pm 0.00078 \quad (-0.1\sigma)$	D_{2000}	$241.6 \pm 5.8 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2278 \pm 20 \quad (-0.1\sigma)$
τ	$0.0507 \pm 0.0087 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.972 \pm 0.010 \quad (+0.2\sigma)$	$H(2.33)$	$236.0 \pm 1.0 \quad (-0.1\sigma)$
A_{L}	$1.16^{+0.21}_{-0.24}$	Y_{P}	$0.24589^{+0.00027}_{-0.00023} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5725 \pm 30 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.059 \pm 0.022 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24722^{+0.00027}_{-0.00023} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4457 \pm 0.0099 \quad (-0.2\sigma)$
n_{s}	$0.972 \pm 0.010 \quad (+0.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.37 \pm 0.11 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7440 \pm 0.0092 \quad (-0.1\sigma)$
y_{cal}	$0.99996 \pm 0.0025 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.709 \pm 0.069 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4664 \pm 0.0085 \quad (-0.1\sigma)$
H_0	$68.75 \pm 0.86 \quad (+0.1\sigma)$	z_*	$1088.25 \pm 0.79 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6607 \pm 0.0079 \quad (-0.1\sigma)$
Ω_{Λ}	$0.7000 \pm 0.0092 \quad (+0.2\sigma)$	r_*	$144.14 \pm 0.54 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4664 \pm 0.0077 \quad (-0.1\sigma)$
Ω_{m}	$0.3000 \pm 0.0092 \quad (-0.2\sigma)$	$100\theta_*$	$1.03941 \pm 0.00079 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6189 \pm 0.0073 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1417 \pm 0.0015 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.867 \pm 0.053 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4624 \pm 0.0071 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0974 \pm 0.0012 \quad (+0.0\sigma)$	z_{drag}	$1062.5 \pm 1.4 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5892 \pm 0.0069 \quad (-0.1\sigma)$
σ_8	$0.804 \pm 0.010 \quad (-0.1\sigma)$	r_{drag}	$146.40 \pm 0.71 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2975 \pm 0.0035 \quad (-0.0\sigma)$
S_8	$0.804 \pm 0.019 \quad (-0.2\sigma)$	k_{D}	$0.1425 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3073 \pm 0.0036 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.440 \pm 0.010 \quad (-0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.15902 \pm 0.00081 \quad (-0.1\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.595 \pm 0.010 \quad (-0.1\sigma)$	z_{eq}	$3371 \pm 35 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$1891.3 \pm 3.2 \quad (+0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.970 \pm 0.015 \quad (-0.1\sigma)$	k_{eq}	$0.01029 \pm 0.00011 \quad (-0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.079 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.7 \pm 1.2 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8211 \pm 0.0062 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.85 \pm 0.71 \quad (+0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.59 \pm 0.25 \quad (+4.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4525 \pm 0.0032 \quad (+0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.4 \quad (-0.0\sigma)$
z_{re}	$6.99^{+0.89}_{-0.76} \quad (-0.1\sigma)$	$H(0.15)$	$73.93 \pm 0.78 \quad (+0.1\sigma)$	χ_{prior}^2	$11.0 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.131 \pm 0.046 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$631.5 \pm 7.3 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.5 \pm 1.3 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.925 \pm 0.025 \quad (+0.0\sigma)$	$H(0.38)$	$83.88 \pm 0.66 \quad (+0.1\sigma)$	χ_{CMB}^2	$2288.1 \pm 3.6 \quad (+0.2\sigma)$
D_{40}	$1256 \pm 31 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509 \pm 15 \quad (-0.1\sigma)$		
D_{220}	$5995 \pm 140 \quad (+0.0\sigma)$	$H(0.51)$	$90.51 \pm 0.60 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2305.61$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.72$; $R - 1 = 0.01338$

3.39 base_Alens_CamSpecHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.0236 \pm 0.0013 \quad (+0.3\sigma)$	D_{40}	$1256 \pm 31 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$633^{+22}_{-26} \quad (-0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1177^{+0.0046}_{-0.0053} \quad (-0.3\sigma)$	D_{220}	$5990 \pm 200 \quad (+0.2\sigma)$	$H(0.38)$	$83.9 \pm 2.0 \quad (+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03932 \pm 0.00086 \quad (+0.0\sigma)$	D_{810}	$2600 \pm 39 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511^{+46}_{-52} \quad (-0.3\sigma)$
τ	$0.0543^{+0.0047}_{-0.0077} \quad (+0.1\sigma)$	D_{1420}	$842 \pm 19 \quad (+0.1\sigma)$	$H(0.51)$	$90.5 \pm 1.7 \quad (+0.3\sigma)$
A_{L}	$1.16^{+0.22}_{-0.25}$	D_{2000}	$241.5 \pm 8.0 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1958 \pm 59 \quad (-0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.066 \pm 0.019 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.972 \pm 0.015 \quad (+0.3\sigma)$	$H(0.61)$	$96.1^{+1.3}_{-1.5} \quad (+0.3\sigma)$
n_{s}	$0.972 \pm 0.015 \quad (+0.3\sigma)$	Y_{P}	$0.24588^{+0.00046}_{-0.00052} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2280 \pm 64 \quad (-0.3\sigma)$
y_{cal}	$0.99996 \pm 0.0025 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24721^{+0.00047}_{-0.00052} \quad (+0.3\sigma)$	$H(2.33)$	$236.2^{+2.0}_{-2.4} \quad (-0.3\sigma)$
H_0	$68.7 \pm 2.8 \quad (+0.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.38^{+0.18}_{-0.23} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5725 \pm 69 \quad (-0.3\sigma)$
Ω_{Λ}	$0.697^{+0.037}_{-0.027} \quad (+0.3\sigma)$	Age/Gyr	$13.71 \pm 0.16 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.029}_{-0.033} \quad (-0.3\sigma)$
Ω_{m}	$0.303^{+0.027}_{-0.037} \quad (-0.3\sigma)$	z_*	$1088.3^{+1.6}_{-2.0} \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.746^{+0.014}_{-0.013} \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420^{+0.0036}_{-0.0042} \quad (-0.3\sigma)$	r_*	$144.09 \pm 0.67 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.469 \pm 0.024 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0974 \pm 0.0018 \quad (+0.2\sigma)$	$100\theta_*$	$1.03938 \pm 0.00083 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0099}_{-0.0088} \quad (-0.2\sigma)$
σ_8	$0.807 \pm 0.018 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.863 \pm 0.064 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.468 \pm 0.020 \quad (-0.3\sigma)$
S_8	$0.810^{+0.055}_{-0.066} \quad (-0.3\sigma)$	z_{drag}	$1062.5 \pm 2.5 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6206 \pm 0.0079 \quad (-0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.030}_{-0.036} \quad (-0.3\sigma)$	r_{drag}	$146.36 \pm 0.71 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.464 \pm 0.018 \quad (-0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.598 \pm 0.029 \quad (-0.3\sigma)$	k_{D}	$0.1425 \pm 0.0013 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5908 \pm 0.0070 \quad (-0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.974 \pm 0.041 \quad (-0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1591^{+0.0012}_{-0.0015} \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2983 \pm 0.0031 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$100.6 \pm 4.2 \quad (+0.3\sigma)$	z_{eq}	$3377^{+85}_{-100} \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3081 \pm 0.0033 \quad (+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.60^{+0.26}_{-0.22} \quad (+1.9\sigma)$	k_{eq}	$0.01031^{+0.00026}_{-0.00031} \quad (-0.3\sigma)$	χ_{small}^2	$396.5 \pm 1.4 \quad (-0.1\sigma)$
z_{re}	$< 7.59 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.821 \pm 0.020 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$1892.2 \pm 3.5 \quad (+0.3\sigma)$
$10^9 A_{\mathrm{s}}$	$2.147^{+0.038}_{-0.043} \quad (+0.1\sigma)$	$100\theta_{\mathrm{s},\mathrm{eq}}$	$0.4522 \pm 0.0098 \quad (+0.3\sigma)$	χ_{prior}^2	$11.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.926 \pm 0.025 \quad (+0.1\sigma)$	$H(0.15)$	$73.9 \pm 2.5 \quad (+0.3\sigma)$	χ_{CMB}^2	$2288.7 \pm 3.8 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2299.69$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.72$; $R - 1 = 0.00845$

3.40 base_Alens_CamSpecHM_EE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02357 \pm 0.00065 \quad (+0.1\sigma)$	D_{810}	$2601 \pm 33 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1957 \pm 18 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1175 \pm 0.0015 \quad (-0.2\sigma)$	D_{1420}	$842 \pm 14 \quad (-0.1\sigma)$	$H(0.61)$	$96.03 \pm 0.55 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03934 \pm 0.00077 \quad (-0.1\sigma)$	D_{2000}	$241.5 \pm 5.7 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2279 \pm 20 \quad (-0.1\sigma)$
τ	$0.0544^{+0.0039}_{-0.0074} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.972 \pm 0.010 \quad (+0.2\sigma)$	$H(2.33)$	$235.9 \pm 1.0 \quad (-0.1\sigma)$
A_{L}	$1.15^{+0.20}_{-0.23}$	Y_{P}	$0.24588^{+0.00027}_{-0.00023} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5726 \pm 29 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.066 \pm 0.019 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24721^{+0.00027}_{-0.00023} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4475 \pm 0.0094 \quad (-0.1\sigma)$
n_{s}	$0.972 \pm 0.010 \quad (+0.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.38 \pm 0.11 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7467^{+0.0073}_{-0.0083} \quad (-0.0\sigma)$
y_{cal}	$0.99997 \pm 0.0025 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.712 \pm 0.068 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4682 \pm 0.0079 \quad (-0.1\sigma)$
H_0	$68.73 \pm 0.85 \quad (+0.1\sigma)$	z_*	$1088.29 \pm 0.79 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6632^{+0.0062}_{-0.0071} \quad (-0.0\sigma)$
Ω_{Λ}	$0.6999 \pm 0.0091 \quad (+0.2\sigma)$	r_*	$144.17 \pm 0.53 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4682 \pm 0.0070 \quad (-0.1\sigma)$
Ω_{m}	$0.3001 \pm 0.0091 \quad (-0.2\sigma)$	$100\theta_*$	$1.03940 \pm 0.00079 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6212^{+0.0057}_{-0.0065} \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1417 \pm 0.0014 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.870 \pm 0.052 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4642 \pm 0.0065 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0974 \pm 0.0012 \quad (-0.0\sigma)$	z_{drag}	$1062.5 \pm 1.4 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0054}_{-0.0062} \quad (+0.0\sigma)$
σ_8	$0.8069^{+0.0084}_{-0.0094} \quad (-0.0\sigma)$	r_{drag}	$146.44 \pm 0.70 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2986^{+0.0027}_{-0.0031} \quad (+0.0\sigma)$
S_8	$0.807 \pm 0.018 \quad (-0.1\sigma)$	k_{D}	$0.1424 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3084^{+0.0028}_{-0.0032} \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.442 \pm 0.010 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.15906 \pm 0.00081 \quad (-0.1\sigma)$	χ_{small}^2	$396.5 \pm 1.4 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5972 \pm 0.0096 \quad (-0.1\sigma)$	z_{eq}	$3370 \pm 34 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$1891.3 \pm 3.2 \quad (+0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.973 \pm 0.014 \quad (-0.1\sigma)$	k_{eq}	$0.01029 \pm 0.00011 \quad (-0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.078 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.6 \pm 1.1 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8212 \pm 0.0061 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.85 \pm 0.71 \quad (+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.59 \pm 0.25 \quad (+4.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4526 \pm 0.0032 \quad (+0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.3 \quad (-0.0\sigma)$
z_{re}	$7.38^{+0.21}_{-0.88} \quad (-0.0\sigma)$	$H(0.15)$	$73.91 \pm 0.77 \quad (+0.1\sigma)$	χ_{prior}^2	$11.0 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.146^{+0.037}_{-0.042} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$631.7 \pm 7.2 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.5 \pm 1.3 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.924 \pm 0.025 \quad (+0.0\sigma)$	$H(0.38)$	$83.86 \pm 0.65 \quad (+0.1\sigma)$	χ_{CMB}^2	$2287.7 \pm 3.5 \quad (+0.2\sigma)$
D_{40}	$1255^{+33}_{-30} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509 \pm 15 \quad (-0.1\sigma)$		
D_{220}	$5988 \pm 140 \quad (+0.0\sigma)$	$H(0.51)$	$90.48 \pm 0.59 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2305.22$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.71$; $R - 1 = 0.01446$

3.41 base_Alens_plikHM_TT_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022406	0.02239 ± 0.00026 (+0.3 σ)	S_8	0.7664	$0.799^{+0.031}_{-0.037}$ (−1.7 σ)	k_{eq}	0.010192	0.01017 ± 0.00017 (−0.3 σ)
$\Omega_c h^2$	0.11733	0.1171 ± 0.0024 (−0.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4198	$0.438^{+0.017}_{-0.020}$ (−1.7 σ)	$100\theta_{\text{eq}}$	0.8250	0.826 ± 0.011 (+0.3 σ)
$100\theta_{\text{MC}}$	1.04120	1.04120 ± 0.00051 (+0.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5673	$0.592^{+0.018}_{-0.025}$ (−2.4 σ)	$100\theta_{\text{s,eq}}$	0.4555	0.4562 ± 0.0055 (+0.3 σ)
τ	0.0101	< 0.0669 (−1.0 σ)	$\sigma_8/h^{0.5}$	0.9268	$0.967^{+0.026}_{-0.040}$ (−2.4 σ)	$H(0.15)$	73.58	73.66 ± 0.99 (+0.3 σ)
A_L	1.168	$1.075^{+0.085}_{-0.074}$	$r_{\text{drag}} h$	101.10	101.3 ± 2.0 (+0.3 σ)	$D_M(0.15)$	634.4	633.8 ± 9.6 (−0.3 σ)
$\ln(10^{10} A_s)$	2.948	$3.037^{+0.033}_{-0.085}$ (−1.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4771	2.478 ± 0.031 (+0.3 σ)	$H(0.38)$	83.48	83.54 ± 0.73 (+0.3 σ)
n_s	0.9716	0.9717 ± 0.0071 (+0.2 σ)	z_{re}	2.12	$7.4^{+2.0}_{-4.7}$ (−1.2 σ)	$D_M(0.38)$	1515.8	1514 ± 19 (−0.3 σ)
y_{cal}	1.00004	1.0000 ± 0.0025 (−0.1 σ)	$10^9 A_s$	1.908	$2.089^{+0.063}_{-0.18}$ (−1.1 σ)	$H(0.51)$	90.07	90.12 ± 0.59 (+0.3 σ)
A_{217}^{CIB}	47.3	47 ± 7 (−0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8694	1.867 ± 0.015 (−0.2 σ)	$D_M(0.51)$	1965.5	1964 ± 23 (−0.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.48	—	D_{40}	1206.1	1216 ± 18 (−0.8 σ)	$H(0.61)$	95.597	$95.63^{+0.45}_{-0.50}$ (+0.3 σ)
A_{143}^{tSZ}	7.02	5.3 ± 2.0 (+0.0 σ)	D_{220}	5723.8	5722 ± 41 (+0.1 σ)	$D_M(0.61)$	2288.6	2287 ± 25 (−0.3 σ)
A_{100}^{PS}	249.6	259 ± 28 (−0.0 σ)	D_{810}	2531.8	2529 ± 14 (−0.1 σ)	$H(2.33)$	234.86	234.7 ± 1.4 (−0.3 σ)
A_{143}^{PS}	48.8	46 ± 8 (−0.1 σ)	D_{1420}	815.8	814.7 ± 5.1 (−0.0 σ)	$D_M(2.33)$	5752.1	5751 ± 21 (−0.3 σ)
$A_{143 \times 217}^{\text{PS}}$	48.9	42 ± 9 (−0.1 σ)	D_{2000}	230.95	230.6 ± 1.9 (+0.1 σ)	$f\sigma_8(0.15)$	0.4250	$0.443^{+0.016}_{-0.020}$ (−1.9 σ)
A_{217}^{PS}	119.5	114 ± 10 (−0.0 σ)	$n_{\text{s},0.002}$	0.9716	0.9717 ± 0.0071 (+0.2 σ)	$\sigma_8(0.15)$	0.7095	$0.741^{+0.015}_{-0.031}$ (−1.6 σ)
A^{kSZ}	0.01	< 4.43 (+0.0 σ)	Y_P	0.245410	0.24540 ± 0.00011 (+0.3 σ)	$f\sigma_8(0.38)$	0.4448	$0.464^{+0.015}_{-0.019}$ (−2.4 σ)
A_{100}^{dustTT}	8.92	9.0 ± 1.8 (+0.0 σ)	Y_P^{BBN}	0.246736	0.24673 ± 0.00011 (+0.3 σ)	$\sigma_8(0.38)$	0.6301	$0.658^{+0.012}_{-0.027}$ (−1.4 σ)
A_{143}^{dustTT}	10.82	10.7 ± 1.8 (+0.0 σ)	10^5D/H	2.5788	2.582 ± 0.049 (−0.3 σ)	$f\sigma_8(0.51)$	0.4448	$0.464^{+0.013}_{-0.019}$ (−2.5 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.54	18.3 ± 3.4 (+0.0 σ)	Age/Gyr	13.7741	13.773 ± 0.046 (−0.3 σ)	$\sigma_8(0.51)$	0.5902	$0.617^{+0.011}_{-0.026}$ (−1.3 σ)
A_{217}^{dustTT}	94.8	93.6 ± 7.4 (+0.0 σ)	z_*	1089.64	1089.64 ± 0.50 (−0.3 σ)	$f\sigma_8(0.61)$	0.4410	$0.460^{+0.012}_{-0.019}$ (−2.4 σ)
c_{100}	0.99966	0.99960 ± 0.00061 (+0.0 σ)	r_*	145.10	145.18 ± 0.52 (+0.3 σ)	$\sigma_8(0.61)$	0.5619	$0.587^{+0.010}_{-0.025}$ (−1.3 σ)
c_{217}	0.99822	0.99824 ± 0.00062 (+0.0 σ)	$100\theta_*$	1.04138	1.04139 ± 0.00050 (+0.2 σ)	$f\sigma_8(2.33)$	0.2838	$0.2966^{+0.0049}_{-0.013}$ (−1.2 σ)
H_0	68.42	68.5 ± 1.1 (+0.3 σ)	$D_M(z_*)/\text{Gpc}$	13.9333	13.941 ± 0.048 (+0.2 σ)	$\sigma_8(2.33)$	0.2931	$0.3064^{+0.0048}_{-0.013}$ (−1.0 σ)
Ω_Λ	0.7002	0.701 ± 0.015 (+0.3 σ)	z_{drag}	1059.818	1059.78 ± 0.51 (+0.2 σ)	χ^2_{lensing}	9.30	10.1 ± 2.0 (+0.2 σ)
Ω_m	0.2998	0.299 ± 0.015 (−0.3 σ)	r_{drag}	147.76	147.85 ± 0.50 (+0.2 σ)	χ^2_{lowl}	21.32	22.5 ± 1.5 (−1.0 σ)
$\Omega_m h^2$	0.14038	0.1401 ± 0.0023 (−0.3 σ)	k_D	0.14019	0.14009 ± 0.00051 (−0.1 σ)	χ^2_{plik}	757.8	770.6 ± 5.6 (+0.0 σ)
$\Omega_m h^3$	0.096052	0.09598 ± 0.00046 (+0.1 σ)	$100\theta_D$	0.160838	0.16087 ± 0.00029 (−0.2 σ)	χ^2_{prior}	1.28	7.3 ± 3.7 (−0.0 σ)
σ_8	0.7666	$0.801^{+0.017}_{-0.033}$ (−1.8 σ)	z_{eq}	3339	3333 ± 54 (−0.3 σ)	χ^2_{CMB}	788.4	803.1 ± 5.7 (−0.1 σ)

Best-fit $\chi^2_{\text{eff}} = 789.69$; $\Delta\chi^2_{\text{eff}} = -1.32$; $\bar{\chi}^2_{\text{eff}} = 810.42$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.64$; $R - 1 = 0.00995$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.30 (Δ 0.19) commander_dx12_v3_2_29: 21.32 (Δ -1.60) plik_rd12_HM_v22_TT: 757.80 (Δ 0.03)

3.42 base_Alens_plikHM_TT_lowl_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02233 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.970^{+0.019}_{-0.038} \quad (-2.2\sigma)$	$D_M(0.38)$	$1521 \pm 10 \quad (-0.2\sigma)$
$\Omega_c h^2$	$0.1179 \pm 0.0013 \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$100.6 \pm 1.0 \quad (+0.2\sigma)$	$H(0.51)$	$89.92 \pm 0.32 \quad (+0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04110 \pm 0.00043 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.476 \pm 0.031 \quad (+0.3\sigma)$	$D_M(0.51)$	$1971 \pm 12 \quad (-0.2\sigma)$
τ	$< 0.0615 \quad (-1.6\sigma)$	z_{re}	$7.0^{+1.9}_{-4.3} \quad (-1.9\sigma)$	$H(0.61)$	$95.47 \pm 0.27 \quad (+0.2\sigma)$
A_L	$1.067^{+0.083}_{-0.057}$	$10^9 A_s$	$2.076^{+0.056}_{-0.16} \quad (-1.7\sigma)$	$D_M(0.61)$	$2295 \pm 13 \quad (-0.2\sigma)$
$\ln(10^{10} A_s)$	$3.031^{+0.030}_{-0.078} \quad (-1.8\sigma)$	$10^9 A_s e^{-2\tau}$	$1.871 \pm 0.012 \quad (-0.1\sigma)$	$H(2.33)$	$235.13 \pm 0.78 \quad (-0.1\sigma)$
n_s	$0.9696 \pm 0.0045 \quad (+0.0\sigma)$	D_{40}	$1219^{+14}_{-16} \quad (-0.7\sigma)$	$D_M(2.33)$	$5758 \pm 13 \quad (-0.1\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5719 \pm 41 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.446^{+0.011}_{-0.018} \quad (-2.0\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.741^{+0.012}_{-0.029} \quad (-1.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$814.5 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4662^{+0.0099}_{-0.018} \quad (-2.2\sigma)$
A_{143}^{tSZ}	$5.3 \pm 1.9 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.658^{+0.010}_{-0.026} \quad (-1.9\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9696 \pm 0.0045 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4657^{+0.0093}_{-0.018} \quad (-2.2\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (-0.0\sigma)$	Y_{P}	$0.245375^{+0.000085}_{-0.000077} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6157^{+0.0093}_{-0.024} \quad (-1.8\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246702^{+0.000086}_{-0.000077} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4615^{+0.0088}_{-0.018} \quad (-2.2\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.594 \pm 0.038 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5861^{+0.0088}_{-0.023} \quad (-1.8\sigma)$
A^{kSZ}	$< 4.48 \quad (-0.0\sigma)$	Age/Gyr	$13.787 \pm 0.030 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2958^{+0.0043}_{-0.012} \quad (-1.7\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.79 \pm 0.32 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3054^{+0.0044}_{-0.012} \quad (-1.6\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$145.02 \pm 0.31 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.9 \pm 3.0 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4 \pm 3.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04129 \pm 0.00042 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.0 \quad (-0.0\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.4 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.927 \pm 0.030 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.1 \pm 1.9 \quad (-0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.68 \pm 0.45 \quad (+0.1\sigma)$	χ_{lensing}^2	$10.1 \pm 1.9 \quad (+0.2\sigma)$
c_{217}	$0.99825 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.71 \pm 0.33 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.6 \pm 1.3 \quad (-0.9\sigma)$
H_0	$68.14 \pm 0.59 \quad (+0.2\sigma)$	k_{D}	$0.14019 \pm 0.00043 \quad (-0.0\sigma)$	χ_{plik}^2	$769.7 \pm 5.2 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6965 \pm 0.0076 \quad (+0.2\sigma)$	$100\theta_{\text{D}}$	$0.16092 \pm 0.00026 \quad (-0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.043 \pm 0.062 \quad (+0.0\sigma)$
Ω_{m}	$0.3035 \pm 0.0076 \quad (-0.2\sigma)$	z_{eq}	$3350 \pm 29 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.87 \pm 0.63 \quad (+0.1\sigma)$
$\Omega_{\text{m}} h^2$	$0.1408 \pm 0.0012 \quad (-0.1\sigma)$	k_{eq}	$0.010225 \pm 0.000088 \quad (-0.1\sigma)$	χ_{DR12BAO}^2	$4.06 \pm 0.99 \quad (-0.1\sigma)$
$\Omega_{\text{m}} h^3$	$0.09596 \pm 0.00045 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8228 \pm 0.0055 \quad (+0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.801^{+0.013}_{-0.031} \quad (-2.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4544 \pm 0.0028 \quad (+0.1\sigma)$	χ_{CMB}^2	$802.4 \pm 5.4 \quad (-0.1\sigma)$
S_8	$0.805^{+0.020}_{-0.032} \quad (-1.9\sigma)$	$H(0.15)$	$73.33 \pm 0.51 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.441^{+0.011}_{-0.018} \quad (-1.9\sigma)$	$D_M(0.15)$	$636.9 \pm 5.0 \quad (-0.2\sigma)$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.594^{+0.012}_{-0.023} \quad (-2.2\sigma)$	$H(0.38)$	$83.29 \pm 0.39 \quad (+0.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 815.62$; $\Delta \bar{\chi}_{\text{eff}}^2 = -0.69$; $R - 1 = 0.01089$

3.43 base_Alens_plikHM_TT_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02241 \pm 0.00027 \quad (+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.445^{+0.017}_{-0.019} \quad (-0.8\sigma)$	$100\theta_{s,eq}$	$0.4570 \pm 0.0055 \quad (+0.3\sigma)$
$\Omega_c h^2$	$0.1167 \pm 0.0024 \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.603^{+0.017}_{-0.021} \quad (-1.0\sigma)$	$H(0.15)$	$73.8 \pm 1.0 \quad (+0.3\sigma)$
$100\theta_{MC}$	$1.04124 \pm 0.00052 \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.025}_{-0.033} \quad (-1.0\sigma)$	$D_M(0.15)$	$632.5 \pm 9.6 \quad (-0.3\sigma)$
τ	$0.078^{+0.011}_{-0.034} \quad (-0.3\sigma)$	$r_{drag}h$	$101.6 \pm 2.0 \quad (+0.3\sigma)$	$H(0.38)$	$83.63 \pm 0.74 \quad (+0.3\sigma)$
A_L	1.032 ± 0.066	$\langle d^2 \rangle^{1/2}$	$2.477 \pm 0.032 \quad (+0.2\sigma)$	$D_M(0.38)$	$1512 \pm 19 \quad (-0.3\sigma)$
$\ln(10^{10} A_s)$	$3.082^{+0.026}_{-0.066} \quad (-0.3\sigma)$	z_{re}	$< 10.7 \quad (-0.3\sigma)$	$H(0.51)$	$90.19 \pm 0.59 \quad (+0.3\sigma)$
n_s	$0.9730 \pm 0.0072 \quad (+0.3\sigma)$	$10^9 A_s$	$2.182^{+0.052}_{-0.14} \quad (-0.3\sigma)$	$D_M(0.51)$	$1961 \pm 23 \quad (-0.3\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.865 \pm 0.015 \quad (-0.3\sigma)$	$H(0.61)$	$95.68 \pm 0.48 \quad (+0.3\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	D_{40}	$1220 \pm 19 \quad (-0.5\sigma)$	$D_M(0.61)$	$2284 \pm 25 \quad (-0.3\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5720 \pm 42 \quad (+0.1\sigma)$	$H(2.33)$	$234.5 \pm 1.4 \quad (-0.3\sigma)$
A_{143}^{tSZ}	$5.3^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.1\sigma)$	$D_M(2.33)$	$5749 \pm 21 \quad (-0.3\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.451^{+0.016}_{-0.018} \quad (-0.9\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{2000}	$230.8 \pm 1.9 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.757^{+0.013}_{-0.025} \quad (-0.6\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9730 \pm 0.0072 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.473^{+0.014}_{-0.017} \quad (-1.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	Y_P	$0.24541 \pm 0.00011 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.673^{+0.010}_{-0.022} \quad (-0.5\sigma)$
A^{kSZ}	$< 4.27 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.24673 \pm 0.00011 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.473^{+0.013}_{-0.016} \quad (-1.0\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.579 \pm 0.049 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6303^{+0.0091}_{-0.021} \quad (-0.4\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.769 \pm 0.046 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.469^{+0.011}_{-0.016} \quad (-1.0\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1089.58 \pm 0.50 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.6002^{+0.0083}_{-0.020} \quad (-0.4\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (-0.0\sigma)$	r_*	$145.25 \pm 0.53 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.3033^{+0.0039}_{-0.010} \quad (-0.3\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_*$	$1.04142 \pm 0.00050 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3134^{+0.0038}_{-0.011} \quad (-0.3\sigma)$
c_{217}	$0.99822 \pm 0.00063 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.948 \pm 0.048 \quad (+0.3\sigma)$	f_{2000}^{143}	$29.2 \pm 3.2 \quad (-0.1\sigma)$
H_0	$68.7 \pm 1.2 \quad (+0.3\sigma)$	z_{drag}	$1059.80 \pm 0.52 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.2 \quad (-0.2\sigma)$
Ω_Λ	$0.703^{+0.016}_{-0.014} \quad (+0.3\sigma)$	r_{drag}	$147.92 \pm 0.51 \quad (+0.3\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (-0.2\sigma)$
Ω_m	$0.297^{+0.014}_{-0.016} \quad (-0.3\sigma)$	k_D	$0.14003 \pm 0.00051 \quad (-0.2\sigma)$	$\chi_{lensing}^2$	$10.0 \pm 2.0 \quad (+0.2\sigma)$
$\Omega_m h^2$	$0.1398 \pm 0.0023 \quad (-0.3\sigma)$	$100\theta_D$	$0.16086 \pm 0.00029 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.9 \pm 1.6 \quad (-0.5\sigma)$
$\Omega_m h^3$	$0.09597 \pm 0.00046 \quad (+0.1\sigma)$	z_{eq}	$3325 \pm 54 \quad (-0.3\sigma)$	χ_{plik}^2	$770.8 \pm 5.7 \quad (+0.1\sigma)$
σ_8	$0.818^{+0.015}_{-0.027} \quad (-0.7\sigma)$	k_{eq}	$0.01015 \pm 0.00017 \quad (-0.3\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.813^{+0.031}_{-0.034} \quad (-0.8\sigma)$	$100\theta_{eq}$	$0.828 \pm 0.011 \quad (+0.3\sigma)$	χ_{CMB}^2	$803.8 \pm 5.7 \quad (+0.1\sigma)$

$$\bar{\chi}_{eff}^2 = 811.07; \Delta \bar{\chi}_{eff}^2 = 0.21; R - 1 = 0.01320$$

3.44 base_Alens_plikHM_TT_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02233 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.992^{+0.016}_{-0.031} \quad (-0.5\sigma)$	$D_M(0.38)$	$1520 \pm 10 \quad (-0.2\sigma)$
$\Omega_c h^2$	$0.1177 \pm 0.0013 \quad (-0.2\sigma)$	$r_{\text{drag}} h$	$100.7 \pm 1.0 \quad (+0.2\sigma)$	$H(0.51)$	$89.94 \pm 0.32 \quad (+0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04111 \pm 0.00043 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.475 \pm 0.032 \quad (+0.2\sigma)$	$D_M(0.51)$	$1970 \pm 12 \quad (-0.2\sigma)$
τ	$0.074^{+0.010}_{-0.030} \quad (-0.3\sigma)$	z_{re}	$< 10.3 \quad (-0.3\sigma)$	$H(0.61)$	$95.49 \pm 0.27 \quad (+0.2\sigma)$
A_L	$1.020^{+0.065}_{-0.049}$	$10^9 A_s$	$2.172^{+0.050}_{-0.13} \quad (-0.3\sigma)$	$D_M(0.61)$	$2294 \pm 13 \quad (-0.2\sigma)$
$\ln(10^{10} A_s)$	$3.077^{+0.025}_{-0.060} \quad (-0.3\sigma)$	$10^9 A_s e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.2\sigma)$	$H(2.33)$	$235.05 \pm 0.79 \quad (-0.2\sigma)$
n_s	$0.9703 \pm 0.0046 \quad (+0.2\sigma)$	D_{40}	$1224^{+14}_{-16} \quad (-0.3\sigma)$	$D_M(2.33)$	$5757 \pm 13 \quad (-0.2\sigma)$
y_{cal}	$1.0001 \pm 0.0026 \quad (-0.1\sigma)$	D_{220}	$5716 \pm 41 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.456^{+0.010}_{-0.015} \quad (-0.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.758^{+0.010}_{-0.023} \quad (-0.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$814.6 \pm 4.9 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4764^{+0.0088}_{-0.015} \quad (-0.6\sigma)$
A_{143}^{tSZ}	$5.3 \pm 1.9 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.7 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6726^{+0.0087}_{-0.020} \quad (-0.4\sigma)$
A_{100}^{PS}	$259 \pm 29 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9703 \pm 0.0046 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4761^{+0.0080}_{-0.015} \quad (-0.5\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	Y_{P}	$0.245376^{+0.000089}_{-0.000076} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6299^{+0.0080}_{-0.019} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246702^{+0.000089}_{-0.000076} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4718^{+0.0075}_{-0.015} \quad (-0.5\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.594 \pm 0.039 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5996^{+0.0075}_{-0.018} \quad (-0.3\sigma)$
A^{kSZ}	$< 4.40 \quad (-0.0\sigma)$	Age/Gyr	$13.786 \pm 0.030 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.3027^{+0.0037}_{-0.0092} \quad (-0.3\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.77 \pm 0.32 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3125^{+0.0038}_{-0.0095} \quad (-0.3\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$145.05 \pm 0.32 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.7 \pm 3.0 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4 \pm 3.3 \quad (+0.1\sigma)$	$100\theta_*$	$1.04130 \pm 0.00043 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.1 \quad (-0.1\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.930 \pm 0.031 \quad (+0.2\sigma)$	f_{2000}^{217}	$107.0 \pm 2.0 \quad (-0.1\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.68 \pm 0.46 \quad (+0.1\sigma)$	χ_{lensing}^2	$10.1 \pm 2.0 \quad (+0.2\sigma)$
c_{217}	$0.99823 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.74 \pm 0.34 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.2 \pm 1.4 \quad (-0.2\sigma)$
H_0	$68.19 \pm 0.60 \quad (+0.2\sigma)$	k_{D}	$0.14015 \pm 0.00043 \quad (-0.1\sigma)$	χ_{plik}^2	$769.8 \pm 5.4 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6972^{+0.0080}_{-0.0072} \quad (+0.2\sigma)$	$100\theta_{\text{D}}$	$0.16092 \pm 0.00027 \quad (-0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.046 \pm 0.065 \quad (+0.1\sigma)$
Ω_{m}	$0.3028 \pm 0.0077 \quad (-0.2\sigma)$	z_{eq}	$3347 \pm 29 \quad (-0.2\sigma)$	χ_{MGS}^2	$1.93 \pm 0.64 \quad (+0.2\sigma)$
$\Omega_{\text{m}} h^2$	$0.1407 \pm 0.0012 \quad (-0.2\sigma)$	k_{eq}	$0.010216 \pm 0.000089 \quad (-0.2\sigma)$	χ_{DR12BAO}^2	$4.05 \pm 0.99 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.09594 \pm 0.00045 \quad (+0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8233 \pm 0.0056 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.8 \quad (-0.0\sigma)$
σ_8	$0.819^{+0.011}_{-0.025} \quad (-0.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4546 \pm 0.0029 \quad (+0.2\sigma)$	χ_{CMB}^2	$803.1 \pm 5.5 \quad (+0.0\sigma)$
S_8	$0.823^{+0.019}_{-0.028} \quad (-0.5\sigma)$	$H(0.15)$	$73.37 \pm 0.52 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.0 \pm 1.2 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.451^{+0.010}_{-0.015} \quad (-0.5\sigma)$	$D_M(0.15)$	$636.5 \pm 5.0 \quad (-0.2\sigma)$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.607^{+0.011}_{-0.019} \quad (-0.5\sigma)$	$H(0.38)$	$83.32 \pm 0.39 \quad (+0.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 816.39$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.16$; $R - 1 = 0.01678$

3.45 base_Alens_plikHM_TTTEE_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022527	0.02251 ± 0.00016 (+0.1 σ)	Ω_m	0.3046	0.3048 ± 0.0093 (-0.1 σ)	$100\theta_D$	0.160625	0.16065 ± 0.00018 (-0.1 σ)
$\Omega_c h^2$	0.11828	0.1183 ± 0.0015 (-0.1 σ)	$\Omega_m h^2$	0.14146	0.1414 ± 0.0014 (-0.1 σ)	z_{eq}	3365.0	3365 ± 34 (-0.1 σ)
$100\theta_{MC}$	1.041085	1.04109 ± 0.00031 (+0.0 σ)	$\Omega_m h^3$	0.096396	0.09636 ± 0.00029 (+0.0 σ)	k_{eq}	0.010270	0.01027 ± 0.00011 (-0.1 σ)
τ	0.0101	< 0.0633 (-1.5 σ)	σ_8	0.7698	$0.803^{+0.014}_{-0.032}$ (-2.0 σ)	$100\theta_{eq}$	0.8206	0.8207 ± 0.0067 (+0.1 σ)
A_L	1.159	$1.068^{+0.084}_{-0.062}$	S_8	0.7757	$0.809^{+0.024}_{-0.034}$ (-1.8 σ)	$100\theta_{s,eq}$	0.45307	0.4531 ± 0.0034 (+0.1 σ)
$\ln(10^{10} A_s)$	2.951	$3.034^{+0.032}_{-0.079}$ (-1.7 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4249	$0.443^{+0.013}_{-0.019}$ (-1.8 σ)	$H(0.15)$	73.36	73.35 ± 0.60 (+0.1 σ)
n_s	0.97035	0.9697 ± 0.0049 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5719	$0.596^{+0.014}_{-0.024}$ (-2.3 σ)	$D_M(0.15)$	636.7	636.8 ± 5.9 (-0.1 σ)
y_{cal}	0.99990	0.99995 ± 0.0025 (-0.1 σ)	$\sigma_8/h^{0.5}$	0.9325	$0.973^{+0.021}_{-0.039}$ (-2.3 σ)	$H(0.38)$	83.355	83.35 ± 0.44 (+0.1 σ)
A_{217}^{CIB}	45.6	46 ± 7 (-0.0 σ)	$r_{drag} h$	100.43	100.4 ± 1.2 (+0.1 σ)	$D_M(0.38)$	1520.1	1520 ± 12 (-0.1 σ)
$\xi^{tSZ \times CIB}$	0.646	> 0.376 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4825	2.483 ± 0.030 (+0.3 σ)	$H(0.51)$	90.008	90.00 ± 0.35 (+0.1 σ)
A_{143}^{tSZ}	7.18	$5.6^{+2.2}_{-1.8}$ (-0.0 σ)	z_{re}	2.12	$7.1^{+2.0}_{-4.3}$ (-1.8 σ)	$D_M(0.51)$	1970.2	1971 ± 14 (-0.1 σ)
A_{100}^{PS}	245.5	255 ± 28 (+0.0 σ)	$10^9 A_s$	1.912	$2.083^{+0.060}_{-0.17}$ (-1.6 σ)	$H(0.61)$	95.577	95.57 ± 0.28 (+0.1 σ)
A_{143}^{PS}	48.6	44 ± 8 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8740	1.873 ± 0.012 (-0.1 σ)	$D_M(0.61)$	2293.5	2294 ± 15 (-0.1 σ)
$A_{143 \times 217}^{PS}$	51.7	41 ± 9 (-0.0 σ)	D_{40}	1210.1	1221^{+15}_{-17} (-0.7 σ)	$H(2.33)$	235.60	235.58 ± 0.91 (-0.1 σ)
A_{217}^{PS}	121.1	115 ± 10 (-0.0 σ)	D_{220}	5731.1	5731 ± 39 (-0.0 σ)	$D_M(2.33)$	5750.7	5751 ± 12 (-0.1 σ)
A^{kSZ}	0.01	< 3.95 (+0.0 σ)	D_{810}	2534.3	2532 ± 14 (-0.1 σ)	$f\sigma_8(0.15)$	0.4297	$0.448^{+0.013}_{-0.019}$ (-2.0 σ)
A_{100}^{dustTT}	8.87	8.9 ± 1.8 (+0.0 σ)	D_{1420}	817.21	816.2 ± 4.6 (-0.1 σ)	$\sigma_8(0.15)$	0.7120	$0.742^{+0.013}_{-0.029}$ (-1.9 σ)
A_{143}^{dustTT}	11.02	10.9 ± 1.8 (-0.0 σ)	D_{2000}	231.62	231.3 ± 1.5 (-0.1 σ)	$f\sigma_8(0.38)$	0.4486	$0.468^{+0.011}_{-0.019}$ (-2.3 σ)
$A_{143 \times 217}^{dustTT}$	20.04	18.5 ± 3.3 (-0.0 σ)	$n_{s,0.002}$	0.97035	0.9697 ± 0.0049 (+0.0 σ)	$\sigma_8(0.38)$	0.6318	$0.659^{+0.011}_{-0.026}$ (-1.8 σ)
A_{217}^{dustTT}	95.3	93.7 ± 7.4 (-0.0 σ)	Y_P	0.245454	0.245446 ± 0.000062 (+0.1 σ)	$f\sigma_8(0.51)$	0.4481	$0.467^{+0.010}_{-0.019}$ (-2.3 σ)
A_{100}^{dustTE}	0.1130	0.114 ± 0.038 (+0.0 σ)	Y_P^{BBN}	0.246781	0.246772 ± 0.000063 (+0.1 σ)	$\sigma_8(0.51)$	0.5916	$0.617^{+0.010}_{-0.024}$ (-1.8 σ)
$A_{100 \times 143}^{dustTE}$	0.1346	0.134 ± 0.029 (+0.0 σ)	$10^5 D/H$	2.5572	2.561 ± 0.030 (-0.1 σ)	$f\sigma_8(0.61)$	0.4439	$0.4629^{+0.0097}_{-0.018}$ (-2.3 σ)
$A_{100 \times 217}^{dustTE}$	0.483	0.482 ± 0.084 (+0.0 σ)	Age/Gyr	13.7693	13.771 ± 0.027 (-0.1 σ)	$\sigma_8(0.61)$	0.5631	$0.5872^{+0.0094}_{-0.023}$ (-1.7 σ)
A_{143}^{dustTE}	0.223	0.222 ± 0.054 (-0.0 σ)	z_*	1089.574	1089.60 ± 0.31 (-0.1 σ)	$f\sigma_8(2.33)$	0.2842	$0.2963^{+0.0045}_{-0.012}$ (-1.6 σ)
$A_{143 \times 217}^{dustTE}$	0.660	0.661 ± 0.080 (-0.0 σ)	r_*	144.756	144.77 ± 0.33 (+0.1 σ)	$\sigma_8(2.33)$	0.2933	$0.3058^{+0.0046}_{-0.012}$ (-1.5 σ)
A_{217}^{dustTE}	2.064	2.07 ± 0.27 (-0.0 σ)	$100\theta_*$	1.041259	1.04126 ± 0.00031 (+0.0 σ)	$\chi^2_{lensing}$	9.96	10.6 ± 2.3 (+0.3 σ)
c_{100}	0.99972	0.99966 ± 0.00061 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9020	13.904 ± 0.031 (+0.1 σ)	χ^2_{lowl}	21.55	22.8 ± 1.4 (-0.9 σ)
c_{217}	0.99817	0.99817 ± 0.00062 (-0.0 σ)	z_{drag}	1060.162	1060.13 ± 0.32 (+0.1 σ)	χ^2_{plik}	2341.8	2357.0 ± 5.9 (-0.0 σ)
H_0	68.15	68.13 ± 0.70 (+0.1 σ)	r_{drag}	147.373	147.40 ± 0.32 (+0.1 σ)	χ^2_{prior}	1.66	11.5 ± 4.4 (-0.0 σ)
Ω_Λ	0.6954	0.6952 ± 0.0093 (+0.1 σ)	k_D	0.140689	0.14065 ± 0.00033 (-0.0 σ)	χ^2_{CMB}	2373.3	2390.4 ± 5.9 (-0.1 σ)

Best-fit $\chi^2_{eff} = 2375.01$; $\Delta\chi^2_{eff} = -1.33$; $\bar{\chi}^2_{eff} = 2401.86$; $\Delta\bar{\chi}^2_{eff} = -0.63$; $R - 1 = 0.02631$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.96 (Δ 0.30) commander_dx12_v3.2.29: 21.55 (Δ -1.59) plik_rd12_HM_v22b_TTTEE: 2341.84 (Δ -0.20)

3.46 base_Alens_plikHM_TTTEE_lowl_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02251 ± 0.00014 (+0.0 σ)	σ_8	$0.802^{+0.014}_{-0.031}$ (−2.2 σ)	$D_M(0.15)$	636.8 ± 4.1 (−0.0 σ)
$\Omega_c h^2$	0.1183 ± 0.0011 (−0.0 σ)	S_8	$0.809^{+0.020}_{-0.032}$ (−2.1 σ)	$H(0.38)$	83.34 ± 0.31 (+0.0 σ)
$100\theta_{MC}$	1.04109 ± 0.00029 (−0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.011}_{-0.017}$ (−2.1 σ)	$D_M(0.38)$	1520.4 ± 8.3 (−0.0 σ)
τ	< 0.0626 (−1.8 σ)	$\sigma_8 \Omega_m^{0.25}$	$0.596^{+0.012}_{-0.023}$ (−2.3 σ)	$H(0.51)$	90.00 ± 0.25 (+0.0 σ)
A_L	$1.069^{+0.082}_{-0.060}$	$\sigma_8/h^{0.5}$	$0.972^{+0.019}_{-0.038}$ (−2.3 σ)	$D_M(0.51)$	1970.6 ± 9.7 (−0.0 σ)
$\ln(10^{10} A_s)$	$3.033^{+0.032}_{-0.078}$ (−2.0 σ)	$r_{drag} h$	100.43 ± 0.84 (+0.0 σ)	$H(0.61)$	95.57 ± 0.21 (+0.0 σ)
n_s	0.9697 ± 0.0040 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.483 ± 0.030 (+0.3 σ)	$D_M(0.61)$	2294 ± 11 (−0.0 σ)
y_{cal}	0.99996 ± 0.0025 (−0.1 σ)	z_{re}	$7.1^{+2.1}_{-4.1}$ (−2.1 σ)	$H(2.33)$	235.58 ± 0.64 (−0.0 σ)
A_{217}^{CIB}	46 ± 7 (+0.0 σ)	$10^9 A_s$	$2.081^{+0.060}_{-0.16}$ (−1.9 σ)	$D_M(2.33)$	5751.5 ± 9.7 (−0.0 σ)
$\xi^{tSZ \times CIB}$	> 0.379 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.873 ± 0.011 (−0.1 σ)	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.018}$ (−2.1 σ)
A_{143}^{tSZ}	$5.7^{+2.2}_{-1.8}$ (−0.0 σ)	D_{40}	1221^{+13}_{-16} (−0.7 σ)	$\sigma_8(0.15)$	$0.742^{+0.012}_{-0.029}$ (−2.1 σ)
A_{100}^{PS}	256 ± 28 (+0.0 σ)	D_{220}	5731 ± 39 (−0.0 σ)	$f\sigma_8(0.38)$	$0.4676^{+0.0099}_{-0.018}$ (−2.3 σ)
A_{143}^{PS}	44 ± 8 (+0.0 σ)	D_{810}	2532 ± 13 (−0.1 σ)	$\sigma_8(0.38)$	$0.659^{+0.011}_{-0.026}$ (−2.0 σ)
$A_{143 \times 217}^{PS}$	42 ± 9 (−0.0 σ)	D_{1420}	816.2 ± 4.6 (−0.1 σ)	$f\sigma_8(0.51)$	$0.4670^{+0.0094}_{-0.018}$ (−2.3 σ)
A_{217}^{PS}	115 ± 10 (−0.0 σ)	D_{2000}	231.3 ± 1.5 (−0.1 σ)	$\sigma_8(0.51)$	$0.6166^{+0.0098}_{-0.024}$ (−2.0 σ)
A^{kSZ}	< 3.94 (+0.0 σ)	$n_{s,0.002}$	0.9697 ± 0.0040 (−0.0 σ)	$f\sigma_8(0.61)$	$0.4626^{+0.0090}_{-0.018}$ (−2.3 σ)
A_{100}^{dustTT}	9.0 ± 1.8 (+0.0 σ)	Y_P	0.245445 ± 0.000053 (+0.0 σ)	$\sigma_8(0.61)$	$0.5869^{+0.0093}_{-0.023}$ (−2.0 σ)
A_{143}^{dustTT}	10.9 ± 1.7 (+0.0 σ)	Y_P^{BBN}	0.246772 ± 0.000053 (+0.0 σ)	$f\sigma_8(2.33)$	$0.2962^{+0.0046}_{-0.012}$ (−1.9 σ)
$A_{143 \times 217}^{dustTT}$	$18.6^{+3.4}_{-3.0}$ (+0.0 σ)	$10^5 D/H$	2.561 ± 0.025 (−0.0 σ)	$\sigma_8(2.33)$	$0.3057^{+0.0047}_{-0.012}$ (−1.8 σ)
A_{217}^{dustTT}	93.6 ± 7.3 (−0.0 σ)	Age/Gyr	13.771 ± 0.022 (−0.0 σ)	f_{2000}^{143}	28.5 ± 2.8 (+0.0 σ)
A_{100}^{dustTE}	0.113 ± 0.037 (−0.0 σ)	z_*	1089.60 ± 0.24 (−0.1 σ)	$f_{2000}^{143 \times 217}$	31.3 ± 1.9 (−0.0 σ)
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029 (+0.0 σ)	r_*	144.77 ± 0.24 (+0.0 σ)	f_{2000}^{217}	106.1 ± 1.8 (−0.0 σ)
$A_{100 \times 217}^{dustTE}$	0.484 ± 0.084 (+0.1 σ)	$100\theta_*$	1.04126 ± 0.00029 (−0.0 σ)	$\chi_{lensing}^2$	10.6 ± 2.3 (+0.3 σ)
A_{143}^{dustTE}	0.223 ± 0.053 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.904 ± 0.023 (+0.0 σ)	χ_{lowl}^2	22.7 ± 1.3 (−0.9 σ)
$A_{143 \times 217}^{dustTE}$	0.660 ± 0.080 (−0.0 σ)	z_{drag}	1060.13 ± 0.30 (+0.0 σ)	χ_{plik}^2	2356.4 ± 5.8 (−0.1 σ)
A_{217}^{dustTE}	2.06 ± 0.27 (−0.0 σ)	r_{drag}	147.40 ± 0.25 (+0.0 σ)	χ_{6DF}^2	0.030 ± 0.042 (−0.0 σ)
c_{100}	0.99967 ± 0.00061 (+0.0 σ)	k_D	0.14065 ± 0.00029 (−0.0 σ)	χ_{MGS}^2	1.72 ± 0.51 (+0.0 σ)
c_{217}	0.99816 ± 0.00062 (−0.0 σ)	$100\theta_D$	0.16066 ± 0.00017 (−0.0 σ)	$\chi_{DR12BAO}^2$	4.00 ± 0.83 (−0.0 σ)
H_0	68.13 ± 0.49 (+0.0 σ)	z_{eq}	3364 ± 24 (−0.0 σ)	χ_{prior}^2	11.5 ± 4.4 (−0.0 σ)
Ω_Λ	0.6953 ± 0.0064 (+0.0 σ)	k_{eq}	0.010268 ± 0.000074 (−0.0 σ)	χ_{CMB}^2	2389.8 ± 5.7 (−0.1 σ)
Ω_m	0.3047 ± 0.0064 (−0.0 σ)	$100\theta_{eq}$	0.8207 ± 0.0046 (+0.0 σ)	χ_{BAO}^2	5.75 ± 0.74 (−0.0 σ)
$\Omega_m h^2$	0.1414 ± 0.0010 (−0.0 σ)	$100\theta_{s,eq}$	0.4531 ± 0.0024 (+0.0 σ)		
$\Omega_m h^3$	0.09636 ± 0.00030 (+0.0 σ)	$H(0.15)$	73.34 ± 0.42 (+0.0 σ)		

$$\bar{\chi}_{eff}^2 = 2406.97; \Delta \bar{\chi}_{eff}^2 = -0.67; R - 1 = 0.02917$$

3.47 base_Alens_plikHM_TTTEE_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02251 \pm 0.00016 \quad (+0.1\sigma)$	$\Omega_{\text{m}}h^2$	$0.1413 \pm 0.0014 \quad (-0.2\sigma)$	k_{eq}	$0.01026 \pm 0.00011 \quad (-0.2\sigma)$
$\Omega_{\text{c}}h^2$	$0.1181 \pm 0.0015 \quad (-0.2\sigma)$	$\Omega_{\text{m}}h^3$	$0.09634 \pm 0.00029 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8213 \pm 0.0067 \quad (+0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04110 \pm 0.00031 \quad (+0.1\sigma)$	σ_8	$0.821^{+0.012}_{-0.026} \quad (-0.5\sigma)$	$100\theta_{\text{s,eq}}$	$0.4535 \pm 0.0034 \quad (+0.2\sigma)$
τ	$0.075^{+0.010}_{-0.031} \quad (-0.3\sigma)$	S_8	$0.826^{+0.023}_{-0.029} \quad (-0.5\sigma)$	$H(0.15)$	$73.40 \pm 0.60 \quad (+0.1\sigma)$
A_{L}	$1.021^{+0.065}_{-0.053}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.452^{+0.013}_{-0.016} \quad (-0.5\sigma)$	$D_{\text{M}}(0.15)$	$636.3 \pm 5.9 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.080^{+0.024}_{-0.061} \quad (-0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.609^{+0.013}_{-0.020} \quad (-0.6\sigma)$	$H(0.38)$	$83.38 \pm 0.44 \quad (+0.1\sigma)$
n_{s}	$0.9705 \pm 0.0050 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.994^{+0.019}_{-0.032} \quad (-0.6\sigma)$	$D_{\text{M}}(0.38)$	$1519 \pm 12 \quad (-0.1\sigma)$
y_{cal}	$0.99996 \pm 0.0025 \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$100.5 \pm 1.2 \quad (+0.2\sigma)$	$H(0.51)$	$90.02 \pm 0.35 \quad (+0.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.482 \pm 0.030 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1969 \pm 14 \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.383 \quad (+0.0\sigma)$	z_{re}	$< 10.3 \quad (-0.3\sigma)$	$H(0.61)$	$95.59 \pm 0.28 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.7^{+2.2}_{-1.8} \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.178^{+0.048}_{-0.13} \quad (-0.3\sigma)$	$D_{\text{M}}(0.61)$	$2293 \pm 15 \quad (-0.1\sigma)$
A_{100}^{PS}	$255 \pm 28 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.872 \pm 0.013 \quad (-0.1\sigma)$	$H(2.33)$	$235.49 \pm 0.91 \quad (-0.2\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 16 \quad (-0.3\sigma)$	$D_{\text{M}}(2.33)$	$5751 \pm 12 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.458^{+0.012}_{-0.015} \quad (-0.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2532 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.759^{+0.011}_{-0.024} \quad (-0.4\sigma)$
A^{kSZ}	$< 3.83 \quad (-0.0\sigma)$	D_{1420}	$816.4 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.478^{+0.011}_{-0.015} \quad (-0.6\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$231.4 \pm 1.5 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6738^{+0.0087}_{-0.021} \quad (-0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9705 \pm 0.0050 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4775^{+0.0096}_{-0.015} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.245448 \pm 0.000062 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6309^{+0.0079}_{-0.020} \quad (-0.4\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.4 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246774 \pm 0.000062 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4730^{+0.0088}_{-0.015} \quad (-0.6\sigma)$
A_{100}^{dustTE}	$0.113 \pm 0.038 \quad (-0.0\sigma)$	10^5D/H	$2.560 \pm 0.029 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.6005^{+0.0074}_{-0.019} \quad (-0.4\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (+0.0\sigma)$	Age/Gyr	$13.770 \pm 0.027 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.3031^{+0.0035}_{-0.0093} \quad (-0.3\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.482 \pm 0.084 \quad (+0.0\sigma)$	z_*	$1089.58 \pm 0.31 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3128^{+0.0036}_{-0.0096} \quad (-0.3\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.054 \quad (+0.0\sigma)$	r_*	$144.81 \pm 0.33 \quad (+0.2\sigma)$	f_{2000}^{143}	$28.2 \pm 2.8 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.661 \pm 0.080 \quad (-0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00030 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 1.9 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.907 \pm 0.031 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.0 \pm 1.9 \quad (-0.1\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1060.13 \pm 0.31 \quad (+0.0\sigma)$	χ_{lensing}^2	$10.6 \pm 2.3 \quad (+0.2\sigma)$
c_{217}	$0.99816 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.43 \pm 0.32 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.3 \pm 1.5 \quad (-0.2\sigma)$
H_0	$68.19 \pm 0.70 \quad (+0.1\sigma)$	k_{D}	$0.14062 \pm 0.00033 \quad (-0.1\sigma)$	χ_{plik}^2	$2356.9 \pm 6.0 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6960 \pm 0.0093 \quad (+0.1\sigma)$	$100\theta_{\text{D}}$	$0.16065 \pm 0.00018 \quad (-0.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3040 \pm 0.0093 \quad (-0.1\sigma)$	z_{eq}	$3361 \pm 35 \quad (-0.2\sigma)$	χ_{CMB}^2	$2390.9 \pm 5.9 \quad (+0.0\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2402.39$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.03$; $R - 1 = 0.02911$

3.48 base_Alens_plikHM_TTTEE_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02251 \pm 0.00014 \quad (+0.0\sigma)$	σ_8	$0.820^{+0.011}_{-0.025} \quad (-0.5\sigma)$	$D_M(0.15)$	$636.6 \pm 4.1 \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.1182 \pm 0.0011 \quad (-0.1\sigma)$	S_8	$0.826^{+0.018}_{-0.026} \quad (-0.5\sigma)$	$H(0.38)$	$83.36 \pm 0.31 \quad (+0.1\sigma)$
$100\theta_{MC}$	$1.04110 \pm 0.00029 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4526^{+0.0096}_{-0.014} \quad (-0.5\sigma)$	$D_M(0.38)$	$1519.9 \pm 8.3 \quad (-0.1\sigma)$
τ	$0.074^{+0.011}_{-0.030} \quad (-0.4\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.609^{+0.010}_{-0.019} \quad (-0.6\sigma)$	$H(0.51)$	$90.01 \pm 0.25 \quad (+0.1\sigma)$
A_L	$1.022^{+0.062}_{-0.048}$	$\sigma_8/h^{0.5}$	$0.994^{+0.016}_{-0.030} \quad (-0.5\sigma)$	$D_M(0.51)$	$1970.0 \pm 9.8 \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.078^{+0.025}_{-0.059} \quad (-0.4\sigma)$	$r_{drag} h$	$100.48 \pm 0.84 \quad (+0.1\sigma)$	$H(0.61)$	$95.57 \pm 0.21 \quad (+0.1\sigma)$
n_s	$0.9703 \pm 0.0041 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.482 \pm 0.030 \quad (+0.3\sigma)$	$D_M(0.61)$	$2293 \pm 11 \quad (-0.1\sigma)$
y_{cal}	$0.99997 \pm 0.0025 \quad (-0.1\sigma)$	z_{re}	$< 10.3 \quad (-0.4\sigma)$	$H(2.33)$	$235.53 \pm 0.64 \quad (-0.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.175^{+0.051}_{-0.13} \quad (-0.4\sigma)$	$D_M(2.33)$	$5751.2 \pm 9.7 \quad (-0.1\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.387 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.872 \pm 0.011 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4578^{+0.0093}_{-0.014} \quad (-0.5\sigma)$
A_{143}^{tSZ}	$5.7^{+2.2}_{-1.8} \quad (+0.0\sigma)$	D_{40}	$1226^{+14}_{-16} \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.759^{+0.010}_{-0.023} \quad (-0.5\sigma)$
A_{100}^{PS}	$255 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4780^{+0.0085}_{-0.015} \quad (-0.6\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2532 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6734^{+0.0086}_{-0.020} \quad (-0.5\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$816.4 \pm 4.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4774^{+0.0079}_{-0.015} \quad (-0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.4 \pm 1.5 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6305^{+0.0079}_{-0.019} \quad (-0.4\sigma)$
A^{kSZ}	$< 3.83 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9703 \pm 0.0041 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4730^{+0.0074}_{-0.014} \quad (-0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245446 \pm 0.000053 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.6002^{+0.0075}_{-0.018} \quad (-0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.7 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246772 \pm 0.000053 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.3029^{+0.0037}_{-0.0090} \quad (-0.4\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.561 \pm 0.025 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3126^{+0.0038}_{-0.0093} \quad (-0.4\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	Age/Gyr	$13.771 \pm 0.022 \quad (-0.1\sigma)$	f_{2000}^{143}	$28.2 \pm 2.8 \quad (-0.1\sigma)$
A_{100}^{dustTE}	$0.112 \pm 0.038 \quad (-0.1\sigma)$	z_*	$1089.59 \pm 0.24 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 1.9 \quad (-0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	r_*	$144.79 \pm 0.24 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.0 \pm 1.8 \quad (-0.1\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.484 \pm 0.085 \quad (+0.1\sigma)$	$100\theta_*$	$1.04127 \pm 0.00029 \quad (+0.0\sigma)$	$\chi_{lensing}^2$	$10.6 \pm 2.3 \quad (+0.3\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.053 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.905 \pm 0.023 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.3 \pm 1.4 \quad (-0.2\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.660 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1060.12 \pm 0.29 \quad (+0.0\sigma)$	χ_{plik}^2	$2356.3 \pm 5.7 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.42 \pm 0.25 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.030 \pm 0.042 \quad (-0.0\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (+0.0\sigma)$	k_D	$0.14063 \pm 0.00029 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.76 \pm 0.52 \quad (+0.1\sigma)$
c_{217}	$0.99816 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_D$	$0.16066 \pm 0.00017 \quad (-0.0\sigma)$	$\chi_{DR12BAO}^2$	$3.97 \pm 0.80 \quad (-0.1\sigma)$
H_0	$68.16 \pm 0.49 \quad (+0.1\sigma)$	z_{eq}	$3363 \pm 24 \quad (-0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (+0.0\sigma)$
Ω_Λ	$0.6957 \pm 0.0064 \quad (+0.1\sigma)$	k_{eq}	$0.010263 \pm 0.000074 \quad (-0.1\sigma)$	χ_{CMB}^2	$2390.2 \pm 5.7 \quad (-0.0\sigma)$
Ω_m	$0.3043 \pm 0.0064 \quad (-0.1\sigma)$	$100\theta_{eq}$	$0.8210 \pm 0.0046 \quad (+0.1\sigma)$	χ_{BAO}^2	$5.76 \pm 0.75 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.1414 \pm 0.0010 \quad (-0.1\sigma)$	$100\theta_{s,eq}$	$0.4533 \pm 0.0024 \quad (+0.1\sigma)$		
$\Omega_m h^3$	$0.09635 \pm 0.00029 \quad (-0.0\sigma)$	$H(0.15)$	$73.37 \pm 0.42 \quad (+0.1\sigma)$		

$$\bar{\chi}_{eff}^2 = 2407.51; \Delta \bar{\chi}_{eff}^2 = -0.07; R - 1 = 0.04162$$

3.49 base_Alens_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022431	0.02239 ± 0.00026 (+1.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5884	0.589 ± 0.014 (−2.6 σ)	$D_{\mathrm{M}}(0.15)$	632.9	634.2 ± 9.3 (−2.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.11690	0.1172 ± 0.0024 (−1.9 σ)	$\sigma_8/h^{0.5}$	0.9620	0.963 ± 0.019 (−2.6 σ)	$H(0.38)$	83.59	83.50 ± 0.71 (+2.0 σ)
$100\theta_{\mathrm{MC}}$	1.04121	1.04119 ± 0.00051 (+0.9 σ)	$r_{\mathrm{drag}}h$	101.43	101.2 ± 1.9 (+2.0 σ)	$D_{\mathrm{M}}(0.38)$	1512.8	1515 ± 19 (−2.0 σ)
τ	0.0509	$0.0496^{+0.0086}_{-0.0075}$ (−0.4 σ)	$\langle d^2 \rangle^{1/2}$	2.4768	2.479 ± 0.031 (+1.3 σ)	$H(0.51)$	90.16	90.09 ± 0.57 (+2.0 σ)
A_{L}	1.084	1.082 ± 0.052	z_{re}	7.27	$7.13^{+0.92}_{-0.73}$ (−0.5 σ)	$D_{\mathrm{M}}(0.51)$	1962.0	1965 ± 22 (−2.0 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0285	$3.027^{+0.018}_{-0.016}$ (−0.9 σ)	10^9A_{s}	2.0665	$2.063^{+0.037}_{-0.033}$ (−0.9 σ)	$H(0.61)$	95.661	95.61 ± 0.46 (+1.9 σ)
n_{s}	0.9733	0.9710 ± 0.0068 (+1.6 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8666	1.868 ± 0.015 (−1.3 σ)	$D_{\mathrm{M}}(0.61)$	2284.8	2288 ± 24 (−2.0 σ)
y_{cal}	0.99984	1.0001 ± 0.0025 (−0.1 σ)	D_{40}	1208.2	1214 ± 17 (−1.5 σ)	$H(2.33)$	234.60	234.8 ± 1.4 (−1.8 σ)
A_{217}^{CIB}	46.7	47 ± 7 (−0.1 σ)	D_{220}	5719.1	5725 ± 41 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5749.6	5752 ± 20 (−1.6 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.54	—	D_{810}	2530.3	2530 ± 14 (−0.5 σ)	$f\sigma_8(0.15)$	0.4401	0.441 ± 0.014 (−2.5 σ)
A_{143}^{tSZ}	7.01	5.3 ± 2.0 (+0.1 σ)	D_{1420}	815.9	814.6 ± 5.1 (+0.0 σ)	$\sigma_8(0.15)$	0.7377	0.7371 ± 0.0089 (−2.0 σ)
A_{100}^{PS}	248.8	260 ± 28 (−0.2 σ)	D_{2000}	231.12	230.5 ± 1.9 (+0.5 σ)	$f\sigma_8(0.38)$	0.4613	0.462 ± 0.012 (−2.6 σ)
A_{143}^{PS}	48.8	46 ± 8 (−0.4 σ)	$n_{\mathrm{s},0.002}$	0.9733	0.9710 ± 0.0068 (+1.6 σ)	$\sigma_8(0.38)$	0.6554	0.6547 ± 0.0069 (−1.6 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	50.1	42 ± 9 (−0.1 σ)	Y_{P}	0.245419	0.24540 ± 0.00010 (+1.2 σ)	$f\sigma_8(0.51)$	0.4615	0.462 ± 0.010 (−2.6 σ)
A_{217}^{PS}	120.0	114 ± 10 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246746	0.24672 ± 0.00010 (+1.2 σ)	$\sigma_8(0.51)$	0.6140	0.6133 ± 0.0061 (−1.4 σ)
A^{kSZ}	0.01	< 4.50 (−0.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.5742	2.583 ± 0.047 (−1.2 σ)	$f\sigma_8(0.61)$	0.4578	0.4580 ± 0.0089 (−2.6 σ)
$A_{100}^{\mathrm{dustTT}}$	8.94	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.7690	13.775 ± 0.045 (−1.6 σ)	$\sigma_8(0.61)$	0.5847	0.5839 ± 0.0057 (−1.3 σ)
$A_{143}^{\mathrm{dustTT}}$	10.81	10.8 ± 1.8 (+0.0 σ)	z_*	1089.571	1089.65 ± 0.48 (−1.7 σ)	$f\sigma_8(2.33)$	0.29536	$0.2949^{+0.0027}_{-0.0025}$ (−0.9 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.52	18.3 ± 3.3 (+0.0 σ)	r_*	145.19	145.15 ± 0.51 (+1.6 σ)	$\sigma_8(2.33)$	0.30515	0.3046 ± 0.0027 (−0.5 σ)
$A_{217}^{\mathrm{dustTT}}$	94.9	93.4 ± 7.4 (+0.0 σ)	$100\theta_*$	1.04140	1.04138 ± 0.00050 (+0.8 σ)	f_{2000}^{143}	28.45	29.7 ± 3.0 (−0.5 σ)
c_{100}	0.99966	0.99960 ± 0.00062 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9421	13.938 ± 0.047 (+1.5 σ)	$f_{2000}^{143 \times 217}$	31.77	32.3 ± 2.2 (−0.6 σ)
c_{217}	0.99823	0.99823 ± 0.00062 (−0.0 σ)	z_{drag}	1059.856	1059.78 ± 0.50 (+0.8 σ)	f_{2000}^{217}	106.17	106.9 ± 2.0 (−0.6 σ)
H_0	68.61	68.5 ± 1.1 (+2.0 σ)	r_{drag}	147.850	147.82 ± 0.50 (+1.4 σ)	$\chi_{\mathrm{lensing}}^2$	9.31	10.1 ± 2.0 (+0.7 σ)
Ω_{Λ}	0.7026	$0.700^{+0.015}_{-0.014}$ (+1.9 σ)	k_{D}	0.14011	0.14011 ± 0.00051 (−0.8 σ)	χ_{small}^2	395.67	396.8 ± 1.5 (−0.1 σ)
Ω_{m}	0.2974	$0.300^{+0.014}_{-0.015}$ (−1.9 σ)	$100\theta_{\mathrm{D}}$	0.160821	0.16087 ± 0.00028 (−0.7 σ)	χ_{lowl}^2	21.74	22.2 ± 1.2 (−1.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.13997	0.1402 ± 0.0022 (−1.9 σ)	z_{eq}	3329	3336 ± 53 (−1.9 σ)	χ_{plik}^2	757.8	770.4 ± 5.5 (−0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.096030	0.09599 ± 0.00046 (+0.3 σ)	k_{eq}	0.010162	0.01018 ± 0.00016 (−1.9 σ)	χ_{prior}^2	1.29	7.3 ± 3.7 (−0.0 σ)
σ_8	0.7968	0.796 ± 0.011 (−2.2 σ)	$100\theta_{\mathrm{eq}}$	0.8269	0.826 ± 0.010 (+2.0 σ)	χ_{CMB}^2	1184.5	1199.5 ± 5.6 (−0.3 σ)
S_8	0.7933	0.796 ± 0.028 (−2.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.4565	0.4559 ± 0.0053 (+2.0 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4345	0.436 ± 0.015 (−2.4 σ)	$H(0.15)$	73.73	73.61 ± 0.96 (+2.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1185.80$; $\Delta\chi_{\mathrm{eff}}^2 = -2.77$; $\bar{\chi}_{\mathrm{eff}}^2 = 1206.83$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.59$; $R - 1 = 0.00595$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.31 (Δ 0.41) simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.20) commander_dx12_v3.2.29: 21.74 (Δ -1.49) plik_rd12_HM_v22_TT: 757.79 (Δ -1.53)

3.50 base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022366	0.02233 ± 0.00021 (+0.7 σ)	$\sigma_8/h^{0.5}$	0.9689	0.968 ± 0.013 (−1.9 σ)	$D_M(0.38)$	1520.0	1521 ± 10 (−1.2 σ)
$\Omega_c h^2$	0.11787	0.1179 ± 0.0013 (−1.2 σ)	$r_{\text{drag}} h$	100.67	100.6 ± 1.0 (+1.2 σ)	$H(0.51)$	89.954	89.92 ± 0.32 (+1.1 σ)
$100\theta_{\text{MC}}$	1.041140	1.04110 ± 0.00043 (+0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4776	2.478 ± 0.031 (+2.0 σ)	$D_M(0.51)$	1970.3	1971 ± 12 (−1.2 σ)
τ	0.0504	$0.0492^{+0.0086}_{-0.0075}$ (−0.8 σ)	z_{re}	7.24	$7.11^{+0.94}_{-0.74}$ (−0.9 σ)	$H(0.61)$	95.505	95.48 ± 0.27 (+1.0 σ)
A_L	1.0696	1.070 ± 0.040	$10^9 A_s$	2.0692	2.065 ± 0.036 (−1.1 σ)	$D_M(0.61)$	2293.8	2295 ± 13 (−1.2 σ)
$\ln(10^{10} A_s)$	3.0297	$3.027^{+0.018}_{-0.016}$ (−1.1 σ)	$10^9 A_s e^{-2\tau}$	1.8709	1.871 ± 0.012 (−0.8 σ)	$H(2.33)$	235.17	235.14 ± 0.79 (−1.0 σ)
n_s	0.97035	0.9692 ± 0.0045 (+0.8 σ)	D_{40}	1214.8	1217 ± 13 (−0.9 σ)	$D_M(2.33)$	5755.9	5758 ± 13 (−0.9 σ)
y_{cal}	0.99995	1.0001 ± 0.0025 (−0.3 σ)	D_{220}	5718.8	5722 ± 41 (−0.1 σ)	$f\sigma_8(0.15)$	0.4456	0.4452 ± 0.0083 (−1.8 σ)
A_{217}^{CIB}	48.4	47 ± 7 (−0.1 σ)	D_{810}	2531.3	2530 ± 14 (−0.5 σ)	$\sigma_8(0.15)$	0.7401	0.7390 ± 0.0074 (−1.6 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	D_{1420}	815.29	814.3 ± 5.0 (−0.3 σ)	$f\sigma_8(0.38)$	0.4656	0.4650 ± 0.0071 (−1.9 σ)
A_{143}^{tSZ}	7.11	5.2 ± 2.0 (+0.0 σ)	D_{2000}	230.72	230.3 ± 1.7 (+0.2 σ)	$\sigma_8(0.38)$	0.6569	0.6559 ± 0.0062 (−1.4 σ)
A_{100}^{PS}	252.3	261 ± 28 (−0.1 σ)	$n_{s,0.002}$	0.97035	0.9692 ± 0.0045 (+0.8 σ)	$f\sigma_8(0.51)$	0.4652	0.4646 ± 0.0064 (−1.9 σ)
A_{143}^{PS}	46.0	47 ± 8 (−0.2 σ)	Y_P	0.245394	$0.245377^{+0.000086}_{-0.000076}$ (+0.6 σ)	$\sigma_8(0.51)$	0.6152	0.6142 ± 0.0057 (−1.3 σ)
$A_{143 \times 217}^{\text{PS}}$	43.9	42 ± 9 (−0.1 σ)	Y_P^{BBN}	0.246721	$0.246704^{+0.000086}_{-0.000077}$ (+0.6 σ)	$f\sigma_8(0.61)$	0.4609	0.4603 ± 0.0059 (−1.9 σ)
A_{217}^{PS}	117.6	114 ± 10 (−0.1 σ)	$10^5 \text{D}/\text{H}$	2.5862	2.593 ± 0.039 (−0.7 σ)	$\sigma_8(0.61)$	0.5856	0.5846 ± 0.0054 (−1.2 σ)
A^{kSZ}	0.00	< 4.61 (−0.0 σ)	Age/Gyr	13.7822	13.786 ± 0.030 (−0.8 σ)	$f\sigma_8(2.33)$	0.29559	0.2951 ± 0.0027 (−1.1 σ)
A_{100}^{dustTT}	8.98	9.0 ± 1.9 (+0.0 σ)	z_*	1089.739	1089.78 ± 0.32 (−1.0 σ)	$\sigma_8(2.33)$	0.30511	0.3046 ± 0.0028 (−0.9 σ)
A_{143}^{dustTT}	10.86	10.8 ± 1.8 (+0.0 σ)	r_*	144.988	145.01 ± 0.32 (+0.8 σ)	f_{2000}^{143}	29.14	30.1 ± 2.9 (−0.3 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.27	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.041322	1.04129 ± 0.00043 (+0.3 σ)	$f_{2000}^{143 \times 217}$	32.18	32.6 ± 2.0 (−0.4 σ)
A_{217}^{dustTT}	94.5	93.4 ± 7.4 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9235	13.926 ± 0.031 (+0.7 σ)	f_{2000}^{217}	106.71	107.2 ± 1.9 (−0.4 σ)
c_{100}	0.99963	0.99959 ± 0.00062 (−0.1 σ)	z_{drag}	1059.780	1059.70 ± 0.46 (+0.5 σ)	χ_{lensing}^2	9.42	10.1 ± 2.0 (+1.2 σ)
c_{217}	0.99825	0.99824 ± 0.00062 (−0.0 σ)	r_{drag}	147.662	147.70 ± 0.34 (+0.6 σ)	χ_{simall}^2	395.68	396.8 ± 1.6 (−0.2 σ)
H_0	68.18	68.14 ± 0.60 (+1.2 σ)	k_D	0.140263	0.14020 ± 0.00043 (−0.3 σ)	χ_{lowl}^2	22.20	22.43 ± 0.87 (−0.9 σ)
Ω_Λ	0.6969	0.6965 ± 0.0077 (+1.2 σ)	$100\theta_D$	0.160865	0.16091 ± 0.00026 (−0.4 σ)	χ_{plik}^2	757.2	769.6 ± 5.4 (−0.4 σ)
Ω_m	0.3031	0.3035 ± 0.0077 (−1.2 σ)	z_{eq}	3351.1	3350 ± 29 (−1.1 σ)	$\chi_{6\text{DF}}^2$	0.0015	0.044 ± 0.062 (−0.2 σ)
$\Omega_m h^2$	0.14088	0.1409 ± 0.0012 (−1.1 σ)	k_{eq}	0.010228	0.010226 ± 0.000089 (−1.1 σ)	χ_{MGS}^2	1.82	1.87 ± 0.63 (+1.3 σ)
$\Omega_m h^3$	0.096047	0.09597 ± 0.00046 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8227	0.8227 ± 0.0056 (+1.2 σ)	χ_{DR12BAO}^2	3.395	4.1 ± 1.0 (−0.5 σ)
σ_8	0.8000	0.7988 ± 0.0083 (−1.7 σ)	$100\theta_{s,\text{eq}}$	0.45430	0.4543 ± 0.0029 (+1.1 σ)	χ_{prior}^2	1.47	7.4 ± 3.7 (+0.0 σ)
S_8	0.8041	0.803 ± 0.016 (−1.8 σ)	$H(0.15)$	73.37	73.33 ± 0.52 (+1.2 σ)	χ_{CMB}^2	1184.5	1199.0 ± 5.5 (−0.4 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4404	0.4400 ± 0.0088 (−1.8 σ)	$D_M(0.15)$	636.5	636.8 ± 5.0 (−1.2 σ)	χ_{BAO}^2	5.22	6.0 ± 1.1 (−0.2 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5936	0.5929 ± 0.0087 (−1.9 σ)	$H(0.38)$	83.326	83.29 ± 0.39 (+1.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1191.14$; $\Delta\chi_{\text{eff}}^2 = -3.55$; $\bar{\chi}_{\text{eff}}^2 = 1212.35$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.38$; $R - 1 = 0.01232$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.82 (Δ 0.60) DR12BAO: 3.40 (Δ -0.98) CMB - smicadx12.Dec5.ftl_mv2.ndclpp-p.teb.consext8: 9.42 (Δ 0.54) simall_100x143_offlike5.EE_Aplanck
395.68 (Δ -0.42) commander_dx12_v3.2.29: 22.20 (Δ -0.76) plik_rd12_HM_v22_TT: 757.15 (Δ -2.65)

3.51 base_Alens_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00026 \quad (+1.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.591 \pm 0.014 \quad (-2.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$633.9 \pm 9.3 \quad (-2.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1171 \pm 0.0024 \quad (-2.0\sigma)$	$\sigma_8/h^{0.5}$	$0.965 \pm 0.019 \quad (-2.4\sigma)$	$H(0.38)$	$83.52 \pm 0.71 \quad (+2.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04120 \pm 0.00052 \quad (+0.8\sigma)$	$r_{\mathrm{drag}}h$	$101.3 \pm 1.9 \quad (+2.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1515 \pm 19 \quad (-2.0\sigma)$
τ	$0.0528^{+0.0039}_{-0.0076} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.479 \pm 0.032 \quad (+1.2\sigma)$	$H(0.51)$	$90.11 \pm 0.57 \quad (+2.0\sigma)$
A_{L}	1.076 ± 0.051	z_{re}	$7.47^{+0.39}_{-0.81} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1964 \pm 22 \quad (-2.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.033^{+0.011}_{-0.015} \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}$	$2.076^{+0.023}_{-0.031} \quad (-0.7\sigma)$	$H(0.61)$	$95.62 \pm 0.46 \quad (+1.9\sigma)$
n_{s}	$0.9712 \pm 0.0068 \quad (+1.6\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.868 \pm 0.015 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2287 \pm 24 \quad (-2.0\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1214 \pm 17 \quad (-1.4\sigma)$	$H(2.33)$	$234.7 \pm 1.4 \quad (-1.8\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5725 \pm 41 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5752 \pm 20 \quad (-1.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2529 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.442 \pm 0.014 \quad (-2.3\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (+0.1\sigma)$	D_{1420}	$814.6 \pm 5.1 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7393 \pm 0.0080 \quad (-1.9\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (-0.2\sigma)$	D_{2000}	$230.6 \pm 1.9 \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.463 \pm 0.011 \quad (-2.4\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.9712 \pm 0.0068 \quad (+1.6\sigma)$	$\sigma_8(0.38)$	$0.6567 \pm 0.0059 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	Y_{P}	$0.24540 \pm 0.00010 \quad (+1.1\sigma)$	$f\sigma_8(0.51)$	$0.4631 \pm 0.0098 \quad (-2.4\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24673 \pm 0.00010 \quad (+1.1\sigma)$	$\sigma_8(0.51)$	$0.6151^{+0.0048}_{-0.0054} \quad (-1.3\sigma)$
A^{kSZ}	$< 4.49 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.582 \pm 0.048 \quad (-1.2\sigma)$	$f\sigma_8(0.61)$	$0.4592 \pm 0.0087 \quad (-2.4\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.774 \pm 0.045 \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.5857^{+0.0043}_{-0.0049} \quad (-1.2\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.64 \pm 0.49 \quad (-1.7\sigma)$	$f\sigma_8(2.33)$	$0.2958^{+0.0018}_{-0.0023} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$145.16 \pm 0.51 \quad (+1.6\sigma)$	$\sigma_8(2.33)$	$0.3056^{+0.0017}_{-0.0024} \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04139 \pm 0.00050 \quad (+0.8\sigma)$	f_{2000}^{143}	$29.7 \pm 3.1 \quad (-0.5\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.939 \pm 0.047 \quad (+1.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.2 \quad (-0.6\sigma)$
c_{217}	$0.99823 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.78 \pm 0.50 \quad (+0.8\sigma)$	f_{2000}^{217}	$106.9 \pm 2.0 \quad (-0.6\sigma)$
H_0	$68.5 \pm 1.1 \quad (+2.0\sigma)$	r_{drag}	$147.83 \pm 0.49 \quad (+1.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.1 \pm 2.0 \quad (+0.8\sigma)$
Ω_{Λ}	$0.701^{+0.015}_{-0.013} \quad (+1.9\sigma)$	k_{D}	$0.14010 \pm 0.00050 \quad (-0.8\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
Ω_{m}	$0.299^{+0.013}_{-0.015} \quad (-1.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00028 \quad (-0.7\sigma)$	χ_{lowl}^2	$22.3 \pm 1.2 \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1402 \pm 0.0022 \quad (-1.9\sigma)$	z_{eq}	$3334 \pm 53 \quad (-1.9\sigma)$	χ_{plik}^2	$770.4 \pm 5.6 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09599 \pm 0.00046 \quad (+0.3\sigma)$	k_{eq}	$0.01018 \pm 0.00016 \quad (-1.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.7987 \pm 0.0099 \quad (-2.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.826 \pm 0.010 \quad (+2.0\sigma)$	χ_{CMB}^2	$1199.2 \pm 5.6 \quad (-0.3\sigma)$
S_8	$0.798 \pm 0.028 \quad (-2.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4560 \pm 0.0053 \quad (+2.0\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.437 \pm 0.015 \quad (-2.3\sigma)$	$H(0.15)$	$73.64 \pm 0.97 \quad (+2.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.48$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.68$; $R - 1 = 0.00707$

3.52 base_Alens_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02233 \pm 0.00021 \quad (+0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.971 \pm 0.011 \quad (-1.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521 \pm 10 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1178 \pm 0.0013 \quad (-1.2\sigma)$	$r_{\mathrm{drag}} h$	$100.7 \pm 1.0 \quad (+1.2\sigma)$	$H(0.51)$	$89.93 \pm 0.32 \quad (+1.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00043 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.477 \pm 0.032 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1971 \pm 12 \quad (-1.2\sigma)$
τ	$0.0526^{+0.0038}_{-0.0074} \quad (-0.5\sigma)$	z_{re}	$7.47^{+0.37}_{-0.81} \quad (-0.6\sigma)$	$H(0.61)$	$95.48 \pm 0.27 \quad (+1.0\sigma)$
A_{L}	1.063 ± 0.037	$10^9 A_{\mathrm{s}}$	$2.078^{+0.021}_{-0.031} \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 13 \quad (-1.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.034^{+0.010}_{-0.015} \quad (-0.8\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.871 \pm 0.012 \quad (-0.8\sigma)$	$H(2.33)$	$235.12 \pm 0.79 \quad (-1.0\sigma)$
n_{s}	$0.9693 \pm 0.0045 \quad (+0.8\sigma)$	D_{40}	$1218 \pm 13 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5758 \pm 13 \quad (-0.9\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.3\sigma)$	D_{220}	$5722 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4465 \pm 0.0080 \quad (-1.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.7414^{+0.0054}_{-0.0065} \quad (-1.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.3 \pm 5.0 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4665 \pm 0.0066 \quad (-1.6\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.7 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6581^{+0.0043}_{-0.0054} \quad (-1.1\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9693 \pm 0.0045 \quad (+0.8\sigma)$	$f\sigma_8(0.51)$	$0.4661 \pm 0.0058 \quad (-1.6\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (-0.2\sigma)$	Y_{P}	$0.245377^{+0.000085}_{-0.000077} \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6162^{+0.0038}_{-0.0049} \quad (-1.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246703^{+0.000086}_{-0.000077} \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.4618 \pm 0.0053 \quad (-1.6\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.593 \pm 0.038 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.5866^{+0.0035}_{-0.0047} \quad (-1.0\sigma)$
A^{kSZ}	$< 4.54 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.786 \pm 0.030 \quad (-0.8\sigma)$	$f\sigma_8(2.33)$	$0.2961^{+0.0017}_{-0.0023} \quad (-0.8\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.9 \quad (+0.0\sigma)$	z_*	$1089.78 \pm 0.32 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3056^{+0.0017}_{-0.0023} \quad (-0.6\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$145.02 \pm 0.31 \quad (+0.8\sigma)$	f_{2000}^{143}	$30.1 \pm 3.0 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04129 \pm 0.00043 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.0 \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5^{+7.8}_{-7.1} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.927 \pm 0.030 \quad (+0.7\sigma)$	f_{2000}^{217}	$107.2 \pm 1.9 \quad (-0.4\sigma)$
c_{100}	$0.99959 \pm 0.00062 \quad (-0.1\sigma)$	z_{drag}	$1059.69 \pm 0.45 \quad (+0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.1 \pm 2.0 \quad (+1.4\sigma)$
c_{217}	$0.99824 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.71 \pm 0.33 \quad (+0.6\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
H_0	$68.15 \pm 0.60 \quad (+1.2\sigma)$	k_{D}	$0.14019 \pm 0.00043 \quad (-0.3\sigma)$	χ_{lowl}^2	$22.50 \pm 0.88 \quad (-0.8\sigma)$
Ω_{Λ}	$0.6967 \pm 0.0077 \quad (+1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091 \pm 0.00026 \quad (-0.4\sigma)$	χ_{plik}^2	$769.6 \pm 5.4 \quad (-0.4\sigma)$
Ω_{m}	$0.3033 \pm 0.0077 \quad (-1.2\sigma)$	z_{eq}	$3350 \pm 29 \quad (-1.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.045 \pm 0.062 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1408 \pm 0.0012 \quad (-1.1\sigma)$	k_{eq}	$0.010224 \pm 0.000089 \quad (-1.1\sigma)$	χ_{MGS}^2	$1.88 \pm 0.63 \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09596 \pm 0.00045 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8228 \pm 0.0056 \quad (+1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.07 \pm 0.99 \quad (-0.5\sigma)$
σ_8	$0.8014^{+0.0064}_{-0.0074} \quad (-1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4544 \pm 0.0029 \quad (+1.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.8 \quad (+0.0\sigma)$
S_8	$0.806 \pm 0.016 \quad (-1.6\sigma)$	$H(0.15)$	$73.34 \pm 0.52 \quad (+1.2\sigma)$	χ_{CMB}^2	$1198.7 \pm 5.5 \quad (-0.5\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4414 \pm 0.0085 \quad (-1.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.8 \pm 5.0 \quad (-1.2\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.5947 \pm 0.0081 \quad (-1.6\sigma)$	$H(0.38)$	$83.30 \pm 0.39 \quad (+1.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1212.01$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.57$; $R - 1 = 0.01863$

3.53 base_Alens_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022553	0.02251 ± 0.00017 (+1.0 σ)	$\Omega_m h^3$	0.096413	0.09637 ± 0.00029 (+0.1 σ)	$100\theta_{s,eq}$	0.45361	0.4532 ± 0.0033 (+1.5 σ)
$\Omega_c h^2$	0.11803	0.1182 ± 0.0015 (-1.5 σ)	σ_8	0.8008	0.7999 ± 0.0086 (-1.9 σ)	$H(0.15)$	73.46	73.37 ± 0.60 (+1.5 σ)
$100\theta_{MC}$	1.041111	1.04110 ± 0.00032 (+0.6 σ)	S_8	0.8049	0.806 ± 0.019 (-2.0 σ)	$D_M(0.15)$	635.7	636.6 ± 5.9 (-1.5 σ)
τ	0.0506	$0.0491^{+0.0086}_{-0.0076}$ (-0.7 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4409	0.441 ± 0.010 (-2.0 σ)	$H(0.38)$	83.432	83.36 ± 0.44 (+1.5 σ)
A_L	1.0747	$1.071^{+0.038}_{-0.042}$	$\sigma_8 \Omega_m^{0.25}$	0.5942	0.5941 ± 0.0097 (-2.1 σ)	$D_M(0.38)$	1518.0	1520 ± 12 (-1.5 σ)
$\ln(10^{10} A_s)$	3.0314	$3.029^{+0.018}_{-0.016}$ (-1.1 σ)	$\sigma_8/h^{0.5}$	0.9692	0.969 ± 0.014 (-2.1 σ)	$H(0.51)$	90.068	90.01 ± 0.35 (+1.4 σ)
n_s	0.97176	0.9696 ± 0.0048 (+1.1 σ)	$r_{drag} h$	100.63	100.5 ± 1.2 (+1.5 σ)	$D_M(0.51)$	1967.8	1970 ± 14 (-1.5 σ)
y_{cal}	0.99996	1.0001 ± 0.0025 (-0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4832	2.482 ± 0.030 (+1.6 σ)	$H(0.61)$	95.626	95.58 ± 0.28 (+1.4 σ)
A_{217}^{CIB}	44.2	46 ± 7 (-0.1 σ)	z_{re}	7.23	$7.06^{+0.93}_{-0.74}$ (-0.8 σ)	$D_M(0.61)$	2290.9	2293 ± 15 (-1.5 σ)
$\xi^{tSZ \times CIB}$	0.83	—	$10^9 A_s$	2.0726	2.067 ± 0.036 (-1.1 σ)	$H(2.33)$	235.46	235.56 ± 0.88 (-1.4 σ)
A_{143}^{tSZ}	7.00	$5.6^{+2.1}_{-1.8}$ (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8733	1.874 ± 0.012 (-0.9 σ)	$D_M(2.33)$	5748.6	5751 ± 13 (-1.2 σ)
A_{100}^{PS}	244.3	255 ± 28 (-0.2 σ)	D_{40}	1213.7	1219 ± 14 (-1.1 σ)	$f\sigma_8(0.15)$	0.4461	0.4464 ± 0.0095 (-2.0 σ)
A_{143}^{PS}	50.3	44 ± 8 (-0.3 σ)	D_{220}	5730.1	5735 ± 39 (-0.0 σ)	$\sigma_8(0.15)$	0.7408	0.7398 ± 0.0075 (-1.7 σ)
$A_{143 \times 217}^{PS}$	55.3	42 ± 9 (-0.1 σ)	D_{810}	2535.0	2533 ± 14 (-0.5 σ)	$f\sigma_8(0.38)$	0.4661	0.4661 ± 0.0079 (-2.1 σ)
A_{217}^{PS}	122.8	115 ± 10 (-0.0 σ)	D_{1420}	817.98	816.5 ± 4.8 (-0.2 σ)	$\sigma_8(0.38)$	0.6576	0.6566 ± 0.0062 (-1.5 σ)
A^{kSZ}	0.01	< 3.94 (-0.1 σ)	D_{2000}	232.01	231.3 ± 1.6 (+0.3 σ)	$f\sigma_8(0.51)$	0.4657	0.4655 ± 0.0070 (-2.1 σ)
A_{100}^{dustTT}	8.82	8.9 ± 1.8 (+0.0 σ)	$n_{s,0.002}$	0.97176	0.9696 ± 0.0048 (+1.1 σ)	$\sigma_8(0.51)$	0.6158	0.6147 ± 0.0057 (-1.4 σ)
A_{143}^{dustTT}	11.02	10.9 ± 1.8 (-0.0 σ)	Y_P	0.245463	0.245449 ± 0.000064 (+0.9 σ)	$f\sigma_8(0.61)$	0.4614	0.4611 ± 0.0064 (-2.1 σ)
$A_{143 \times 217}^{dustTT}$	20.19	18.5 ± 3.3 (-0.0 σ)	Y_P^{BBN}	0.246790	0.246776 ± 0.000064 (+0.9 σ)	$\sigma_8(0.61)$	0.5862	0.5851 ± 0.0053 (-1.3 σ)
A_{217}^{dustTT}	95.7	93.6 ± 7.3 (+0.0 σ)	$10^5 D/H$	2.5526	2.560 ± 0.030 (-1.0 σ)	$f\sigma_8(2.33)$	0.29590	0.2953 ± 0.0026 (-1.1 σ)
A_{100}^{dustTE}	0.1138	0.114 ± 0.038 (-0.0 σ)	Age/Gyr	13.7648	13.770 ± 0.028 (-1.2 σ)	$\sigma_8(2.33)$	0.30543	$0.3048^{+0.0027}_{-0.0025}$ (-0.8 σ)
$A_{100 \times 143}^{dustTE}$	0.1343	0.135 ± 0.029 (-0.0 σ)	z_*	1089.519	1089.59 ± 0.31 (-1.3 σ)	f_{2000}^{143}	27.21	28.5 ± 2.8 (-0.4 σ)
$A_{100 \times 217}^{dustTE}$	0.480	0.480 ± 0.085 (-0.0 σ)	r_*	144.801	144.78 ± 0.32 (+1.3 σ)	$f_{2000}^{143 \times 217}$	30.80	31.3 ± 1.9 (-0.5 σ)
A_{143}^{dustTE}	0.224	0.223 ± 0.053 (-0.0 σ)	$100\theta_*$	1.041283	1.04128 ± 0.00031 (+0.6 σ)	f_{2000}^{217}	105.36	106.2 ± 1.8 (-0.5 σ)
$A_{143 \times 217}^{dustTE}$	0.661	0.663 ± 0.080 (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9060	13.904 ± 0.030 (+1.3 σ)	$\chi_{lensing}^2$	10.18	10.5 ± 2.2 (+1.9 σ)
A_{217}^{dustTE}	2.059	2.06 ± 0.27 (-0.1 σ)	z_{drag}	1060.200	1060.14 ± 0.32 (+0.7 σ)	χ_{simall}^2	395.66	396.8 ± 1.5 (-0.1 σ)
c_{100}	0.99974	0.99966 ± 0.00061 (-0.0 σ)	r_{drag}	147.411	147.40 ± 0.31 (+1.2 σ)	χ_{lowl}^2	22.06	22.46 ± 0.91 (-1.2 σ)
c_{217}	0.99815	0.99817 ± 0.00062 (-0.0 σ)	k_D	0.140669	0.14065 ± 0.00031 (-0.7 σ)	χ_{plik}^2	2341.8	2357.1 ± 6.0 (-0.4 σ)
H_0	68.27	68.16 ± 0.70 (+1.5 σ)	$100\theta_D$	0.160601	0.16065 ± 0.00018 (-0.6 σ)	χ_{prior}^2	1.45	11.5 ± 4.5 (+0.0 σ)
Ω_Λ	0.6969	0.6955 ± 0.0092 (+1.5 σ)	z_{eq}	3359.6	3364 ± 34 (-1.5 σ)	χ_{CMB}^2	2769.7	2786.9 ± 6.0 (-0.4 σ)
Ω_m	0.3031	0.3045 ± 0.0092 (-1.5 σ)	k_{eq}	0.010254	0.01027 ± 0.00010 (-1.5 σ)			
$\Omega_m h^2$	0.14123	0.1414 ± 0.0014 (-1.5 σ)	$100\theta_{eq}$	0.8217	0.8209 ± 0.0065 (+1.5 σ)			

Best-fit $\chi_{eff}^2 = 2771.20$; $\Delta\chi_{eff}^2 = -3.44$; $\bar{\chi}_{eff}^2 = 2798.40$; $\Delta\bar{\chi}_{eff}^2 = -2.29$; $R - 1 = 0.01801$
 χ_{eff}^2 : CMB - smicadx12.Dec5.ftl.mv2.ndclpp-p.teb.consext8: 10.18 (Δ 1.31) simall-100x143_offlike5.EE.Aplanck.B: 395.66 (Δ -0.39) commander_dx12.v3.2.29: 22.06 (Δ -1.20) plik_rd12_HM_v22b_TTTEEE: 2341.85 (Δ -3.08)

3.54 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022543	0.02251 ± 0.00014 (+0.7 σ)	σ_8	0.8002	0.8001 ± 0.0079 (−1.7 σ)	$D_M(0.15)$	636.48	636.7 ± 4.1 (−1.2 σ)
$\Omega_c h^2$	0.11826	0.1183 ± 0.0011 (−1.2 σ)	S_8	0.8060	0.806 ± 0.014 (−1.8 σ)	$H(0.38)$	83.372	83.36 ± 0.31 (+1.1 σ)
$100\theta_{MC}$	1.041093	1.04111 ± 0.00029 (+0.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4415	0.4415 ± 0.0076 (−1.8 σ)	$D_M(0.38)$	1519.7	1520.1 ± 8.3 (−1.1 σ)
τ	0.0492	$0.0491^{+0.0086}_{-0.0076}$ (−1.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5943	0.5943 ± 0.0077 (−1.9 σ)	$H(0.51)$	90.023	90.01 ± 0.25 (+1.1 σ)
A_L	1.0723	$1.071^{+0.033}_{-0.038}$	$\sigma_8/h^{0.5}$	0.9692	0.969 ± 0.011 (−1.9 σ)	$D_M(0.51)$	1969.7	1970.2 ± 9.8 (−1.1 σ)
$\ln(10^{10} A_s)$	3.0288	$3.029^{+0.018}_{-0.016}$ (−1.3 σ)	$r_{drag} h$	100.45	100.45 ± 0.84 (+1.2 σ)	$H(0.61)$	95.591	95.57 ± 0.21 (+1.0 σ)
n_s	0.97040	0.9695 ± 0.0040 (+0.8 σ)	$\langle d^2 \rangle^{1/2}$	2.4824	2.482 ± 0.030 (+2.1 σ)	$D_M(0.61)$	2293.0	2294 ± 11 (−1.1 σ)
y_{cal}	0.99980	1.0001 ± 0.0025 (−0.3 σ)	z_{re}	7.09	$7.06^{+0.94}_{-0.74}$ (−1.1 σ)	$H(2.33)$	235.60	235.57 ± 0.63 (−1.1 σ)
A_{217}^{CIB}	45.8	46 ± 7 (−0.1 σ)	$10^9 A_s$	2.0672	2.068 ± 0.036 (−1.2 σ)	$D_M(2.33)$	5750.0	5751.0 ± 9.7 (−0.9 σ)
$\xi^{tSZ \times CIB}$	0.625	> 0.382 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8735	1.874 ± 0.011 (−0.7 σ)	$f\sigma_8(0.15)$	0.4466	0.4466 ± 0.0072 (−1.8 σ)
A_{143}^{tSZ}	7.17	$5.6^{+2.1}_{-1.8}$ (+0.1 σ)	D_{40}	1216.2	1219 ± 12 (−0.9 σ)	$\sigma_8(0.15)$	0.7401	0.7400 ± 0.0070 (−1.6 σ)
A_{100}^{PS}	245.9	255 ± 28 (−0.1 σ)	D_{220}	5731.8	5735 ± 38 (−0.1 σ)	$f\sigma_8(0.38)$	0.4662	0.4662 ± 0.0063 (−1.9 σ)
A_{143}^{PS}	48.0	44 ± 8 (−0.2 σ)	D_{810}	2533.8	2534 ± 14 (−0.5 σ)	$\sigma_8(0.38)$	0.6568	0.6567 ± 0.0060 (−1.5 σ)
$A_{143 \times 217}^{PS}$	50.9	42 ± 9 (−0.1 σ)	D_{1420}	817.12	816.5 ± 4.8 (−0.3 σ)	$f\sigma_8(0.51)$	0.4657	0.4657 ± 0.0057 (−1.9 σ)
A_{217}^{PS}	120.4	115 ± 10 (−0.0 σ)	D_{2000}	231.65	231.3 ± 1.6 (+0.1 σ)	$\sigma_8(0.51)$	0.6150	0.6149 ± 0.0056 (−1.4 σ)
A^{kSZ}	0.01	< 3.97 (−0.1 σ)	$n_{s,0.002}$	0.97040	0.9695 ± 0.0040 (+0.8 σ)	$f\sigma_8(0.61)$	0.4613	0.4613 ± 0.0053 (−1.9 σ)
A_{100}^{dustTT}	8.88	8.9 ± 1.9 (+0.0 σ)	Y_P	0.245460	0.245448 ± 0.000054 (+0.7 σ)	$\sigma_8(0.61)$	0.5854	0.5853 ± 0.0053 (−1.4 σ)
A_{143}^{dustTT}	11.03	10.9 ± 1.8 (−0.0 σ)	Y_P^{BBN}	0.246786	0.246774 ± 0.000054 (+0.7 σ)	$f\sigma_8(2.33)$	0.29543	$0.2954^{+0.0027}_{-0.0024}$ (−1.2 σ)
$A_{143 \times 217}^{dustTT}$	19.93	18.5 ± 3.3 (−0.0 σ)	$10^5 D/H$	2.5544	2.560 ± 0.026 (−0.7 σ)	$\sigma_8(2.33)$	0.30489	$0.3048^{+0.0027}_{-0.0025}$ (−1.1 σ)
A_{217}^{dustTT}	95.2	93.5 ± 7.3 (+0.0 σ)	Age/Gyr	13.7677	13.770 ± 0.022 (−0.8 σ)	f_{2000}^{143}	27.68	28.5 ± 2.7 (−0.3 σ)
A_{100}^{dustTE}	0.1140	0.113 ± 0.038 (−0.0 σ)	z_*	1089.551	1089.59 ± 0.24 (−1.0 σ)	$f_{2000}^{143 \times 217}$	31.14	31.4 ± 1.9 (−0.4 σ)
$A_{100 \times 143}^{dustTE}$	0.1346	0.134 ± 0.030 (−0.0 σ)	r_*	144.750	144.77 ± 0.24 (+1.0 σ)	f_{2000}^{217}	105.65	106.2 ± 1.8 (−0.4 σ)
$A_{100 \times 217}^{dustTE}$	0.479	0.480 ± 0.085 (−0.0 σ)	$100\theta_*$	1.041256	1.04128 ± 0.00029 (+0.3 σ)	$\chi_{lensing}^2$	9.99	10.5 ± 2.2 (+2.4 σ)
A_{143}^{dustTE}	0.222	0.222 ± 0.054 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9015	13.904 ± 0.023 (+0.9 σ)	χ_{simall}^2	395.70	396.8 ± 1.5 (−0.2 σ)
$A_{143 \times 217}^{dustTE}$	0.662	0.662 ± 0.080 (−0.1 σ)	z_{drag}	1060.200	1060.14 ± 0.30 (+0.4 σ)	χ_{lowl}^2	22.25	22.46 ± 0.78 (−1.0 σ)
A_{217}^{dustTE}	2.069	2.06 ± 0.27 (−0.1 σ)	r_{drag}	147.362	147.40 ± 0.24 (+0.8 σ)	χ_{plik}^2	2341.7	2356.5 ± 5.8 (−0.5 σ)
c_{100}	0.99971	0.99966 ± 0.00062 (−0.0 σ)	k_D	0.140712	0.14065 ± 0.00028 (−0.4 σ)	χ_{6DF}^2	0.0001	0.029 ± 0.041 (−0.4 σ)
c_{217}	0.99818	0.99817 ± 0.00062 (−0.0 σ)	$100\theta_D$	0.160604	0.16065 ± 0.00017 (−0.4 σ)	χ_{MGS}^2	1.68	1.74 ± 0.51 (+1.3 σ)
H_0	68.167	68.15 ± 0.49 (+1.2 σ)	z_{eq}	3364.7	3364 ± 24 (−1.1 σ)	$\chi_{DR12BAO}^2$	3.526	3.98 ± 0.82 (−0.6 σ)
Ω_Λ	0.6956	0.6954 ± 0.0064 (+1.2 σ)	k_{eq}	0.010270	0.010267 ± 0.000073 (−1.1 σ)	χ_{prior}^2	1.64	11.6 ± 4.5 (+0.0 σ)
Ω_m	0.3044	0.3046 ± 0.0064 (−1.2 σ)	$100\theta_{eq}$	0.82067	0.8207 ± 0.0046 (+1.2 σ)	χ_{CMB}^2	2769.6	2786.3 ± 5.8 (−0.5 σ)
$\Omega_m h^2$	0.14145	0.1414 ± 0.0010 (−1.1 σ)	$100\theta_{s,eq}$	0.45310	0.4532 ± 0.0023 (+1.2 σ)	χ_{BAO}^2	5.204	5.75 ± 0.73 (−0.4 σ)
$\Omega_m h^3$	0.096420	0.09637 ± 0.00029 (+0.1 σ)	$H(0.15)$	73.377	73.36 ± 0.42 (+1.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2776.44$; $\Delta\chi_{\text{eff}}^2 = -4.26$; $\bar{\chi}_{\text{eff}}^2 = 2803.67$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.17$; $R - 1 = 0.02408$

χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.68 (Δ 0.46) DR12BAO: 3.53 (Δ -0.89) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.99 (Δ 1.26) simall_100x143_offlike5_EE_Aplanck 395.70 (Δ -0.83) commander_dx12_v3.2_29: 22.25 (Δ -0.64) plik_rd12_HM_v22b_TTTEE: 2341.65 (Δ -3.67)

3.55 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02252 \pm 0.00017 \quad (+1.0\sigma)$	$\Omega_{\text{m}}h^3$	$0.09637 \pm 0.00029 \quad (+0.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4533 \pm 0.0033 \quad (+1.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1182 \pm 0.0015 \quad (-1.5\sigma)$	σ_8	$0.8024 \pm 0.0074 \quad (-1.6\sigma)$	$H(0.15)$	$73.39 \pm 0.60 \quad (+1.5\sigma)$
$100\theta_{\text{MC}}$	$1.04111 \pm 0.00032 \quad (+0.6\sigma)$	S_8	$0.808 \pm 0.018 \quad (-1.8\sigma)$	$D_{\text{M}}(0.15)$	$636.4 \pm 5.9 \quad (-1.5\sigma)$
τ	$0.0526^{+0.0035}_{-0.0076} \quad (-0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4426 \pm 0.0099 \quad (-1.8\sigma)$	$H(0.38)$	$83.38 \pm 0.44 \quad (+1.5\sigma)$
A_{L}	1.065 ± 0.039	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5959 \pm 0.0092 \quad (-1.9\sigma)$	$D_{\text{M}}(0.38)$	$1520 \pm 12 \quad (-1.5\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.035^{+0.010}_{-0.015} \quad (-0.8\sigma)$	$\sigma_8/h^{0.5}$	$0.972 \pm 0.013 \quad (-1.9\sigma)$	$H(0.51)$	$90.02 \pm 0.35 \quad (+1.4\sigma)$
n_{s}	$0.9698 \pm 0.0048 \quad (+1.1\sigma)$	$r_{\text{drag}}h$	$100.5 \pm 1.2 \quad (+1.5\sigma)$	$D_{\text{M}}(0.51)$	$1970 \pm 14 \quad (-1.5\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.482 \pm 0.029 \quad (+1.6\sigma)$	$H(0.61)$	$95.59 \pm 0.28 \quad (+1.4\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	z_{re}	$7.43^{+0.32}_{-0.84} \quad (-0.5\sigma)$	$D_{\text{M}}(0.61)$	$2293 \pm 15 \quad (-1.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.081^{+0.021}_{-0.031} \quad (-0.8\sigma)$	$H(2.33)$	$235.53 \pm 0.88 \quad (-1.4\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.873 \pm 0.012 \quad (-0.9\sigma)$	$D_{\text{M}}(2.33)$	$5750 \pm 13 \quad (-1.2\sigma)$
A_{100}^{PS}	$255 \pm 28 \quad (-0.2\sigma)$	D_{40}	$1219 \pm 14 \quad (-1.1\sigma)$	$f\sigma_8(0.15)$	$0.4477 \pm 0.0093 \quad (-1.9\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.3\sigma)$	D_{220}	$5734 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7422 \pm 0.0062 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4674 \pm 0.0076 \quad (-1.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.5 \pm 4.8 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6587^{+0.0045}_{-0.0053} \quad (-1.2\sigma)$
A^{kSZ}	$< 3.93 \quad (-0.1\sigma)$	D_{2000}	$231.4 \pm 1.6 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4669 \pm 0.0066 \quad (-1.9\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9698 \pm 0.0048 \quad (+1.1\sigma)$	$\sigma_8(0.51)$	$0.6168^{+0.0040}_{-0.0048} \quad (-1.1\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245450 \pm 0.000064 \quad (+0.9\sigma)$	$f\sigma_8(0.61)$	$0.4626 \pm 0.0059 \quad (-1.9\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246777 \pm 0.000065 \quad (+0.9\sigma)$	$\sigma_8(0.61)$	$0.5871^{+0.0036}_{-0.0045} \quad (-1.0\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (+0.0\sigma)$	10^5D/H	$2.559 \pm 0.030 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2963^{+0.0016}_{-0.0022} \quad (-0.8\sigma)$
A_{100}^{dustTE}	$0.113 \pm 0.039 \quad (-0.0\sigma)$	Age/Gyr	$13.769 \pm 0.028 \quad (-1.2\sigma)$	$\sigma_8(2.33)$	$0.3058^{+0.0016}_{-0.0023} \quad (-0.6\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.58 \pm 0.31 \quad (-1.3\sigma)$	f_{2000}^{143}	$28.4 \pm 2.8 \quad (-0.4\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	r_*	$144.79 \pm 0.32 \quad (+1.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 1.9 \quad (-0.5\sigma)$
A_{143}^{dustTE}	$0.222 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00031 \quad (+0.6\sigma)$	f_{2000}^{217}	$106.1 \pm 1.8 \quad (-0.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.662 \pm 0.080 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.905 \pm 0.030 \quad (+1.3\sigma)$	χ_{lensing}^2	$10.5 \pm 2.2 \quad (+1.9\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.1\sigma)$	z_{drag}	$1060.15 \pm 0.33 \quad (+0.7\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.41 \pm 0.31 \quad (+1.2\sigma)$	χ_{lowl}^2	$22.51 \pm 0.92 \quad (-1.1\sigma)$
c_{217}	$0.99817 \pm 0.00062 \quad (-0.0\sigma)$	k_{D}	$0.14064 \pm 0.00031 \quad (-0.7\sigma)$	χ_{plik}^2	$2357.1 \pm 6.0 \quad (-0.4\sigma)$
H_0	$68.18 \pm 0.70 \quad (+1.5\sigma)$	$100\theta_{\text{D}}$	$0.16064 \pm 0.00019 \quad (-0.6\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6958 \pm 0.0091 \quad (+1.5\sigma)$	z_{eq}	$3362 \pm 33 \quad (-1.5\sigma)$	χ_{CMB}^2	$2786.4 \pm 5.9 \quad (-0.4\sigma)$
Ω_{m}	$0.3042 \pm 0.0091 \quad (-1.5\sigma)$	k_{eq}	$0.01026 \pm 0.00010 \quad (-1.5\sigma)$		
$\Omega_{\text{m}}h^2$	$0.1414 \pm 0.0014 \quad (-1.5\sigma)$	$100\theta_{\text{eq}}$	$0.8211 \pm 0.0065 \quad (+1.5\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2797.97; \Delta\bar{\chi}_{\text{eff}}^2 = -2.54; R - 1 = 0.02423$$

3.56 base_Alens_plikHM_TTTEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02251 \pm 0.00014 \quad (+0.7\sigma)$	σ_8	$0.8027^{+0.0060}_{-0.0068} \quad (-1.4\sigma)$	$D_M(0.15)$	$636.6 \pm 4.1 \quad (-1.2\sigma)$
$\Omega_c h^2$	$0.1182 \pm 0.0011 \quad (-1.2\sigma)$	S_8	$0.809 \pm 0.013 \quad (-1.6\sigma)$	$H(0.38)$	$83.36 \pm 0.31 \quad (+1.1\sigma)$
$100\theta_{MC}$	$1.04110 \pm 0.00029 \quad (+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4429 \pm 0.0073 \quad (-1.6\sigma)$	$D_M(0.38)$	$1519.9 \pm 8.3 \quad (-1.2\sigma)$
τ	$0.0526^{+0.0036}_{-0.0075} \quad (-0.6\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.5962 \pm 0.0071 \quad (-1.6\sigma)$	$H(0.51)$	$90.01 \pm 0.25 \quad (+1.1\sigma)$
A_L	1.064 ± 0.033	$\sigma_8/h^{0.5}$	$0.972 \pm 0.010 \quad (-1.6\sigma)$	$D_M(0.51)$	$1970.0 \pm 9.8 \quad (-1.2\sigma)$
$\ln(10^{10} A_s)$	$3.036^{+0.010}_{-0.015} \quad (-0.9\sigma)$	$r_{drag} h$	$100.47 \pm 0.84 \quad (+1.2\sigma)$	$H(0.61)$	$95.58 \pm 0.21 \quad (+1.0\sigma)$
n_s	$0.9696 \pm 0.0040 \quad (+0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.482 \pm 0.029 \quad (+2.1\sigma)$	$D_M(0.61)$	$2293 \pm 11 \quad (-1.2\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.3\sigma)$	z_{re}	$7.44^{+0.32}_{-0.84} \quad (-0.7\sigma)$	$H(2.33)$	$235.56 \pm 0.64 \quad (-1.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_s$	$2.082^{+0.021}_{-0.031} \quad (-0.9\sigma)$	$D_M(2.33)$	$5750.9 \pm 9.8 \quad (-0.9\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.386 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.874 \pm 0.011 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4480 \pm 0.0069 \quad (-1.6\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (+0.1\sigma)$	D_{40}	$1219 \pm 12 \quad (-0.9\sigma)$	$\sigma_8(0.15)$	$0.7424^{+0.0051}_{-0.0060} \quad (-1.3\sigma)$
A_{100}^{PS}	$255 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5735 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4677 \pm 0.0058 \quad (-1.6\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.2\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.6589^{+0.0041}_{-0.0051} \quad (-1.1\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$816.5 \pm 4.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4671 \pm 0.0051 \quad (-1.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$231.4 \pm 1.6 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6169^{+0.0036}_{-0.0047} \quad (-1.1\sigma)$
A^{kSZ}	$< 3.98 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9696 \pm 0.0040 \quad (+0.8\sigma)$	$f\sigma_8(0.61)$	$0.4628 \pm 0.0047 \quad (-1.6\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.9 \quad (+0.0\sigma)$	Y_P	$0.245448 \pm 0.000054 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.5872^{+0.0034}_{-0.0045} \quad (-1.0\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246775 \pm 0.000054 \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0016}_{-0.0022} \quad (-0.9\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.560 \pm 0.026 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3059^{+0.0016}_{-0.0023} \quad (-0.7\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.4 \quad (+0.0\sigma)$	Age/Gyr	$13.770 \pm 0.022 \quad (-0.8\sigma)$	f_{2000}^{143}	$28.4 \pm 2.7 \quad (-0.3\sigma)$
A_{100}^{dustTE}	$0.113 \pm 0.038 \quad (-0.0\sigma)$	z_*	$1089.59 \pm 0.24 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 1.8 \quad (-0.4\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$144.78 \pm 0.24 \quad (+1.0\sigma)$	f_{2000}^{217}	$106.2 \pm 1.8 \quad (-0.4\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00029 \quad (+0.3\sigma)$	$\chi_{lensing}^2$	$10.5 \pm 2.2 \quad (+2.6\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.054 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.904 \pm 0.023 \quad (+0.9\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.4\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.662 \pm 0.080 \quad (-0.1\sigma)$	z_{drag}	$1060.14 \pm 0.30 \quad (+0.4\sigma)$	χ_{lowl}^2	$22.52 \pm 0.78 \quad (-0.9\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.1\sigma)$	r_{drag}	$147.40 \pm 0.24 \quad (+0.8\sigma)$	χ_{plik}^2	$2356.5 \pm 5.8 \quad (-0.5\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	k_D	$0.14065 \pm 0.00028 \quad (-0.5\sigma)$	χ_{6DF}^2	$0.030 \pm 0.042 \quad (-0.4\sigma)$
c_{217}	$0.99817 \pm 0.00063 \quad (-0.0\sigma)$	$100\theta_D$	$0.16065 \pm 0.00017 \quad (-0.4\sigma)$	χ_{MGS}^2	$1.75 \pm 0.52 \quad (+1.3\sigma)$
H_0	$68.16 \pm 0.49 \quad (+1.2\sigma)$	z_{eq}	$3363 \pm 24 \quad (-1.1\sigma)$	$\chi_{DR12BAO}^2$	$3.98 \pm 0.81 \quad (-0.6\sigma)$
Ω_Λ	$0.6956 \pm 0.0064 \quad (+1.2\sigma)$	k_{eq}	$0.010265 \pm 0.000073 \quad (-1.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_m	$0.3044 \pm 0.0064 \quad (-1.2\sigma)$	$100\theta_{eq}$	$0.8209 \pm 0.0046 \quad (+1.2\sigma)$	χ_{CMB}^2	$2785.9 \pm 5.7 \quad (-0.5\sigma)$
$\Omega_m h^2$	$0.1414 \pm 0.0010 \quad (-1.1\sigma)$	$100\theta_{s,eq}$	$0.4532 \pm 0.0023 \quad (+1.2\sigma)$	χ_{BAO}^2	$5.75 \pm 0.74 \quad (-0.3\sigma)$
$\Omega_m h^3$	$0.09637 \pm 0.00029 \quad (+0.1\sigma)$	$H(0.15)$	$73.37 \pm 0.42 \quad (+1.2\sigma)$		

$\bar{\chi}_{eff}^2 = 2803.19$; $\Delta\bar{\chi}_{eff}^2 = -3.53$; $R - 1 = 0.03248$

3.57 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022439	0.02243 ± 0.00018 (+0.9 σ)	S_8	0.8055	0.805 ± 0.019 (−1.8 σ)	$H(0.15)$	73.34	73.30 ± 0.62 (+1.3 σ)
$\Omega_c h^2$	0.11807	0.1182 ± 0.0016 (−1.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4412	0.441 ± 0.010 (−1.8 σ)	$D_M(0.15)$	636.8	637.2 ± 6.1 (−1.3 σ)
$100\theta_{MC}$	1.041051	1.04104 ± 0.00032 (+0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5941	0.5937 ± 0.0099 (−1.9 σ)	$H(0.38)$	83.319	83.29 ± 0.46 (+1.3 σ)
τ	0.0504	$0.0490^{+0.0082}_{-0.0072}$ (−0.6 σ)	$\sigma_8/h^{0.5}$	0.9693	0.969 ± 0.014 (−1.9 σ)	$D_M(0.38)$	1520.5	1521 ± 12 (−1.3 σ)
A_L	1.0624	1.064 ± 0.042	$r_{drag} h$	100.52	100.5 ± 1.2 (+1.3 σ)	$H(0.51)$	89.961	89.94 ± 0.36 (+1.3 σ)
$\ln(10^{10} A_s)$	3.0296	$3.027^{+0.017}_{-0.015}$ (−1.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4717	2.471 ± 0.031 (+1.5 σ)	$D_M(0.51)$	1970.8	1972 ± 14 (−1.3 σ)
n_s	0.9700	0.9695 ± 0.0051 (+0.9 σ)	z_{re}	7.24	$7.07^{+0.90}_{-0.70}$ (−0.7 σ)	$H(0.61)$	95.521	95.51 ± 0.29 (+1.2 σ)
y_{cal}	1.00004	1.0000 ± 0.0024 (−0.2 σ)	$10^9 A_s$	2.0690	$2.063^{+0.035}_{-0.031}$ (−1.0 σ)	$D_M(0.61)$	2294.3	2295 ± 16 (−1.3 σ)
A_{100}^{PS}	240.0	237 ± 25 (−0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8704	1.871 ± 0.012 (−0.8 σ)	$H(2.33)$	235.37	235.42 ± 0.92 (−1.2 σ)
A_{143}^{PS}	36.7	38 ± 8 (−0.2 σ)	D_{40}	1215.4	1216 ± 14 (−0.9 σ)	$D_M(2.33)$	5754.4	5755 ± 13 (−1.1 σ)
A_{217}^{PS}	105.3	103 ± 10 (+0.0 σ)	D_{220}	5720.6	5721 ± 39 (+0.0 σ)	$f\sigma_8(0.15)$	0.4463	0.4462 ± 0.0099 (−1.8 σ)
A_{217}^{CIB}	37.5	39^{+7}_{-7} (−0.1 σ)	D_{810}	2530.1	2530 ± 14 (−0.4 σ)	$\sigma_8(0.15)$	0.7401	0.7391 ± 0.0074 (−1.5 σ)
A_{143}^{tSZ}	3.47	$3.9^{+1.9}_{-2.5}$ (+0.0 σ)	D_{1420}	815.25	815.0 ± 4.8 (−0.2 σ)	$f\sigma_8(0.38)$	0.4661	0.4657 ± 0.0082 (−1.9 σ)
$r_{143 \times 217}^{PS}$	0.676	0.66 ± 0.13 (+0.0 σ)	D_{2000}	230.79	230.6 ± 1.6 (+0.2 σ)	$\sigma_8(0.38)$	0.6569	$0.6559^{+0.0062}_{-0.0056}$ (−1.3 σ)
$r_{143 \times 217}^{CIB}$	0.410	$0.54^{+0.36}_{-0.22}$ (−0.1 σ)	$n_{s,0.002}$	0.9700	0.9695 ± 0.0051 (+0.9 σ)	$f\sigma_8(0.51)$	0.4656	0.4652 ± 0.0072 (−1.9 σ)
$\xi^{tSZ \times CIB}$	0.36	—	Y_P	0.245422	0.245415 ± 0.000070 (+0.8 σ)	$\sigma_8(0.51)$	0.6150	$0.6141^{+0.0057}_{-0.0050}$ (−1.2 σ)
A^{kSZ}	4.66	$4.6^{+1.8}_{-4.2}$ (−0.1 σ)	Y_P^{BBN}	0.246749	0.246742 ± 0.000070 (+0.8 σ)	$f\sigma_8(0.61)$	0.4612	0.4608 ± 0.0065 (−1.9 σ)
A_{100}^{dust}	1.019	1.02 ± 0.19 (+0.0 σ)	$10^5 D/H$	2.5727	2.576 ± 0.033 (−0.9 σ)	$\sigma_8(0.61)$	0.5854	$0.5846^{+0.0053}_{-0.0047}$ (−1.2 σ)
A_{143}^{dust}	0.957	0.96 ± 0.18 (+0.0 σ)	Age/Gyr	13.7783	13.780 ± 0.029 (−1.1 σ)	$f\sigma_8(2.33)$	0.29548	$0.2950^{+0.0026}_{-0.0023}$ (−1.0 σ)
A_{217}^{dust}	0.971	0.98 ± 0.10 (+0.0 σ)	z_*	1089.664	1089.69 ± 0.33 (−1.2 σ)	$\sigma_8(2.33)$	0.30496	$0.3045^{+0.0026}_{-0.0023}$ (−0.7 σ)
$A_{143 \times 217}^{dust}$	1.052	1.02 ± 0.16 (−0.0 σ)	r_*	144.879	144.87 ± 0.34 (+1.1 σ)	f_{2000}^{143}	28.53	28.7 ± 2.9 (−0.4 σ)
c_{100}	0.99749	0.9975 ± 0.0010 (+0.0 σ)	$100\theta_*$	1.041230	1.04122 ± 0.00032 (+0.5 σ)	f_{2000}^{217}	105.95	106.1 ± 2.0 (−0.4 σ)
c_{217}	1.00069	1.0010 ± 0.0016 (−0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9142	13.913 ± 0.031 (+1.0 σ)	$f_{2000}^{143 \times 217}$	31.29	31.3 ± 2.1 (−0.4 σ)
c_{TE}	0.9949	0.9951 ± 0.0050 (−0.3 σ)	z_{drag}	1059.971	1059.94 ± 0.35 (+0.6 σ)	$\chi^2_{lensing}$	9.02	9.8 ± 1.7 (+0.7 σ)
c_{EE}	0.99147	0.9917 ± 0.0049 (−0.1 σ)	r_{drag}	147.526	147.52 ± 0.33 (+0.9 σ)	χ^2_{small}	395.66	396.8 ± 1.5 (−0.1 σ)
H_0	68.14	68.10 ± 0.72 (+1.3 σ)	k_D	0.140460	0.14046 ± 0.00035 (−0.5 σ)	χ^2_{lowl}	22.23	22.37 ± 0.94 (−1.0 σ)
Ω_Λ	0.6960	0.6953 ± 0.0095 (+1.3 σ)	$100\theta_D$	0.160745	0.16076 ± 0.00020 (−0.6 σ)	$\chi^2_{CamSpec}$	11498.6	11513.3 ± 5.7 (−0.2 σ)
Ω_m	0.3040	0.3047 ± 0.0095 (−1.3 σ)	z_{eq}	3357.7	3360 ± 35 (−1.2 σ)	χ^2_{prior}	2.14	7.7 ± 3.3 (−0.1 σ)
$\Omega_m h^2$	0.14115	0.1412 ± 0.0015 (−1.2 σ)	k_{eq}	0.010248	0.01025 ± 0.00011 (−1.2 σ)	χ^2_{CMB}	11925.5	11942.2 ± 5.8 (−0.2 σ)
$\Omega_m h^3$	0.096178	0.09616 ± 0.00032 (+0.2 σ)	$100\theta_{eq}$	0.8216	0.8213 ± 0.0068 (+1.3 σ)			
σ_8	0.8001	0.7991 ± 0.0086 (−1.7 σ)	$100\theta_{s,eq}$	0.45368	0.4535 ± 0.0035 (+1.3 σ)			

Best-fit $\chi^2_{eff} = 11927.65$; $\Delta\chi^2_{eff} = -2.01$; $\bar{\chi}^2_{eff} = 11949.88$; $\Delta\bar{\chi}^2_{eff} = -1.56$; $R - 1 = 0.01480$
 χ^2_{eff} : CMB - smicadx12.Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.02 (Δ 0.19) small_100x143_offlike5.EE_Aplanck.B: 395.66 (Δ -0.21) commander_dx12.v3.2.29: 22.23 (Δ -0.99) CamSpec like_10.7HM_1400_unified: 11498.60 (Δ -1.05)

3.58 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02242 \pm 0.00016 \quad (+0.6\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4411 \pm 0.0078 \quad (-1.6\sigma)$	$H(0.38)$	$83.29 \pm 0.32 \quad (+1.0\sigma)$
$\Omega_{\text{c}}h^2$	$0.1182 \pm 0.0011 \quad (-1.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.5937 \pm 0.0078 \quad (-1.7\sigma)$	$D_{\text{M}}(0.38)$	$1521.4 \pm 8.5 \quad (-1.0\sigma)$
$100\theta_{\text{MC}}$	$1.04104 \pm 0.00029 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.969 \pm 0.012 \quad (-1.7\sigma)$	$H(0.51)$	$89.94^{+0.24}_{-0.27} \quad (+1.0\sigma)$
τ	$0.0489^{+0.0081}_{-0.0072} \quad (-0.9\sigma)$	$r_{\text{drag}}h$	$100.44 \pm 0.85 \quad (+1.0\sigma)$	$D_{\text{M}}(0.51)$	$1972 \pm 10 \quad (-1.0\sigma)$
A_{L}	1.064 ± 0.037	$\langle d^2 \rangle^{1/2}$	$2.471 \pm 0.031 \quad (+2.0\sigma)$	$H(0.61)$	$95.50^{+0.20}_{-0.23} \quad (+0.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.027^{+0.017}_{-0.015} \quad (-1.1\sigma)$	z_{re}	$7.06^{+0.88}_{-0.71} \quad (-1.0\sigma)$	$D_{\text{M}}(0.61)$	$2295 \pm 11 \quad (-1.0\sigma)$
n_{s}	$0.9695 \pm 0.0042 \quad (+0.6\sigma)$	$10^9 A_{\text{s}}$	$2.063 \pm 0.035 \quad (-1.1\sigma)$	$H(2.33)$	$235.42 \pm 0.66 \quad (-0.9\sigma)$
y_{cal}	$1.0000 \pm 0.0024 \quad (-0.3\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.871 \pm 0.011 \quad (-0.6\sigma)$	$D_{\text{M}}(2.33)$	$5755^{+11}_{-9.6} \quad (-0.8\sigma)$
A_{100}^{PS}	$237 \pm 24 \quad (-0.1\sigma)$	D_{40}	$1216 \pm 13 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4462 \pm 0.0074 \quad (-1.6\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-0.2\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7391 \pm 0.0069 \quad (-1.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.4658 \pm 0.0064 \quad (-1.7\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{1420}	$814.9 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6559 \pm 0.0059 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$230.6 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4652 \pm 0.0058 \quad (-1.7\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9695 \pm 0.0042 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6141 \pm 0.0054 \quad (-1.3\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.54^{+0.38}_{-0.20} \quad (-0.0\sigma)$	Y_{P}	$0.245414 \pm 0.000060 \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.4608 \pm 0.0054 \quad (-1.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246741 \pm 0.000060 \quad (+0.6\sigma)$	$\sigma_8(0.61)$	$0.5846 \pm 0.0051 \quad (-1.2\sigma)$
A^{kSZ}	$4.6^{+2.0}_{-4.1} \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.576 \pm 0.028 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.2950 \pm 0.0025 \quad (-1.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.781 \pm 0.023 \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3045 \pm 0.0026 \quad (-1.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.69 \pm 0.25 \quad (-0.8\sigma)$	f_{2000}^{143}	$28.8 \pm 2.8 \quad (-0.3\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.87 \pm 0.25 \quad (+0.7\sigma)$	f_{2000}^{217}	$106.1 \pm 2.0 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04122 \pm 0.00029 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 2.0 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.913 \pm 0.024 \quad (+0.7\sigma)$	χ_{lensing}^2	$9.8 \pm 1.7 \quad (+0.7\sigma)$
c_{217}	$1.0010 \pm 0.0015 \quad (-0.0\sigma)$	z_{drag}	$1059.93 \pm 0.33 \quad (+0.4\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.2\sigma)$
c_{TE}	$0.9952 \pm 0.0050 \quad (-0.3\sigma)$	r_{drag}	$147.52 \pm 0.26 \quad (+0.6\sigma)$	χ_{lowl}^2	$22.35 \pm 0.81 \quad (-0.8\sigma)$
c_{EE}	$0.9917 \pm 0.0049 \quad (-0.1\sigma)$	k_{D}	$0.14046 \pm 0.00031 \quad (-0.3\sigma)$	χ_{CamSpec}^2	$11512.7 \pm 5.5 \quad (-0.3\sigma)$
H_0	$68.09 \pm 0.50 \quad (+1.0\sigma)$	$100\theta_{\text{D}}$	$0.16076 \pm 0.00019 \quad (-0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.031 \pm 0.043 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6953 \pm 0.0065 \quad (+1.0\sigma)$	z_{eq}	$3360 \pm 25 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.74 \pm 0.52 \quad (+1.1\sigma)$
Ω_{m}	$0.3047 \pm 0.0065 \quad (-1.0\sigma)$	k_{eq}	$0.010254 \pm 0.000075 \quad (-0.9\sigma)$	χ_{DR12BAO}^2	$3.99 \pm 0.85 \quad (-0.5\sigma)$
$\Omega_{\text{m}}h^2$	$0.1412 \pm 0.0010 \quad (-0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8213 \pm 0.0047 \quad (+1.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.3 \quad (-0.0\sigma)$
$\Omega_{\text{m}}h^3$	$0.09616 \pm 0.00031 \quad (+0.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4535 \pm 0.0024 \quad (+0.9\sigma)$	χ_{CMB}^2	$11941.7 \pm 5.8 \quad (-0.3\sigma)$
σ_8	$0.7992 \pm 0.0078 \quad (-1.5\sigma)$	$H(0.15)$	$73.30 \pm 0.43 \quad (+1.0\sigma)$	χ_{BAO}^2	$5.76 \pm 0.76 \quad (-0.2\sigma)$
S_8	$0.805 \pm 0.014 \quad (-1.6\sigma)$	$D_{\text{M}}(0.15)$	$637.2 \pm 4.2 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11955.09; \Delta\bar{\chi}_{\text{eff}}^2 = -2.31; R - 1 = 0.01872$$

3.59 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02243 \pm 0.00018 \quad (+0.8\sigma)$	S_8	$0.808 \pm 0.019 \quad (-1.6\sigma)$	$H(0.15)$	$73.31 \pm 0.62 \quad (+1.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0016 \quad (-1.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.442 \pm 0.010 \quad (-1.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.1 \pm 6.1 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04104 \pm 0.00033 \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5955 \pm 0.0094 \quad (-1.6\sigma)$	$H(0.38)$	$83.30 \pm 0.46 \quad (+1.3\sigma)$
τ	$0.0522^{+0.0035}_{-0.0073} \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.971 \pm 0.013 \quad (-1.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521 \pm 12 \quad (-1.3\sigma)$
A_{L}	1.058 ± 0.040	$r_{\mathrm{drag}}h$	$100.5 \pm 1.3 \quad (+1.3\sigma)$	$H(0.51)$	$89.95 \pm 0.37 \quad (+1.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.033^{+0.010}_{-0.014} \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.471 \pm 0.031 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 14 \quad (-1.3\sigma)$
n_{s}	$0.9697 \pm 0.0051 \quad (+0.9\sigma)$	z_{re}	$7.41^{+0.32}_{-0.81} \quad (-0.5\sigma)$	$H(0.61)$	$95.51 \pm 0.30 \quad (+1.2\sigma)$
y_{cal}	$0.99998 \pm 0.0024 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.076^{+0.021}_{-0.029} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 16 \quad (-1.3\sigma)$
A_{100}^{PS}	$237 \pm 25 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.8\sigma)$	$H(2.33)$	$235.40 \pm 0.92 \quad (-1.2\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-0.2\sigma)$	D_{40}	$1217 \pm 14 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 13 \quad (-1.1\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4474 \pm 0.0096 \quad (-1.6\sigma)$
A_{217}^{CIB}	$39^{+7}_{-7} \quad (-0.1\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.7414 \pm 0.0062 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$814.9 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4671 \pm 0.0078 \quad (-1.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6579^{+0.0044}_{-0.0052} \quad (-1.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.36}_{-0.22} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9697 \pm 0.0051 \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.4665 \pm 0.0068 \quad (-1.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245415 \pm 0.000070 \quad (+0.8\sigma)$	$\sigma_8(0.51)$	$0.6160^{+0.0038}_{-0.0047} \quad (-1.0\sigma)$
A^{kSZ}	$4.6^{+1.7}_{-4.2} \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246742 \pm 0.000071 \quad (+0.8\sigma)$	$f\sigma_8(0.61)$	$0.4622 \pm 0.0060 \quad (-1.6\sigma)$
A_{100}^{dust}	$1.02 \pm 0.19 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.576 \pm 0.033 \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.5864^{+0.0035}_{-0.0044} \quad (-0.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.780 \pm 0.029 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0016}_{-0.0021} \quad (-0.7\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.69 \pm 0.33 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3054^{+0.0016}_{-0.0022} \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.87 \pm 0.34 \quad (+1.1\sigma)$	f_{2000}^{143}	$28.7 \pm 2.9 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04122 \pm 0.00032 \quad (+0.5\sigma)$	f_{2000}^{217}	$106.1 \pm 2.0 \quad (-0.4\sigma)$
c_{217}	$1.0010 \pm 0.0016 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.914 \pm 0.031 \quad (+1.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 2.1 \quad (-0.4\sigma)$
c_{TE}	$0.9951 \pm 0.0050 \quad (-0.3\sigma)$	z_{drag}	$1059.93 \pm 0.36 \quad (+0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.8 \pm 1.7 \quad (+0.9\sigma)$
c_{EE}	$0.9917 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.52 \pm 0.33 \quad (+0.9\sigma)$	χ_{small}^2	$396.31 \pm 0.98 \quad (-0.3\sigma)$
H_0	$68.11 \pm 0.73 \quad (+1.3\sigma)$	k_{D}	$0.14045 \pm 0.00035 \quad (-0.5\sigma)$	χ_{lowl}^2	$22.43 \pm 0.95 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6954 \pm 0.0095 \quad (+1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00020 \quad (-0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.3 \pm 5.7 \quad (-0.1\sigma)$
Ω_{m}	$0.3046 \pm 0.0095 \quad (-1.3\sigma)$	z_{eq}	$3359 \pm 35 \quad (-1.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1412 \pm 0.0015 \quad (-1.2\sigma)$	k_{eq}	$0.01025 \pm 0.00011 \quad (-1.2\sigma)$	χ_{CMB}^2	$11941.9 \pm 5.8 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09616 \pm 0.00032 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8214 \pm 0.0068 \quad (+1.3\sigma)$		
σ_8	$0.8016 \pm 0.0074 \quad (-1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4536 \pm 0.0035 \quad (+1.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11949.57$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.67$; $R - 1 = 0.01602$

3.60 base_Alens_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02242 \pm 0.00016 \quad (+0.6\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4425 \pm 0.0074 \quad (-1.4\sigma)$	$H(0.38)$	$83.29 \pm 0.32 \quad (+1.0\sigma)$
$\Omega_c h^2$	$0.1182 \pm 0.0011 \quad (-1.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.5956 \pm 0.0071 \quad (-1.4\sigma)$	$D_M(0.38)$	$1521.3 \pm 8.5 \quad (-1.0\sigma)$
$100\theta_{MC}$	$1.04104 \pm 0.00030 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9715^{+0.0095}_{-0.011} \quad (-1.4\sigma)$	$H(0.51)$	$89.94 \pm 0.26 \quad (+0.9\sigma)$
τ	$0.0521^{+0.0035}_{-0.0071} \quad (-0.6\sigma)$	$r_{\text{drag}} h$	$100.45 \pm 0.85 \quad (+1.0\sigma)$	$D_M(0.51)$	$1972 \pm 10 \quad (-1.0\sigma)$
A_L	1.057 ± 0.035	$\langle d^2 \rangle^{1/2}$	$2.471 \pm 0.031 \quad (+2.0\sigma)$	$H(0.61)$	$95.50^{+0.20}_{-0.23} \quad (+0.9\sigma)$
$\ln(10^{10} A_s)$	$3.0329^{+0.0098}_{-0.014} \quad (-0.8\sigma)$	z_{re}	$7.40^{+0.31}_{-0.81} \quad (-0.6\sigma)$	$D_M(0.61)$	$2295 \pm 11 \quad (-1.0\sigma)$
n_s	$0.9696 \pm 0.0042 \quad (+0.6\sigma)$	$10^9 A_s$	$2.076^{+0.020}_{-0.030} \quad (-0.8\sigma)$	$H(2.33)$	$235.41 \pm 0.66 \quad (-0.8\sigma)$
y_{cal}	$1.0000 \pm 0.0024 \quad (-0.3\sigma)$	$10^9 A_s e^{-2\tau}$	$1.871 \pm 0.011 \quad (-0.6\sigma)$	$D_M(2.33)$	$5755 \pm 10 \quad (-0.8\sigma)$
A_{100}^{PS}	$237 \pm 25 \quad (-0.1\sigma)$	D_{40}	$1217 \pm 13 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4476 \pm 0.0069 \quad (-1.4\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-0.2\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7415^{+0.0048}_{-0.0061} \quad (-1.2\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.4672 \pm 0.0058 \quad (-1.4\sigma)$
A_{217}^{CIB}	$39^{+7}_{-7} \quad (-0.1\sigma)$	D_{1420}	$814.9 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6580^{+0.0039}_{-0.0051} \quad (-1.0\sigma)$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$230.6 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4666^{+0.0049}_{-0.0054} \quad (-1.4\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9696 \pm 0.0042 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6161^{+0.0035}_{-0.0047} \quad (-1.0\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.54^{+0.38}_{-0.20} \quad (-0.0\sigma)$	Y_P	$0.245414 \pm 0.000060 \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.4623^{+0.0044}_{-0.0050} \quad (-1.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.246741 \pm 0.000060 \quad (+0.6\sigma)$	$\sigma_8(0.61)$	$0.5864^{+0.0032}_{-0.0044} \quad (-0.9\sigma)$
A^{kSZ}	$4.6^{+1.9}_{-4.1} \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.576 \pm 0.029 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0015}_{-0.0022} \quad (-0.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.781 \pm 0.023 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3054^{+0.0015}_{-0.0023} \quad (-0.7\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.69 \pm 0.25 \quad (-0.8\sigma)$	f_{2000}^{143}	$28.7 \pm 2.8 \quad (-0.3\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.87 \pm 0.25 \quad (+0.7\sigma)$	f_{2000}^{217}	$106.1 \pm 2.0 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04122 \pm 0.00029 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 2.0 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.913 \pm 0.024 \quad (+0.7\sigma)$	χ_{lensing}^2	$9.8 \pm 1.7 \quad (+0.9\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (-0.0\sigma)$	z_{drag}	$1059.93 \pm 0.33 \quad (+0.4\sigma)$	χ_{small}^2	$396.31 \pm 0.99 \quad (-0.4\sigma)$
c_{TE}	$0.9951 \pm 0.0050 \quad (-0.3\sigma)$	r_{drag}	$147.52 \pm 0.26 \quad (+0.6\sigma)$	χ_{lowl}^2	$22.41 \pm 0.82 \quad (-0.7\sigma)$
c_{EE}	$0.9917 \pm 0.0050 \quad (-0.1\sigma)$	k_D	$0.14045 \pm 0.00032 \quad (-0.3\sigma)$	χ_{CamSpec}^2	$11512.7 \pm 5.6 \quad (-0.3\sigma)$
H_0	$68.09 \pm 0.50 \quad (+1.0\sigma)$	$100\theta_D$	$0.16076 \pm 0.00019 \quad (-0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.031 \pm 0.043 \quad (-0.3\sigma)$
Ω_Λ	$0.6953 \pm 0.0065 \quad (+1.0\sigma)$	z_{eq}	$3359 \pm 24 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.74 \pm 0.52 \quad (+1.1\sigma)$
Ω_m	$0.3047 \pm 0.0065 \quad (-1.0\sigma)$	k_{eq}	$0.010253 \pm 0.000075 \quad (-0.9\sigma)$	χ_{DR12BAO}^2	$3.99 \pm 0.84 \quad (-0.5\sigma)$
$\Omega_m h^2$	$0.1412 \pm 0.0010 \quad (-0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8213 \pm 0.0047 \quad (+0.9\sigma)$	χ_{prior}^2	$7.7 \pm 3.3 \quad (-0.0\sigma)$
$\Omega_m h^3$	$0.09616 \pm 0.00032 \quad (+0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4535 \pm 0.0024 \quad (+0.9\sigma)$	χ_{CMB}^2	$11941.3 \pm 5.7 \quad (-0.4\sigma)$
σ_8	$0.8017^{+0.0056}_{-0.0070} \quad (-1.2\sigma)$	$H(0.15)$	$73.30 \pm 0.43 \quad (+1.0\sigma)$	χ_{BAO}^2	$5.76 \pm 0.76 \quad (-0.2\sigma)$
S_8	$0.808 \pm 0.013 \quad (-1.4\sigma)$	$D_M(0.15)$	$637.2 \pm 4.2 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11954.75; \Delta\bar{\chi}_{\text{eff}}^2 = -2.51; R - 1 = 0.02132$$

3.61 base_Alens_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022674	0.02259 ± 0.00029 (+2.2 σ)	$\sigma_8/h^{0.5}$	0.9570	0.956 ± 0.021 (-2.1 σ)	$D_M(0.15)$	628.9	630 ± 10 (-2.1 σ)
$\Omega_c h^2$	0.11638	0.1165 ± 0.0025 (-1.9 σ)	$r_{\text{drag}} h$	102.03	101.9 ± 2.1 (+2.0 σ)	$H(0.38)$	83.95	83.85 ± 0.78 (+2.3 σ)
$100\theta_{\text{MC}}$	1.04145	1.04139 ± 0.00053 (+1.3 σ)	$\langle d^2 \rangle^{1/2}$	2.656	2.630 ± 0.079 (+4.8 σ)	$D_M(0.38)$	1504.4	1507 ± 20 (-2.2 σ)
τ	0.0517	$0.0500^{+0.0087}_{-0.0077}$ (-0.2 σ)	z_{re}	7.30	$7.12^{+0.93}_{-0.73}$ (-0.4 σ)	$H(0.51)$	90.48	90.39 ± 0.63 (+2.4 σ)
A_L	1.260	1.236 ± 0.098	$10^9 A_s$	2.0684	$2.061^{+0.038}_{-0.034}$ (-0.7 σ)	$D_M(0.51)$	1951.8	1955 ± 24 (-2.2 σ)
$\ln(10^{10} A_s)$	3.0294	$3.025^{+0.019}_{-0.016}$ (-0.7 σ)	$10^9 A_s e^{-2\tau}$	1.8652	1.864 ± 0.015 (-1.2 σ)	$H(0.61)$	95.95	95.87 ± 0.51 (+2.4 σ)
n_s	0.9761	0.9737 ± 0.0073 (+2.0 σ)	D_{40}	1204.1	1208 ± 18 (-1.6 σ)	$D_M(0.61)$	2273.6	2277 ± 26 (-2.2 σ)
y_{cal}	0.99997	1.0000 ± 0.0025 (-0.1 σ)	D_{220}	5731.7	5730 ± 42 (+0.6 σ)	$H(2.33)$	234.53	234.5 ± 1.4 (-1.6 σ)
A_{100}^{PS}	225.9	240 ± 30 (-0.6 σ)	D_{810}	2525.9	2523 ± 14 (-0.6 σ)	$D_M(2.33)$	5734.8	5739 ± 23 (-2.4 σ)
A_{143}^{tSZ}	6.42	4.5 ± 2.1 (+0.4 σ)	D_{1420}	814.9	812.8 ± 5.2 (+0.0 σ)	$f\sigma_8(0.15)$	0.4363	0.436 ± 0.015 (-2.1 σ)
A^{kSZ}	0.00	< 5.02 (-0.5 σ)	D_{2000}	232.82	231.7 ± 2.1 (+1.5 σ)	$\sigma_8(0.15)$	0.7368	0.7351 ± 0.0094 (-1.7 σ)
A_{100}^{dust}	1.003	1.01 ± 0.19 (+0.0 σ)	$n_{s,0.002}$	0.9761	0.9737 ± 0.0073 (+2.0 σ)	$f\sigma_8(0.38)$	0.4584	0.458 ± 0.012 (-2.1 σ)
A_{143}^{power}	7.71	$8.0^{+2.1}_{-2.4}$ (-1.0 σ)	Y_P	0.245507	$0.24548^{+0.00011}_{-0.00012}$ (+2.1 σ)	$\sigma_8(0.38)$	0.6552	0.6535 ± 0.0073 (-1.4 σ)
A_{217}^{power}	6.54	$6.6^{+1.3}_{-2.1}$ (-0.7 σ)	Y_P^{BBN}	0.246834	$0.24681^{+0.00011}_{-0.00012}$ (+2.1 σ)	$f\sigma_8(0.51)$	0.4592	0.459 ± 0.011 (-2.1 σ)
$A_{143 \times 217}^{\text{power}}$	3.25	$2.67^{+0.79}_{-2.5}$ (-0.7 σ)	$10^5 D/H$	2.531	2.547 ± 0.052 (-2.2 σ)	$\sigma_8(0.51)$	0.6140	0.6124 ± 0.0065 (-1.2 σ)
$\gamma_{143}^{\text{power}}$	1.48	$1.34^{+0.50}_{-0.60}$ (-0.0 σ)	Age/Gyr	13.7352	13.746 ± 0.049 (-2.3 σ)	$f\sigma_8(0.61)$	0.4558	0.4552 ± 0.0096 (-2.1 σ)
$\gamma_{217}^{\text{power}}$	2.38	> 1.29 (+0.3 σ)	z_*	1089.23	1089.35 ± 0.53 (-2.4 σ)	$\sigma_8(0.61)$	0.5848	0.5832 ± 0.0060 (-1.1 σ)
$\gamma_{143 \times 217}^{\text{power}}$	2.17	$1.42^{+0.82}_{-0.53}$ (+0.1 σ)	r_*	145.14	145.17 ± 0.53 (+1.4 σ)	$f\sigma_8(2.33)$	0.29561	$0.2947^{+0.0029}_{-0.0026}$ (-0.7 σ)
c_{100}	0.99828	0.9979 ± 0.0011 (+0.1 σ)	$100\theta_*$	1.04160	1.04155 ± 0.00051 (+1.2 σ)	$\sigma_8(2.33)$	0.30562	$0.3047^{+0.0029}_{-0.0026}$ (-0.3 σ)
c_{217}	0.99823	$0.9992^{+0.0011}_{-0.0015}$ (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9343	13.938 ± 0.048 (+1.2 σ)	f_{2000}^{143}	17.45	19.4 ± 3.3 (-1.4 σ)
H_0	69.07	68.9 ± 1.2 (+2.2 σ)	z_{drag}	1060.39	1060.19 ± 0.56 (+1.9 σ)	f_{2000}^{217}	12.96	13.8 ± 2.3 (-1.6 σ)
Ω_Λ	0.7072	$0.705^{+0.016}_{-0.014}$ (+1.9 σ)	r_{drag}	147.72	147.78 ± 0.51 (+1.0 σ)	$f_{2000}^{143 \times 217}$	6.07	7.6 ± 2.4 (-1.7 σ)
Ω_m	0.2928	$0.295^{+0.014}_{-0.016}$ (-1.9 σ)	k_D	0.14043	0.14031 ± 0.00052 (-0.3 σ)	χ_{small}^2	395.68	396.8 ± 1.6 (-0.0 σ)
$\Omega_m h^2$	0.13970	0.1398 ± 0.0023 (-1.7 σ)	$100\theta_D$	0.160544	0.16065 ± 0.00030 (-1.7 σ)	χ_{lowl}^2	21.40	21.8 ± 1.1 (-1.5 σ)
$\Omega_m h^3$	0.096496	0.09633 ± 0.00049 (+1.1 σ)	z_{eq}	3323	3325 ± 55 (-1.7 σ)	χ_{CamSpec}^2	6699.06	6713.2 ± 5.2 (-0.6 σ)
σ_8	0.7953	0.794 ± 0.011 (-1.8 σ)	k_{eq}	0.010142	0.01015 ± 0.00017 (-1.7 σ)	χ_{prior}^2	1.59	5.1 ± 2.8 (-0.1 σ)
S_8	0.7857	0.786 ± 0.030 (-2.1 σ)	$100\theta_{\text{eq}}$	0.8290	0.829 ± 0.011 (+1.9 σ)	χ_{CMB}^2	7116.1	7131.9 ± 5.4 (-1.0 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4304	0.431 ± 0.016 (-2.1 σ)	$100\theta_{s,\text{eq}}$	0.4574	0.4572 ± 0.0056 (+1.8 σ)			
$\sigma_8 \Omega_m^{0.25}$	0.5851	0.585 ± 0.015 (-2.1 σ)	$H(0.15)$	74.16	74.0 ± 1.0 (+2.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 7117.73$; $\Delta\chi_{\text{eff}}^2 = -7.38$; $\bar{\chi}_{\text{eff}}^2 = 7136.94$; $\Delta\bar{\chi}_{\text{eff}}^2 = -5.26$; $R - 1 = 0.00677$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.11) commander_dx12_v3_2_29: 21.40 (Δ -2.30) CamSpec like_10.7cleaned: 6699.06 (Δ -5.37)

3.62 base_Alens_plikHM_TT

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022622	0.02251 ± 0.00030 (+0.3 σ)	σ_8	0.8476	$0.832^{+0.032}_{-0.053}$ (−1.3 σ)	$100\theta_D$	0.160585	0.16070 ± 0.00031 (−0.3 σ)
$\Omega_c h^2$	0.11688	0.1176 ± 0.0027 (−0.2 σ)	S_8	0.8418	$0.833^{+0.044}_{-0.053}$ (−1.5 σ)	z_{eq}	3334	3348 ± 60 (−0.2 σ)
$100\theta_{\text{MC}}$	1.04136	1.04126 ± 0.00054 (+0.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4611	$0.456^{+0.024}_{-0.029}$ (−1.5 σ)	k_{eq}	0.010174	0.01022 ± 0.00018 (−0.2 σ)
τ	0.112	< 0.114 (−1.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6251	$0.616^{+0.028}_{-0.037}$ (−1.6 σ)	$100\theta_{\text{eq}}$	0.8268	0.824 ± 0.012 (+0.2 σ)
A_L	1.100	$1.13^{+0.13}_{-0.15}$	$\sigma_8/h^{0.5}$	1.022	$1.006^{+0.043}_{-0.061}$ (−1.6 σ)	$100\theta_{s,\text{eq}}$	0.4563	0.4548 ± 0.0060 (+0.2 σ)
$\ln(10^{10} A_s)$	3.152	$3.109^{+0.068}_{-0.14}$ (−1.1 σ)	$r_{\text{drag}} h$	101.61	101.0 ± 2.2 (+0.2 σ)	$H(0.15)$	73.94	73.6 ± 1.1 (+0.3 σ)
n_s	0.9755	0.9718 ± 0.0082 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.648	2.629 ± 0.076 (+0.6 σ)	$D_M(0.15)$	631.0	634 ± 11 (−0.3 σ)
A_{217}^{CIB}	42.7	45 ± 7 (−0.0 σ)	z_{re}	12.71	10.5 ± 4.4 (−1.2 σ)	$H(0.38)$	83.78	83.54 ± 0.82 (+0.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	> 0.403 (+0.0 σ)	$10^9 A_s$	2.339	$2.25^{+0.13}_{-0.31}$ (−1.0 σ)	$D_M(0.38)$	1508.7	1515 ± 22 (−0.3 σ)
A_{143}^{tSZ}	6.71	$5.5^{+2.1}_{-1.8}$ (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8686	1.871 ± 0.016 (−0.1 σ)	$H(0.51)$	90.34	90.15 ± 0.65 (+0.3 σ)
A_{100}^{PS}	238.7	252 ± 30 (−0.1 σ)	D_{40}	1232.6	1235^{+22}_{-30} (−1.1 σ)	$D_M(0.51)$	1956.9	1965 ± 25 (−0.3 σ)
A_{143}^{PS}	49.6	43 ± 9 (−0.1 σ)	D_{220}	5732.7	5733 ± 42 (+0.2 σ)	$H(0.61)$	95.84	$95.69^{+0.50}_{-0.56}$ (+0.3 σ)
$A_{143 \times 217}^{\text{PS}}$	56.8	41 ± 9 (−0.1 σ)	D_{810}	2528.8	2528 ± 14 (−0.1 σ)	$D_M(0.61)$	2279.1	2287 ± 28 (−0.3 σ)
A_{217}^{PS}	122.9	115 ± 10 (−0.0 σ)	D_{1420}	815.7	814.0 ± 5.1 (−0.0 σ)	$H(2.33)$	234.79	235.2 ± 1.6 (−0.2 σ)
A^{kSZ}	0.00	< 3.48 (−0.1 σ)	D_{2000}	232.97	231.9 ± 2.1 (+0.2 σ)	$D_M(2.33)$	5739.6	5747 ± 23 (−0.3 σ)
A_{100}^{dustTT}	8.73	8.8 ± 1.8 (+0.0 σ)	$n_{s,0.002}$	0.9755	0.9718 ± 0.0082 (+0.1 σ)	$f\sigma_8(0.15)$	0.4671	$0.462^{+0.023}_{-0.029}$ (−1.5 σ)
A_{143}^{dustTT}	10.53	10.5 ± 1.8 (−0.0 σ)	Y_P	0.245488	0.24545 ± 0.00012 (+0.3 σ)	$\sigma_8(0.15)$	0.7849	$0.770^{+0.028}_{-0.050}$ (−1.3 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.56	17.9 ± 3.3 (−0.0 σ)	Y_P^{BBN}	0.246814	0.24677 ± 0.00012 (+0.3 σ)	$f\sigma_8(0.38)$	0.4900	$0.483^{+0.022}_{-0.029}$ (−1.6 σ)
A_{217}^{dustTT}	95.5	93.6 ± 7.3 (−0.0 σ)	10^5D/H	2.541	2.561 ± 0.054 (−0.3 σ)	$\sigma_8(0.38)$	0.6976	$0.684^{+0.024}_{-0.045}$ (−1.2 σ)
c_{100}	0.99970	0.99963 ± 0.00061 (+0.0 σ)	Age/Gyr	13.745	13.762 ± 0.051 (−0.3 σ)	$f\sigma_8(0.51)$	0.4905	$0.483^{+0.021}_{-0.029}$ (−1.6 σ)
c_{217}	0.99816	0.99818 ± 0.00062 (−0.0 σ)	z_*	1089.33	1089.54 ± 0.56 (−0.3 σ)	$\sigma_8(0.51)$	0.6536	$0.640^{+0.022}_{-0.043}$ (−1.1 σ)
y_{cal}	0.99987	1.0001 ± 0.0025 (−0.0 σ)	r_*	145.05	144.95 ± 0.57 (+0.1 σ)	$f\sigma_8(0.61)$	0.4866	$0.479^{+0.020}_{-0.029}$ (−1.5 σ)
H_0	68.82	68.5 ± 1.3 (+0.3 σ)	$100\theta_*$	1.04152	1.04144 ± 0.00053 (+0.2 σ)	$\sigma_8(0.61)$	0.6224	$0.610^{+0.020}_{-0.041}$ (−1.1 σ)
Ω_Λ	0.7041	$0.699^{+0.017}_{-0.015}$ (+0.2 σ)	$D_M(z_*)/\text{Gpc}$	13.927	13.919 ± 0.052 (+0.1 σ)	$f\sigma_8(2.33)$	0.3145	$0.3078^{+0.0098}_{-0.021}$ (−1.1 σ)
Ω_m	0.2959	$0.301^{+0.015}_{-0.017}$ (−0.2 σ)	z_{drag}	1060.28	1060.08 ± 0.56 (+0.3 σ)	$\sigma_8(2.33)$	0.3250	$0.3179^{+0.0099}_{-0.022}$ (−1.0 σ)
$\Omega_m h^2$	0.14014	0.1408 ± 0.0025 (−0.2 σ)	r_{drag}	147.64	147.58 ± 0.54 (+0.1 σ)	χ^2_{plik}	752.3	767.2 ± 5.5 (−0.0 σ)
$\Omega_m h^3$	0.096447	0.09632 ± 0.00049 (+0.3 σ)	k_D	0.14047	0.14045 ± 0.00054 (+0.0 σ)	χ^2_{prior}	0.97	7.0 ± 3.5 (−0.0 σ)

Best-fit $\chi^2_{\text{eff}} = 753.23$; $\Delta\chi^2_{\text{eff}} = -0.49$; $\bar{\chi}^2_{\text{eff}} = 774.27$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.20$; $R - 1 = 0.00661$
 χ^2_{eff} : CMB - plik_rd12_HM_v22_TT: 752.27 (Δ -0.48)

3.63 base_Alens_plikHM_TT_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02252 ± 0.00030	S_8	$0.846^{+0.040}_{-0.048}$	k_{eq}	0.01021 ± 0.00019
$\Omega_{\mathrm{c}}h^2$	0.1175 ± 0.0027	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.463^{+0.022}_{-0.026}$	$100\theta_{\mathrm{eq}}$	0.825 ± 0.012
$100\theta_{\mathrm{MC}}$	1.04128 ± 0.00054	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.626^{+0.024}_{-0.033}$	$100\theta_{\mathrm{s,eq}}$	0.4552 ± 0.0061
τ	$0.107^{+0.023}_{-0.060}$	$\sigma_8/h^{0.5}$	$1.022^{+0.037}_{-0.053}$	$H(0.15)$	73.7 ± 1.1
A_{L}	1.09 ± 0.12	$r_{\mathrm{drag}}h$	101.1 ± 2.2	$D_{\mathrm{M}}(0.15)$	634 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.143^{+0.052}_{-0.11}$	$\langle d^2 \rangle^{1/2}$	2.628 ± 0.077	$H(0.38)$	83.58 ± 0.83
n_{s}	0.9725 ± 0.0082	z_{re}	$12.1^{+2.4}_{-4.8}$	$D_{\mathrm{M}}(0.38)$	1514 ± 22
A_{217}^{CIB}	45 ± 7	$10^9 A_{\mathrm{s}}$	$2.33^{+0.11}_{-0.26}$	$H(0.51)$	90.18 ± 0.66
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.406	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.870 ± 0.016	$D_{\mathrm{M}}(0.51)$	1963 ± 26
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8}$	D_{40}	1241^{+22}_{-29}	$H(0.61)$	$95.71^{+0.50}_{-0.56}$
A_{100}^{PS}	252 ± 30	D_{220}	5732 ± 42	$D_{\mathrm{M}}(0.61)$	2286 ± 28
A_{143}^{PS}	42 ± 9	D_{810}	2528 ± 14	$H(2.33)$	235.1 ± 1.6
$A_{143 \times 217}^{\mathrm{PS}}$	41 ± 9	D_{1420}	814.2 ± 5.1	$D_{\mathrm{M}}(2.33)$	5746 ± 23
A_{217}^{PS}	114.9 ± 9.9	D_{2000}	232.0 ± 2.1	$f\sigma_8(0.15)$	$0.469^{+0.021}_{-0.026}$
A^{kSZ}	< 3.42	$n_{\mathrm{s},0.002}$	0.9725 ± 0.0082	$\sigma_8(0.15)$	$0.783^{+0.023}_{-0.042}$
$A_{100}^{\mathrm{dust}TT}$	8.8 ± 1.8	Y_{P}	0.24545 ± 0.00012	$f\sigma_8(0.38)$	$0.491^{+0.019}_{-0.026}$
$A_{143}^{\mathrm{dust}TT}$	10.4 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24678 ± 0.00012	$\sigma_8(0.38)$	$0.695^{+0.019}_{-0.038}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	17.9 ± 3.3	$10^5 \mathrm{D}/\mathrm{H}$	2.560 ± 0.054	$f\sigma_8(0.51)$	$0.491^{+0.018}_{-0.025}$
$A_{217}^{\mathrm{dust}TT}$	93.6 ± 7.3	$\mathrm{Age}/\mathrm{Gyr}$	13.760 ± 0.051	$\sigma_8(0.51)$	$0.651^{+0.018}_{-0.036}$
c_{100}	0.99963 ± 0.00061	z_*	1089.52 ± 0.56	$f\sigma_8(0.61)$	$0.486^{+0.017}_{-0.025}$
c_{217}	0.99818 ± 0.00062	r_*	144.98 ± 0.58	$\sigma_8(0.61)$	$0.620^{+0.016}_{-0.034}$
y_{cal}	1.0001 ± 0.0025	$100\theta_*$	1.04145 ± 0.00053	$f\sigma_8(2.33)$	$0.3131^{+0.0079}_{-0.018}$
H_0	68.5 ± 1.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.921 ± 0.052	$\sigma_8(2.33)$	$0.3234^{+0.0078}_{-0.019}$
Ω_{Λ}	$0.700^{+0.017}_{-0.016}$	z_{drag}	1060.09 ± 0.56	f_{2000}^{143}	27 ± 3
Ω_{m}	$0.300^{+0.016}_{-0.017}$	r_{drag}	147.61 ± 0.55	$f_{2000}^{143 \times 217}$	30.3 ± 2.5
$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0025	k_{D}	0.14043 ± 0.00054	f_{2000}^{217}	105.3 ± 2.3
$\Omega_{\mathrm{m}}h^3$	0.09631 ± 0.00049	$100\theta_{\mathrm{D}}$	0.16070 ± 0.00031	χ_{plik}^2	767.3 ± 5.5
σ_8	$0.846^{+0.026}_{-0.044}$	z_{eq}	3345 ± 61	χ_{prior}^2	7.0 ± 3.5

$$\bar{\chi}_{\mathrm{eff}}^2 = 774.31; R - 1 = 0.00620$$

3.64 base_Alens_plikHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022662	0.02261 ± 0.00029 (+0.9 σ)	S_8	0.7570	$0.792^{+0.033}_{-0.039}$ (−2.4 σ)	k_{eq}	0.010159	0.01014 ± 0.00017 (−0.6 σ)
$\Omega_c h^2$	0.11662	0.1165 ± 0.0025 (−0.6 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4146	$0.434^{+0.018}_{-0.021}$ (−2.4 σ)	$100\theta_{\text{eq}}$	0.8279	0.829 ± 0.011 (+0.6 σ)
$100\theta_{\text{MC}}$	1.04140	1.04139 ± 0.00053 (+0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5629	$0.589^{+0.019}_{-0.026}$ (−2.5 σ)	$100\theta_{\text{s,eq}}$	0.4568	0.4573 ± 0.0057 (+0.6 σ)
τ	0.0102	< 0.0705 (−1.6 σ)	$\sigma_8/h^{0.5}$	0.9204	$0.964^{+0.028}_{-0.041}$ (−2.5 σ)	$H(0.15)$	74.06	74.1 ± 1.1 (+0.7 σ)
A_L	1.360	1.23 ± 0.12	$r_{\text{drag}} h$	101.83	101.9 ± 2.1 (+0.7 σ)	$D_M(0.15)$	629.9	630 ± 10 (−0.7 σ)
$\ln(10^{10} A_s)$	2.948	$3.042^{+0.036}_{-0.090}$ (−1.7 σ)	$\langle d^2 \rangle^{1/2}$	2.654	2.639 ± 0.076 (+1.6 σ)	$H(0.38)$	83.87	83.88 ± 0.79 (+0.8 σ)
n_s	0.9753	0.9748 ± 0.0074 (+0.5 σ)	z_{re}	2.12	$7.5^{+2.1}_{-4.8}$ (−1.8 σ)	$D_M(0.38)$	1506.4	1506 ± 20 (−0.7 σ)
y_{cal}	0.99995	1.0001 ± 0.0025 (−0.1 σ)	$10^9 A_s$	1.907	$2.099^{+0.068}_{-0.19}$ (−1.6 σ)	$H(0.51)$	90.42	90.42 ± 0.64 (+0.8 σ)
A_{217}^{CIB}	42.8	45 ± 7 (−0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8686	1.866 ± 0.015 (−0.4 σ)	$D_M(0.51)$	1954.1	1954 ± 24 (−0.7 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.935	> 0.424 (+0.1 σ)	D_{40}	1200.3	1212^{+17}_{-20} (−1.7 σ)	$H(0.61)$	95.91	95.90 ± 0.52 (+0.8 σ)
A_{143}^{tSZ}	6.79	$5.6^{+2.1}_{-1.8}$ (+0.1 σ)	D_{220}	5739.2	5736 ± 42 (+0.4 σ)	$D_M(0.61)$	2276.1	2276 ± 26 (−0.8 σ)
A_{100}^{PS}	239.1	249 ± 30 (−0.2 σ)	D_{810}	2529.2	2527 ± 14 (−0.3 σ)	$H(2.33)$	234.67	234.5 ± 1.4 (−0.5 σ)
A_{143}^{PS}	48.4	41 ± 9 (−0.4 σ)	D_{1420}	815.8	814.5 ± 5.0 (−0.1 σ)	$D_M(2.33)$	5736.7	5738 ± 23 (−0.8 σ)
$A_{143 \times 217}^{\text{PS}}$	55.5	41 ± 9 (−0.1 σ)	D_{2000}	232.96	232.4 ± 2.1 (+0.5 σ)	$f\sigma_8(0.15)$	0.4202	$0.440^{+0.017}_{-0.021}$ (−2.5 σ)
A_{217}^{PS}	123.0	114.8 ± 9.9 (−0.1 σ)	$n_{\text{s},0.002}$	0.9753	0.9748 ± 0.0074 (+0.5 σ)	$\sigma_8(0.15)$	0.7079	$0.741^{+0.016}_{-0.032}$ (−2.0 σ)
A^{kSZ}	0.00	< 3.27 (−0.1 σ)	Y_{P}	0.245502	$0.24549^{+0.00010}_{-0.00012}$ (+0.8 σ)	$f\sigma_8(0.38)$	0.4411	$0.462^{+0.016}_{-0.020}$ (−2.6 σ)
A_{100}^{dustTT}	8.88	9.0 ± 1.8 (+0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246829	$0.24682^{+0.00011}_{-0.00012}$ (+0.8 σ)	$\sigma_8(0.38)$	0.6293	$0.659^{+0.013}_{-0.029}$ (−1.9 σ)
A_{143}^{dustTT}	10.64	10.5 ± 1.8 (−0.0 σ)	10^5D/H	2.534	2.543 ± 0.053 (−0.8 σ)	$f\sigma_8(0.51)$	0.4417	$0.462^{+0.014}_{-0.020}$ (−2.5 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.47	17.9 ± 3.3 (−0.1 σ)	Age/Gyr	13.7392	13.743 ± 0.050 (−0.8 σ)	$\sigma_8(0.51)$	0.5897	$0.618^{+0.012}_{-0.027}$ (−1.8 σ)
A_{217}^{dustTT}	95.5	93.6 ± 7.3 (−0.0 σ)	z_*	1089.26	1089.32 ± 0.54 (−0.8 σ)	$f\sigma_8(0.61)$	0.4384	$0.459^{+0.013}_{-0.020}$ (−2.4 σ)
c_{100}	0.99968	0.99961 ± 0.00061 (+0.0 σ)	r_*	145.09	145.17 ± 0.53 (+0.5 σ)	$\sigma_8(0.61)$	0.5616	$0.588^{+0.011}_{-0.026}$ (−1.8 σ)
c_{217}	0.99815	0.99818 ± 0.00062 (−0.0 σ)	$100\theta_*$	1.04155	1.04156 ± 0.00051 (+0.5 σ)	$f\sigma_8(2.33)$	0.2838	$0.2974^{+0.0052}_{-0.013}$ (−1.6 σ)
H_0	68.96	69.0 ± 1.2 (+0.7 σ)	$D_M(z_*)/\text{Gpc}$	13.9299	13.938 ± 0.048 (+0.4 σ)	$\sigma_8(2.33)$	0.2934	$0.3074^{+0.0052}_{-0.014}$ (−1.5 σ)
Ω_Λ	0.7057	$0.706^{+0.016}_{-0.014}$ (+0.7 σ)	z_{drag}	1060.35	1060.24 ± 0.56 (+0.8 σ)	χ_{lowl}^2	20.98	22.2 ± 1.5 (−1.6 σ)
Ω_m	0.2943	0.294 ± 0.015 (−0.7 σ)	r_{drag}	147.67	147.77 ± 0.51 (+0.3 σ)	χ_{plik}^2	753.0	767.1 ± 5.4 (−0.2 σ)
$\Omega_m h^2$	0.13993	0.1397 ± 0.0023 (−0.6 σ)	k_{D}	0.14048	0.14033 ± 0.00051 (−0.0 σ)	χ_{prior}^2	1.06	7.1 ± 3.6 (−0.0 σ)
$\Omega_m h^3$	0.096491	0.09637 ± 0.00050 (+0.5 σ)	$100\theta_{\text{D}}$	0.160544	0.16062 ± 0.00030 (−0.7 σ)	χ_{CMB}^2	773.9	789.3 ± 5.5 (−0.7 σ)
σ_8	0.7643	$0.800^{+0.018}_{-0.034}$ (−2.1 σ)	z_{eq}	3328	3324 ± 56 (−0.6 σ)			

Best-fit $\chi_{\text{eff}}^2 = 775.00$; $\Delta\chi_{\text{eff}}^2 = -4.48$; $\bar{\chi}_{\text{eff}}^2 = 796.44$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.76$; $R - 1 = 0.00820$
 χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 20.98 (Δ -3.91) plik_rd12_HM_v22.TT: 752.97 (Δ -0.57)

3.65 base_Alens_plikHM_TT_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02263 \pm 0.00029 \quad (+0.9\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.442^{+0.017}_{-0.020} \quad (-1.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4580 \pm 0.0057 \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1162 \pm 0.0025 \quad (-0.7\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.601^{+0.017}_{-0.022} \quad (-1.9\sigma)$	$H(0.15)$	$74.2 \pm 1.1 \quad (+0.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04143 \pm 0.00053 \quad (+0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.984^{+0.025}_{-0.034} \quad (-1.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$629 \pm 10 \quad (-0.8\sigma)$
τ	$0.080^{+0.012}_{-0.036} \quad (-1.0\sigma)$	$r_{\mathrm{drag}} h$	$102.2 \pm 2.1 \quad (+0.8\sigma)$	$H(0.38)$	$83.97 \pm 0.79 \quad (+0.9\sigma)$
A_{L}	1.18 ± 0.10	$\langle d^2 \rangle^{1/2}$	$2.640 \pm 0.077 \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504 \pm 20 \quad (-0.8\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.087^{+0.027}_{-0.069} \quad (-1.1\sigma)$	z_{re}	$< 10.8 \quad (-1.1\sigma)$	$H(0.51)$	$90.49 \pm 0.64 \quad (+0.9\sigma)$
n_{s}	$0.9760 \pm 0.0074 \quad (+0.6\sigma)$	$10^9 A_{\mathrm{s}}$	$2.193^{+0.054}_{-0.15} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1951 \pm 24 \quad (-0.8\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.865 \pm 0.015 \quad (-0.5\sigma)$	$H(0.61)$	$95.95^{+0.49}_{-0.55} \quad (+0.9\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.1\sigma)$	D_{40}	$1217^{+18}_{-20} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2273 \pm 26 \quad (-0.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$> 0.427 \quad (+0.1\sigma)$	D_{220}	$5735 \pm 42 \quad (+0.4\sigma)$	$H(2.33)$	$234.3 \pm 1.4 \quad (-0.6\sigma)$
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8} \quad (+0.1\sigma)$	D_{810}	$2526 \pm 14 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5736 \pm 23 \quad (-0.9\sigma)$
A_{100}^{PS}	$248 \pm 30 \quad (-0.2\sigma)$	D_{1420}	$814.7 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.016}_{-0.019} \quad (-1.9\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (-0.4\sigma)$	D_{2000}	$232.6 \pm 2.1 \quad (+0.6\sigma)$	$\sigma_8(0.15)$	$0.758^{+0.013}_{-0.026} \quad (-1.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.9760 \pm 0.0074 \quad (+0.6\sigma)$	$f\sigma_8(0.38)$	$0.471^{+0.014}_{-0.017} \quad (-1.9\sigma)$
A_{217}^{PS}	$114.7 \pm 9.8 \quad (-0.1\sigma)$	Y_{P}	$0.24550^{+0.00011}_{-0.00012} \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.674^{+0.011}_{-0.023} \quad (-1.3\sigma)$
A^{kSZ}	$< 3.16 \quad (-0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24682^{+0.00011}_{-0.00012} \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.472^{+0.013}_{-0.017} \quad (-1.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.539 \pm 0.053 \quad (-0.9\sigma)$	$\sigma_8(0.51)$	$0.6315^{+0.0095}_{-0.022} \quad (-1.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.4 \pm 1.8 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.738 \pm 0.050 \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.468^{+0.012}_{-0.016} \quad (-1.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$17.9 \pm 3.3 \quad (-0.1\sigma)$	z_*	$1089.26 \pm 0.53 \quad (-0.9\sigma)$	$\sigma_8(0.61)$	$0.6015^{+0.0088}_{-0.021} \quad (-1.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	r_*	$145.23 \pm 0.53 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.3041^{+0.0041}_{-0.010} \quad (-1.1\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_*$	$1.04159 \pm 0.00051 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3145^{+0.0040}_{-0.011} \quad (-1.0\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.943 \pm 0.048 \quad (+0.5\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-0.6\sigma)$
H_0	$69.1 \pm 1.2 \quad (+0.8\sigma)$	z_{drag}	$1060.26 \pm 0.56 \quad (+0.8\sigma)$	$f_{2000}^{143 \times 217}$	$29.6 \pm 2.5 \quad (-0.6\sigma)$
Ω_{Λ}	$0.708^{+0.016}_{-0.014} \quad (+0.8\sigma)$	r_{drag}	$147.83 \pm 0.51 \quad (+0.4\sigma)$	f_{2000}^{217}	$104.7 \pm 2.2 \quad (-0.6\sigma)$
Ω_{m}	$0.292 \pm 0.015 \quad (-0.8\sigma)$	k_{D}	$0.14028 \pm 0.00052 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.6 \pm 1.6 \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1394 \pm 0.0023 \quad (-0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16061 \pm 0.00030 \quad (-0.8\sigma)$	χ_{plik}^2	$767.1 \pm 5.5 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09636 \pm 0.00050 \quad (+0.5\sigma)$	z_{eq}	$3317 \pm 56 \quad (-0.7\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.818^{+0.016}_{-0.028} \quad (-1.5\sigma)$	k_{eq}	$0.01012 \pm 0.00017 \quad (-0.7\sigma)$	χ_{CMB}^2	$789.8 \pm 5.6 \quad (-0.6\sigma)$
S_8	$0.807^{+0.031}_{-0.036} \quad (-1.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.830 \pm 0.011 \quad (+0.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 796.93; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.15; R - 1 = 0.00997$$

3.66 base_Alens_plikHM_TT_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022592	0.02249 ± 0.00030 (+2.1 σ)	S_8	0.7969	0.804 ± 0.032 (−2.0 σ)	k_{eq}	0.010204	0.01025 ± 0.00018 (−1.6 σ)
$\Omega_c h^2$	0.11731	0.1180 ± 0.0027 (−1.8 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4365	0.440 ± 0.018 (−2.0 σ)	$100\theta_{\text{eq}}$	0.8249	0.822 ± 0.012 (+1.8 σ)
$100\theta_{\text{MC}}$	1.04127	1.04120 ± 0.00055 (+1.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5905	0.593 ± 0.016 (−2.0 σ)	$100\theta_{\text{s,eq}}$	0.4553	0.4539 ± 0.0060 (+1.7 σ)
τ	0.0508	$0.0499^{+0.0085}_{-0.0076}$ (−0.2 σ)	$\sigma_8/h^{0.5}$	0.9644	0.968 ± 0.022 (−2.0 σ)	$H(0.15)$	73.76	73.5 ± 1.1 (+2.1 σ)
A_L	1.235	1.205 ± 0.099	$r_{\text{drag}} h$	101.24	100.7 ± 2.2 (+1.9 σ)	$D_M(0.15)$	632.8	636 ± 11 (−2.0 σ)
$\ln(10^{10} A_s)$	3.0318	$3.030^{+0.018}_{-0.016}$ (−0.7 σ)	$\langle d^2 \rangle^{1/2}$	2.650	2.629 ± 0.079 (+3.9 σ)	$H(0.38)$	83.65	83.44 ± 0.82 (+2.2 σ)
n_s	0.9731	0.9697 ± 0.0079 (+1.9 σ)	z_{re}	7.23	$7.15^{+0.91}_{-0.73}$ (−0.4 σ)	$D_M(0.38)$	1512.2	1518 ± 22 (−2.0 σ)
y_{cal}	1.00029	1.0000 ± 0.0025 (−0.2 σ)	$10^9 A_s$	2.0734	$2.071^{+0.037}_{-0.034}$ (−0.7 σ)	$H(0.51)$	90.24	90.07 ± 0.66 (+2.2 σ)
A_{217}^{CIB}	42.7	46 ± 7 (−0.4 σ)	$10^9 A_s e^{-2\tau}$	1.8730	1.874 ± 0.016 (−1.2 σ)	$D_M(0.51)$	1961.0	1968 ± 26 (−2.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.995	> 0.398 (+0.2 σ)	D_{40}	1213.0	1219 ± 19 (−1.5 σ)	$H(0.61)$	95.76	$95.62^{+0.50}_{-0.55}$ (+2.3 σ)
A_{143}^{tSZ}	6.82	$5.4^{+2.1}_{-1.9}$ (+0.2 σ)	D_{220}	5742.4	5738 ± 42 (+0.5 σ)	$D_M(0.61)$	2283.6	2291 ± 28 (−2.1 σ)
A_{100}^{PS}	238.6	254 ± 30 (−0.4 σ)	D_{810}	2531.8	2529 ± 14 (−0.6 σ)	$H(2.33)$	235.04	235.4 ± 1.6 (−1.5 σ)
A_{143}^{PS}	50.4	44 ± 9 (−0.8 σ)	D_{1420}	815.8	813.5 ± 5.1 (+0.0 σ)	$D_M(2.33)$	5743.1	5750 ± 24 (−2.2 σ)
$A_{143 \times 217}^{\text{PS}}$	57.7	41 ± 9 (−0.3 σ)	D_{2000}	232.77	231.5 ± 2.1 (+1.3 σ)	$f\sigma_8(0.15)$	0.4420	0.445 ± 0.017 (−2.0 σ)
A_{217}^{PS}	123.8	115 ± 10 (−0.0 σ)	$n_{\text{s},0.002}$	0.9731	0.9697 ± 0.0079 (+1.9 σ)	$\sigma_8(0.15)$	0.7395	0.7398 ± 0.0096 (−1.6 σ)
A^{kSZ}	0.00	< 3.69 (−0.4 σ)	Y_{P}	0.245477	0.24544 ± 0.00012 (+1.9 σ)	$f\sigma_8(0.38)$	0.4630	0.465 ± 0.013 (−2.0 σ)
A_{100}^{dustTT}	8.72	8.9 ± 1.8 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246804	0.24677 ± 0.00012 (+1.9 σ)	$\sigma_8(0.38)$	0.6569	0.6567 ± 0.0073 (−1.3 σ)
A_{143}^{dustTT}	10.61	10.5 ± 1.8 (−0.1 σ)	10^5D/H	2.546	2.564 ± 0.055 (−2.0 σ)	$f\sigma_8(0.51)$	0.4631	0.465 ± 0.011 (−2.0 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.01	17.9 ± 3.3 (−0.1 σ)	Age/Gyr	13.753	13.768 ± 0.052 (−2.1 σ)	$\sigma_8(0.51)$	0.6153	0.6149 ± 0.0065 (−1.2 σ)
A_{217}^{dustTT}	96.4	93.4 ± 7.3 (+0.0 σ)	z_*	1089.41	1089.60 ± 0.57 (−2.2 σ)	$f\sigma_8(0.61)$	0.4592	0.461 ± 0.010 (−2.0 σ)
c_{100}	0.99969	0.99964 ± 0.00061 (+0.0 σ)	r_*	144.96	144.86 ± 0.57 (+1.3 σ)	$\sigma_8(0.61)$	0.5859	0.5854 ± 0.0059 (−1.0 σ)
c_{217}	0.99820	0.99818 ± 0.00062 (−0.1 σ)	$100\theta_*$	1.04143	1.04137 ± 0.00053 (+1.1 σ)	$f\sigma_8(2.33)$	0.29592	0.2955 ± 0.0028 (−0.7 σ)
H_0	68.61	68.3 ± 1.3 (+2.0 σ)	$D_M(z_*)/\text{Gpc}$	13.919	13.911 ± 0.052 (+1.2 σ)	$\sigma_8(2.33)$	0.30567	0.3050 ± 0.0028 (−0.2 σ)
Ω_Λ	0.7014	$0.697^{+0.018}_{-0.016}$ (+1.8 σ)	z_{drag}	1060.24	1060.07 ± 0.57 (+1.7 σ)	χ_{simall}^2	395.66	396.8 ± 1.6 (−0.1 σ)
Ω_m	0.2986	$0.303^{+0.016}_{-0.018}$ (−1.8 σ)	r_{drag}	147.56	147.49 ± 0.54 (+1.1 σ)	χ_{plik}^2	752.6	767.3 ± 5.5 (−0.7 σ)
$\Omega_m h^2$	0.14054	0.1411 ± 0.0025 (−1.6 σ)	k_{D}	0.14054	0.14053 ± 0.00054 (−0.4 σ)	χ_{prior}^2	1.05	7.0 ± 3.5 (−0.1 σ)
$\Omega_m h^3$	0.096428	0.09632 ± 0.00050 (+0.9 σ)	$100\theta_{\text{D}}$	0.160595	0.16071 ± 0.00031 (−1.6 σ)	χ_{CMB}^2	1148.2	1164.1 ± 5.8 (−0.7 σ)
σ_8	0.7988	0.800 ± 0.012 (−1.8 σ)	z_{eq}	3343	3357 ± 60 (−1.6 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1149.29$; $\Delta\chi_{\text{eff}}^2 = -6.26$; $\bar{\chi}_{\text{eff}}^2 = 1171.08$; $\Delta\bar{\chi}_{\text{eff}}^2 = -4.29$; $R - 1 = 0.00738$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.66 (Δ -0.24) plik_rd12_HM_v22_TT: 752.58 (Δ -5.70)

3.67 base_Alens_plikHM_TTTEEE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022605	0.02256 ± 0.00018 (+0.2 σ)	Ω_{Λ}	0.6966	0.6946 ± 0.0096 (+0.1 σ)	r_{drag}	147.318	147.30 ± 0.32 (+0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.11816	0.1184 ± 0.0016 (−0.1 σ)	Ω_{m}	0.3034	0.3054 ± 0.0096 (−0.1 σ)	k_{D}	0.140803	0.14079 ± 0.00033 (−0.0 σ)
$100\theta_{\mathrm{MC}}$	1.041128	1.04110 ± 0.00033 (+0.1 σ)	$\Omega_{\mathrm{m}}h^2$	0.14141	0.1416 ± 0.0015 (−0.1 σ)	$100\theta_{\mathrm{D}}$	0.160530	0.16058 ± 0.00019 (−0.1 σ)
τ	0.108	$0.088^{+0.031}_{-0.069}$ (−1.2 σ)	$\Omega_{\mathrm{m}}h^3$	0.096539	0.09649 ± 0.00031 (+0.1 σ)	z_{eq}	3363.8	3369 ± 35 (−0.1 σ)
A_{L}	1.056	1.09 ± 0.12	σ_8	0.8489	$0.833^{+0.029}_{-0.052}$ (−1.4 σ)	k_{eq}	0.010267	0.01028 ± 0.00011 (−0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.147	$3.107^{+0.067}_{-0.13}$ (−1.3 σ)	S_8	0.8537	$0.840^{+0.037}_{-0.049}$ (−1.5 σ)	$100\theta_{\mathrm{eq}}$	0.8210	0.8199 ± 0.0068 (+0.1 σ)
n_{s}	0.9723	0.9699 ± 0.0052 (+0.0 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4676	$0.460^{+0.021}_{-0.027}$ (−1.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.45325	0.4527 ± 0.0035 (+0.1 σ)
A_{217}^{CIB}	42.2	45 ± 7 (−0.0 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6300	$0.619^{+0.025}_{-0.036}$ (−1.6 σ)	$H(0.15)$	73.47	73.35 ± 0.62 (+0.1 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.997	> 0.424 (−0.0 σ)	$\sigma_8/h^{0.5}$	1.0274	$1.009^{+0.039}_{-0.060}$ (−1.5 σ)	$D_{\mathrm{M}}(0.15)$	635.6	636.9 ± 6.1 (−0.1 σ)
A_{143}^{tSZ}	6.93	$5.7^{+2.1}_{-1.8}$ (+0.0 σ)	$r_{\mathrm{drag}}h$	100.57	100.3 ± 1.2 (+0.1 σ)	$H(0.38)$	83.452	83.36 ± 0.46 (+0.1 σ)
A_{100}^{PS}	237.8	251 ± 30 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.609	2.597 ± 0.059 (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1517.8	1520 ± 12 (−0.1 σ)
A_{143}^{PS}	49.3	42 ± 8 (−0.0 σ)	z_{re}	12.40	$10.3^{+4.9}_{-4.1}$ (−1.5 σ)	$H(0.51)$	90.095	90.02 ± 0.36 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	57.2	41 ± 9 (−0.0 σ)	$10^9 A_{\mathrm{s}}$	2.327	$2.24^{+0.13}_{-0.30}$ (−1.2 σ)	$D_{\mathrm{M}}(0.51)$	1967.5	1970 ± 14 (−0.1 σ)
A_{217}^{PS}	124.0	115.7 ± 9.9 (+0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8747	1.875 ± 0.012 (−0.1 σ)	$H(0.61)$	95.658	95.60 ± 0.29 (+0.1 σ)
A^{kSZ}	0.00	< 3.25 (−0.0 σ)	D_{40}	1238.2	1238^{+18}_{-29} (−0.9 σ)	$D_{\mathrm{M}}(0.61)$	2290.5	2294 ± 16 (−0.1 σ)
$A_{100}^{\mathrm{dustTT}}$	8.60	8.7 ± 1.8 (+0.0 σ)	D_{220}	5735.7	5738 ± 39 (+0.0 σ)	$H(2.33)$	235.60	235.74 ± 0.92 (−0.1 σ)
$A_{143}^{\mathrm{dustTT}}$	10.62	10.5 ± 1.8 (−0.0 σ)	D_{810}	2532.6	2531 ± 14 (−0.1 σ)	$D_{\mathrm{M}}(2.33)$	5746.5	5749 ± 13 (−0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.84	18.1 ± 3.3 (+0.0 σ)	D_{1420}	816.70	815.2 ± 4.7 (−0.1 σ)	$f\sigma_8(0.15)$	0.4731	$0.466^{+0.020}_{-0.027}$ (−1.5 σ)
$A_{217}^{\mathrm{dustTT}}$	95.8	93.7 ± 7.3 (+0.0 σ)	D_{2000}	232.82	232.0 ± 1.6 (−0.0 σ)	$\sigma_8(0.15)$	0.7853	$0.770^{+0.026}_{-0.049}$ (−1.4 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1113	0.113 ± 0.038 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.9723	0.9699 ± 0.0052 (+0.0 σ)	$f\sigma_8(0.38)$	0.4942	$0.486^{+0.020}_{-0.028}$ (−1.6 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1339	0.134 ± 0.029 (+0.0 σ)	Y_{P}	0.245482	0.245465 ± 0.000067 (+0.2 σ)	$\sigma_8(0.38)$	0.6970	$0.684^{+0.022}_{-0.044}$ (−1.3 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.482	0.480 ± 0.085 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246808	0.246792 ± 0.000067 (+0.2 σ)	$f\sigma_8(0.51)$	0.4937	$0.485^{+0.019}_{-0.029}$ (−1.5 σ)
$A_{143}^{\mathrm{dustTE}}$	0.223	0.222 ± 0.054 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5436	2.552 ± 0.032 (−0.2 σ)	$\sigma_8(0.51)$	0.6527	$0.640^{+0.021}_{-0.042}$ (−1.3 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.660	0.660 ± 0.081 (−0.0 σ)	Age/Gyr	13.7596	13.766 ± 0.029 (−0.2 σ)	$f\sigma_8(0.61)$	0.4892	$0.481^{+0.018}_{-0.029}$ (−1.5 σ)
$A_{217}^{\mathrm{dustTE}}$	2.056	2.06 ± 0.27 (+0.0 σ)	z_{*}	1089.467	1089.55 ± 0.33 (−0.2 σ)	$\sigma_8(0.61)$	0.6213	$0.609^{+0.019}_{-0.040}$ (−1.3 σ)
c_{100}	0.99977	0.99969 ± 0.00061 (−0.0 σ)	r_{*}	144.729	144.69 ± 0.33 (+0.1 σ)	$f\sigma_8(2.33)$	0.3136	$0.3075^{+0.0095}_{-0.020}$ (−1.3 σ)
c_{217}	0.99813	0.99814 ± 0.00062 (−0.0 σ)	$100\theta_{*}$	1.041295	1.04127 ± 0.00032 (+0.1 σ)	$\sigma_8(2.33)$	0.3237	$0.3173^{+0.0096}_{-0.021}$ (−1.2 σ)
y_{cal}	0.99985	0.9999 ± 0.0025 (−0.1 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8989	13.896 ± 0.031 (+0.1 σ)	χ_{plik}^2	2336.5	2354.1 ± 5.9 (+0.0 σ)
H_0	68.27	68.13 ± 0.73 (+0.1 σ)	z_{drag}	1060.352	1060.26 ± 0.34 (+0.2 σ)	χ_{prior}^2	1.37	11.3 ± 4.4 (+0.0 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 2337.89$; $\Delta\chi_{\mathrm{eff}}^2 = -0.47$; $\bar{\chi}_{\mathrm{eff}}^2 = 2365.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.26$; $R - 1 = 0.00672$
 χ_{eff}^2 : CMB - plik_rd12_HM_v22b_TTTEEE: 2336.52 (Δ -0.53)

3.68 base_Alens_plikHM_TTTEE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02256 ± 0.00018	Ω_m	0.3051 ± 0.0096	$100\theta_D$	0.16058 ± 0.00019
$\Omega_c h^2$	0.1184 ± 0.0016	$\Omega_m h^2$	0.1416 ± 0.0015	z_{eq}	3368 ± 35
$100\theta_{\text{MC}}$	1.04111 ± 0.00033	$\Omega_m h^3$	0.09648 ± 0.00031	k_{eq}	0.01028 ± 0.00011
τ	$0.104^{+0.021}_{-0.057}$	σ_8	$0.846^{+0.022}_{-0.044}$	$100\theta_{\text{eq}}$	0.8201 ± 0.0068
A_L	1.054 ± 0.098	S_8	$0.853^{+0.031}_{-0.042}$	$100\theta_{s,\text{eq}}$	0.4528 ± 0.0035
$\ln(10^{10} A_s)$	$3.139^{+0.047}_{-0.11}$	$\sigma_8 \Omega_m^{0.5}$	$0.467^{+0.017}_{-0.023}$	$H(0.15)$	73.36 ± 0.63
n_s	0.9703 ± 0.0053	$\sigma_8 \Omega_m^{0.25}$	$0.629^{+0.020}_{-0.031}$	$D_M(0.15)$	636.7 ± 6.1
A_{217}^{CIB}	45 ± 7	$\sigma_8/h^{0.5}$	$1.025^{+0.031}_{-0.051}$	$H(0.38)$	83.37 ± 0.46
$\xi^{\text{tSZ} \times \text{CIB}}$	> 0.430	$r_{\text{drag}} h$	100.4 ± 1.3	$D_M(0.38)$	1520 ± 12
A_{143}^{tSZ}	$5.7^{+2.0}_{-1.8}$	$\langle d^2 \rangle^{1/2}$	2.596 ± 0.060	$H(0.51)$	90.03 ± 0.37
A_{100}^{PS}	250 ± 30	z_{re}	$11.9^{+2.5}_{-4.3}$	$D_M(0.51)$	1970 ± 14
A_{143}^{PS}	42 ± 8	$10^9 A_s$	$2.314^{+0.097}_{-0.25}$	$H(0.61)$	95.60 ± 0.30
$A_{143 \times 217}^{\text{PS}}$	41 ± 9	$10^9 A_s e^{-2\tau}$	1.875 ± 0.012	$D_M(0.61)$	2293 ± 16
A_{217}^{PS}	115.8 ± 9.9	D_{40}	1244^{+18}_{-27}	$H(2.33)$	235.71 ± 0.92
A^{kSZ}	< 3.22	D_{220}	5737 ± 40	$D_M(2.33)$	5749 ± 13
$A_{100}^{\text{dust}TT}$	8.7 ± 1.8	D_{810}	2531 ± 14	$f\sigma_8(0.15)$	$0.473^{+0.017}_{-0.023}$
$A_{143}^{\text{dust}TT}$	10.5 ± 1.8	D_{1420}	815.3 ± 4.8	$\sigma_8(0.15)$	$0.783^{+0.020}_{-0.041}$
$A_{143 \times 217}^{\text{dust}TT}$	18.1 ± 3.3	D_{2000}	232.1 ± 1.6	$f\sigma_8(0.38)$	$0.493^{+0.016}_{-0.024}$
$A_{217}^{\text{dust}TT}$	93.6 ± 7.3	$n_{s,0.002}$	0.9703 ± 0.0053	$\sigma_8(0.38)$	$0.695^{+0.017}_{-0.037}$
$A_{100}^{\text{dust}TE}$	0.113 ± 0.038	Y_P	0.245465 ± 0.000067	$f\sigma_8(0.51)$	$0.493^{+0.015}_{-0.024}$
$A_{100 \times 143}^{\text{dust}TE}$	0.134 ± 0.030	Y_P^{BBN}	0.246792 ± 0.000067	$\sigma_8(0.51)$	$0.650^{+0.015}_{-0.035}$
$A_{100 \times 217}^{\text{dust}TE}$	0.481 ± 0.085	10^5D/H	2.552 ± 0.032	$f\sigma_8(0.61)$	$0.488^{+0.015}_{-0.024}$
$A_{143}^{\text{dust}TE}$	0.221 ± 0.054	Age/Gyr	13.766 ± 0.029	$\sigma_8(0.61)$	$0.619^{+0.014}_{-0.033}$
$A_{143 \times 217}^{\text{dust}TE}$	0.660 ± 0.081	z_*	1089.55 ± 0.33	$f\sigma_8(2.33)$	$0.3124^{+0.0071}_{-0.017}$
$A_{217}^{\text{dust}TE}$	2.06 ± 0.27	r_*	144.70 ± 0.34	$\sigma_8(2.33)$	$0.3223^{+0.0072}_{-0.018}$
c_{100}	0.99969 ± 0.00061	$100\theta_*$	1.04127 ± 0.00032	f_{2000}^{143}	26.8 ± 2.9
c_{217}	0.99814 ± 0.00062	$D_M(z_*)/\text{Gpc}$	13.897 ± 0.031	$f_{2000}^{143 \times 217}$	30.0 ± 2.0
y_{cal}	0.9999 ± 0.0025	z_{drag}	1060.25 ± 0.34	f_{2000}^{217}	105.1 ± 1.9
H_0	68.14 ± 0.73	r_{drag}	147.31 ± 0.32	χ_{plik}^2	2354.1 ± 5.9
Ω_Λ	0.6949 ± 0.0096	k_D	0.14078 ± 0.00033	χ_{prior}^2	11.3 ± 4.4

$$\bar{\chi}_{\text{eff}}^2 = 2365.44; R - 1 = 0.00596$$

3.69 base_Alens_plikHM_TTTEEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022624	0.02260 ± 0.00017 (+0.5 σ)	Ω_{m}	0.3028	0.3026 ± 0.0092 (−0.4 σ)	$100\theta_{\mathrm{D}}$	0.160509	0.16055 ± 0.00019 (−0.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.11807	0.1180 ± 0.0015 (−0.3 σ)	$\Omega_{\mathrm{m}}h^2$	0.14134	0.1412 ± 0.0014 (−0.3 σ)	z_{eq}	3362.1	3359 ± 34 (−0.3 σ)
$100\theta_{\mathrm{MC}}$	1.041141	1.04114 ± 0.00033 (+0.2 σ)	$\Omega_{\mathrm{m}}h^3$	0.096564	0.09649 ± 0.00031 (+0.3 σ)	k_{eq}	0.010261	0.01025 ± 0.00010 (−0.3 σ)
τ	0.0101	< 0.0673 (−2.1 σ)	σ_8	0.7693	$0.804^{+0.015}_{-0.034}$ (−2.4 σ)	$100\theta_{\mathrm{eq}}$	0.8214	0.8219 ± 0.0066 (+0.3 σ)
A_{L}	1.289	$1.17^{+0.10}_{-0.092}$	S_8	0.7728	$0.807^{+0.025}_{-0.035}$ (−2.6 σ)	$100\theta_{\mathrm{s,eq}}$	0.45344	0.4537 ± 0.0034 (+0.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	2.951	$3.040^{+0.034}_{-0.085}$ (−2.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4233	$0.442^{+0.014}_{-0.019}$ (−2.6 σ)	$H(0.15)$	73.52	73.52 ± 0.61 (+0.4 σ)
n_{s}	0.97180	0.9713 ± 0.0050 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5706	$0.596^{+0.015}_{-0.025}$ (−2.7 σ)	$D_{\mathrm{M}}(0.15)$	635.1	635.1 ± 5.9 (−0.4 σ)
y_{cal}	0.99982	0.99999 ± 0.0025 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9307	$0.973^{+0.022}_{-0.040}$ (−2.7 σ)	$H(0.38)$	83.489	83.49 ± 0.45 (+0.4 σ)
A_{217}^{CIB}	42.4	45 ± 7 (−0.1 σ)	$r_{\mathrm{drag}}h$	100.65	100.7 ± 1.2 (+0.4 σ)	$D_{\mathrm{M}}(0.38)$	1516.9	1517 ± 12 (−0.4 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.998	> 0.435 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.612	2.602 ± 0.059 (+1.2 σ)	$H(0.51)$	90.126	90.12 ± 0.36 (+0.4 σ)
A_{143}^{tSZ}	6.87	$5.8^{+2.0}_{-1.8}$ (+0.0 σ)	z_{re}	2.10	$7.3^{+2.1}_{-4.6}$ (−2.4 σ)	$D_{\mathrm{M}}(0.51)$	1966.4	1966 ± 14 (−0.4 σ)
A_{100}^{PS}	238.6	249 ± 30 (−0.1 σ)	$10^9 A_{\mathrm{s}}$	1.913	$2.094^{+0.065}_{-0.18}$ (−2.1 σ)	$H(0.61)$	95.684	95.68 ± 0.29 (+0.4 σ)
A_{143}^{PS}	49.5	42 ± 8 (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8749	1.873 ± 0.012 (−0.2 σ)	$D_{\mathrm{M}}(0.61)$	2289.2	2289 ± 15 (−0.4 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	57.5	42 ± 9 (−0.0 σ)	D_{40}	1208.3	1220^{+15}_{-17} (−1.6 σ)	$H(2.33)$	235.56	235.48 ± 0.90 (−0.3 σ)
A_{217}^{PS}	124.2	116.0 ± 9.8 (−0.0 σ)	D_{220}	5738.8	5737 ± 39 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5745.3	5746 ± 13 (−0.5 σ)
A^{kSZ}	0.00	< 3.05 (−0.1 σ)	D_{810}	2532.6	2531 ± 14 (−0.2 σ)	$f\sigma_8(0.15)$	0.4283	$0.448^{+0.013}_{-0.019}$ (−2.7 σ)
$A_{100}^{\mathrm{dustTT}}$	8.83	8.8 ± 1.8 (+0.0 σ)	D_{1420}	816.52	815.5 ± 4.7 (−0.3 σ)	$\sigma_8(0.15)$	0.7117	$0.744^{+0.014}_{-0.031}$ (−2.4 σ)
$A_{143}^{\mathrm{dustTT}}$	10.73	10.6 ± 1.8 (−0.0 σ)	D_{2000}	232.68	232.3 ± 1.6 (+0.1 σ)	$f\sigma_8(0.38)$	0.4476	$0.468^{+0.012}_{-0.020}$ (−2.7 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.74	18.1 ± 3.3 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.97180	0.9713 ± 0.0050 (+0.1 σ)	$\sigma_8(0.38)$	0.6318	$0.660^{+0.012}_{-0.028}$ (−2.3 σ)
$A_{217}^{\mathrm{dustTT}}$	95.6	93.6 ± 7.3 (−0.0 σ)	Y_{P}	0.245488	0.245480 ± 0.000066 (+0.5 σ)	$f\sigma_8(0.51)$	0.4472	$0.467^{+0.011}_{-0.019}$ (−2.7 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1127	0.114 ± 0.038 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246815	0.246807 ± 0.000066 (+0.5 σ)	$\sigma_8(0.51)$	0.5916	$0.618^{+0.011}_{-0.026}$ (−2.3 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1344	0.134 ± 0.030 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5403	2.545 ± 0.031 (−0.5 σ)	$f\sigma_8(0.61)$	0.4432	$0.463^{+0.010}_{-0.019}$ (−2.6 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.482	0.480 ± 0.084 (−0.0 σ)	Age/Gyr	13.7569	13.759 ± 0.028 (−0.5 σ)	$\sigma_8(0.61)$	0.5632	$0.5887^{+0.0099}_{-0.025}$ (−2.2 σ)
$A_{143}^{\mathrm{dustTE}}$	0.221	0.221 ± 0.054 (−0.0 σ)	z_*	1089.436	1089.46 ± 0.31 (−0.5 σ)	$f\sigma_8(2.33)$	0.2843	$0.2972^{+0.0049}_{-0.013}$ (−2.1 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.657	0.660 ± 0.079 (−0.0 σ)	r_*	144.738	144.78 ± 0.33 (+0.2 σ)	$\sigma_8(2.33)$	0.2935	$0.3068^{+0.0049}_{-0.013}$ (−2.1 σ)
$A_{217}^{\mathrm{dustTE}}$	2.048	2.05 ± 0.27 (−0.1 σ)	$100\theta_*$	1.041307	1.04131 ± 0.00032 (+0.2 σ)	χ_{lowl}^2	21.43	22.6 ± 1.4 (−1.6 σ)
c_{100}	0.99976	0.99969 ± 0.00061 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8997	13.904 ± 0.030 (+0.2 σ)	χ_{plik}^2	2337.2	2353.9 ± 5.8 (−0.1 σ)
c_{217}	0.99815	0.99812 ± 0.00062 (−0.0 σ)	z_{drag}	1060.390	1060.31 ± 0.33 (+0.5 σ)	χ_{prior}^2	1.37	11.2 ± 4.4 (−0.0 σ)
H_0	68.32	68.33 ± 0.71 (+0.4 σ)	r_{drag}	147.321	147.38 ± 0.32 (+0.2 σ)	χ_{CMB}^2	2358.7	2376.5 ± 5.9 (−0.5 σ)
Ω_{Λ}	0.6972	0.6974 ± 0.0092 (+0.4 σ)	k_{D}	0.140814	0.14074 ± 0.00033 (+0.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2360.02$; $\Delta\chi_{\mathrm{eff}}^2 = -3.62$; $\bar{\chi}_{\mathrm{eff}}^2 = 2387.73$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.81$; $R - 1 = 0.00854$

χ_{eff}^2 : CMB - commander_dx12.v3.2.29: 21.43 (Δ -3.34) plik_rd12_HM.v22b.TTTEEE: 2337.22 (Δ -0.36)

3.70 base_Alens_plikHM_TTTEE_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02260 \pm 0.00017 \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0014 \quad (-0.4\sigma)$	k_{eq}	$0.01025 \pm 0.00010 \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1179 \pm 0.0015 \quad (-0.4\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09649 \pm 0.00031 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8223 \pm 0.0067 \quad (+0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04115 \pm 0.00033 \quad (+0.2\sigma)$	σ_8	$0.822^{+0.013}_{-0.026} \quad (-1.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4539 \pm 0.0034 \quad (+0.4\sigma)$
τ	$0.077^{+0.011}_{-0.033} \quad (-1.2\sigma)$	S_8	$0.824^{+0.023}_{-0.029} \quad (-1.7\sigma)$	$H(0.15)$	$73.56 \pm 0.61 \quad (+0.5\sigma)$
A_{L}	1.123 ± 0.080	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.012}_{-0.016} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.8 \pm 5.9 \quad (-0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.084^{+0.025}_{-0.064} \quad (-1.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.609^{+0.013}_{-0.020} \quad (-1.8\sigma)$	$H(0.38)$	$83.51 \pm 0.45 \quad (+0.5\sigma)$
n_{s}	$0.9719 \pm 0.0050 \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.994^{+0.019}_{-0.032} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 12 \quad (-0.5\sigma)$
y_{cal}	$0.99999 \pm 0.0025 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$100.8 \pm 1.2 \quad (+0.4\sigma)$	$H(0.51)$	$90.14 \pm 0.36 \quad (+0.5\sigma)$
A_{217}^{CIB}	$44 \pm 7 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.601 \pm 0.059 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 14 \quad (-0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$> 0.438 \quad (+0.0\sigma)$	z_{re}	$< 10.6 \quad (-1.4\sigma)$	$H(0.61)$	$95.69 \pm 0.29 \quad (+0.5\sigma)$
A_{143}^{tSZ}	$5.8^{+2.0}_{-1.8} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.188^{+0.051}_{-0.14} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2288 \pm 15 \quad (-0.5\sigma)$
A_{100}^{PS}	$248 \pm 30 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.873 \pm 0.012 \quad (-0.2\sigma)$	$H(2.33)$	$235.42 \pm 0.90 \quad (-0.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.2\sigma)$	D_{40}	$1225^{+15}_{-17} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5746 \pm 13 \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	D_{220}	$5736 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.457^{+0.012}_{-0.016} \quad (-1.8\sigma)$
A_{217}^{PS}	$116.1 \pm 9.8 \quad (+0.0\sigma)$	D_{810}	$2530 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.760^{+0.011}_{-0.024} \quad (-1.5\sigma)$
A^{kSZ}	$< 2.98 \quad (-0.1\sigma)$	D_{1420}	$815.7 \pm 4.7 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.478^{+0.010}_{-0.016} \quad (-1.8\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.8 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$232.4 \pm 1.6 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6750^{+0.0092}_{-0.021} \quad (-1.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.5 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9719 \pm 0.0050 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4774^{+0.0095}_{-0.016} \quad (-1.7\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.0 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.245482 \pm 0.000067 \quad (+0.5\sigma)$	$\sigma_8(0.51)$	$0.6321^{+0.0084}_{-0.020} \quad (-1.4\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246808 \pm 0.000067 \quad (+0.5\sigma)$	$f\sigma_8(0.61)$	$0.4731^{+0.0089}_{-0.015} \quad (-1.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.544 \pm 0.031 \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.6018^{+0.0079}_{-0.019} \quad (-1.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.758 \pm 0.028 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.3038^{+0.0038}_{-0.0097} \quad (-1.3\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.480 \pm 0.084 \quad (-0.0\sigma)$	z_*	$1089.45 \pm 0.32 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3137^{+0.0038}_{-0.010} \quad (-1.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.054 \quad (-0.0\sigma)$	r_*	$144.81 \pm 0.33 \quad (+0.3\sigma)$	f_{2000}^{143}	$26.4 \pm 2.9 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.079 \quad (-0.0\sigma)$	$100\theta_*$	$1.04132 \pm 0.00032 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$29.7 \pm 2.0 \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.05 \pm 0.27 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.906 \pm 0.030 \quad (+0.3\sigma)$	f_{2000}^{217}	$104.8 \pm 1.9 \quad (-0.3\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1060.31 \pm 0.34 \quad (+0.5\sigma)$	χ_{lowl}^2	$23.2 \pm 1.5 \quad (-1.2\sigma)$
c_{217}	$0.99812 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.32 \quad (+0.2\sigma)$	χ_{plik}^2	$2353.8 \pm 5.8 \quad (-0.1\sigma)$
H_0	$68.38 \pm 0.71 \quad (+0.4\sigma)$	k_{D}	$0.14071 \pm 0.00033 \quad (-0.0\sigma)$	χ_{prior}^2	$11.2 \pm 4.4 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6980 \pm 0.0092 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16055 \pm 0.00019 \quad (-0.5\sigma)$	χ_{CMB}^2	$2377.1 \pm 6.0 \quad (-0.4\sigma)$
Ω_{m}	$0.3020 \pm 0.0092 \quad (-0.4\sigma)$	z_{eq}	$3357 \pm 34 \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2388.28$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.20$; $R - 1 = 0.01143$

3.71 base_Alens_plikHM_TTTEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022613	0.02256 ± 0.00017 (+1.5 σ)	$\Omega_{\text{m}}h^2$	0.14147	0.1418 ± 0.0014 (-1.4 σ)	k_{eq}	0.010271	0.01029 ± 0.00011 (-1.4 σ)
$\Omega_{\text{c}}h^2$	0.11821	0.1186 ± 0.0016 (-1.5 σ)	$\Omega_{\text{m}}h^3$	0.096558	0.09650 ± 0.00030 (+0.6 σ)	$100\theta_{\text{eq}}$	0.8208	0.8193 ± 0.0067 (+1.5 σ)
$100\theta_{\text{MC}}$	1.041116	1.04109 ± 0.00033 (+0.8 σ)	σ_8	0.8025	0.8015 ± 0.0090 (-1.6 σ)	$100\theta_{\text{s,eq}}$	0.45312	0.4524 ± 0.0034 (+1.5 σ)
τ	0.0518	0.0495 ± 0.0086 (-0.7 σ)	S_8	0.8074	0.810 ± 0.019 (-1.8 σ)	$H(0.15)$	73.46	73.30 ± 0.62 (+1.7 σ)
A_{L}	1.183	1.168 ± 0.066	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4422	0.443 ± 0.011 (-1.8 σ)	$D_{\text{M}}(0.15)$	635.7	637.3 ± 6.1 (-1.6 σ)
$\ln(10^{10}A_{\text{s}})$	3.0349	3.031 ± 0.018 (-1.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5957	0.596 ± 0.010 (-1.9 σ)	$H(0.38)$	83.446	83.33 ± 0.46 (+1.7 σ)
n_{s}	0.9714	0.9687 ± 0.0050 (+1.4 σ)	$\sigma_8/h^{0.5}$	0.9714	0.972 ± 0.015 (-1.9 σ)	$D_{\text{M}}(0.38)$	1518.0	1521 ± 12 (-1.6 σ)
y_{cal}	0.99970	1.0000 ± 0.0025 (-0.2 σ)	$r_{\text{drag}}h$	100.54	100.2 ± 1.2 (+1.6 σ)	$H(0.51)$	90.092	90.00 ± 0.36 (+1.7 σ)
A_{217}^{CIB}	42.4	45 ± 7 (-0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.612	2.599 ± 0.059 (+4.8 σ)	$D_{\text{M}}(0.51)$	1967.7	1972 ± 14 (-1.6 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.9998	> 0.409 (+0.1 σ)	z_{re}	7.35	$7.09^{+0.92}_{-0.75}$ (-0.8 σ)	$H(0.61)$	95.657	95.58 ± 0.29 (+1.7 σ)
A_{143}^{tSZ}	6.81	$5.6^{+2.1}_{-1.8}$ (+0.2 σ)	$10^9 A_{\text{s}}$	2.0800	2.072 ± 0.037 (-1.0 σ)	$D_{\text{M}}(0.61)$	2290.7	2295 ± 16 (-1.7 σ)
A_{100}^{PS}	240.1	252 ± 28 (-0.3 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8752	1.877 ± 0.012 (-0.9 σ)	$H(2.33)$	235.64	235.83 ± 0.90 (-1.4 σ)
A_{143}^{PS}	49.6	43 ± 8 (-0.5 σ)	D_{40}	1216.0	1222 ± 14 (-1.2 σ)	$D_{\text{M}}(2.33)$	5746.4	5750 ± 13 (-1.6 σ)
$A_{143 \times 217}^{\text{PS}}$	57.4	42 ± 9 (-0.1 σ)	D_{220}	5737.9	5743 ± 39 (+0.1 σ)	$f\sigma_8(0.15)$	0.4474	0.448 ± 0.010 (-1.8 σ)
A_{217}^{PS}	124.1	116 ± 10 (+0.1 σ)	D_{810}	2532.4	2532 ± 14 (-0.6 σ)	$\sigma_8(0.15)$	0.7423	0.7412 ± 0.0078 (-1.5 σ)
A^{kSZ}	0.00	< 3.33 (-0.3 σ)	D_{1420}	816.31	815.1 ± 4.7 (-0.3 σ)	$f\sigma_8(0.38)$	0.4673	0.4677 ± 0.0083 (-1.9 σ)
A_{100}^{dustTT}	8.69	8.8 ± 1.8 (-0.0 σ)	D_{2000}	232.62	231.9 ± 1.6 (+0.8 σ)	$\sigma_8(0.38)$	0.6589	0.6576 ± 0.0065 (-1.3 σ)
A_{143}^{dustTT}	10.73	10.6 ± 1.8 (-0.2 σ)	$n_{\text{s},0.002}$	0.9714	0.9687 ± 0.0050 (+1.4 σ)	$f\sigma_8(0.51)$	0.4668	0.4670 ± 0.0074 (-1.9 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.71	18.1 ± 3.3 (-0.1 σ)	Y_{P}	0.245484	0.245465 ± 0.000067 (+1.4 σ)	$\sigma_8(0.51)$	0.6170	0.6156 ± 0.0059 (-1.2 σ)
A_{217}^{dustTT}	95.4	93.5 ± 7.4 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246811	0.246791 ± 0.000067 (+1.4 σ)	$f\sigma_8(0.61)$	0.4625	0.4625 ± 0.0067 (-1.8 σ)
A_{100}^{dustTE}	0.1130	0.114 ± 0.038 (-0.0 σ)	10^5D/H	2.5422	2.552 ± 0.031 (-1.5 σ)	$\sigma_8(0.61)$	0.5873	0.5860 ± 0.0056 (-1.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.134 ± 0.029 (-0.0 σ)	Age/Gyr	13.7593	13.767 ± 0.029 (-1.6 σ)	$f\sigma_8(2.33)$	0.29642	0.2957 ± 0.0027 (-0.9 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.480 ± 0.085 (-0.0 σ)	z_*	1089.462	1089.57 ± 0.32 (-1.7 σ)	$\sigma_8(2.33)$	0.30594	0.3051 ± 0.0028 (-0.7 σ)
A_{143}^{dustTE}	0.224	0.222 ± 0.054 (-0.1 σ)	r_*	144.709	144.66 ± 0.33 (+1.2 σ)	f_{2000}^{143}	25.64	27.3 ± 2.9 (-1.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.659	0.661 ± 0.080 (-0.1 σ)	$100\theta_*$	1.041284	1.04126 ± 0.00032 (+0.7 σ)	$f_{2000}^{143 \times 217}$	29.65	30.4 ± 2.0 (-1.2 σ)
A_{217}^{dustTE}	2.071	2.06 ± 0.27 (-0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8972	13.893 ± 0.030 (+1.1 σ)	f_{2000}^{217}	104.32	105.4 ± 1.9 (-1.1 σ)
c_{100}	0.99976	0.99971 ± 0.00061 (+0.0 σ)	z_{drag}	1060.352	1060.26 ± 0.34 (+1.2 σ)	χ_{small}^2	395.71	396.9 ± 1.7 (-0.2 σ)
c_{217}	0.99810	0.99813 ± 0.00062 (-0.1 σ)	r_{drag}	147.297	147.26 ± 0.32 (+1.0 σ)	χ_{plik}^2	2337.0	2353.9 ± 5.7 (-1.0 σ)
H_0	68.25	68.07 ± 0.72 (+1.6 σ)	k_{D}	0.140833	0.14083 ± 0.00032 (-0.5 σ)	χ_{prior}^2	1.35	11.3 ± 4.4 (-0.1 σ)
Ω_{Λ}	0.6963	0.6938 ± 0.0095 (+1.5 σ)	$100\theta_{\text{D}}$	0.160516	0.16058 ± 0.00019 (-1.2 σ)	χ_{CMB}^2	2732.7	2750.8 ± 6.0 (-1.0 σ)
Ω_{m}	0.3037	0.3062 ± 0.0095 (-1.5 σ)	z_{eq}	3365.2	3373 ± 35 (-1.4 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2734.06$; $\Delta\chi_{\text{eff}}^2 = -8.18$; $\bar{\chi}_{\text{eff}}^2 = 2762.07$; $\Delta\bar{\chi}_{\text{eff}}^2 = -6.08$; $R - 1 = 0.00592$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.71 (Δ -0.35) plik_rd12_HM_v22b_TTTEEE: 2337.00 (Δ -7.46)

3.72 base_Alens_CamSpecHM_TT

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022619	0.02256 ± 0.00031 (+0.3 σ)	S_8	0.848	$0.834^{+0.048}_{-0.055}$ (−1.4 σ)	$100\theta_{\mathrm{eq}}$	0.8273	0.826 ± 0.012 (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.11677	0.1172 ± 0.0028 (−0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4643	$0.457^{+0.026}_{-0.030}$ (−1.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.4565	0.4556 ± 0.0062 (+0.2 σ)
$100\theta_{\mathrm{MC}}$	1.04141	1.04135 ± 0.00056 (+0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6299	$0.618^{+0.031}_{-0.039}$ (−1.5 σ)	$H(0.15)$	73.98	73.8 ± 1.1 (+0.2 σ)
τ	0.121	< 0.124 (−1.0 σ)	$\sigma_8/h^{0.5}$	1.030	$1.010^{+0.049}_{-0.063}$ (−1.5 σ)	$D_{\mathrm{M}}(0.15)$	630.6	633 ± 11 (−0.2 σ)
A_{L}	1.080	$1.12^{+0.13}_{-0.16}$	$r_{\mathrm{drag}}h$	101.71	101.3 ± 2.3 (+0.2 σ)	$H(0.38)$	83.81	83.68 ± 0.85 (+0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.169	$3.121^{+0.076}_{-0.15}$ (−1.1 σ)	$\langle d^2 \rangle^{1/2}$	2.642	2.630 ± 0.079 (+0.5 σ)	$D_{\mathrm{M}}(0.38)$	1507.8	1512 ± 22 (−0.2 σ)
n_{s}	0.9764	0.9740 ± 0.0086 (+0.1 σ)	z_{re}	13.40	$11.0^{+5.5}_{-4.3}$ (−1.2 σ)	$H(0.51)$	90.37	90.26 ± 0.68 (+0.2 σ)
A_{100}^{PS}	219.7	230 ± 25 (−0.1 σ)	$10^9 A_{\mathrm{s}}$	2.378	$2.28^{+0.14}_{-0.34}$ (−1.0 σ)	$D_{\mathrm{M}}(0.51)$	1955.8	1961 ± 26 (−0.2 σ)
A_{143}^{PS}	43.7	34 ± 9 (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8663	1.867 ± 0.016 (−0.1 σ)	$H(0.61)$	95.86	$95.78^{+0.52}_{-0.59}$ (+0.3 σ)
A_{217}^{PS}	108.4	104 ± 10 (+0.0 σ)	D_{40}	1234.5	1233^{+23}_{-33} (−1.1 σ)	$D_{\mathrm{M}}(0.61)$	2278.0	2283 ± 28 (−0.2 σ)
A_{217}^{CIB}	37.8	37 ± 7 (−0.0 σ)	D_{220}	5724.4	5723 ± 42 (+0.1 σ)	$H(2.33)$	234.73	235.0 ± 1.6 (−0.2 σ)
A_{143}^{tSZ}	6.31	$4.2^{+2.0}_{-2.3}$ (+0.0 σ)	D_{810}	2526.9	2525 ± 14 (−0.1 σ)	$D_{\mathrm{M}}(2.33)$	5738.7	5743 ± 24 (−0.3 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.764	0.68 ± 0.14 (+0.0 σ)	D_{1420}	815.5	814.0 ± 5.2 (−0.1 σ)	$f\sigma_8(0.15)$	0.4705	$0.463^{+0.026}_{-0.030}$ (−1.5 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.784	$0.51^{+0.32}_{-0.28}$ (−0.0 σ)	D_{2000}	232.91	232.1 ± 2.2 (+0.1 σ)	$\sigma_8(0.15)$	0.7914	$0.774^{+0.032}_{-0.053}$ (−1.2 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.89	—	$n_{\mathrm{s},0.002}$	0.9764	0.9740 ± 0.0086 (+0.1 σ)	$f\sigma_8(0.38)$	0.4937	$0.484^{+0.025}_{-0.030}$ (−1.5 σ)
A^{kSZ}	0.00	< 5.23 (−0.1 σ)	Y_{P}	0.245487	$0.24547^{+0.00011}_{-0.00013}$ (+0.3 σ)	$\sigma_8(0.38)$	0.7034	$0.688^{+0.027}_{-0.048}$ (−1.1 σ)
A_{100}^{dust}	0.995	1.00 ± 0.19 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246814	$0.24679^{+0.00011}_{-0.00013}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.4942	$0.485^{+0.024}_{-0.030}$ (−1.5 σ)
A_{143}^{dust}	0.965	0.95 ± 0.18 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.541	2.552 ± 0.056 (−0.3 σ)	$\sigma_8(0.51)$	0.6591	$0.644^{+0.024}_{-0.046}$ (−1.1 σ)
A_{217}^{dust}	0.989	0.98 ± 0.10 (−0.0 σ)	Age/Gyr	13.744	13.753 ± 0.054 (−0.3 σ)	$f\sigma_8(0.61)$	0.4904	$0.481^{+0.023}_{-0.030}$ (−1.5 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.007	1.01 ± 0.16 (−0.0 σ)	z_*	1089.33	1089.45 ± 0.58 (−0.3 σ)	$\sigma_8(0.61)$	0.6277	$0.614^{+0.023}_{-0.044}$ (−1.1 σ)
y_{cal}	1.00007	1.0000 ± 0.0025 (−0.1 σ)	r_*	145.08	145.01 ± 0.58 (+0.1 σ)	$f\sigma_8(2.33)$	0.3172	$0.310^{+0.011}_{-0.023}$ (−1.0 σ)
c_{100}	0.99783	0.9976 ± 0.0011 (+0.0 σ)	$100\theta_*$	1.04157	1.04152 ± 0.00054 (+0.2 σ)	$\sigma_8(2.33)$	0.3278	$0.320^{+0.011}_{-0.025}$ (−1.0 σ)
c_{217}	1.00083	1.0008 ± 0.0016 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.929	13.923 ± 0.052 (+0.1 σ)	f_{2000}^{143}	25.76	26 ± 4 (−0.2 σ)
H_0	68.87	68.7 ± 1.3 (+0.2 σ)	z_{drag}	1060.28	1060.17 ± 0.58 (+0.3 σ)	f_{2000}^{217}	103.72	104.5 ± 2.5 (−0.2 σ)
Ω_{Λ}	0.7048	0.701 ± 0.017 (+0.2 σ)	r_{drag}	147.67	147.62 ± 0.55 (+0.1 σ)	$f_{2000}^{143 \times 217}$	28.79	29.4 ± 2.7 (−0.2 σ)
Ω_{m}	0.2952	0.299 ± 0.017 (−0.2 σ)	k_{D}	0.14044	0.14045 ± 0.00054 (+0.0 σ)	$\chi_{\mathrm{CamSpec}}^2$	7045.0	7059.9 ± 5.4 (+0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14003	0.1404 ± 0.0026 (−0.2 σ)	$100\theta_{\mathrm{D}}$	0.160599	0.16066 ± 0.00032 (−0.3 σ)	χ_{prior}^2	1.43	7.2 ± 3.3 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09645	0.09639 ± 0.00051 (+0.2 σ)	z_{eq}	3331	3341 ± 61 (−0.2 σ)			
σ_8	0.8546	$0.836^{+0.036}_{-0.055}$ (−1.3 σ)	k_{eq}	0.010167	0.01020 ± 0.00019 (−0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7046.45$; $\Delta\chi_{\mathrm{eff}}^2 = -0.25$; $\bar{\chi}_{\mathrm{eff}}^2 = 7067.10$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.23$; $R - 1 = 0.00805$
 χ_{eff}^2 : CMB - CamSpec like_10.7HM: 7045.02 (Δ -0.23)

3.73 base_Alens_CamSpecHM_TT_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02248 ± 0.00022	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.461^{+0.021}_{-0.030}$	$H(0.15)$	73.43 ± 0.53
$\Omega_{\mathrm{c}} h^2$	0.1181 ± 0.0013	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.621^{+0.027}_{-0.040}$	$D_{\mathrm{M}}(0.15)$	636.0 ± 5.2
$100\theta_{\mathrm{MC}}$	1.04123 ± 0.00044	$\sigma_8/h^{0.5}$	$1.013^{+0.042}_{-0.066}$	$H(0.38)$	83.40 ± 0.41
τ	$0.094^{+0.028}_{-0.080}$	$r_{\mathrm{drag}} h$	100.6 ± 1.0	$D_{\mathrm{M}}(0.38)$	1519 ± 11
A_{L}	1.11 ± 0.13	$\langle d^2 \rangle^{1/2}$	2.622 ± 0.076	$H(0.51)$	90.04 ± 0.34
$\ln(10^{10} A_{\mathrm{s}})$	$3.116^{+0.074}_{-0.14}$	z_{re}	$10.8^{+5.3}_{-4.3}$	$D_{\mathrm{M}}(0.51)$	1969 ± 12
n_{s}	0.9715 ± 0.0051	$10^9 A_{\mathrm{s}}$	$2.27^{+0.14}_{-0.33}$	$H(0.61)$	95.60 ± 0.29
A_{100}^{PS}	231 ± 25	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.871 ± 0.012	$D_{\mathrm{M}}(0.61)$	2292 ± 13
A_{143}^{PS}	35 ± 8	D_{40}	1236^{+18}_{-32}	$H(2.33)$	235.44 ± 0.81
A_{217}^{PS}	104 ± 10	D_{220}	5719 ± 41	$D_{\mathrm{M}}(2.33)$	5750 ± 14
A_{217}^{CIB}	37 ± 7	D_{810}	2526 ± 14	$f\sigma_8(0.15)$	$0.466^{+0.021}_{-0.030}$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4}$	D_{1420}	813.6 ± 5.1	$\sigma_8(0.15)$	$0.774^{+0.029}_{-0.053}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.68 ± 0.14	D_{2000}	231.7 ± 1.9	$f\sigma_8(0.38)$	$0.487^{+0.021}_{-0.031}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.34}_{-0.27}$	$n_{\mathrm{s},0.002}$	0.9715 ± 0.0051	$\sigma_8(0.38)$	$0.687^{+0.025}_{-0.048}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.245436 ± 0.000088	$f\sigma_8(0.51)$	$0.487^{+0.020}_{-0.032}$
A^{kSZ}	< 5.38	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246763 ± 0.000088	$\sigma_8(0.51)$	$0.644^{+0.023}_{-0.045}$
A_{100}^{dust}	1.00 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	2.566 ± 0.041	$f\sigma_8(0.61)$	$0.482^{+0.020}_{-0.032}$
A_{143}^{dust}	0.95 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.768 ± 0.032	$\sigma_8(0.61)$	$0.613^{+0.021}_{-0.043}$
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.61 ± 0.33	$f\sigma_8(2.33)$	$0.309^{+0.011}_{-0.022}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	r_*	144.84 ± 0.32	$\sigma_8(2.33)$	$0.319^{+0.011}_{-0.023}$
y_{cal}	1.0000 ± 0.0025	$100\theta_*$	1.04141 ± 0.00043	f_{2000}^{143}	27 ± 3
c_{100}	0.9976 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.908 ± 0.032	f_{2000}^{217}	104.9 ± 2.2
c_{217}	1.0008 ± 0.0016	z_{drag}	1060.06 ± 0.49	$f_{2000}^{143 \times 217}$	29.9 ± 2.4
H_0	68.23 ± 0.61	r_{drag}	147.48 ± 0.35	$\chi_{\mathrm{CamSpec}}^2$	7059.1 ± 5.3
Ω_{Λ}	0.6966 ± 0.0078	k_{D}	0.14055 ± 0.00046	$\chi_{6\mathrm{DF}}^2$	0.046 ± 0.065
Ω_{m}	0.3034 ± 0.0078	$100\theta_{\mathrm{D}}$	0.16072 ± 0.00028	χ_{MGS}^2	1.86 ± 0.64
$\Omega_{\mathrm{m}} h^2$	0.1412 ± 0.0012	z_{eq}	3359 ± 30	$\chi_{\mathrm{DR12BAO}}^2$	4.1 ± 1.0
$\Omega_{\mathrm{m}} h^3$	0.09635 ± 0.00050	k_{eq}	0.010252 ± 0.000091	χ_{prior}^2	7.2 ± 3.3
σ_8	$0.837^{+0.032}_{-0.057}$	$100\theta_{\mathrm{eq}}$	0.8217 ± 0.0057	χ_{BAO}^2	6.0 ± 1.1
S_8	$0.842^{+0.039}_{-0.054}$	$100\theta_{\mathrm{s,eq}}$	0.4537 ± 0.0029		
$\bar{\chi}_{\mathrm{eff}}^2 = 7072.33; R - 1 = 0.01128$					

3.74 base_Alens_CamSpecHM_TT_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02256 ± 0.00031	S_8	$0.847^{+0.042}_{-0.050}$	$100\theta_{\mathrm{eq}}$	0.826 ± 0.012
$\Omega_{\mathrm{c}}h^2$	0.1171 ± 0.0028	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.464^{+0.023}_{-0.027}$	$100\theta_{\mathrm{s,eq}}$	0.4559 ± 0.0062
$100\theta_{\mathrm{MC}}$	1.04136 ± 0.00056	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.628^{+0.026}_{-0.034}$	$H(0.15)$	73.8 ± 1.1
τ	$0.114^{+0.026}_{-0.065}$	$\sigma_8/h^{0.5}$	$1.026^{+0.040}_{-0.055}$	$D_{\mathrm{M}}(0.15)$	632 ± 11
A_{L}	$1.08^{+0.11}_{-0.13}$	$r_{\mathrm{drag}}h$	101.4 ± 2.3	$H(0.38)$	83.71 ± 0.85
$\ln(10^{10}A_{\mathrm{s}})$	$3.155^{+0.058}_{-0.12}$	$\langle d^2 \rangle^{1/2}$	2.630 ± 0.079	$D_{\mathrm{M}}(0.38)$	1511 ± 22
n_{s}	0.9746 ± 0.0085	z_{re}	$12.7^{+3.2}_{-4.3}$	$H(0.51)$	$90.29^{+0.64}_{-0.72}$
A_{100}^{PS}	229 ± 25	$10^9 A_{\mathrm{s}}$	$2.35^{+0.12}_{-0.29}$	$D_{\mathrm{M}}(0.51)$	1959 ± 26
A_{143}^{PS}	34 ± 9	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.866 ± 0.016	$H(0.61)$	$95.80^{+0.51}_{-0.59}$
A_{217}^{PS}	104 ± 10	D_{40}	1238^{+23}_{-33}	$D_{\mathrm{M}}(0.61)$	2282 ± 28
A_{217}^{CIB}	37 ± 7	D_{220}	5721 ± 42	$H(2.33)$	234.9 ± 1.6
A_{143}^{tSZ}	$4.2^{+2.0}_{-2.3}$	D_{810}	2525 ± 14	$D_{\mathrm{M}}(2.33)$	5742 ± 24
$r_{143 \times 217}^{\mathrm{PS}}$	0.68 ± 0.14	D_{1420}	814.1 ± 5.2	$f\sigma_8(0.15)$	$0.470^{+0.023}_{-0.027}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.32}_{-0.29}$	D_{2000}	232.2 ± 2.2	$\sigma_8(0.15)$	$0.787^{+0.025}_{-0.044}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	0.9746 ± 0.0085	$f\sigma_8(0.38)$	$0.492^{+0.021}_{-0.027}$
A^{kSZ}	< 5.17	Y_{P}	$0.24547^{+0.00011}_{-0.00013}$	$\sigma_8(0.38)$	$0.699^{+0.021}_{-0.041}$
A_{100}^{dust}	1.00 ± 0.20	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24680^{+0.00011}_{-0.00013}$	$f\sigma_8(0.51)$	$0.492^{+0.020}_{-0.027}$
A_{143}^{dust}	0.95 ± 0.18	$10^5 \mathrm{D}/\mathrm{H}$	2.551 ± 0.056	$\sigma_8(0.51)$	$0.655^{+0.019}_{-0.038}$
A_{217}^{dust}	0.98 ± 0.10	$\mathrm{Age}/\mathrm{Gyr}$	13.752 ± 0.054	$f\sigma_8(0.61)$	$0.488^{+0.019}_{-0.026}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.01 ± 0.16	z_*	1089.43 ± 0.58	$\sigma_8(0.61)$	$0.624^{+0.018}_{-0.037}$
y_{cal}	1.0000 ± 0.0025	r_*	145.04 ± 0.58	$f\sigma_8(2.33)$	$0.3151^{+0.0088}_{-0.019}$
c_{100}	0.9976 ± 0.0011	$100\theta_*$	1.04153 ± 0.00054	$\sigma_8(2.33)$	$0.3255^{+0.0088}_{-0.020}$
c_{217}	1.0008 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.925 ± 0.052	f_{2000}^{143}	26 ± 4
H_0	68.7 ± 1.3	z_{drag}	1060.17 ± 0.59	f_{2000}^{217}	104.4 ± 2.5
Ω_{Λ}	0.702 ± 0.017	r_{drag}	147.65 ± 0.55	$f_{2000}^{143 \times 217}$	29.3 ± 2.7
Ω_{m}	0.298 ± 0.017	k_{D}	0.14042 ± 0.00054	$\chi^2_{\mathrm{CamSpec}}$	7059.9 ± 5.4
$\Omega_{\mathrm{m}}h^2$	0.1403 ± 0.0026	$100\theta_{\mathrm{D}}$	0.16066 ± 0.00032	χ^2_{prior}	7.2 ± 3.3
$\Omega_{\mathrm{m}}h^3$	0.09638 ± 0.00051	z_{eq}	3338 ± 61		
σ_8	$0.850^{+0.029}_{-0.047}$	k_{eq}	0.01019 ± 0.00019		

$\bar{\chi}^2_{\mathrm{eff}} = 7067.05$; $R - 1 = 0.01053$

3.75 base_Alens_CamSpecHM_TT_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02248 ± 0.00022	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.469^{+0.017}_{-0.026}$	$H(0.15)$	73.43 ± 0.53
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0013	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.631^{+0.021}_{-0.035}$	$D_{\mathrm{M}}(0.15)$	635.9 ± 5.2
$100\theta_{\mathrm{MC}}$	1.04123 ± 0.00044	$\sigma_8/h^{0.5}$	$1.030^{+0.032}_{-0.057}$	$H(0.38)$	83.41 ± 0.41
τ	$0.110^{+0.026}_{-0.060}$	$r_{\mathrm{drag}}h$	100.6 ± 1.0	$D_{\mathrm{M}}(0.38)$	1519 ± 10
A_{L}	1.07 ± 0.11	$\langle d^2 \rangle^{1/2}$	2.621 ± 0.076	$H(0.51)$	90.04 ± 0.34
$\ln(10^{10}A_{\mathrm{s}})$	$3.149^{+0.056}_{-0.12}$	z_{re}	$12.4^{+2.9}_{-4.5}$	$D_{\mathrm{M}}(0.51)$	1969 ± 12
n_{s}	0.9719 ± 0.0050	$10^9 A_{\mathrm{s}}$	$2.34^{+0.11}_{-0.27}$	$H(0.61)$	95.60 ± 0.29
A_{100}^{PS}	231 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.870 ± 0.012	$D_{\mathrm{M}}(0.61)$	2292 ± 13
A_{143}^{PS}	35 ± 8	D_{40}	1242^{+19}_{-31}	$H(2.33)$	235.42 ± 0.81
A_{217}^{PS}	104 ± 10	D_{220}	5717 ± 41	$D_{\mathrm{M}}(2.33)$	5750 ± 14
A_{217}^{CIB}	37 ± 7	D_{810}	2526 ± 14	$f\sigma_8(0.15)$	$0.474^{+0.017}_{-0.026}$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4}$	D_{1420}	813.7 ± 5.1	$\sigma_8(0.15)$	$0.787^{+0.022}_{-0.045}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.68 ± 0.14	D_{2000}	231.8 ± 1.9	$f\sigma_8(0.38)$	$0.495^{+0.017}_{-0.027}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.33}_{-0.28}$	$n_{\mathrm{s},0.002}$	0.9719 ± 0.0050	$\sigma_8(0.38)$	$0.699^{+0.019}_{-0.040}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.245435 ± 0.000088	$f\sigma_8(0.51)$	$0.495^{+0.016}_{-0.027}$
A^{kSZ}	< 5.33	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246762 ± 0.000088	$\sigma_8(0.51)$	$0.654^{+0.018}_{-0.038}$
A_{100}^{dust}	0.999 ± 0.20	$10^5 \mathrm{D}/\mathrm{H}$	2.566 ± 0.041	$f\sigma_8(0.61)$	$0.490^{+0.015}_{-0.027}$
A_{143}^{dust}	0.95 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.769 ± 0.032	$\sigma_8(0.61)$	$0.623^{+0.017}_{-0.036}$
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.62 ± 0.33	$f\sigma_8(2.33)$	$0.3143^{+0.0083}_{-0.018}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	r_*	144.85 ± 0.33	$\sigma_8(2.33)$	$0.3245^{+0.0086}_{-0.019}$
y_{cal}	0.99999 ± 0.0025	$100\theta_*$	1.04141 ± 0.00043	f_{2000}^{143}	27 ± 3
c_{100}	0.9976 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.909 ± 0.032	f_{2000}^{217}	104.8 ± 2.2
c_{217}	1.0008 ± 0.0016	z_{drag}	1060.05 ± 0.49	$f_{2000}^{143 \times 217}$	29.8 ± 2.4
H_0	68.24 ± 0.61	r_{drag}	147.49 ± 0.35	$\chi_{\mathrm{CamSpec}}^2$	7059.1 ± 5.3
Ω_{Λ}	0.6967 ± 0.0078	k_{D}	0.14053 ± 0.00046	$\chi_{6\mathrm{DF}}^2$	0.046 ± 0.065
Ω_{m}	0.3033 ± 0.0078	$100\theta_{\mathrm{D}}$	0.16072 ± 0.00028	χ_{MGS}^2	1.87 ± 0.64
$\Omega_{\mathrm{m}}h^2$	0.1412 ± 0.0013	z_{eq}	3358 ± 30	$\chi_{\mathrm{DR12BAO}}^2$	4.1 ± 1.0
$\Omega_{\mathrm{m}}h^3$	0.09634 ± 0.00050	k_{eq}	0.010250 ± 0.000091	χ_{prior}^2	7.2 ± 3.3
σ_8	$0.851^{+0.024}_{-0.048}$	$100\theta_{\mathrm{eq}}$	0.8218 ± 0.0057	χ_{BAO}^2	6.0 ± 1.1
S_8	$0.855^{+0.032}_{-0.047}$	$100\theta_{\mathrm{s,eq}}$	0.4537 ± 0.0029		
$\bar{\chi}_{\mathrm{eff}}^2 = 7072.34; R - 1 = 0.01270$					

3.76 base_Alens_CamSpecHM_TT_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022672	0.02266 ± 0.00030 (+0.9 σ)	S_8	0.7557	$0.793^{+0.034}_{-0.040}$ (−2.4 σ)	$100\theta_{\text{eq}}$	0.8283	0.830 ± 0.011 (+0.6 σ)
$\Omega_c h^2$	0.11654	0.1162 ± 0.0026 (−0.6 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4139	$0.434^{+0.019}_{-0.022}$ (−2.4 σ)	$100\theta_{s,\text{eq}}$	0.4570	0.4580 ± 0.0058 (+0.6 σ)
$100\theta_{\text{MC}}$	1.04148	1.04150 ± 0.00053 (+0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5623	$0.591^{+0.020}_{-0.027}$ (−2.5 σ)	$H(0.15)$	74.11	74.2 ± 1.1 (+0.7 σ)
τ	0.0102	< 0.0783 (−1.5 σ)	$\sigma_8/h^{0.5}$	0.9195	$0.967^{+0.030}_{-0.043}$ (−2.4 σ)	$D_{\text{M}}(0.15)$	629.4	628 ± 10 (−0.7 σ)
A_{L}	1.362	1.22 ± 0.12	$r_{\text{drag}} h$	101.93	102.2 ± 2.1 (+0.6 σ)	$H(0.38)$	83.92	84.01 ± 0.81 (+0.7 σ)
$\ln(10^{10} A_{\text{s}})$	2.947	$3.051^{+0.041}_{-0.097}$ (−1.6 σ)	$\langle d^2 \rangle^{1/2}$	2.652	2.638 ± 0.077 (+1.6 σ)	$D_{\text{M}}(0.38)$	1505.3	1503 ± 21 (−0.7 σ)
n_{s}	0.9760	0.9768 ± 0.0077 (+0.4 σ)	z_{re}	2.12	$8.1^{+2.6}_{-4.8}$ (−1.7 σ)	$H(0.51)$	90.46	90.53 ± 0.65 (+0.8 σ)
y_{cal}	1.00006	1.0000 ± 0.0025 (−0.1 σ)	$10^9 A_{\text{s}}$	1.905	$2.120^{+0.079}_{-0.21}$ (−1.5 σ)	$D_{\text{M}}(0.51)$	1952.8	1950 ± 24 (−0.7 σ)
A_{100}^{PS}	218.4	228 ± 30 (−0.2 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8667	1.863 ± 0.015 (−0.4 σ)	$H(0.61)$	95.94	$95.99^{+0.50}_{-0.56}$ (+0.8 σ)
A_{143}^{PS}	45.1	33 ± 9 (−0.3 σ)	D_{40}	1197.5	1209 ± 20 (−1.8 σ)	$D_{\text{M}}(0.61)$	2274.7	2272 ± 26 (−0.7 σ)
A_{217}^{PS}	108.8	105 ± 10 (+0.1 σ)	D_{220}	5732.1	5726 ± 42 (+0.4 σ)	$H(2.33)$	234.64	234.4 ± 1.5 (−0.5 σ)
A_{217}^{CIB}	37.6	36^{+7}_{-7} (−0.2 σ)	D_{810}	2527.5	2524 ± 14 (−0.3 σ)	$D_{\text{M}}(2.33)$	5735.1	5734 ± 23 (−0.8 σ)
A_{143}^{tSZ}	6.32	$4.2^{+2.0}_{-2.3}$ (+0.1 σ)	D_{1420}	815.5	814.5 ± 5.1 (−0.1 σ)	$f\sigma_8(0.15)$	0.4195	$0.440^{+0.018}_{-0.021}$ (−2.5 σ)
$r_{143 \times 217}^{\text{PS}}$	0.793	0.68 ± 0.14 (+0.1 σ)	D_{2000}	232.95	232.6 ± 2.1 (+0.5 σ)	$\sigma_8(0.15)$	0.7076	$0.745^{+0.018}_{-0.034}$ (−1.9 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.772	0.50 ± 0.27 (−0.1 σ)	$n_{\text{s},0.002}$	0.9760	0.9768 ± 0.0077 (+0.4 σ)	$f\sigma_8(0.38)$	0.4406	$0.463^{+0.016}_{-0.021}$ (−2.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.999	—	Y_{P}	0.245506	$0.24551^{+0.00011}_{-0.00013}$ (+0.9 σ)	$\sigma_8(0.38)$	0.6291	$0.662^{+0.015}_{-0.031}$ (−1.8 σ)
A^{kSZ}	0.00	< 5.05 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246833	$0.24684^{+0.00011}_{-0.00013}$ (+0.9 σ)	$f\sigma_8(0.51)$	0.4413	$0.464^{+0.015}_{-0.021}$ (−2.5 σ)
A_{100}^{dust}	1.008	1.01 ± 0.20 (+0.0 σ)	10^5D/H	2.532	2.534 ± 0.054 (−0.9 σ)	$\sigma_8(0.51)$	0.5895	$0.621^{+0.014}_{-0.029}$ (−1.7 σ)
A_{143}^{dust}	0.962	0.95 ± 0.18 (−0.1 σ)	Age/Gyr	13.735	13.733 ± 0.051 (−0.8 σ)	$f\sigma_8(0.61)$	0.4380	$0.460^{+0.014}_{-0.021}$ (−2.4 σ)
A_{217}^{dust}	0.988	0.98 ± 0.10 (+0.0 σ)	z_*	1089.24	1089.23 ± 0.54 (−0.8 σ)	$\sigma_8(0.61)$	0.5614	$0.591^{+0.013}_{-0.028}$ (−1.7 σ)
$A_{143 \times 217}^{\text{dust}}$	1.016	1.01 ± 0.16 (−0.1 σ)	r_*	145.10	145.21 ± 0.54 (+0.4 σ)	$f\sigma_8(2.33)$	0.2838	$0.2990^{+0.0061}_{-0.015}$ (−1.6 σ)
c_{100}	0.99790	0.9976 ± 0.0011 (+0.1 σ)	$100\theta_*$	1.04163	1.04166 ± 0.00052 (+0.5 σ)	$\sigma_8(2.33)$	0.2934	$0.3092^{+0.0060}_{-0.015}$ (−1.5 σ)
c_{217}	1.00088	1.0007 ± 0.0016 (−0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9300	13.940 ± 0.049 (+0.3 σ)	f_{2000}^{143}	25.68	26 ± 3 (−0.5 σ)
H_0	69.02	69.2 ± 1.2 (+0.7 σ)	z_{drag}	1060.39	1060.33 ± 0.57 (+0.8 σ)	f_{2000}^{217}	103.69	104.0 ± 2.4 (−0.5 σ)
Ω_{Λ}	0.7064	$0.708^{+0.016}_{-0.014}$ (+0.6 σ)	r_{drag}	147.67	147.79 ± 0.51 (+0.3 σ)	$f_{2000}^{143 \times 217}$	28.89	28.8 ± 2.7 (−0.6 σ)
Ω_{m}	0.2936	0.292 ± 0.015 (−0.6 σ)	k_{D}	0.14048	0.14034 ± 0.00052 (+0.0 σ)	χ_{lowl}^2	20.86	22.0 ± 1.5 (−1.6 σ)
$\Omega_{\text{m}} h^2$	0.13986	0.1395 ± 0.0024 (−0.5 σ)	$100\theta_{\text{D}}$	0.160545	0.16059 ± 0.00031 (−0.8 σ)	χ_{CamSpec}^2	7046.1	7060.0 ± 5.3 (−0.0 σ)
$\Omega_{\text{m}} h^3$	0.09653	0.09645 ± 0.00050 (+0.6 σ)	z_{eq}	3327	3318 ± 56 (−0.5 σ)	χ_{prior}^2	1.38	7.2 ± 3.3 (−0.1 σ)
σ_8	0.7639	$0.804^{+0.020}_{-0.037}$ (−2.0 σ)	k_{eq}	0.010154	0.01013 ± 0.00017 (−0.5 σ)	χ_{CMB}^2	7066.9	7082.0 ± 5.3 (−0.5 σ)

Best-fit $\chi_{\text{eff}}^2 = 7068.30$; $\Delta\chi_{\text{eff}}^2 = -3.99$; $\bar{\chi}_{\text{eff}}^2 = 7089.14$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.10$; $R - 1 = 0.00730$
 χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 20.86 (Δ -3.64) CamSpec like_10.7HM: 7046.06 (Δ -0.32)

3.77 base_Alens_CamSpecHM_TT_lowl_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02251 \pm 0.00022 \quad (+0.6\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.597^{+0.014}_{-0.026} \quad (-2.1\sigma)$	$H(0.38)$	$83.49 \pm 0.40 \quad (+0.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1178 \pm 0.0013 \quad (-0.2\sigma)$	$\sigma_8 / h^{0.5}$	$0.974^{+0.022}_{-0.042} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 10 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04128 \pm 0.00042 \quad (+0.3\sigma)$	$r_{\mathrm{drag}} h$	$100.9 \pm 1.0 \quad (+0.3\sigma)$	$H(0.51)$	$90.12 \pm 0.34 \quad (+0.5\sigma)$
τ	$< 0.0706 \quad (-1.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.626 \pm 0.076 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 12 \quad (-0.4\sigma)$
A_{L}	1.20 ± 0.11	z_{re}	$7.6^{+2.3}_{-4.6} \quad (-2.2\sigma)$	$H(0.61)$	$95.66 \pm 0.29 \quad (+0.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.037}_{-0.087} \quad (-1.9\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.071}_{-0.18} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289 \pm 13 \quad (-0.4\sigma)$
n_{s}	$0.9723 \pm 0.0048 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.0\sigma)$	$H(2.33)$	$235.30 \pm 0.80 \quad (-0.1\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1216^{+14}_{-17} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5747 \pm 14 \quad (-0.5\sigma)$
A_{100}^{PS}	$230 \pm 25 \quad (-0.1\sigma)$	D_{220}	$5718 \pm 40 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.012}_{-0.019} \quad (-2.1\sigma)$
A_{143}^{PS}	$34 \pm 9 \quad (-0.2\sigma)$	D_{810}	$2526 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.745^{+0.014}_{-0.032} \quad (-2.0\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.1\sigma)$	D_{1420}	$813.8 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.468^{+0.012}_{-0.020} \quad (-2.1\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.1\sigma)$	D_{2000}	$231.9 \pm 1.9 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.662^{+0.012}_{-0.029} \quad (-1.9\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.3} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9723 \pm 0.0048 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.468^{+0.011}_{-0.020} \quad (-2.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.13 \quad (+0.0\sigma)$	Y_{P}	$0.245448 \pm 0.000088 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.620^{+0.011}_{-0.027} \quad (-1.9\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.34}_{-0.26} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246775 \pm 0.000089 \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.464^{+0.010}_{-0.020} \quad (-2.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.560 \pm 0.041 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.590^{+0.011}_{-0.026} \quad (-1.9\sigma)$
A^{kSZ}	$< 5.25 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.763 \pm 0.032 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0054}_{-0.013} \quad (-1.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.55 \pm 0.34 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3076^{+0.0055}_{-0.014} \quad (-1.8\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.0\sigma)$	r_*	$144.89 \pm 0.32 \quad (-0.1\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-0.3\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04145 \pm 0.00042 \quad (+0.2\sigma)$	f_{2000}^{217}	$104.7 \pm 2.2 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.01 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912 \pm 0.031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$29.6 \pm 2.4 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1060.11 \pm 0.49 \quad (+0.6\sigma)$	χ_{lowl}^2	$22.4 \pm 1.4 \quad (-1.4\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.1\sigma)$	r_{drag}	$147.51 \pm 0.35 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7058.9 \pm 5.1 \quad (-0.1\sigma)$
H_0	$68.37 \pm 0.61 \quad (+0.4\sigma)$	k_{D}	$0.14053 \pm 0.00045 \quad (+0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.049 \pm 0.071 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6983 \pm 0.0077 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16069 \pm 0.00028 \quad (-0.5\sigma)$	χ_{MGS}^2	$2.00 \pm 0.65 \quad (+0.3\sigma)$
Ω_{m}	$0.3017 \pm 0.0077 \quad (-0.3\sigma)$	z_{eq}	$3353 \pm 29 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.05 \pm 0.97 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1410 \pm 0.0012 \quad (-0.1\sigma)$	k_{eq}	$0.010235 \pm 0.000089 \quad (-0.1\sigma)$	χ_{prior}^2	$7.2 \pm 3.3 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09638 \pm 0.00049 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8229 \pm 0.0056 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.1\sigma)$
σ_8	$0.806^{+0.016}_{-0.035} \quad (-2.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4543 \pm 0.0029 \quad (+0.2\sigma)$	χ_{CMB}^2	$7081.3 \pm 5.2 \quad (-0.6\sigma)$
S_8	$0.808^{+0.023}_{-0.035} \quad (-2.1\sigma)$	$H(0.15)$	$73.55 \pm 0.53 \quad (+0.4\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.442^{+0.013}_{-0.019} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.8 \pm 5.1 \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7094.64$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = -2.98$; $R - 1 = 0.01645$

3.78 base_Alens_CamSpecHM_TT_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02268 \pm 0.00030 \quad (+0.9\sigma)$	S_8	$0.806^{+0.032}_{-0.037} \quad (-1.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.832 \pm 0.011 \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1159 \pm 0.0025 \quad (-0.7\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.441^{+0.018}_{-0.020} \quad (-1.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4587 \pm 0.0058 \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04154 \pm 0.00053 \quad (+0.6\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.601^{+0.018}_{-0.023} \quad (-1.9\sigma)$	$H(0.15)$	$74.4 \pm 1.1 \quad (+0.8\sigma)$
τ	$0.084^{+0.014}_{-0.039} \quad (-1.0\sigma)$	$\sigma_8/h^{0.5}$	$0.985^{+0.027}_{-0.037} \quad (-1.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$627 \pm 10 \quad (-0.8\sigma)$
A_{L}	1.18 ± 0.11	$r_{\mathrm{drag}} h$	$102.5 \pm 2.1 \quad (+0.8\sigma)$	$H(0.38)$	$84.10 \pm 0.81 \quad (+0.8\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.093^{+0.031}_{-0.076} \quad (-1.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.640 \pm 0.078 \quad (+1.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1501 \pm 21 \quad (-0.8\sigma)$
n_{s}	$0.9781 \pm 0.0077 \quad (+0.6\sigma)$	z_{re}	$< 11.3 \quad (-1.1\sigma)$	$H(0.51)$	$90.60 \pm 0.66 \quad (+0.9\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.207^{+0.063}_{-0.17} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1947 \pm 24 \quad (-0.8\sigma)$
A_{100}^{PS}	$227 \pm 30 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.861 \pm 0.015 \quad (-0.5\sigma)$	$H(0.61)$	$96.05 \pm 0.54 \quad (+0.9\sigma)$
A_{143}^{PS}	$32 \pm 9 \quad (-0.4\sigma)$	D_{40}	$1213 \pm 20 \quad (-1.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2269 \pm 27 \quad (-0.8\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5725 \pm 42 \quad (+0.4\sigma)$	$H(2.33)$	$234.2 \pm 1.4 \quad (-0.6\sigma)$
A_{217}^{CIB}	$36^{+7}_{-7} \quad (-0.3\sigma)$	D_{810}	$2524 \pm 14 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5731 \pm 23 \quad (-0.9\sigma)$
A_{143}^{tSZ}	$4.2 \pm 2.1 \quad (+0.1\sigma)$	D_{1420}	$814.8 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.017}_{-0.019} \quad (-2.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.69 \pm 0.14 \quad (+0.1\sigma)$	D_{2000}	$232.8 \pm 2.2 \quad (+0.6\sigma)$	$\sigma_8(0.15)$	$0.760^{+0.015}_{-0.028} \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.49 \pm 0.27 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9781 \pm 0.0077 \quad (+0.6\sigma)$	$f\sigma_8(0.38)$	$0.471^{+0.015}_{-0.018} \quad (-2.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.24552^{+0.00011}_{-0.00013} \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.676^{+0.012}_{-0.025} \quad (-1.3\sigma)$
A^{kSZ}	$< 4.95 \quad (-0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24684^{+0.00011}_{-0.00013} \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.472^{+0.014}_{-0.018} \quad (-1.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.530 \pm 0.054 \quad (-0.9\sigma)$	$\sigma_8(0.51)$	$0.634^{+0.011}_{-0.024} \quad (-1.2\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.728 \pm 0.051 \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.469^{+0.013}_{-0.017} \quad (-1.8\sigma)$
A_{217}^{dust}	$0.99 \pm 0.10 \quad (+0.1\sigma)$	z_*	$1089.18 \pm 0.55 \quad (-0.9\sigma)$	$\sigma_8(0.61)$	$0.603^{+0.010}_{-0.023} \quad (-1.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.01 \pm 0.16 \quad (-0.1\sigma)$	r_*	$145.27 \pm 0.53 \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	$0.3052^{+0.0047}_{-0.012} \quad (-1.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.1\sigma)$	$100\theta_*$	$1.04170 \pm 0.00052 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3157^{+0.0046}_{-0.012} \quad (-1.0\sigma)$
c_{217}	$1.0007 \pm 0.0016 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.946 \pm 0.048 \quad (+0.4\sigma)$	f_{2000}^{143}	$25 \pm 3 \quad (-0.6\sigma)$
H_0	$69.3 \pm 1.2 \quad (+0.8\sigma)$	z_{drag}	$1060.36 \pm 0.57 \quad (+0.9\sigma)$	f_{2000}^{217}	$103.8 \pm 2.4 \quad (-0.6\sigma)$
Ω_{Λ}	$0.710 \pm 0.015 \quad (+0.7\sigma)$	r_{drag}	$147.85 \pm 0.51 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$28.5 \pm 2.6 \quad (-0.7\sigma)$
Ω_{m}	$0.290 \pm 0.015 \quad (-0.7\sigma)$	k_{D}	$0.14030 \pm 0.00051 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.4 \pm 1.6 \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1392 \pm 0.0023 \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16057 \pm 0.00031 \quad (-0.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7059.9 \pm 5.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09646 \pm 0.00050 \quad (+0.6\sigma)$	z_{eq}	$3311 \pm 56 \quad (-0.6\sigma)$	χ_{prior}^2	$7.2 \pm 3.3 \quad (-0.1\sigma)$
σ_8	$0.820^{+0.017}_{-0.030} \quad (-1.5\sigma)$	k_{eq}	$0.01011 \pm 0.00017 \quad (-0.6\sigma)$	χ_{CMB}^2	$7082.3 \pm 5.4 \quad (-0.5\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7089.50$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.64$; $R - 1 = 0.00995$

3.79 base_Alens_CamSpecHM_TT_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02252 \pm 0.00022 \quad (+0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610^{+0.012}_{-0.021} \quad (-1.4\sigma)$	$H(0.38)$	$83.51 \pm 0.40 \quad (+0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1177 \pm 0.0013 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.995^{+0.019}_{-0.034} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 10 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04128 \pm 0.00042 \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$100.9 \pm 1.0 \quad (+0.4\sigma)$	$H(0.51)$	$90.13 \pm 0.33 \quad (+0.5\sigma)$
τ	$0.079^{+0.020}_{-0.035} \quad (-1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.627 \pm 0.077 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1965 \pm 12 \quad (-0.5\sigma)$
A_{L}	1.146 ± 0.093	z_{re}	$< 10.9 \quad (-1.3\sigma)$	$H(0.61)$	$95.67 \pm 0.28 \quad (+0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.086^{+0.028}_{-0.067} \quad (-1.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.193^{+0.060}_{-0.15} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2288 \pm 13 \quad (-0.5\sigma)$
n_{s}	$0.9730 \pm 0.0047 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.869 \pm 0.012 \quad (-0.1\sigma)$	$H(2.33)$	$235.23 \pm 0.78 \quad (-0.1\sigma)$
y_{cal}	$0.99998 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1221^{+14}_{-17} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5747 \pm 14 \quad (-0.6\sigma)$
A_{100}^{PS}	$229 \pm 25 \quad (-0.2\sigma)$	D_{220}	$5715 \pm 41 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.457^{+0.011}_{-0.016} \quad (-1.4\sigma)$
A_{143}^{PS}	$34 \pm 9 \quad (-0.2\sigma)$	D_{810}	$2526 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.761^{+0.012}_{-0.025} \quad (-1.3\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.1\sigma)$	D_{1420}	$813.9 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4780^{+0.0099}_{-0.016} \quad (-1.4\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.2\sigma)$	D_{2000}	$232.0 \pm 1.9 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6761^{+0.0099}_{-0.023} \quad (-1.2\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.3} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9730 \pm 0.0047 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4778^{+0.0093}_{-0.016} \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.13 \quad (+0.1\sigma)$	Y_{P}	$0.245449 \pm 0.000087 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6332^{+0.0091}_{-0.021} \quad (-1.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.51^{+0.34}_{-0.26} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246776 \pm 0.000088 \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.4736^{+0.0088}_{-0.016} \quad (-1.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.560 \pm 0.040 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6028^{+0.0086}_{-0.020} \quad (-1.2\sigma)$
A^{kSZ}	$< 5.14 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.762 \pm 0.032 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.3044^{+0.0042}_{-0.010} \quad (-1.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.54 \pm 0.33 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3143^{+0.0043}_{-0.011} \quad (-1.1\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.0\sigma)$	r_*	$144.91 \pm 0.31 \quad (-0.0\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-0.4\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04145 \pm 0.00041 \quad (+0.2\sigma)$	f_{2000}^{217}	$104.6 \pm 2.2 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.01 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.915 \pm 0.031 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$29.5 \pm 2.4 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1060.10 \pm 0.49 \quad (+0.5\sigma)$	χ_{lowl}^2	$23.0 \pm 1.5 \quad (-1.1\sigma)$
c_{217}	$1.0008 \pm 0.0015 \quad (-0.1\sigma)$	r_{drag}	$147.54 \pm 0.34 \quad (-0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7058.7 \pm 5.2 \quad (-0.1\sigma)$
H_0	$68.41 \pm 0.60 \quad (+0.4\sigma)$	k_{D}	$0.14050 \pm 0.00045 \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.051 \pm 0.073 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6989 \pm 0.0076 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16069 \pm 0.00028 \quad (-0.5\sigma)$	χ_{MGS}^2	$2.05 \pm 0.65 \quad (+0.4\sigma)$
Ω_{m}	$0.3011 \pm 0.0076 \quad (-0.4\sigma)$	z_{eq}	$3351 \pm 29 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.04 \pm 0.96 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1409 \pm 0.0012 \quad (-0.2\sigma)$	k_{eq}	$0.010228 \pm 0.000088 \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.3 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09636 \pm 0.00048 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8233 \pm 0.0055 \quad (+0.3\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.1\sigma)$
σ_8	$0.823^{+0.013}_{-0.027} \quad (-1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4545 \pm 0.0028 \quad (+0.2\sigma)$	χ_{CMB}^2	$7081.7 \pm 5.3 \quad (-0.5\sigma)$
S_8	$0.824^{+0.020}_{-0.030} \quad (-1.4\sigma)$	$H(0.15)$	$73.58 \pm 0.52 \quad (+0.5\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.011}_{-0.016} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.5 \pm 5.0 \quad (-0.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7095.11$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.46$; $R - 1 = 0.02149$

3.80 base_Alens_CamSpecHM_TT_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022554	0.02253 ± 0.00031 (+2.1 σ)	S_8	0.7979	0.800 ± 0.032 (−2.0 σ)	$100\theta_{\text{eq}}$	0.8245	0.823 ± 0.012 (+1.8 σ)
$\Omega_c h^2$	0.11743	0.1177 ± 0.0027 (−1.8 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4370	0.438 ± 0.018 (−2.0 σ)	$100\theta_{s,\text{eq}}$	0.4551	0.4546 ± 0.0060 (+1.8 σ)
$100\theta_{\text{MC}}$	1.04132	1.04130 ± 0.00055 (+1.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5909	0.592 ± 0.016 (−2.0 σ)	$H(0.15)$	73.71	73.6 ± 1.1 (+2.1 σ)
τ	0.0509	0.0504 ± 0.0085 (−0.2 σ)	$\sigma_8/h^{0.5}$	0.9649	0.966 ± 0.022 (−2.0 σ)	$D_{\text{M}}(0.15)$	633.3	634 ± 11 (−2.0 σ)
A_{L}	1.222	$1.213^{+0.091}_{-0.10}$	$r_{\text{drag}} h$	101.16	101.0 ± 2.2 (+2.0 σ)	$H(0.38)$	83.61	83.55 ± 0.83 (+2.2 σ)
$\ln(10^{10} A_s)$	3.0305	3.030 ± 0.018 (−0.7 σ)	$\langle d^2 \rangle^{1/2}$	2.638	2.629 ± 0.077 (+4.1 σ)	$D_{\text{M}}(0.38)$	1513.2	1515 ± 22 (−2.1 σ)
n_s	0.9728	0.9713 ± 0.0080 (+1.9 σ)	z_{re}	7.25	$7.19^{+0.89}_{-0.75}$ (−0.3 σ)	$H(0.51)$	90.20	$90.16^{+0.62}_{-0.70}$ (+2.3 σ)
y_{cal}	0.99998	1.0001 ± 0.0025 (−0.1 σ)	$10^9 A_s$	2.0707	2.069 ± 0.037 (−0.7 σ)	$D_{\text{M}}(0.51)$	1962.2	1965 ± 26 (−2.1 σ)
A_{100}^{PS}	221.1	232 ± 26 (−0.5 σ)	$10^9 A_s e^{-2\tau}$	1.8702	1.870 ± 0.015 (−1.2 σ)	$H(0.61)$	95.73	$95.70^{+0.50}_{-0.58}$ (+2.3 σ)
A_{143}^{PS}	47.8	35 ± 9 (−0.9 σ)	D_{40}	1210.9	1214 ± 19 (−1.5 σ)	$D_{\text{M}}(0.61)$	2284.9	2287 ± 28 (−2.1 σ)
A_{217}^{PS}	107.6	103 ± 10 (+0.2 σ)	D_{220}	5729.0	5729 ± 42 (+0.5 σ)	$H(2.33)$	235.09	235.2 ± 1.6 (−1.6 σ)
A_{217}^{CIB}	38.9	38 ± 7 (−0.5 σ)	D_{810}	2528.0	2526 ± 14 (−0.6 σ)	$D_{\text{M}}(2.33)$	5744.3	5746 ± 24 (−2.3 σ)
A_{143}^{tSZ}	6.40	$4.1^{+2.0}_{-2.4}$ (+0.2 σ)	D_{1420}	814.5	813.4 ± 5.2 (+0.1 σ)	$f\sigma_8(0.15)$	0.4425	0.444 ± 0.016 (−2.0 σ)
$r_{143 \times 217}^{\text{PS}}$	0.773	0.67 ± 0.14 (+0.2 σ)	D_{2000}	232.22	231.7 ± 2.2 (+1.5 σ)	$\sigma_8(0.15)$	0.7394	0.7392 ± 0.0096 (−1.6 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.849	$0.52^{+0.35}_{-0.25}$ (−0.3 σ)	$n_{s,0.002}$	0.9728	0.9713 ± 0.0080 (+1.9 σ)	$f\sigma_8(0.38)$	0.4633	0.464 ± 0.013 (−2.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	1.00	—	Y_{P}	0.245464	$0.24546^{+0.00011}_{-0.00012}$ (+2.0 σ)	$\sigma_8(0.38)$	0.6568	0.6564 ± 0.0073 (−1.3 σ)
A^{kSZ}	0.01	< 5.55 (−0.4 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246791	$0.24678^{+0.00011}_{-0.00012}$ (+2.0 σ)	$f\sigma_8(0.51)$	0.4633	0.464 ± 0.011 (−2.0 σ)
A_{100}^{dust}	1.003	1.01 ± 0.20 (+0.0 σ)	10^5D/H	2.552	2.557 ± 0.056 (−2.1 σ)	$\sigma_8(0.51)$	0.6152	0.6147 ± 0.0064 (−1.1 σ)
A_{143}^{dust}	0.969	0.96 ± 0.18 (−0.1 σ)	Age/Gyr	13.756	13.759 ± 0.053 (−2.2 σ)	$f\sigma_8(0.61)$	0.4594	0.460 ± 0.010 (−2.0 σ)
A_{217}^{dust}	0.985	0.98 ± 0.10 (+0.1 σ)	z_*	1089.47	1089.52 ± 0.57 (−2.2 σ)	$\sigma_8(0.61)$	0.5857	0.5852 ± 0.0059 (−1.0 σ)
$A_{143 \times 217}^{\text{dust}}$	1.003	1.02 ± 0.16 (−0.1 σ)	r_*	144.96	144.91 ± 0.56 (+1.3 σ)	$f\sigma_8(2.33)$	0.29582	0.2955 ± 0.0028 (−0.6 σ)
c_{100}	0.99793	0.9976 ± 0.0010 (+0.1 σ)	$100\theta_*$	1.04149	1.04147 ± 0.00054 (+1.1 σ)	$\sigma_8(2.33)$	0.30553	0.3052 ± 0.0028 (−0.2 σ)
c_{217}	1.00095	1.0009 ± 0.0016 (−0.3 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.918	13.914 ± 0.051 (+1.2 σ)	f_{2000}^{143}	26.96	27 ± 4 (−1.5 σ)
H_0	68.55	68.4 ± 1.3 (+2.1 σ)	z_{drag}	1060.16	1060.14 ± 0.58 (+1.8 σ)	f_{2000}^{217}	104.33	105.0 ± 2.4 (−1.5 σ)
Ω_{Λ}	0.7007	$0.699^{+0.017}_{-0.016}$ (+1.9 σ)	r_{drag}	147.57	147.53 ± 0.53 (+1.0 σ)	$f_{2000}^{143 \times 217}$	29.67	30.0 ± 2.7 (−1.7 σ)
Ω_{m}	0.2993	$0.301^{+0.016}_{-0.017}$ (−1.9 σ)	k_{D}	0.14050	0.14052 ± 0.00053 (−0.3 σ)	χ_{small}^2	395.67	396.8 ± 1.6 (−0.1 σ)
$\Omega_{\text{m}} h^2$	0.14063	0.1409 ± 0.0025 (−1.7 σ)	$100\theta_{\text{D}}$	0.160650	0.16068 ± 0.00032 (−1.6 σ)	χ_{CamSpec}^2	7045.6	7059.8 ± 5.3 (−0.6 σ)
$\Omega_{\text{m}} h^3$	0.09641	0.09639 ± 0.00050 (+1.0 σ)	z_{eq}	3345	3351 ± 60 (−1.7 σ)	χ_{prior}^2	1.39	7.2 ± 3.3 (−0.1 σ)
σ_8	0.7989	0.799 ± 0.012 (−1.7 σ)	k_{eq}	0.010210	0.01023 ± 0.00018 (−1.7 σ)	χ_{CMB}^2	7441.3	7456.6 ± 5.6 (−0.6 σ)

Best-fit $\chi_{\text{eff}}^2 = 7442.68$; $\Delta\chi_{\text{eff}}^2 = -5.15$; $\bar{\chi}_{\text{eff}}^2 = 7463.85$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.64$; $R - 1 = 0.00741$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.67 (Δ -0.16) CamSpec like_10.7HM: 7045.62 (Δ -4.09)

3.81 base_Alens_CamSpecHM_TTTEEE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022503	0.02247 ± 0.00020 (+0.1 σ)	$\Omega_{\text{m}}h^3$	0.096311	0.09626 ± 0.00033 (+0.0 σ)	z_{eq}	3361.2	3362 ± 37 (-0.1 σ)
$\Omega_{\text{c}}h^2$	0.11815	0.1182 ± 0.0017 (-0.1 σ)	σ_8	0.843	0.850 ± 0.051 (+0.0 σ)	k_{eq}	0.010259	0.01026 ± 0.00011 (-0.1 σ)
$100\theta_{\text{MC}}$	1.041047	1.04105 ± 0.00033 (+0.0 σ)	S_8	0.849	$0.857^{+0.045}_{-0.065}$ (-0.0 σ)	$100\theta_{\text{eq}}$	0.8212	0.8211 ± 0.0071 (+0.1 σ)
τ	0.101	< 0.141 (-0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4649	$0.469^{+0.025}_{-0.036}$ (-0.0 σ)	$100\theta_{\text{s,eq}}$	0.45340	0.4534 ± 0.0036 (+0.1 σ)
A_{L}	1.035	$1.02^{+0.12}_{-0.15}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6260	$0.632^{+0.044}_{-0.052}$ (-0.0 σ)	$H(0.15)$	73.37	73.33 ± 0.66 (+0.1 σ)
$\ln(10^{10}A_{\text{s}})$	3.133	3.15 ± 0.12 (-0.0 σ)	$\sigma_8/h^{0.5}$	1.021	1.030 ± 0.061 (-0.0 σ)	$D_{\text{M}}(0.15)$	636.6	636.9 ± 6.5 (-0.1 σ)
n_{s}	0.9716	$0.9713^{+0.0058}_{-0.0064}$ (+0.1 σ)	$r_{\text{drag}}h$	100.49	100.5 ± 1.3 (+0.1 σ)	$H(0.38)$	83.353	83.33 ± 0.49 (+0.1 σ)
A_{100}^{PS}	222.2	232 ± 25 (-0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.566	2.555 ± 0.066 (+0.1 σ)	$D_{\text{M}}(0.38)$	1519.9	1521 ± 13 (-0.1 σ)
A_{143}^{PS}	48.5	35 ± 8 (-0.1 σ)	z_{re}	11.9	$12.0^{+7.6}_{-4.6}$ (-0.2 σ)	$H(0.51)$	89.998	89.97 ± 0.39 (+0.1 σ)
A_{217}^{PS}	108.5	105 ± 10 (+0.0 σ)	$10^9 A_{\text{s}}$	2.294	2.34 ± 0.28 (+0.0 σ)	$D_{\text{M}}(0.51)$	1970.1	1971 ± 15 (-0.1 σ)
A_{217}^{CIB}	38.8	37 ± 7 (-0.0 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8725	1.871 ± 0.013 (-0.1 σ)	$H(0.61)$	95.563	95.54 ± 0.31 (+0.1 σ)
A_{143}^{tSZ}	6.30	4.1 ± 2.0 (+0.0 σ)	D_{40}	1234.0	1247^{+21}_{-43} (+0.3 σ)	$D_{\text{M}}(0.61)$	2293.4	2294 ± 17 (-0.1 σ)
$r_{143 \times 217}^{\text{PS}}$	0.775	0.68 ± 0.13 (+0.0 σ)	D_{220}	5724.1	5720 ± 41 (-0.1 σ)	$H(2.33)$	235.49	235.49 ± 0.96 (-0.1 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.839	$0.51^{+0.32}_{-0.28}$ (-0.0 σ)	D_{810}	2530.6	2529 ± 14 (-0.0 σ)	$D_{\text{M}}(2.33)$	5751.8	5753 ± 14 (-0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.996	—	D_{1420}	815.66	814.8 ± 4.9 (+0.0 σ)	$f\sigma_8(0.15)$	0.4703	$0.475^{+0.024}_{-0.037}$ (-0.0 σ)
A^{kSZ}	0.00	< 5.33 (-0.0 σ)	D_{2000}	231.94	231.6 ± 1.9 (+0.1 σ)	$\sigma_8(0.15)$	0.780	0.787 ± 0.047 (+0.0 σ)
A_{100}^{dust}	1.003	0.998 ± 0.19 (-0.0 σ)	$n_{\text{s},0.002}$	0.9716	$0.9713^{+0.0058}_{-0.0064}$ (+0.1 σ)	$f\sigma_8(0.38)$	0.4911	$0.496^{+0.033}_{-0.040}$ (-0.0 σ)
A_{143}^{dust}	0.960	0.94 ± 0.18 (-0.0 σ)	Y_{P}	0.245446	0.245433 ± 0.000076 (+0.0 σ)	$\sigma_8(0.38)$	0.692	0.698 ± 0.042 (+0.0 σ)
A_{217}^{dust}	0.987	0.98 ± 0.10 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246772	0.246759 ± 0.000076 (+0.0 σ)	$f\sigma_8(0.51)$	0.4905	$0.495^{+0.037}_{-0.041}$ (-0.0 σ)
$A_{143 \times 217}^{\text{dust}}$	1.001	1.02 ± 0.16 (-0.0 σ)	10^5D/H	2.5614	2.567 ± 0.036 (-0.0 σ)	$\sigma_8(0.51)$	0.648	0.654 ± 0.039 (+0.0 σ)
y_{cal}	1.00001	1.0001 ± 0.0025 (-0.0 σ)	Age/Gyr	13.7722	13.775 ± 0.031 (-0.1 σ)	$f\sigma_8(0.61)$	0.4860	0.490 ± 0.029 (-0.0 σ)
c_{100}	0.99791	0.9976 ± 0.0011 (-0.0 σ)	z_*	1089.591	1089.64 ± 0.36 (-0.1 σ)	$\sigma_8(0.61)$	0.617	0.622 ± 0.037 (+0.0 σ)
c_{217}	1.00098	1.0009 ± 0.0016 (-0.0 σ)	r_*	144.809	144.82 ± 0.35 (+0.1 σ)	$f\sigma_8(2.33)$	0.3113	0.314 ± 0.019 (+0.0 σ)
c_{TE}	0.9919	0.9919 ± 0.0055 (-0.1 σ)	$100\theta_*$	1.041225	1.04122 ± 0.00032 (+0.0 σ)	$\sigma_8(2.33)$	0.3213	0.324 ± 0.020 (+0.0 σ)
c_{EE}	0.9905	0.9900 ± 0.0051 (-0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9076	13.909 ± 0.032 (+0.1 σ)	f_{2000}^{143}	27.20	27 ± 3 (-0.1 σ)
H_0	68.16	68.12 ± 0.77 (+0.1 σ)	z_{drag}	1060.123	1060.04 ± 0.38 (+0.0 σ)	f_{2000}^{217}	104.59	105.1 ± 2.2 (-0.1 σ)
Ω_{Λ}	0.6959	0.695 ± 0.010 (+0.1 σ)	r_{drag}	147.433	147.46 ± 0.34 (+0.1 σ)	$f_{2000}^{143 \times 217}$	29.95	30.1 ± 2.4 (-0.1 σ)
Ω_{m}	0.3041	0.305 ± 0.010 (-0.1 σ)	k_{D}	0.140605	0.14056 ± 0.00035 (-0.0 σ)	χ_{CamSpec}^2	11495.7	11512.3 ± 5.7 (+0.0 σ)
$\Omega_{\text{m}}h^2$	0.14130	0.1413 ± 0.0015 (-0.1 σ)	$100\theta_{\text{D}}$	0.160656	0.16070 ± 0.00022 (-0.0 σ)	χ_{prior}^2	1.80	7.8 ± 3.4 (+0.0 σ)

Best-fit $\chi_{\text{eff}}^2 = 11497.50$; $\Delta\chi_{\text{eff}}^2 = -0.14$; $\bar{\chi}_{\text{eff}}^2 = 11520.05$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.29$; $R - 1 = 0.00760$
 χ_{eff}^2 : CMB - CamSpec like_10.7HM_1400_unified: 11495.71 (Δ -0.08)

3.82 base_Alens_CamSpecHM_TTTEEE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02247 ± 0.00017	S_8	$0.857^{+0.053}_{-0.070}$	$H(0.15)$	73.33 ± 0.44
$\Omega_c h^2$	0.1182 ± 0.0011	$\sigma_8 \Omega_m^{0.5}$	$0.469^{+0.029}_{-0.038}$	$D_M(0.15)$	636.9 ± 4.3
$100\theta_{MC}$	1.04105 ± 0.00030	$\sigma_8 \Omega_m^{0.25}$	0.632 ± 0.038	$H(0.38)$	83.32 ± 0.33
τ	< 0.140	$\sigma_8/h^{0.5}$	1.030 ± 0.062	$D_M(0.38)$	1520.7 ± 8.8
A_L	$1.02^{+0.12}_{-0.15}$	$r_{\text{drag}} h$	100.45 ± 0.87	$H(0.51)$	89.97 ± 0.27
$\ln(10^{10} A_s)$	3.15 ± 0.12	$\langle d^2 \rangle^{1/2}$	2.554 ± 0.065	$D_M(0.51)$	1971 ± 10
n_s	$0.9713^{+0.0047}_{-0.0052}$	z_{re}	$12.0^{+7.5}_{-4.6}$	$H(0.61)$	95.54 ± 0.22
A_{100}^{PS}	232 ± 25	$10^9 A_s$	2.34 ± 0.28	$D_M(0.61)$	2294 ± 11
A_{143}^{PS}	35 ± 8	$10^9 A_s e^{-2\tau}$	1.871 ± 0.012	$H(2.33)$	235.49 ± 0.66
A_{217}^{PS}	105 ± 10	D_{40}	1247^{+20}_{-43}	$D_M(2.33)$	5753 ± 11
A_{217}^{CIB}	37 ± 7	D_{220}	5721 ± 40	$f\sigma_8(0.15)$	$0.475^{+0.032}_{-0.039}$
A_{143}^{tSZ}	4.1 ± 2.0	D_{810}	2529 ± 14	$\sigma_8(0.15)$	0.786 ± 0.047
$r_{143 \times 217}^{\text{PS}}$	0.68 ± 0.13	D_{1420}	814.8 ± 4.9	$f\sigma_8(0.38)$	0.495 ± 0.030
$r_{143 \times 217}^{\text{CIB}}$	$0.51^{+0.32}_{-0.28}$	D_{2000}	231.5 ± 1.8	$\sigma_8(0.38)$	0.698 ± 0.042
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{s,0.002}$	$0.9713^{+0.0047}_{-0.0052}$	$f\sigma_8(0.51)$	0.495 ± 0.030
A^{kSZ}	< 5.33	Y_P	0.245432 ± 0.000064	$\sigma_8(0.51)$	0.653 ± 0.039
A_{100}^{dust}	0.998 ± 0.20	Y_P^{BBN}	0.246759 ± 0.000064	$f\sigma_8(0.61)$	0.490 ± 0.029
A_{143}^{dust}	0.94 ± 0.18	10^5D/H	2.568 ± 0.030	$\sigma_8(0.61)$	0.622 ± 0.037
A_{217}^{dust}	0.98 ± 0.10	Age/Gyr	13.776 ± 0.024	$f\sigma_8(2.33)$	0.314 ± 0.019
$A_{143 \times 217}^{\text{dust}}$	1.01 ± 0.16	z_*	1089.64 ± 0.27	$\sigma_8(2.33)$	0.324 ± 0.020
y_{cal}	1.0001 ± 0.0025	r_*	144.82 ± 0.25	f_{2000}^{143}	27 ± 3
c_{100}	0.9976 ± 0.0011	$100\theta_*$	1.04122 ± 0.00029	f_{2000}^{217}	105.1 ± 2.1
c_{217}	1.0009 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.024	$f_{2000}^{143 \times 217}$	30.1 ± 2.3
c_{TE}	0.9920 ± 0.0054	z_{drag}	1060.04 ± 0.35	χ_{CamSpec}^2	11511.8 ± 5.6
c_{EE}	0.9901 ± 0.0051	r_{drag}	147.46 ± 0.26	$\chi_{6\text{DF}}^2$	0.032 ± 0.045
H_0	68.12 ± 0.51	k_D	0.14056 ± 0.00032	χ_{MGS}^2	1.74 ± 0.53
Ω_Λ	0.6954 ± 0.0067	$100\theta_D$	0.16070 ± 0.00021	χ_{DR12BAO}^2	4.02 ± 0.88
Ω_m	0.3046 ± 0.0067	z_{eq}	3362 ± 25	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^2$	0.1413 ± 0.0010	k_{eq}	0.010260 ± 0.000076	χ_{BAO}^2	5.79 ± 0.80
$\Omega_m h^3$	0.09626 ± 0.00033	$100\theta_{\text{eq}}$	0.8210 ± 0.0048		
σ_8	0.850 ± 0.051	$100\theta_{s,\text{eq}}$	0.4533 ± 0.0024		

$\bar{\chi}_{\text{eff}}^2 = 11525.37$; $R - 1 = 0.00886$

3.83 base_Alens_CamSpecHM_TTTEEE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02248 ± 0.00019	$\Omega_{\mathrm{m}}h^3$	0.09626 ± 0.00033	z_{eq}	3360 ± 37
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0017	σ_8	0.864 ± 0.044	k_{eq}	0.01025 ± 0.00011
$100\theta_{\mathrm{MC}}$	1.04105 ± 0.00033	S_8	$0.870^{+0.042}_{-0.056}$	$100\theta_{\mathrm{eq}}$	0.8214 ± 0.0072
τ	0.126 ± 0.052	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.477^{+0.023}_{-0.031}$	$100\theta_{\mathrm{s,eq}}$	0.4535 ± 0.0037
A_{L}	$0.98^{+0.11}_{-0.12}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.642^{+0.037}_{-0.043}$	$H(0.15)$	73.36 ± 0.66
$\ln(10^{10}A_{\mathrm{s}})$	3.18 ± 0.10	$\sigma_8/h^{0.5}$	1.047 ± 0.054	$D_{\mathrm{M}}(0.15)$	636.7 ± 6.5
n_{s}	0.9719 ± 0.0061	$r_{\mathrm{drag}}h$	100.5 ± 1.3	$H(0.38)$	83.35 ± 0.49
A_{100}^{PS}	231 ± 25	$\langle d^2 \rangle^{1/2}$	2.555 ± 0.066	$D_{\mathrm{M}}(0.38)$	1520 ± 13
A_{143}^{PS}	35 ± 8	z_{re}	$13.6^{+5.9}_{-5.3}$	$H(0.51)$	89.99 ± 0.39
A_{217}^{PS}	105 ± 10	$10^9 A_{\mathrm{s}}$	2.42 ± 0.25	$D_{\mathrm{M}}(0.51)$	1970 ± 15
A_{217}^{CIB}	37 ± 7	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.870 ± 0.013	$H(0.61)$	95.55 ± 0.32
A_{143}^{tSZ}	4.1 ± 2.0	D_{40}	1253^{+23}_{-41}	$D_{\mathrm{M}}(0.61)$	2294 ± 17
$r_{143 \times 217}^{\mathrm{PS}}$	0.68 ± 0.13	D_{220}	5718 ± 40	$H(2.33)$	235.44 ± 0.96
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.50^{+0.32}_{-0.28}$	D_{810}	2528 ± 14	$D_{\mathrm{M}}(2.33)$	5753 ± 14
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814.9 ± 4.9	$f\sigma_8(0.15)$	$0.482^{+0.023}_{-0.031}$
A^{kSZ}	< 5.28	D_{2000}	231.7 ± 1.8	$\sigma_8(0.15)$	0.799 ± 0.041
A_{100}^{dust}	0.995 ± 0.19	$n_{\mathrm{s},0.002}$	0.9719 ± 0.0061	$f\sigma_8(0.38)$	$0.503^{+0.027}_{-0.034}$
A_{143}^{dust}	0.94 ± 0.18	Y_{P}	0.245435 ± 0.000075	$\sigma_8(0.38)$	0.709 ± 0.037
A_{217}^{dust}	0.98 ± 0.10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246761 ± 0.000076	$f\sigma_8(0.51)$	0.503 ± 0.026
$A_{143 \times 217}^{\mathrm{dust}}$	1.01 ± 0.16	$10^5 \mathrm{D}/\mathrm{H}$	2.566 ± 0.035	$\sigma_8(0.51)$	0.664 ± 0.034
y_{cal}	1.0001 ± 0.0025	$\mathrm{Age}/\mathrm{Gyr}$	13.774 ± 0.031	$f\sigma_8(0.61)$	0.498 ± 0.025
c_{100}	0.9976 ± 0.0011	z_*	1089.62 ± 0.36	$\sigma_8(0.61)$	0.632 ± 0.033
c_{217}	1.0009 ± 0.0016	r_*	144.84 ± 0.35	$f\sigma_8(2.33)$	0.319 ± 0.017
c_{TE}	0.9917 ± 0.0055	$100\theta_*$	1.04123 ± 0.00032	$\sigma_8(2.33)$	0.329 ± 0.017
c_{EE}	0.9898 ± 0.0051	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.910 ± 0.032	f_{2000}^{143}	27 ± 3
H_0	68.16 ± 0.77	z_{drag}	1060.05 ± 0.38	f_{2000}^{217}	104.9 ± 2.2
Ω_{Λ}	0.696 ± 0.010	r_{drag}	147.47 ± 0.34	$f_{2000}^{143 \times 217}$	29.9 ± 2.4
Ω_{m}	0.304 ± 0.010	k_{D}	0.14055 ± 0.00035	$\chi_{\mathrm{CamSpec}}^2$	11512.2 ± 5.7
$\Omega_{\mathrm{m}}h^2$	0.1412 ± 0.0015	$100\theta_{\mathrm{D}}$	0.16069 ± 0.00022	χ_{prior}^2	7.8 ± 3.4

$\bar{\chi}_{\mathrm{eff}}^2 = 11520.01$; $R - 1 = 0.00786$

3.84 base_Alens_CamSpecHM_TTTEEE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02247 ± 0.00017	S_8	$0.870^{+0.046}_{-0.059}$	$H(0.15)$	73.34 ± 0.44
$\Omega_c h^2$	0.1182 ± 0.0011	$\sigma_8 \Omega_m^{0.5}$	$0.477^{+0.025}_{-0.032}$	$D_M(0.15)$	636.8 ± 4.3
$100\theta_{MC}$	1.04105 ± 0.00030	$\sigma_8 \Omega_m^{0.25}$	0.642 ± 0.033	$H(0.38)$	83.33 ± 0.33
τ	0.125 ± 0.051	$\sigma_8/h^{0.5}$	1.047 ± 0.054	$D_M(0.38)$	1520.5 ± 8.7
A_L	0.98 ± 0.11	$r_{\text{drag}} h$	100.47 ± 0.87	$H(0.51)$	89.98 ± 0.27
$\ln(10^{10} A_s)$	3.18 ± 0.10	$\langle d^2 \rangle^{1/2}$	2.554 ± 0.065	$D_M(0.51)$	1971 ± 10
n_s	0.9718 ± 0.0049	z_{re}	13.5 ± 4.0	$H(0.61)$	95.54 ± 0.22
A_{100}^{PS}	232 ± 25	$10^9 A_s$	2.41 ± 0.25	$D_M(0.61)$	2294 ± 11
A_{143}^{PS}	35 ± 8	$10^9 A_s e^{-2\tau}$	1.870 ± 0.011	$H(2.33)$	235.47 ± 0.66
A_{217}^{PS}	105 ± 10	D_{40}	1253^{+22}_{-42}	$D_M(2.33)$	5753 ± 11
A_{217}^{CIB}	37 ± 7	D_{220}	5719 ± 40	$f\sigma_8(0.15)$	$0.482^{+0.027}_{-0.033}$
A_{143}^{tSZ}	4.1 ± 2.0	D_{810}	2528 ± 14	$\sigma_8(0.15)$	0.799 ± 0.041
$r_{143 \times 217}^{\text{PS}}$	0.68 ± 0.13	D_{1420}	814.9 ± 4.9	$f\sigma_8(0.38)$	0.503 ± 0.026
$r_{143 \times 217}^{\text{CIB}}$	0.51 ± 0.26	D_{2000}	231.6 ± 1.8	$\sigma_8(0.38)$	0.709 ± 0.037
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{s,0.002}$	0.9718 ± 0.0049	$f\sigma_8(0.51)$	0.503 ± 0.026
A^{kSZ}	< 5.30	Y_P	$0.245433^{+0.000065}_{-0.000058}$	$\sigma_8(0.51)$	0.664 ± 0.034
A_{100}^{dust}	0.995 ± 0.20	Y_P^{BBN}	$0.246759^{+0.000066}_{-0.000059}$	$f\sigma_8(0.61)$	0.498 ± 0.026
A_{143}^{dust}	0.94 ± 0.18	10^5D/H	2.567 ± 0.030	$\sigma_8(0.61)$	0.632 ± 0.033
A_{217}^{dust}	0.98 ± 0.10	Age/Gyr	13.775 ± 0.024	$f\sigma_8(2.33)$	0.319 ± 0.017
$A_{143 \times 217}^{\text{dust}}$	1.01 ± 0.16	z_*	1089.63 ± 0.27	$\sigma_8(2.33)$	0.329 ± 0.017
y_{cal}	1.0001 ± 0.0025	r_*	144.83 ± 0.25	f_{2000}^{143}	27 ± 3
c_{100}	0.9976 ± 0.0011	$100\theta_*$	1.04123 ± 0.00029	f_{2000}^{217}	105.0 ± 2.1
c_{217}	1.0009 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.909 ± 0.024	$f_{2000}^{143 \times 217}$	30.0 ± 2.3
c_{TE}	0.9918 ± 0.0054	z_{drag}	1060.04 ± 0.35	χ_{CamSpec}^2	11511.7 ± 5.6
c_{EE}	0.9899 ± 0.0051	r_{drag}	147.46 ± 0.26	$\chi_{6\text{DF}}^2$	0.032 ± 0.045
H_0	68.13 ± 0.51	k_D	0.14055 ± 0.00032	χ_{MGS}^2	1.75 ± 0.53
Ω_Λ	0.6956 ± 0.0067	$100\theta_D$	0.16070 ± 0.00021	χ_{DR12BAO}^2	4.00 ± 0.87
Ω_m	0.3044 ± 0.0067	z_{eq}	3361 ± 25	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^2$	0.1413 ± 0.0010	k_{eq}	0.010258 ± 0.000076	χ_{BAO}^2	5.79 ± 0.80
$\Omega_m h^3$	0.09626 ± 0.00032	$100\theta_{\text{eq}}$	0.8212 ± 0.0048		
σ_8	0.864 ± 0.045	$100\theta_{s,\text{eq}}$	0.4534 ± 0.0024		

$\bar{\chi}_{\text{eff}}^2 = 11525.31$; $R - 1 = 0.00906$

3.85 base_Alens_CamSpecHM_TTTEEE_lowl

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022524	0.02251 ± 0.00019 (+0.4 σ)	σ_8	0.7686	$0.805^{+0.016}_{-0.035}$ (−1.6 σ)	$100\theta_{\text{eq}}$	0.8220	0.8226 ± 0.0069 (+0.3 σ)
$\Omega_c h^2$	0.11795	0.1179 ± 0.0016 (−0.3 σ)	S_8	0.7723	$0.808^{+0.025}_{-0.036}$ (−1.8 σ)	$100\theta_{\text{s,eq}}$	0.45384	0.4541 ± 0.0035 (+0.3 σ)
$100\theta_{\text{MC}}$	1.041083	1.04108 ± 0.00033 (+0.2 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4230	$0.443^{+0.014}_{-0.020}$ (−1.8 σ)	$H(0.15)$	73.45	73.48 ± 0.64 (+0.4 σ)
τ	0.0101	< 0.0694 (−1.3 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5702	$0.597^{+0.015}_{-0.026}$ (−1.8 σ)	$D_{\text{M}}(0.15)$	635.7	635.5 ± 6.2 (−0.4 σ)
A_{L}	1.248	1.136 ± 0.096	$\sigma_8/h^{0.5}$	0.9303	$0.974^{+0.023}_{-0.042}$ (−1.8 σ)	$H(0.38)$	83.415	83.43 ± 0.47 (+0.4 σ)
$\ln(10^{10} A_{\text{s}})$	2.950	$3.041^{+0.035}_{-0.088}$ (−1.4 σ)	$r_{\text{drag}} h$	100.66	100.7 ± 1.3 (+0.4 σ)	$D_{\text{M}}(0.38)$	1518.2	1518 ± 13 (−0.4 σ)
n_{s}	0.9717	0.9716 ± 0.0053 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.568	2.560 ± 0.065 (+0.9 σ)	$H(0.51)$	90.048	90.06 ± 0.38 (+0.4 σ)
y_{cal}	0.99998	1.0001 ± 0.0025 (−0.1 σ)	z_{re}	2.11	$7.5^{+2.2}_{-4.7}$ (−1.5 σ)	$D_{\text{M}}(0.51)$	1968.1	1968 ± 15 (−0.4 σ)
A_{100}^{PS}	222.3	232 ± 25 (−0.1 σ)	$10^9 A_{\text{s}}$	1.910	$2.098^{+0.067}_{-0.18}$ (−1.3 σ)	$H(0.61)$	95.602	95.61 ± 0.31 (+0.4 σ)
A_{143}^{PS}	48.5	35 ± 8 (−0.2 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8720	1.870 ± 0.012 (−0.2 σ)	$D_{\text{M}}(0.61)$	2291.3	2291 ± 16 (−0.4 σ)
A_{217}^{PS}	108.5	105 ± 10 (+0.0 σ)	D_{40}	1206.1	1217^{+14}_{-18} (−1.1 σ)	$H(2.33)$	235.38	235.30 ± 0.92 (−0.3 σ)
A_{217}^{CIB}	38.7	37 ± 7 (−0.1 σ)	D_{220}	5725.1	5722 ± 39 (+0.2 σ)	$D_{\text{M}}(2.33)$	5750.1	5750 ± 14 (−0.4 σ)
A_{143}^{tSZ}	6.30	$4.1^{+2.0}_{-2.4}$ (+0.0 σ)	D_{810}	2530.4	2528 ± 14 (−0.2 σ)	$f\sigma_8(0.15)$	0.4280	$0.448^{+0.013}_{-0.020}$ (−1.8 σ)
$r_{143 \times 217}^{\text{PS}}$	0.779	0.68 ± 0.13 (+0.0 σ)	D_{1420}	815.63	814.8 ± 4.8 (−0.1 σ)	$\sigma_8(0.15)$	0.7111	$0.744^{+0.015}_{-0.032}$ (−1.5 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.826	$0.51^{+0.32}_{-0.28}$ (−0.1 σ)	D_{2000}	231.89	231.6 ± 1.7 (+0.2 σ)	$f\sigma_8(0.38)$	0.4472	$0.468^{+0.012}_{-0.020}$ (−1.8 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.998	—	$n_{\text{s},0.002}$	0.9717	0.9716 ± 0.0053 (+0.2 σ)	$\sigma_8(0.38)$	0.6312	$0.661^{+0.012}_{-0.029}$ (−1.5 σ)
A^{kSZ}	0.01	< 5.25 (−0.1 σ)	Y_{P}	0.245453	0.245447 ± 0.000073 (+0.4 σ)	$f\sigma_8(0.51)$	0.4469	$0.468^{+0.012}_{-0.020}$ (−1.8 σ)
A_{100}^{dust}	1.010	1.01 ± 0.19 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246780	0.246774 ± 0.000073 (+0.4 σ)	$\sigma_8(0.51)$	0.5911	$0.619^{+0.011}_{-0.027}$ (−1.4 σ)
A_{143}^{dust}	0.971	0.95 ± 0.17 (−0.0 σ)	$10^5 \text{D}/\text{H}$	2.5578	2.561 ± 0.034 (−0.4 σ)	$f\sigma_8(0.61)$	0.4428	$0.463^{+0.011}_{-0.020}$ (−1.7 σ)
A_{217}^{dust}	0.993	0.98 ± 0.10 (+0.0 σ)	Age/Gyr	13.7685	13.769 ± 0.030 (−0.4 σ)	$\sigma_8(0.61)$	0.5627	$0.589^{+0.010}_{-0.026}$ (−1.4 σ)
$A_{143 \times 217}^{\text{dust}}$	1.016	1.01 ± 0.16 (+0.0 σ)	z_*	1089.548	1089.56 ± 0.34 (−0.4 σ)	$f\sigma_8(2.33)$	0.2840	$0.2974^{+0.0051}_{-0.013}$ (−1.4 σ)
c_{100}	0.99788	0.9975 ± 0.0010 (+0.0 σ)	r_*	144.846	144.88 ± 0.34 (+0.2 σ)	$\sigma_8(2.33)$	0.2932	$0.3070^{+0.0052}_{-0.014}$ (−1.3 σ)
c_{217}	1.00107	1.0009 ± 0.0016 (−0.0 σ)	$100\theta_*$	1.041249	1.04125 ± 0.00033 (+0.2 σ)	f_{2000}^{143}	27.23	27 ± 3 (−0.2 σ)
c_{TE}	0.9922	0.9924 ± 0.0053 (−0.3 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9108	13.914 ± 0.031 (+0.2 σ)	f_{2000}^{217}	104.66	105.0 ± 2.1 (−0.2 σ)
c_{EE}	0.99045	0.9903 ± 0.0050 (−0.1 σ)	z_{drag}	1060.162	1060.10 ± 0.37 (+0.4 σ)	$f_{2000}^{143 \times 217}$	30.03	30.0 ± 2.2 (−0.3 σ)
H_0	68.26	68.29 ± 0.74 (+0.4 σ)	r_{drag}	147.463	147.51 ± 0.33 (+0.2 σ)	χ_{lowl}^2	21.34	22.5 ± 1.4 (−1.2 σ)
Ω_{Λ}	0.6971	0.6975 ± 0.0096 (+0.4 σ)	k_{D}	0.140588	0.14053 ± 0.00035 (+0.0 σ)	χ_{CamSpec}^2	11496.5	11512.4 ± 5.7 (+0.0 σ)
Ω_{m}	0.3029	0.3025 ± 0.0096 (−0.4 σ)	$100\theta_{\text{D}}$	0.160639	0.16066 ± 0.00021 (−0.4 σ)	χ_{prior}^2	1.87	7.7 ± 3.3 (−0.0 σ)
$\Omega_{\text{m}} h^2$	0.14112	0.1410 ± 0.0015 (−0.3 σ)	z_{eq}	3356.8	3354 ± 35 (−0.3 σ)	χ_{CMB}^2	11517.8	11534.9 ± 5.8 (−0.2 σ)
$\Omega_{\text{m}} h^3$	0.096325	0.09628 ± 0.00033 (+0.3 σ)	k_{eq}	0.010245	0.01024 ± 0.00011 (−0.3 σ)			

Best-fit $\chi_{\text{eff}}^2 = 11519.71$; $\Delta\chi_{\text{eff}}^2 = -2.34$; $\bar{\chi}_{\text{eff}}^2 = 11542.67$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.43$; $R - 1 = 0.01017$
 χ_{eff}^2 : CMB - commander_dx12_v3_2_29: 21.34 (Δ -2.58) CamSpec like_10.7HM_1400_unified: 11496.50 (Δ 0.28)

3.86 base_Alens_CamSpecHM_TTTEEE_lowl_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02249 \pm 0.00016 \quad (+0.3\sigma)$	S_8	$0.809^{+0.021}_{-0.035} \quad (-1.8\sigma)$	$H(0.15)$	$73.40 \pm 0.44 \quad (+0.3\sigma)$
$\Omega_c h^2$	$0.1180 \pm 0.0011 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.012}_{-0.019} \quad (-1.8\sigma)$	$D_M(0.15)$	$636.3 \pm 4.2 \quad (-0.3\sigma)$
$100\theta_{MC}$	$1.04106 \pm 0.00030 \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.597^{+0.013}_{-0.025} \quad (-1.8\sigma)$	$H(0.38)$	$83.37 \pm 0.33 \quad (+0.3\sigma)$
τ	$< 0.0679 \quad (-1.6\sigma)$	$\sigma_8/h^{0.5}$	$0.974^{+0.020}_{-0.042} \quad (-1.8\sigma)$	$D_M(0.38)$	$1519.4 \pm 8.6 \quad (-0.3\sigma)$
A_L	$1.133^{+0.098}_{-0.087}$	$r_{\text{drag}} h$	$100.58 \pm 0.85 \quad (+0.2\sigma)$	$H(0.51)$	$90.01 \pm 0.27 \quad (+0.3\sigma)$
$\ln(10^{10} A_s)$	$3.039^{+0.034}_{-0.086} \quad (-1.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.558 \pm 0.064 \quad (+0.9\sigma)$	$D_M(0.51)$	$1969 \pm 10 \quad (-0.3\sigma)$
n_s	$0.9711 \pm 0.0043 \quad (+0.0\sigma)$	z_{re}	$7.4^{+2.2}_{-4.6} \quad (-1.8\sigma)$	$H(0.61)$	$95.57 \pm 0.22 \quad (+0.3\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s$	$2.093^{+0.065}_{-0.18} \quad (-1.5\sigma)$	$D_M(0.61)$	$2293 \pm 11 \quad (-0.3\sigma)$
A_{100}^{PS}	$232 \pm 25 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.871 \pm 0.011 \quad (-0.1\sigma)$	$H(2.33)$	$235.40 \pm 0.65 \quad (-0.1\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1218^{+13}_{-17} \quad (-1.1\sigma)$	$D_M(2.33)$	$5752 \pm 10 \quad (-0.3\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.019} \quad (-1.8\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.744^{+0.013}_{-0.032} \quad (-1.7\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4} \quad (+0.0\sigma)$	D_{1420}	$814.7 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.468^{+0.011}_{-0.020} \quad (-1.8\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$231.5 \pm 1.7 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.660^{+0.012}_{-0.028} \quad (-1.6\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.51^{+0.33}_{-0.28} \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9711 \pm 0.0043 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.468^{+0.010}_{-0.020} \quad (-1.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245440 \pm 0.000062 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.618^{+0.011}_{-0.027} \quad (-1.6\sigma)$
A^{kSZ}	$< 5.24 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.246767 \pm 0.000062 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4635^{+0.0096}_{-0.020} \quad (-1.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	10^5D/H	$2.564 \pm 0.029 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.589^{+0.010}_{-0.025} \quad (-1.6\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.0\sigma)$	Age/Gyr	$13.773 \pm 0.024 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0050}_{-0.013} \quad (-1.6\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.60 \pm 0.26 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3067^{+0.0051}_{-0.013} \quad (-1.5\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.85 \pm 0.25 \quad (+0.1\sigma)$	f_{2000}^{143}	$27.1 \pm 3.0 \quad (-0.2\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04123 \pm 0.00030 \quad (+0.1\sigma)$	f_{2000}^{217}	$105.1 \pm 2.0 \quad (-0.2\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.911 \pm 0.024 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$30.1 \pm 2.1 \quad (-0.2\sigma)$
c_{TE}	$0.9925 \pm 0.0053 \quad (-0.2\sigma)$	z_{drag}	$1060.08 \pm 0.35 \quad (+0.3\sigma)$	χ_{lowl}^2	$22.5 \pm 1.4 \quad (-1.1\sigma)$
c_{EE}	$0.9903 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.48 \pm 0.26 \quad (+0.0\sigma)$	χ_{CamSpec}^2	$11511.8 \pm 5.5 \quad (+0.0\sigma)$
H_0	$68.20 \pm 0.50 \quad (+0.3\sigma)$	k_D	$0.14055 \pm 0.00032 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.031 \pm 0.044 \quad (+0.0\sigma)$
Ω_Λ	$0.6964 \pm 0.0065 \quad (+0.2\sigma)$	$100\theta_D$	$0.16068 \pm 0.00020 \quad (-0.3\sigma)$	χ_{MGS}^2	$1.82 \pm 0.53 \quad (+0.2\sigma)$
Ω_m	$0.3036 \pm 0.0065 \quad (-0.2\sigma)$	z_{eq}	$3358 \pm 24 \quad (-0.2\sigma)$	χ_{DR12BAO}^2	$3.94 \pm 0.78 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.1412 \pm 0.0010 \quad (-0.2\sigma)$	k_{eq}	$0.010250 \pm 0.000074 \quad (-0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.3 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.09627 \pm 0.00033 \quad (+0.2\sigma)$	$100\theta_{\text{eq}}$	$0.8217 \pm 0.0047 \quad (+0.2\sigma)$	χ_{BAO}^2	$5.78 \pm 0.79 \quad (+0.0\sigma)$
σ_8	$0.804^{+0.015}_{-0.034} \quad (-1.7\sigma)$	$100\theta_{s,\text{eq}}$	$0.4537 \pm 0.0024 \quad (+0.2\sigma)$	χ_{CMB}^2	$11534.3 \pm 5.6 \quad (-0.3\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 11547.85$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.38$; $R - 1 = 0.01201$

3.87 base_Alens_CamSpecHM_TTTEEE_lowl_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02252 \pm 0.00019 \quad (+0.5\sigma)$	σ_8	$0.823^{+0.013}_{-0.027} \quad (-0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8231 \pm 0.0070 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1177 \pm 0.0016 \quad (-0.4\sigma)$	S_8	$0.825^{+0.023}_{-0.030} \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4544 \pm 0.0036 \quad (+0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00033 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.012}_{-0.017} \quad (-1.1\sigma)$	$H(0.15)$	$73.52 \pm 0.65 \quad (+0.4\sigma)$
τ	$0.079^{+0.011}_{-0.035} \quad (-0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610^{+0.013}_{-0.021} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.1 \pm 6.3 \quad (-0.4\sigma)$
A_{L}	1.088 ± 0.083	$\sigma_8/h^{0.5}$	$0.995^{+0.019}_{-0.033} \quad (-1.0\sigma)$	$H(0.38)$	$83.47 \pm 0.48 \quad (+0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.087^{+0.027}_{-0.067} \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$100.8 \pm 1.3 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517 \pm 13 \quad (-0.4\sigma)$
n_{s}	$0.9724 \pm 0.0053 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.561 \pm 0.066 \quad (+0.9\sigma)$	$H(0.51)$	$90.09 \pm 0.38 \quad (+0.4\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	z_{re}	$< 10.8 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1967 \pm 15 \quad (-0.4\sigma)$
A_{100}^{PS}	$231 \pm 25 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.193^{+0.054}_{-0.15} \quad (-0.7\sigma)$	$H(0.61)$	$95.63 \pm 0.31 \quad (+0.5\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.869 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2290 \pm 16 \quad (-0.4\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.1\sigma)$	D_{40}	$1222^{+14}_{-18} \quad (-0.8\sigma)$	$H(2.33)$	$235.23 \pm 0.94 \quad (-0.3\sigma)$
A_{217}^{CIB}	$37 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5720 \pm 39 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 14 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.4} \quad (+0.0\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.457^{+0.012}_{-0.016} \quad (-1.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.13 \quad (+0.0\sigma)$	D_{1420}	$815.1 \pm 4.8 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.761^{+0.012}_{-0.025} \quad (-0.8\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.50 \pm 0.27 \quad (-0.1\sigma)$	D_{2000}	$231.8 \pm 1.7 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.478^{+0.011}_{-0.016} \quad (-1.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9724 \pm 0.0053 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6758^{+0.0096}_{-0.022} \quad (-0.8\sigma)$
A^{kSZ}	$< 5.09 \quad (-0.1\sigma)$	Y_{P}	$0.245451 \pm 0.000073 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4779^{+0.0097}_{-0.016} \quad (-1.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246777 \pm 0.000074 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6329^{+0.0088}_{-0.021} \quad (-0.8\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.559 \pm 0.034 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4736^{+0.0091}_{-0.016} \quad (-1.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.767 \pm 0.031 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.6025^{+0.0082}_{-0.020} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1089.54 \pm 0.34 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.3042^{+0.0040}_{-0.010} \quad (-0.7\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	r_*	$144.91 \pm 0.34 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3141^{+0.0040}_{-0.011} \quad (-0.7\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00033 \quad (+0.2\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-0.3\sigma)$
c_{TE}	$0.9922 \pm 0.0053 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.916 \pm 0.032 \quad (+0.3\sigma)$	f_{2000}^{217}	$104.8 \pm 2.1 \quad (-0.3\sigma)$
c_{EE}	$0.9901 \pm 0.0049 \quad (-0.1\sigma)$	z_{drag}	$1060.12 \pm 0.37 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$29.7 \pm 2.2 \quad (-0.3\sigma)$
H_0	$68.35 \pm 0.75 \quad (+0.4\sigma)$	r_{drag}	$147.53 \pm 0.33 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.1 \pm 1.6 \quad (-0.8\sigma)$
Ω_{Λ}	$0.6982 \pm 0.0097 \quad (+0.4\sigma)$	k_{D}	$0.14052 \pm 0.00035 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11512.4 \pm 5.8 \quad (+0.1\sigma)$
Ω_{m}	$0.3018 \pm 0.0097 \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16066 \pm 0.00021 \quad (-0.4\sigma)$	χ_{prior}^2	$7.8 \pm 3.3 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1409 \pm 0.0015 \quad (-0.3\sigma)$	z_{eq}	$3351 \pm 36 \quad (-0.3\sigma)$	χ_{CMB}^2	$11535.5 \pm 5.9 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09628 \pm 0.00033 \quad (+0.3\sigma)$	k_{eq}	$0.01023 \pm 0.00011 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11543.27; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.66; R - 1 = 0.01232$$

3.88 base_Alens_CamSpecHM_TTTEEE_lowl_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02250 \pm 0.00016 \quad (+0.3\sigma)$	S_8	$0.827^{+0.018}_{-0.028} \quad (-1.0\sigma)$	$H(0.15)$	$73.41 \pm 0.44 \quad (+0.3\sigma)$
$\Omega_c h^2$	$0.1180 \pm 0.0011 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.453^{+0.010}_{-0.015} \quad (-1.0\sigma)$	$D_M(0.15)$	$636.1 \pm 4.3 \quad (-0.3\sigma)$
$100\theta_{MC}$	$1.04106 \pm 0.00030 \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.611^{+0.011}_{-0.020} \quad (-1.0\sigma)$	$H(0.38)$	$83.38 \pm 0.33 \quad (+0.3\sigma)$
τ	$0.078^{+0.011}_{-0.033} \quad (-0.8\sigma)$	$\sigma_8/h^{0.5}$	$0.996^{+0.017}_{-0.032} \quad (-1.0\sigma)$	$D_M(0.38)$	$1519.1 \pm 8.7 \quad (-0.3\sigma)$
A_L	1.084 ± 0.080	$r_{\text{drag}} h$	$100.61 \pm 0.87 \quad (+0.3\sigma)$	$H(0.51)$	$90.02 \pm 0.27 \quad (+0.3\sigma)$
$\ln(10^{10} A_s)$	$3.085^{+0.027}_{-0.065} \quad (-0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.559 \pm 0.065 \quad (+0.9\sigma)$	$D_M(0.51)$	$1969 \pm 10 \quad (-0.3\sigma)$
n_s	$0.9717 \pm 0.0043 \quad (+0.1\sigma)$	z_{re}	$< 10.7 \quad (-0.9\sigma)$	$H(0.61)$	$95.58 \pm 0.23 \quad (+0.3\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s$	$2.189^{+0.054}_{-0.14} \quad (-0.8\sigma)$	$D_M(0.61)$	$2292 \pm 11 \quad (-0.3\sigma)$
A_{100}^{PS}	$231 \pm 25 \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.870 \pm 0.011 \quad (-0.1\sigma)$	$H(2.33)$	$235.38 \pm 0.66 \quad (-0.2\sigma)$
A_{143}^{PS}	$35 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1223^{+14}_{-17} \quad (-0.7\sigma)$	$D_M(2.33)$	$5752 \pm 11 \quad (-0.3\sigma)$
A_{217}^{PS}	$105 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5719 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4584^{+0.0096}_{-0.015} \quad (-1.0\sigma)$
A_{217}^{CIB}	$37^{+6}_{-7} \quad (-0.1\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.761^{+0.011}_{-0.025} \quad (-0.9\sigma)$
A_{143}^{tSZ}	$4.1^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$814.9 \pm 4.9 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4789^{+0.0089}_{-0.016} \quad (-1.0\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.68 \pm 0.13 \quad (+0.1\sigma)$	D_{2000}	$231.6 \pm 1.7 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6755^{+0.0092}_{-0.022} \quad (-0.8\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.50 \pm 0.27 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9717 \pm 0.0043 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4784^{+0.0084}_{-0.015} \quad (-1.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245442 \pm 0.000062 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6325^{+0.0085}_{-0.021} \quad (-0.8\sigma)$
A^{kSZ}	$< 5.12 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.246768 \pm 0.000063 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4741^{+0.0079}_{-0.015} \quad (-0.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	10^5D/H	$2.563 \pm 0.030 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.6021^{+0.0080}_{-0.020} \quad (-0.8\sigma)$
A_{143}^{dust}	$0.94 \pm 0.17 \quad (-0.0\sigma)$	Age/Gyr	$13.772 \pm 0.024 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.3039^{+0.0040}_{-0.0099} \quad (-0.8\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.59 \pm 0.26 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3137^{+0.0041}_{-0.010} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.86 \pm 0.25 \quad (+0.1\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04124 \pm 0.00030 \quad (+0.1\sigma)$	f_{2000}^{217}	$105.0 \pm 2.1 \quad (-0.2\sigma)$
c_{217}	$1.0009 \pm 0.0016 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.912 \pm 0.024 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.1 \quad (-0.3\sigma)$
c_{TE}	$0.9923 \pm 0.0053 \quad (-0.2\sigma)$	z_{drag}	$1060.08 \pm 0.35 \quad (+0.3\sigma)$	χ_{lowl}^2	$23.2 \pm 1.5 \quad (-0.7\sigma)$
c_{EE}	$0.9901 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.48 \pm 0.26 \quad (+0.0\sigma)$	χ_{CamSpec}^2	$11511.7 \pm 5.5 \quad (+0.0\sigma)$
H_0	$68.22 \pm 0.51 \quad (+0.3\sigma)$	k_D	$0.14055 \pm 0.00032 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.032 \pm 0.046 \quad (+0.1\sigma)$
Ω_Λ	$0.6966 \pm 0.0066 \quad (+0.3\sigma)$	$100\theta_D$	$0.16067 \pm 0.00020 \quad (-0.3\sigma)$	χ_{MGS}^2	$1.84 \pm 0.54 \quad (+0.3\sigma)$
Ω_m	$0.3034 \pm 0.0066 \quad (-0.3\sigma)$	z_{eq}	$3357 \pm 25 \quad (-0.2\sigma)$	χ_{DR12BAO}^2	$3.93 \pm 0.77 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.1411 \pm 0.0010 \quad (-0.2\sigma)$	k_{eq}	$0.010247 \pm 0.000075 \quad (-0.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.3 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.09627 \pm 0.00033 \quad (+0.2\sigma)$	$100\theta_{\text{eq}}$	$0.8219 \pm 0.0047 \quad (+0.2\sigma)$	χ_{BAO}^2	$5.80 \pm 0.81 \quad (+0.1\sigma)$
σ_8	$0.823^{+0.012}_{-0.027} \quad (-0.9\sigma)$	$100\theta_{s,\text{eq}}$	$0.4538 \pm 0.0024 \quad (+0.2\sigma)$	χ_{CMB}^2	$11534.9 \pm 5.7 \quad (-0.1\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11548.48; \Delta\bar{\chi}_{\text{eff}}^2 = -0.61; R - 1 = 0.01389$$

3.89 base_Alens_CamSpecHM_TTTEEE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022483	0.02246 ± 0.00019 (+1.2 σ)	σ_8	0.8015	0.8012 ± 0.0090 (-1.1 σ)	$100\theta_{\text{eq}}$	0.8203	0.8199 ± 0.0070 (+1.1 σ)
$\Omega_c h^2$	0.11835	0.1185 ± 0.0016 (-1.1 σ)	S_8	0.8086	0.810 ± 0.020 (-1.3 σ)	$100\theta_{\text{s,eq}}$	0.45297	0.4528 ± 0.0036 (+1.1 σ)
$100\theta_{\text{MC}}$	1.041013	1.04102 ± 0.00033 (+0.6 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4429	0.443 ± 0.011 (-1.3 σ)	$H(0.15)$	73.28	73.23 ± 0.65 (+1.3 σ)
τ	0.0505	$0.0498^{+0.0083}_{-0.0073}$ (-0.4 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5958	0.596 ± 0.010 (-1.3 σ)	$D_{\text{M}}(0.15)$	637.4	637.9 ± 6.4 (-1.2 σ)
A_{L}	1.137	1.130 ± 0.071	$\sigma_8/h^{0.5}$	0.9714	0.972 ± 0.015 (-1.3 σ)	$H(0.38)$	83.291	83.26 ± 0.48 (+1.3 σ)
$\ln(10^{10} A_{\text{s}})$	3.0311	$3.030^{+0.017}_{-0.016}$ (-0.6 σ)	$r_{\text{drag}} h$	100.33	100.2 ± 1.3 (+1.2 σ)	$D_{\text{M}}(0.38)$	1521.6	1523 ± 13 (-1.2 σ)
n_{s}	0.9699	0.9689 ± 0.0053 (+1.1 σ)	$\langle d^2 \rangle^{1/2}$	2.562	2.554 ± 0.064 (+3.8 σ)	$H(0.51)$	89.949	89.92 ± 0.38 (+1.3 σ)
y_{cal}	0.99982	1.0001 ± 0.0025 (-0.1 σ)	z_{re}	7.23	$7.15^{+0.90}_{-0.71}$ (-0.5 σ)	$D_{\text{M}}(0.51)$	1972.0	1973 ± 15 (-1.3 σ)
A_{100}^{PS}	224.2	234 ± 25 (-0.3 σ)	$10^9 A_{\text{s}}$	2.0720	2.070 ± 0.036 (-0.6 σ)	$H(0.61)$	95.522	95.50 ± 0.31 (+1.3 σ)
A_{143}^{PS}	49.0	36 ± 8 (-0.5 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8732	1.874 ± 0.013 (-0.6 σ)	$D_{\text{M}}(0.61)$	2295.5	2297 ± 16 (-1.3 σ)
A_{217}^{PS}	107.3	104 ± 10 (+0.2 σ)	D_{40}	1216.5	1219 ± 15 (-0.9 σ)	$H(2.33)$	235.59	235.65 ± 0.95 (-1.0 σ)
A_{217}^{CIB}	39.7	38^{+7}_{-7} (-0.3 σ)	D_{220}	5725.7	5728 ± 39 (+0.1 σ)	$D_{\text{M}}(2.33)$	5753.6	5755 ± 14 (-1.3 σ)
A_{143}^{tSZ}	6.41	$4.0^{+2.0}_{-2.4}$ (+0.1 σ)	D_{810}	2529.8	2530 ± 14 (-0.4 σ)	$f\sigma_8(0.15)$	0.4479	0.448 ± 0.010 (-1.3 σ)
$r_{143 \times 217}^{\text{PS}}$	0.758	0.67 ± 0.13 (+0.2 σ)	D_{1420}	814.82	814.3 ± 4.9 (-0.1 σ)	$\sigma_8(0.15)$	0.7412	0.7409 ± 0.0077 (-1.0 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.874	$0.52^{+0.35}_{-0.26}$ (-0.2 σ)	D_{2000}	231.47	231.1 ± 1.7 (+0.7 σ)	$f\sigma_8(0.38)$	0.4674	0.4676 ± 0.0085 (-1.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.95	—	$n_{\text{s},0.002}$	0.9699	0.9689 ± 0.0053 (+1.1 σ)	$\sigma_8(0.38)$	0.6577	0.6573 ± 0.0064 (-0.9 σ)
A^{kSZ}	0.01	< 5.55 (-0.2 σ)	Y_{P}	0.245438	$0.245428^{+0.000075}_{-0.000068}$ (+1.2 σ)	$f\sigma_8(0.51)$	0.4667	0.4668 ± 0.0075 (-1.3 σ)
A_{100}^{dust}	1.003	1.01 ± 0.20 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246765	$0.246754^{+0.000075}_{-0.000068}$ (+1.2 σ)	$\sigma_8(0.51)$	0.6157	0.6154 ± 0.0058 (-0.8 σ)
A_{143}^{dust}	0.968	0.95 ± 0.18 (-0.1 σ)	$10^5 \text{D}/\text{H}$	2.5649	2.570 ± 0.035 (-1.2 σ)	$f\sigma_8(0.61)$	0.4623	0.4623 ± 0.0068 (-1.3 σ)
A_{217}^{dust}	0.986	0.98 ± 0.10 (+0.1 σ)	Age/Gyr	13.7760	13.779 ± 0.031 (-1.3 σ)	$\sigma_8(0.61)$	0.5861	0.5857 ± 0.0054 (-0.7 σ)
$A_{143 \times 217}^{\text{dust}}$	0.996	1.02 ± 0.16 (-0.0 σ)	z_*	1089.634	1089.68 ± 0.35 (-1.3 σ)	$f\sigma_8(2.33)$	0.29574	0.2955 ± 0.0027 (-0.6 σ)
c_{100}	0.99790	0.9976 ± 0.0010 (+0.0 σ)	r_*	144.773	144.76 ± 0.34 (+0.8 σ)	$\sigma_8(2.33)$	0.30517	0.3049 ± 0.0027 (-0.4 σ)
c_{217}	1.00108	1.0009 ± 0.0016 (-0.1 σ)	$100\theta_*$	1.041194	1.04120 ± 0.00033 (+0.5 σ)	f_{2000}^{143}	27.85	28 ± 3 (-0.9 σ)
c_{TE}	0.9926	0.9929 ± 0.0053 (-0.8 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9045	13.903 ± 0.032 (+0.7 σ)	f_{2000}^{217}	104.96	105.5 ± 2.1 (-0.9 σ)
c_{EE}	0.9908	0.9908 ± 0.0050 (-0.3 σ)	z_{drag}	1060.085	1060.03 ± 0.38 (+1.0 σ)	$f_{2000}^{143 \times 217}$	30.36	30.6 ± 2.3 (-1.0 σ)
H_0	68.06	68.01 ± 0.75 (+1.2 σ)	r_{drag}	147.403	147.40 ± 0.33 (+0.6 σ)	χ_{small}^2	395.68	396.8 ± 1.6 (-0.1 σ)
Ω_{Λ}	0.6946	0.694 ± 0.010 (+1.2 σ)	k_{D}	0.140623	0.14061 ± 0.00035 (-0.2 σ)	χ_{CamSpec}^2	11496.2	11512.2 ± 5.6 (-0.4 σ)
Ω_{m}	0.3054	0.306 ± 0.010 (-1.2 σ)	$100\theta_{\text{D}}$	0.160671	0.16070 ± 0.00021 (-1.0 σ)	χ_{prior}^2	1.84	7.8 ± 3.4 (-0.0 σ)
$\Omega_{\text{m}} h^2$	0.14148	0.1416 ± 0.0015 (-1.0 σ)	z_{eq}	3365.4	3368 ± 36 (-1.0 σ)	χ_{CMB}^2	11891.9	11909.0 ± 5.8 (-0.4 σ)
$\Omega_{\text{m}} h^3$	0.096294	0.09627 ± 0.00033 (+0.6 σ)	k_{eq}	0.010272	0.01028 ± 0.00011 (-1.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 11893.69$; $\Delta\chi_{\text{eff}}^2 = -3.79$; $\bar{\chi}_{\text{eff}}^2 = 11916.80$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.29$; $R - 1 = 0.00486$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.18) CamSpec like_10.7HM_1400_unified: 11496.17 (Δ -3.31)

4 AphiPhi

4.1 base_AphiPhi_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022161	0.02214 ± 0.00022 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6089	0.608 ± 0.011 (-0.1 σ)	$D_M(0.15)$	646.0	645.9 ± 7.8 (-0.0 σ)
$\Omega_c h^2$	0.12020	0.1201 ± 0.0020 (-0.0 σ)	$\sigma_8/h^{0.5}$	0.9902	0.989 ± 0.016 (-0.1 σ)	$H(0.38)$	82.63	82.64 ± 0.55 (+0.0 σ)
$100\theta_{MC}$	1.040781	1.04082 ± 0.00048 (+0.0 σ)	$r_{drag}h$	98.77	98.8 ± 1.6 (+0.0 σ)	$D_M(0.38)$	1539.0	1539 ± 15 (-0.0 σ)
τ	0.0525	0.0519 ± 0.0080 (-0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4460	2.445 ± 0.037 (-0.1 σ)	$H(0.51)$	89.405	89.42 ± 0.43 (+0.0 σ)
$\ln(10^{10} A_s)$	3.0406	3.039 ± 0.016 (-0.1 σ)	z_{re}	7.55	$7.46^{+0.83}_{-0.75}$ (-0.1 σ)	$D_M(0.51)$	1992.6	1992 ± 18 (-0.0 σ)
n_s	0.9644	0.9635 ± 0.0057 (+0.0 σ)	$10^9 A_s$	2.0917	2.088 ± 0.034 (-0.1 σ)	$H(0.61)$	95.070	95.08 ± 0.35 (+0.0 σ)
$A_L^{\phi\phi}$	0.9996	1.001 ± 0.036	$10^9 A_s e^{-2\tau}$	1.8831	1.882 ± 0.014 (-0.0 σ)	$D_M(0.61)$	2317.9	2318 ± 19 (-0.0 σ)
y_{cal}	1.00046	1.0005 ± 0.0025 (+0.0 σ)	D_{40}	1229.8	1232 ± 15 (-0.0 σ)	$H(2.33)$	236.47	236.4 ± 1.2 (-0.0 σ)
A_{217}^{CIB}	49.2	48 ± 7 (-0.0 σ)	D_{220}	5713.8	5716 ± 41 (+0.0 σ)	$D_M(2.33)$	5774.8	5775 ± 16 (-0.0 σ)
$\xi^{tSZ \times CIB}$	0.28	—	D_{810}	2537.7	2536 ± 14 (+0.0 σ)	$f\sigma_8(0.15)$	0.4613	0.460 ± 0.012 (-0.1 σ)
A_{143}^{tSZ}	7.14	5.1 ± 2.0 (+0.0 σ)	D_{1420}	815.6	814.5 ± 5.2 (+0.0 σ)	$\sigma_8(0.15)$	0.7487	0.7476 ± 0.0075 (-0.1 σ)
A_{100}^{PS}	254.9	264 ± 28 (+0.0 σ)	D_{2000}	230.00	229.6 ± 1.8 (-0.0 σ)	$f\sigma_8(0.38)$	0.4782	0.4774 ± 0.0094 (-0.1 σ)
A_{143}^{PS}	48.7	49 ± 8 (+0.0 σ)	$n_{s,0.002}$	0.9644	0.9635 ± 0.0057 (+0.0 σ)	$\sigma_8(0.38)$	0.6630	0.6620 ± 0.0060 (-0.1 σ)
$A_{143 \times 217}^{PS}$	45.8	43 ± 9 (+0.0 σ)	Y_P	0.245310	$0.24530^{+0.00010}_{-0.000083}$ (+0.0 σ)	$f\sigma_8(0.51)$	0.4761	0.4752 ± 0.0081 (-0.1 σ)
A_{217}^{PS}	118.5	115 ± 10 (+0.0 σ)	Y_P^{BBN}	0.246636	$0.24662^{+0.00010}_{-0.000083}$ (+0.0 σ)	$\sigma_8(0.51)$	0.6201	0.6193 ± 0.0055 (-0.1 σ)
A^{kSZ}	0.01	< 4.95 (-0.0 σ)	$10^5 D/H$	2.6254	2.630 ± 0.041 (-0.0 σ)	$f\sigma_8(0.61)$	0.4706	0.4698 ± 0.0072 (-0.1 σ)
A_{100}^{dustTT}	8.85	8.9 ± 1.8 (-0.0 σ)	Age/Gyr	13.8235	13.824 ± 0.036 (-0.0 σ)	$\sigma_8(0.61)$	0.58990	0.5891 ± 0.0051 (-0.1 σ)
A_{143}^{dustTT}	10.80	10.7 ± 1.8 (+0.0 σ)	z_*	1090.203	1090.23 ± 0.39 (-0.0 σ)	$f\sigma_8(2.33)$	0.29718	0.2968 ± 0.0025 (-0.1 σ)
$A_{143 \times 217}^{dustTT}$	19.43	18.3 ± 3.3 (+0.0 σ)	r_*	144.538	144.57 ± 0.47 (+0.0 σ)	$\sigma_8(2.33)$	0.30610	0.3057 ± 0.0027 (-0.1 σ)
A_{217}^{dustTT}	94.5	93.4 ± 7.4 (+0.0 σ)	$100\theta_*$	1.040990	1.04102 ± 0.00047 (+0.0 σ)	f_{2000}^{143}	30.43	31.3 ± 2.9 (+0.0 σ)
c_{100}	0.99965	0.99961 ± 0.00062 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8847	13.887 ± 0.044 (+0.0 σ)	$f_{2000}^{143 \times 217}$	33.28	33.6 ± 2.0 (+0.0 σ)
c_{217}	0.99826	0.99826 ± 0.00062 (+0.0 σ)	z_{drag}	1059.475	1059.41 ± 0.45 (+0.0 σ)	f_{2000}^{217}	107.69	108.2 ± 1.9 (+0.0 σ)
H_0	67.06	67.09 ± 0.90 (+0.0 σ)	r_{drag}	147.270	147.31 ± 0.48 (+0.0 σ)	$\chi_{lensing}^2$	8.89	9.9 ± 1.4 (+0.5 σ)
Ω_Λ	0.6820	$0.682^{+0.013}_{-0.012}$ (+0.0 σ)	k_D	0.14052	0.14046 ± 0.00052 (-0.0 σ)	χ_{small}^2	395.87	396.9 ± 1.6 (-0.0 σ)
Ω_m	0.3180	0.318 ± 0.013 (-0.0 σ)	$100\theta_D$	0.161023	0.16106 ± 0.00026 (-0.0 σ)	χ_{lowl}^2	23.41	23.7 ± 1.3 (+0.0 σ)
$\Omega_m h^2$	0.14301	0.1429 ± 0.0020 (-0.0 σ)	z_{eq}	3402.1	3400 ± 47 (-0.0 σ)	χ_{plik}^2	758.9	771.7 ± 5.6 (+0.1 σ)
$\Omega_m h^3$	0.095910	0.09587 ± 0.00045 (+0.0 σ)	k_{eq}	0.010384	0.01038 ± 0.00014 (-0.0 σ)	χ_{prior}^2	1.44	7.3 ± 3.7 (+0.0 σ)
σ_8	0.8109	0.8097 ± 0.0089 (-0.1 σ)	$100\theta_{eq}$	0.8126	0.8131 ± 0.0087 (+0.0 σ)	χ_{CMB}^2	1187.1	1202.1 ± 5.7 (+0.2 σ)
S_8	0.8349	0.833 ± 0.023 (-0.1 σ)	$100\theta_{s,eq}$	0.44919	0.4494 ± 0.0045 (+0.0 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4573	0.456 ± 0.013 (-0.1 σ)	$H(0.15)$	72.41	72.43 ± 0.77 (+0.0 σ)			

Best-fit $\chi_{eff}^2 = 1188.51$; $\Delta\chi_{eff}^2 = -0.05$; $\bar{\chi}_{eff}^2 = 1209.46$; $\Delta\bar{\chi}_{eff}^2 = 1.05$; $R - 1 = 0.00514$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.89 (Δ -0.01) small_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.01) commander_dx12_v3_2_29: 23.41 (Δ 0.18) plik_rd12_HM_v22_TT: 758.90 (Δ -0.42)

4.2 base_Aphiphi_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02215 \pm 0.00021 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.608 \pm 0.011 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$645.5 \pm 7.7 \quad (-0.0\sigma)$
$\Omega_{\text{c}}h^2$	$0.1201 \pm 0.0020 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.015 \quad (-0.0\sigma)$	$H(0.38)$	$82.67 \pm 0.55 \quad (+0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04083 \pm 0.00047 \quad (+0.0\sigma)$	$r_{\text{drag}}h$	$98.9 \pm 1.6 \quad (+0.0\sigma)$	$D_{\text{M}}(0.38)$	$1538 \pm 15 \quad (-0.0\sigma)$
τ	$0.0536^{+0.0045}_{-0.0083} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.037 \quad (-0.0\sigma)$	$H(0.51)$	$89.44 \pm 0.43 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.042^{+0.012}_{-0.015} \quad (-0.0\sigma)$	z_{re}	$7.65^{+0.52}_{-0.82} \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1992 \pm 18 \quad (-0.0\sigma)$
n_{s}	$0.9637 \pm 0.0057 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.095^{+0.024}_{-0.032} \quad (-0.0\sigma)$	$H(0.61)$	$95.09 \pm 0.35 \quad (+0.0\sigma)$
$A_{\text{L}}^{\phi\phi}$	0.999 ± 0.036	$10^9 A_{\text{s}} e^{-2\tau}$	$1.882 \pm 0.014 \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2317 \pm 19 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1232 \pm 15 \quad (+0.0\sigma)$	$H(2.33)$	$236.4 \pm 1.2 \quad (-0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5717 \pm 41 \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5774 \pm 16 \quad (-0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.461 \pm 0.012 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{1420}	$814.6 \pm 5.2 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7487 \pm 0.0069 \quad (-0.1\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (-0.0\sigma)$	D_{2000}	$229.6 \pm 1.8 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4778 \pm 0.0093 \quad (-0.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9637 \pm 0.0057 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6630 \pm 0.0054 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	Y_{P}	$0.24530^{+0.00010}_{-0.000083} \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4757 \pm 0.0080 \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24663^{+0.00010}_{-0.000083} \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6202^{+0.0045}_{-0.0051} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.92 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.628 \pm 0.041 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4703 \pm 0.0070 \quad (-0.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	$13.822 \pm 0.036 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5900^{+0.0041}_{-0.0048} \quad (-0.1\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.21 \pm 0.39 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0019}_{-0.0024} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.47 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0019}_{-0.0026} \quad (-0.0\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00047 \quad (+0.0\sigma)$	f_{2000}^{143}	$31.2 \pm 2.9 \quad (+0.0\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.889 \pm 0.044 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.6 \pm 2.0 \quad (+0.0\sigma)$
c_{217}	$0.99826 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.43 \pm 0.45 \quad (+0.0\sigma)$	f_{2000}^{217}	$108.2 \pm 1.9 \quad (+0.0\sigma)$
H_0	$67.13 \pm 0.90 \quad (+0.0\sigma)$	r_{drag}	$147.32 \pm 0.47 \quad (+0.0\sigma)$	χ_{lensing}^2	$9.8 \pm 1.4 \quad (+0.5\sigma)$
Ω_{Λ}	$0.683 \pm 0.013 \quad (-0.0\sigma)$	k_{D}	$0.14045 \pm 0.00052 \quad (+0.0\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_{m}	$0.317 \pm 0.013 \quad (+0.0\sigma)$	$100\theta_{\text{D}}$	$0.16105 \pm 0.00026 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.7 \pm 1.3 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1429 \pm 0.0019 \quad (-0.0\sigma)$	z_{eq}	$3398 \pm 46 \quad (-0.0\sigma)$	χ_{plik}^2	$771.5 \pm 5.5 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.09588 \pm 0.00045 \quad (+0.0\sigma)$	k_{eq}	$0.01037 \pm 0.00014 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.8108 \pm 0.0084 \quad (-0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8134 \pm 0.0087 \quad (+0.0\sigma)$	χ_{CMB}^2	$1201.8 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.834 \pm 0.023 \quad (-0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4496 \pm 0.0045 \quad (+0.0\sigma)$		
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.457 \pm 0.013 \quad (-0.0\sigma)$	$H(0.15)$	$72.47 \pm 0.76 \quad (+0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1209.13$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.97$; $R - 1 = 0.00594$

4.3 base_Aphiphi_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022385	0.02237 ± 0.00015 (-0.0σ)	$\Omega_m h^3$	0.096362	0.09633 ± 0.00030 $(+0.0\sigma)$	$100\theta_{s,eq}$	0.44924	0.4493 ± 0.0029 (-0.1σ)
$\Omega_c h^2$	0.12005	0.1201 ± 0.0013 $(+0.1\sigma)$	σ_8	0.8118	0.8114 ± 0.0073 $(+0.0\sigma)$	$H(0.15)$	72.67	72.66 ± 0.51 (-0.1σ)
$100\theta_{MC}$	1.040915	1.04092 ± 0.00031 (-0.0σ)	S_8	0.8325	0.832 ± 0.016 $(+0.1\sigma)$	$D_M(0.15)$	643.4	643.6 ± 5.1 $(+0.1\sigma)$
τ	0.0543	0.0543 ± 0.0077 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4560	0.4559 ± 0.0086 $(+0.1\sigma)$	$H(0.38)$	82.864	82.85 ± 0.37 (-0.1σ)
$\ln(10^{10} A_s)$	3.0448	3.044 ± 0.016 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6084	0.6082 ± 0.0081 $(+0.1\sigma)$	$D_M(0.38)$	1533.6	1534 ± 10 $(+0.1\sigma)$
n_s	0.96604	0.9650 ± 0.0043 $(+0.0\sigma)$	$\sigma_8/h^{0.5}$	0.9893	0.989 ± 0.011 $(+0.1\sigma)$	$H(0.51)$	89.627	89.62 ± 0.29 (-0.0σ)
$A_L^{\phi\phi}$	0.9990	0.998 ± 0.031	$r_{drag} h$	99.04	99.0 ± 1.0 (-0.1σ)	$D_M(0.51)$	1986.0	1986 ± 12 $(+0.1\sigma)$
y_{cal}	1.00060	1.0006 ± 0.0025 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4444	2.446 ± 0.028 $(+0.0\sigma)$	$H(0.61)$	95.281	95.27 ± 0.23 (-0.0σ)
A_{217}^{CIB}	46.9	47 ± 7 (-0.0σ)	z_{re}	7.68	7.66 ± 0.78 (-0.0σ)	$D_M(0.61)$	2310.5	2311 ± 13 $(+0.1\sigma)$
$\xi^{tSZ \times CIB}$	0.48	—	$10^9 A_s$	2.1006	2.100 ± 0.033 $(+0.0\sigma)$	$H(2.33)$	236.61	236.60 ± 0.81 $(+0.1\sigma)$
A_{143}^{tSZ}	7.15	$5.4_{-1.9}^{+2.1}$ $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8843	1.884 ± 0.012 $(+0.0\sigma)$	$D_M(2.33)$	5763.2	5764 ± 11 $(+0.0\sigma)$
A_{100}^{PS}	249.6	259 ± 28 (-0.0σ)	D_{40}	1229.2	1232 ± 13 (-0.0σ)	$f\sigma_8(0.15)$	0.4602	0.4602 ± 0.0081 $(+0.1\sigma)$
A_{143}^{PS}	48.2	46 ± 8 (-0.0σ)	D_{220}	5731.8	5734 ± 39 (-0.0σ)	$\sigma_8(0.15)$	0.7498	0.7494 ± 0.0064 $(+0.0\sigma)$
$A_{143 \times 217}^{PS}$	48.8	42 ± 9 $(+0.0\sigma)$	D_{810}	2541.4	2540 ± 14 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4777	0.4776 ± 0.0066 $(+0.1\sigma)$
A_{217}^{PS}	120.3	115 ± 10 $(+0.0\sigma)$	D_{1420}	818.47	817.4 ± 4.8 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6642	0.6638 ± 0.0054 $(+0.0\sigma)$
A^{kSZ}	0.00	< 4.26 (-0.0σ)	D_{2000}	231.33	230.9 ± 1.6 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4759	0.4756 ± 0.0058 $(+0.1\sigma)$
A_{100}^{dustTT}	8.83	8.9 ± 1.8 $(+0.0\sigma)$	$n_{s,0.002}$	0.96604	0.9650 ± 0.0043 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.62140	0.6210 ± 0.0050 $(+0.0\sigma)$
A_{143}^{dustTT}	11.04	10.9 ± 1.8 (-0.0σ)	Y_P	0.245402	$0.245392_{-0.000055}^{+0.000062}$ (-0.0σ)	$f\sigma_8(0.61)$	0.4706	0.4703 ± 0.0053 $(+0.1\sigma)$
$A_{143 \times 217}^{dustTT}$	19.90	18.6 ± 3.3 $(+0.0\sigma)$	Y_P^{BBN}	0.246728	$0.246719_{-0.000055}^{+0.000062}$ (-0.0σ)	$\sigma_8(0.61)$	0.59116	0.5908 ± 0.0048 $(+0.0\sigma)$
A_{217}^{dustTT}	95.2	93.7 ± 7.4 $(+0.0\sigma)$	$10^5 D/H$	2.5826	2.587 ± 0.028 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29791	0.2977 ± 0.0024 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1137	0.114 ± 0.038 (-0.0σ)	Age/Gyr	13.7962	13.798 ± 0.024 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.30696	0.3068 ± 0.0025 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1347	0.135 ± 0.029 (-0.0σ)	z_*	1089.905	1089.93 ± 0.27 $(+0.1\sigma)$	f_{2000}^{143}	28.75	29.5 ± 2.7 (-0.1σ)
$A_{100 \times 217}^{dustTE}$	0.484	0.480 ± 0.084 (-0.0σ)	r_*	144.406	144.42 ± 0.30 (-0.1σ)	$f_{2000}^{143 \times 217}$	31.97	32.2 ± 1.9 (-0.1σ)
A_{143}^{dustTE}	0.226	0.226 ± 0.054 $(+0.0\sigma)$	$100\theta_*$	1.041098	1.04110 ± 0.00031 (-0.0σ)	f_{2000}^{217}	106.60	107.0 ± 1.8 (-0.0σ)
$A_{143 \times 217}^{dustTE}$	0.666	0.667 ± 0.081 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8705	13.872 ± 0.028 (-0.1σ)	$\chi_{lensing}^2$	8.83	9.8 ± 1.4 $(+0.8\sigma)$
A_{217}^{dustTE}	2.083	2.08 ± 0.27 (-0.0σ)	z_{drag}	1059.971	1059.93 ± 0.30 (-0.0σ)	χ_{simall}^2	396.05	397.1 ± 1.8 $(+0.1\sigma)$
c_{100}	0.99971	0.99966 ± 0.00061 (-0.0σ)	r_{drag}	147.061	147.08 ± 0.30 (-0.0σ)	χ_{lowl}^2	23.24	23.52 ± 0.96 (-0.0σ)
c_{217}	0.99820	0.99819 ± 0.00062 $(+0.0\sigma)$	k_D	0.140912	0.14088 ± 0.00032 $(+0.0\sigma)$	χ_{plik}^2	2344.7	2359.7 ± 5.8 $(+0.0\sigma)$
H_0	67.35	67.33 ± 0.60 (-0.1σ)	$100\theta_D$	0.160735	0.16076 ± 0.00017 $(+0.0\sigma)$	χ_{prior}^2	1.75	11.6 ± 4.5 $(+0.0\sigma)$
Ω_Λ	0.6845	0.6843 ± 0.0083 (-0.1σ)	z_{eq}	3403.8	3404 ± 30 $(+0.1\sigma)$	χ_{CMB}^2	2772.8	2790.1 ± 6.0 $(+0.2\sigma)$
Ω_m	0.3155	0.3157 ± 0.0083 $(+0.1\sigma)$	k_{eq}	0.010389	0.010389 ± 0.000093 $(+0.1\sigma)$			
$\Omega_m h^2$	0.14308	0.1431 ± 0.0013 $(+0.1\sigma)$	$100\theta_{eq}$	0.8130	0.8131 ± 0.0057 (-0.1σ)			

Best-fit $\chi_{eff}^2 = 2774.59$; $\Delta\chi_{eff}^2 = -0.04$; $\bar{\chi}_{eff}^2 = 2801.64$; $\Delta\bar{\chi}_{eff}^2 = 0.95$; $R - 1 = 0.01120$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.83 (Δ -0.04) simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2344.72 (Δ -0.21)

4.4 base_Aphiphi_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02237 \pm 0.00015 \quad (-0.1\sigma)$	$\Omega_{\text{m}}h^3$	$0.09633 \pm 0.00029 \quad (-0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4493 \pm 0.0029 \quad (-0.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1200 \pm 0.0013 \quad (+0.1\sigma)$	σ_8	$0.8121 \pm 0.0069 \quad (+0.1\sigma)$	$H(0.15)$	$72.67 \pm 0.51 \quad (-0.1\sigma)$
$100\theta_{\text{MC}}$	$1.04092 \pm 0.00031 \quad (-0.0\sigma)$	S_8	$0.833 \pm 0.016 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$643.5 \pm 5.1 \quad (+0.1\sigma)$
τ	$0.0553^{+0.0053}_{-0.0081} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4562 \pm 0.0086 \quad (+0.1\sigma)$	$H(0.38)$	$82.86 \pm 0.37 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6087 \pm 0.0079 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1534 \pm 10 \quad (+0.1\sigma)$
n_{s}	$0.9651 \pm 0.0043 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.1\sigma)$	$H(0.51)$	$89.62 \pm 0.29 \quad (-0.1\sigma)$
$A_{\text{L}}^{\phi\phi}$	0.997 ± 0.031	$r_{\text{drag}}h$	$99.1 \pm 1.0 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1986 \pm 12 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.027 \quad (+0.1\sigma)$	$H(0.61)$	$95.27 \pm 0.23 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.77^{+0.58}_{-0.81} \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2311 \pm 13 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.104^{+0.025}_{-0.034} \quad (+0.0\sigma)$	$H(2.33)$	$236.58 \pm 0.80 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.4^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884 \pm 0.012 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5764 \pm 11 \quad (+0.1\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{40}	$1232 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4605 \pm 0.0080 \quad (+0.1\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5734 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7501^{+0.0055}_{-0.0063} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4779 \pm 0.0065 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$817.3 \pm 4.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6644^{+0.0045}_{-0.0054} \quad (+0.1\sigma)$
A^{kSZ}	$< 4.25 \quad (-0.0\sigma)$	D_{2000}	$230.9 \pm 1.6 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4760 \pm 0.0057 \quad (+0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9651 \pm 0.0043 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6216^{+0.0040}_{-0.0050} \quad (+0.1\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245393^{+0.000061}_{-0.000055} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4707 \pm 0.0051 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246720^{+0.000061}_{-0.000055} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0038}_{-0.0048} \quad (+0.1\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.4 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.586 \pm 0.028 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0018}_{-0.0024} \quad (+0.0\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	Age/Gyr	$13.798 \pm 0.024 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0019}_{-0.0025} \quad (+0.0\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.92 \pm 0.27 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.5 \pm 2.7 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.084 \quad (-0.0\sigma)$	r_*	$144.42 \pm 0.30 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.9 \quad (-0.0\sigma)$
A_{143}^{dustTE}	$0.226 \pm 0.054 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.667 \pm 0.081 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.872 \pm 0.028 \quad (-0.1\sigma)$	χ_{lensing}^2	$9.8 \pm 1.4 \quad (+0.9\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.94 \pm 0.30 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.08 \pm 0.29 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.53 \pm 0.96 \quad (+0.0\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14088 \pm 0.00032 \quad (+0.0\sigma)$	χ_{plik}^2	$2359.5 \pm 5.8 \quad (+0.0\sigma)$
H_0	$67.34 \pm 0.59 \quad (-0.1\sigma)$	$100\theta_{\text{D}}$	$0.16076 \pm 0.00017 \quad (+0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6844 \pm 0.0083 \quad (-0.1\sigma)$	z_{eq}	$3403 \pm 30 \quad (+0.1\sigma)$	χ_{CMB}^2	$2789.8 \pm 5.9 \quad (+0.1\sigma)$
Ω_{m}	$0.3156 \pm 0.0083 \quad (+0.1\sigma)$	k_{eq}	$0.010387 \pm 0.000092 \quad (+0.1\sigma)$		
$\Omega_{\text{m}}h^2$	$0.1431 \pm 0.0013 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8132 \pm 0.0057 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2801.40; \Delta\bar{\chi}_{\text{eff}}^2 = 0.90; R - 1 = 0.01121$$

5 alpha1

5.1 base_alpha1_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022181	0.02219 ± 0.00023 (+0.3 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4622	0.464 ± 0.014 (+0.3 σ)	$100\theta_{\mathrm{s,eq}}$	0.44706	0.4464 ± 0.0049 (−0.4 σ)
$\Omega_{\mathrm{c}} h^2$	0.12112	0.1214 ± 0.0022 (+0.4 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6128	0.614 ± 0.012 (+0.2 σ)	$H(0.15)$	72.11	72.01 ± 0.82 (−0.3 σ)
$100\theta_{\mathrm{MC}}$	1.04062	1.04048 ± 0.00055 (−0.6 σ)	$\sigma_8/h^{0.5}$	0.9949	0.996 ± 0.016 (+0.2 σ)	$D_{\mathrm{M}}(0.15)$	649.0	650.3 ± 8.4 (+0.3 σ)
τ	0.0526	0.0537 ± 0.0083 (+0.2 σ)	$r_{\mathrm{drag}} h$	98.06	97.8 ± 1.7 (−0.4 σ)	$H(0.38)$	82.43	82.36 ± 0.58 (−0.3 σ)
α_{-1}	$-30 \cdot 10^{-5}$	$-0.0015^{+0.0017}_{-0.0010}$	$\langle d^2 \rangle^{1/2}$	2.4583	2.465 ± 0.040 (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1545.0	1547 ± 17 (+0.3 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0442	3.047 ± 0.018 (+0.4 σ)	z_{re}	7.57	7.66 ± 0.84 (+0.2 σ)	$H(0.51)$	89.265	89.22 ± 0.45 (−0.2 σ)
n_{s}	0.9607	$0.9575^{+0.0067}_{-0.0079}$ (−0.9 σ)	$10^9 A_{\mathrm{s}}$	2.0994	2.106 ± 0.038 (+0.4 σ)	$D_{\mathrm{M}}(0.51)$	1999.5	2002 ± 19 (+0.3 σ)
y_{cal}	1.00050	1.0005 ± 0.0025 (+0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8895	1.892 ± 0.015 (+0.5 σ)	$H(0.61)$	94.974	94.94 ± 0.36 (−0.2 σ)
A_{217}^{CIB}	49.1	48 ± 7 (+0.0 σ)	D_{40}	1222.0	1218^{+18}_{-22} (−1.0 σ)	$D_{\mathrm{M}}(0.61)$	2325.2	2328 ± 21 (+0.3 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.28	—	D_{220}	5714.5	5719 ± 42 (+0.1 σ)	$H(2.33)$	237.08	237.3 ± 1.4 (+0.4 σ)
A_{143}^{tSZ}	7.02	5.0 ± 2.0 (−0.0 σ)	D_{810}	2540.2	2539 ± 14 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5778.1	5780 ± 16 (+0.1 σ)
A_{100}^{PS}	255.4	265 ± 28 (+0.0 σ)	D_{1420}	815.6	814.1 ± 5.2 (−0.1 σ)	$f\sigma_8(0.15)$	0.4657	0.467 ± 0.013 (+0.3 σ)
A_{143}^{PS}	49.1	49 ± 8 (+0.0 σ)	D_{2000}	229.95	229.4 ± 1.8 (−0.1 σ)	$\sigma_8(0.15)$	0.7497	0.7493 ± 0.0076 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	46.1	43 ± 9 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.9607	$0.9575^{+0.0067}_{-0.0079}$ (−0.9 σ)	$f\sigma_8(0.38)$	0.4814	0.4821 ± 0.0099 (+0.2 σ)
A_{217}^{PS}	118.8	115 ± 10 (−0.0 σ)	Y_{P}	0.245318	$0.24532^{+0.00011}_{-0.000085}$ (+0.3 σ)	$\sigma_8(0.38)$	0.6632	0.6627 ± 0.0061 (−0.1 σ)
A^{kSZ}	0.01	< 5.17 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246644	$0.24664^{+0.00011}_{-0.000086}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.4786	0.4791 ± 0.0084 (+0.2 σ)
$A_{100}^{\mathrm{dustTT}}$	8.90	9.0 ± 1.8 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6215	2.620 ± 0.043 (−0.3 σ)	$\sigma_8(0.51)$	0.6201	0.6196 ± 0.0056 (−0.1 σ)
$A_{143}^{\mathrm{dustTT}}$	10.83	10.7 ± 1.8 (+0.0 σ)	Age/Gyr	13.8302	13.834 ± 0.037 (+0.1 σ)	$f\sigma_8(0.61)$	0.4727	0.4729 ± 0.0074 (+0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.29	18.3 ± 3.3 (+0.0 σ)	z_*	1090.260	1090.27 ± 0.41 (−0.1 σ)	$\sigma_8(0.61)$	0.5898	0.5891 ± 0.0052 (−0.1 σ)
$A_{217}^{\mathrm{dustTT}}$	94.4	93.3 ± 7.3 (+0.0 σ)	r_*	144.29	144.21 ± 0.54 (−0.5 σ)	$f\sigma_8(2.33)$	0.29689	0.2965 ± 0.0026 (−0.2 σ)
c_{100}	0.99964	0.99961 ± 0.00062 (+0.0 σ)	$100\theta_*$	1.04082	1.04068 ± 0.00055 (−0.6 σ)	$\sigma_8(2.33)$	0.30558	0.3051 ± 0.0028 (−0.3 σ)
c_{217}	0.99827	0.99827 ± 0.00062 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8628	13.857 ± 0.048 (−0.5 σ)	f_{2000}^{143}	30.47	31.4 ± 2.9 (+0.1 σ)
H_0	66.71	66.58 ± 0.97 (−0.3 σ)	z_{drag}	1059.589	1059.62 ± 0.50 (+0.5 σ)	$f_{2000}^{143 \times 217}$	33.36	33.7 ± 2.0 (+0.1 σ)
Ω_{Λ}	0.6765	0.674 ± 0.014 (−0.4 σ)	r_{drag}	147.01	146.92 ± 0.55 (−0.6 σ)	f_{2000}^{217}	107.77	108.3 ± 1.9 (+0.1 σ)
Ω_{m}	0.3235	0.326 ± 0.014 (+0.4 σ)	k_{D}	0.14081	0.14091 ± 0.00062 (+0.7 σ)	χ_{small}^2	395.88	397.1 ± 1.7 (+0.1 σ)
$\Omega_{\mathrm{m}} h^2$	0.14395	0.1443 ± 0.0022 (+0.4 σ)	$100\theta_{\mathrm{D}}$	0.160939	0.16090 ± 0.00031 (−0.7 σ)	χ_{lowl}^2	22.18	22.1 ± 2.1 (−1.4 σ)
$\Omega_{\mathrm{m}} h^3$	0.096023	0.09602 ± 0.00047 (+0.3 σ)	z_{eq}	3425	3432 ± 52 (+0.4 σ)	χ_{plik}^2	759.7	774.0 ± 5.8 (+0.5 σ)
σ_8	0.8126	0.8124 ± 0.0090 (+0.1 σ)	k_{eq}	0.010452	0.01047 ± 0.00016 (+0.4 σ)	χ_{prior}^2	1.43	7.3 ± 3.7 (+0.0 σ)
S_8	0.8438	0.847 ± 0.025 (+0.3 σ)	$100\theta_{\mathrm{eq}}$	0.8086	0.8074 ± 0.0095 (−0.4 σ)	χ_{CMB}^2	1177.7	1193.2 ± 5.8 (+0.2 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 1179.15$; $\Delta\chi_{\mathrm{eff}}^2 = -0.43$; $\bar{\chi}_{\mathrm{eff}}^2 = 1200.56$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.98$; $R - 1 = 0.00658$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ 0.01) commander_dx12_v3.2.29: 22.18 (Δ -1.42) plik_rd12_HM_v22_TT: 759.66 (Δ 0.91)

5.2 base_alpha1_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022252	0.02228 ± 0.00023 (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9814	0.981 ± 0.012 (−0.1 σ)	$D_M(0.38)$	1529.4	1529.9 ± 9.4 (+0.0 σ)
$\Omega_c h^2$	0.11894	0.1191 ± 0.0012 (+0.1 σ)	$r_{\text{drag}} h$	99.76	99.66 ± 0.96 (−0.1 σ)	$H(0.51)$	89.669	89.67 ± 0.29 (+0.0 σ)
$100\theta_{\text{MC}}$	1.040919	1.04087 ± 0.00047 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4269	2.429 ± 0.028 (+0.0 σ)	$D_M(0.51)$	1981.4	1982 ± 11 (+0.0 σ)
τ	0.0547	0.0552 ± 0.0084 (+0.2 σ)	z_{re}	7.73	7.75 ± 0.84 (+0.1 σ)	$H(0.61)$	95.273	95.28 ± 0.24 (+0.1 σ)
α_{-1}	−0.00005	$-0.0008^{+0.0015}_{-0.0011}$	$10^9 A_s$	2.0951	2.100 ± 0.038 (+0.2 σ)	$D_M(0.61)$	2305.8	2306 ± 12 (+0.0 σ)
$\ln(10^{10} A_s)$	3.0422	3.044 ± 0.018 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8781	1.880 ± 0.013 (+0.2 σ)	$H(2.33)$	235.74	235.85 ± 0.81 (+0.2 σ)
n_s	0.9664	$0.9642^{+0.0053}_{-0.0061}$ (−0.5 σ)	D_{40}	1218.9	1215^{+19}_{-26} (−0.8 σ)	$D_M(2.33)$	5766.2	5766 ± 12 (−0.1 σ)
y_{cal}	1.00039	1.0006 ± 0.0026 (+0.0 σ)	D_{220}	5719.2	5725 ± 41 (+0.1 σ)	$f\sigma_8(0.15)$	0.4541	0.4543 ± 0.0077 (−0.0 σ)
A_{217}^{CIB}	48.7	48 ± 7 (−0.0 σ)	D_{810}	2536.6	2537 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7460	0.7453 ± 0.0069 (−0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	D_{1420}	816.0	815.3 ± 5.1 (−0.0 σ)	$f\sigma_8(0.38)$	0.4727	0.4727 ± 0.0065 (−0.0 σ)
A_{143}^{tSZ}	6.85	$5.0^{+2.2}_{-2.0}$ (−0.0 σ)	D_{2000}	230.14	229.9 ± 1.8 (−0.0 σ)	$\sigma_8(0.38)$	0.6614	0.6608 ± 0.0059 (−0.1 σ)
A_{100}^{PS}	255.5	264 ± 28 (+0.0 σ)	$n_{s,0.002}$	0.9664	$0.9642^{+0.0053}_{-0.0061}$ (−0.5 σ)	$f\sigma_8(0.51)$	0.4715	0.4713 ± 0.0058 (−0.0 σ)
A_{143}^{PS}	49.9	48 ± 8 (+0.0 σ)	Y_{P}	0.245347	$0.245355^{+0.000099}_{-0.000083}$ (+0.3 σ)	$\sigma_8(0.51)$	0.6190	0.6184 ± 0.0055 (−0.1 σ)
$A_{143 \times 217}^{\text{PS}}$	47.0	43^{+9}_{-10} (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246674	$0.246682^{+0.000099}_{-0.000083}$ (+0.3 σ)	$f\sigma_8(0.61)$	0.4666	0.4664 ± 0.0054 (−0.1 σ)
A_{217}^{PS}	119.0	114 ± 10 (+0.0 σ)	$10^5 D/H$	2.6079	2.603 ± 0.042 (−0.3 σ)	$\sigma_8(0.61)$	0.5890	0.5884 ± 0.0052 (−0.1 σ)
A^{kSZ}	0.20	< 5.05 (+0.0 σ)	Age/Gyr	13.8050	13.804 ± 0.028 (−0.1 σ)	$f\sigma_8(2.33)$	0.29705	0.2967 ± 0.0026 (−0.1 σ)
A_{100}^{dustTT}	8.89	9.0 ± 1.8 (+0.0 σ)	z_*	1089.976	1089.95 ± 0.32 (−0.2 σ)	$\sigma_8(2.33)$	0.30631	0.3059 ± 0.0027 (−0.1 σ)
A_{143}^{dustTT}	10.74	10.8 ± 1.8 (−0.0 σ)	r_*	144.796	144.74 ± 0.34 (−0.2 σ)	f_{2000}^{143}	30.40	31.0 ± 3.0 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.38	18.3 ± 3.4 (+0.0 σ)	$100\theta_*$	1.041114	1.04107 ± 0.00047 (−0.3 σ)	$f_{2000}^{143 \times 217}$	33.18	33.4 ± 2.0 (+0.0 σ)
A_{217}^{dustTT}	94.5	93.5 ± 7.5 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9078	13.903 ± 0.032 (−0.2 σ)	f_{2000}^{217}	107.58	108.0 ± 1.9 (+0.0 σ)
c_{100}	0.99970	0.99963 ± 0.00061 (+0.0 σ)	z_{drag}	1059.59	1059.66 ± 0.52 (+0.4 σ)	χ_{small}^2	396.06	397.2 ± 1.8 (+0.0 σ)
c_{217}	0.99823	0.99829 ± 0.00061 (+0.0 σ)	r_{drag}	147.504	147.44 ± 0.39 (−0.3 σ)	χ_{lowl}^2	22.26	22 ± 2 (−0.8 σ)
H_0	67.63	67.60 ± 0.54 (−0.0 σ)	k_{D}	0.14034	0.14043 ± 0.00052 (+0.3 σ)	χ_{plik}^2	760.7	774.1 ± 5.8 (+0.4 σ)
Ω_Λ	0.6899	0.6891 ± 0.0074 (−0.1 σ)	$100\theta_{\text{D}}$	0.160955	0.16091 ± 0.00033 (−0.4 σ)	$\chi_{6\text{DF}}^2$	0.0222	0.067 ± 0.086 (+0.1 σ)
Ω_{m}	0.3101	0.3109 ± 0.0074 (+0.1 σ)	z_{eq}	3374.0	3378 ± 29 (+0.1 σ)	χ_{MGS}^2	1.28	1.30 ± 0.52 (−0.1 σ)
$\Omega_{\text{m}} h^2$	0.14183	0.1420 ± 0.0012 (+0.1 σ)	k_{eq}	0.010298	0.010309 ± 0.000090 (+0.1 σ)	χ_{DR12BAO}^2	4.22	5.0 ± 1.8 (+0.1 σ)
$\Omega_{\text{m}} h^3$	0.095922	0.09598 ± 0.00047 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8180	0.8174 ± 0.0054 (−0.1 σ)	χ_{prior}^2	1.20	7.3 ± 3.7 (−0.0 σ)
σ_8	0.8071	0.8065 ± 0.0078 (−0.1 σ)	$100\theta_{\text{s,eq}}$	0.45195	0.4516 ± 0.0028 (−0.1 σ)	χ_{BAO}^2	5.52	6.4 ± 1.5 (+0.1 σ)
S_8	0.8206	0.821 ± 0.015 (−0.0 σ)	$H(0.15)$	72.891	72.87 ± 0.47 (−0.0 σ)	χ_{CMB}^2	1179.0	1193.6 ± 5.7 (+0.2 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4495	0.4497 ± 0.0082 (−0.0 σ)	$D_M(0.15)$	641.13	641.4 ± 4.7 (+0.0 σ)			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6023	0.6022 ± 0.0080 (−0.0 σ)	$H(0.38)$	82.971	82.96 ± 0.35 (+0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1185.69$; $\Delta\chi_{\text{eff}}^2 = -0.06$; $\bar{\chi}_{\text{eff}}^2 = 1207.24$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.22$; $R - 1 = 0.02382$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.22 (Δ 0.03) CMB - small_100x143.offlike5_EE_Aplanck_B: 396.06 (Δ 0.17) commander_dx12_v3_2_29: 22.26 (Δ -0.57) plik_rd12_HM_v22_TT: 760.65 (Δ 0.55)

5.3 base_alpha1_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022207	0.02223 ± 0.00022 (+0.4 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6095	0.6094 ± 0.0077 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	646.8	647.5 ± 6.4 (+0.2 σ)
$\Omega_{\mathrm{c}} h^2$	0.12051	0.1207 ± 0.0016 (+0.3 σ)	$\sigma_8 / h^{0.5}$	0.9905	0.990 ± 0.010 (+0.0 σ)	$H(0.38)$	82.579	82.54 ± 0.46 (−0.2 σ)
$100\theta_{\mathrm{MC}}$	1.04069	1.04057 ± 0.00051 (−0.5 σ)	$r_{\mathrm{drag}} h$	98.53	98.4 ± 1.3 (−0.3 σ)	$D_{\mathrm{M}}(0.38)$	1540.7	1542 ± 13 (+0.2 σ)
τ	0.0528	0.0536 ± 0.0081 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4491	2.452 ± 0.025 (+0.2 σ)	$H(0.51)$	89.377	89.35 ± 0.36 (−0.1 σ)
α_{-1}	$-18 \cdot 10^{-5}$	$-0.0013^{+0.0017}_{-0.0010}$	z_{re}	7.58	$7.62^{+0.84}_{-0.75}$ (+0.1 σ)	$D_{\mathrm{M}}(0.51)$	1994.5	1996 ± 15 (+0.2 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0425	3.045 ± 0.016 (+0.3 σ)	$10^9 A_{\mathrm{s}}$	2.0957	2.101 ± 0.033 (+0.3 σ)	$H(0.61)$	95.057	95.04 ± 0.30 (−0.1 σ)
n_{s}	0.9621	$0.9592^{+0.0057}_{-0.0069}$ (−0.9 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8855	1.888 ± 0.013 (+0.5 σ)	$D_{\mathrm{M}}(0.61)$	2319.8	2321 ± 16 (+0.2 σ)
y_{cal}	1.00018	1.0004 ± 0.0025 (−0.0 σ)	D_{40}	1222.2	1216^{+16}_{-23} (−1.3 σ)	$H(2.33)$	236.72	236.8 ± 1.0 (+0.4 σ)
A_{217}^{CIB}	49.4	48 ± 7 (+0.0 σ)	D_{220}	5715.9	5721 ± 42 (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5774.8	5776 ± 14 (+0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.26	—	D_{810}	2537.9	2538 ± 14 (+0.1 σ)	$f\sigma_8(0.15)$	0.4622	0.4624 ± 0.0083 (+0.2 σ)
A_{143}^{tSZ}	6.99	5.0 ± 2.0 (−0.0 σ)	D_{1420}	815.2	814.2 ± 5.2 (−0.1 σ)	$\sigma_8(0.15)$	0.7482	0.7473 ± 0.0056 (−0.2 σ)
A_{100}^{PS}	256.6	265 ± 28 (+0.0 σ)	D_{2000}	229.84	229.4 ± 1.8 (−0.1 σ)	$f\sigma_8(0.38)$	0.4787	0.4786 ± 0.0063 (+0.1 σ)
A_{143}^{PS}	48.9	49 ± 8 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9621	$0.9592^{+0.0057}_{-0.0069}$ (−0.9 σ)	$\sigma_8(0.38)$	0.66233	0.6614 ± 0.0050 (−0.2 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	45.3	43^{+9}_{-10} (−0.1 σ)	Y_{P}	0.245329	$0.24533^{+0.00010}_{-0.000083}$ (+0.4 σ)	$f\sigma_8(0.51)$	0.4764	$0.4761^{+0.0056}_{-0.0050}$ (+0.1 σ)
A_{217}^{PS}	118.1	114 ± 10 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246655	$0.24666^{+0.00010}_{-0.000083}$ (+0.4 σ)	$\sigma_8(0.51)$	0.61946	0.6185 ± 0.0047 (−0.3 σ)
A^{kSZ}	0.00	< 5.26 (+0.1 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6166	2.613 ± 0.042 (−0.4 σ)	$f\sigma_8(0.61)$	0.47073	$0.4704^{+0.0050}_{-0.0045}$ (+0.0 σ)
$A_{100}^{\mathrm{dustTT}}$	8.88	8.9 ± 1.8 (+0.0 σ)	Age/Gyr	13.8230	13.825 ± 0.032 (−0.0 σ)	$\sigma_8(0.61)$	0.58921	0.5883 ± 0.0046 (−0.3 σ)
$A_{143}^{\mathrm{dustTT}}$	10.80	10.8 ± 1.8 (+0.0 σ)	z_*	1090.171	1090.16 ± 0.35 (−0.2 σ)	$f\sigma_8(2.33)$	0.29676	0.2963 ± 0.0024 (−0.3 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.27	18.4 ± 3.3 (+0.0 σ)	r_*	144.423	144.37 ± 0.41 (−0.5 σ)	$\sigma_8(2.33)$	0.30560	0.3051 ± 0.0027 (−0.3 σ)
$A_{217}^{\mathrm{dustTT}}$	94.2	93.4 ± 7.4 (+0.0 σ)	$100\theta_*$	1.04089	1.04076 ± 0.00051 (−0.5 σ)	f_{2000}^{143}	30.53	31.4 ± 3.0 (+0.1 σ)
c_{100}	0.99968	0.99962 ± 0.00061 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8750	13.872 ± 0.037 (−0.4 σ)	$f_{2000}^{143 \times 217}$	33.29	33.6 ± 2.0 (+0.0 σ)
c_{217}	0.99827	0.99828 ± 0.00061 (+0.0 σ)	z_{drag}	1059.589	1059.65 ± 0.50 (+0.5 σ)	f_{2000}^{217}	107.62	108.2 ± 1.9 (+0.0 σ)
H_0	66.96	66.89 ± 0.74 (−0.2 σ)	r_{drag}	147.138	147.08 ± 0.43 (−0.6 σ)	$\chi_{\mathrm{lensing}}^2$	8.93	9.52 ± 0.98 (+0.1 σ)
Ω_{Λ}	0.6803	0.679 ± 0.010 (−0.3 σ)	k_{D}	0.14069	0.14077 ± 0.00053 (+0.7 σ)	χ_{small}^2	395.89	397.0 ± 1.5 (+0.0 σ)
Ω_{m}	0.3197	0.321 ± 0.010 (+0.3 σ)	$100\theta_{\mathrm{D}}$	0.160934	0.16089 ± 0.00031 (−0.7 σ)	χ_{lowl}^2	22.35	22.1 ± 2.2 (−1.6 σ)
$\Omega_{\mathrm{m}} h^2$	0.14337	0.1435 ± 0.0016 (+0.4 σ)	z_{eq}	3410.6	3415 ± 38 (+0.4 σ)	χ_{plik}^2	759.7	773.7 ± 5.7 (+0.5 σ)
$\Omega_{\mathrm{m}} h^3$	0.096001	0.09600 ± 0.00046 (+0.3 σ)	k_{eq}	0.010409	0.01042 ± 0.00012 (+0.4 σ)	χ_{prior}^2	1.27	7.3 ± 3.7 (−0.0 σ)
σ_8	0.8106	0.8097 ± 0.0063 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8112	0.8105 ± 0.0071 (−0.3 σ)	χ_{CMB}^2	1186.9	1202.2 ± 5.7 (+0.2 σ)
S_8	0.8368	0.837 ± 0.017 (+0.2 σ)	$100\theta_{\mathrm{s,eq}}$	0.44839	0.4480 ± 0.0037 (−0.4 σ)			
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4583	0.4587 ± 0.0091 (+0.2 σ)	$H(0.15)$	72.33	72.27 ± 0.63 (−0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1188.17$; $\Delta\chi_{\mathrm{eff}}^2 = -0.40$; $\bar{\chi}_{\mathrm{eff}}^2 = 1209.53$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.12$; $R - 1 = 0.01166$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.93 (Δ 0.03) small_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.02) commander_dx12_v3.2_29: 22.35 (Δ -0.88) plik_rd12_HM_v22_TT: 759.73 (Δ 0.41)

5.4 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022281	0.02229 ± 0.00022 (+0.4 σ)	$\sigma_8/h^{0.5}$	0.9842	0.9834 ± 0.0090 (−0.1 σ)	$D_M(0.38)$	1529.9	1530.8 ± 8.7 (−0.0 σ)
$\Omega_c h^2$	0.11911	0.1192 ± 0.0011 (+0.1 σ)	$r_{\text{drag}} h$	99.65	99.56 ± 0.87 (−0.1 σ)	$H(0.51)$	89.669	89.65 ± 0.27 (+0.1 σ)
$100\theta_{\text{MC}}$	1.040919	1.04085 ± 0.00047 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4356	2.436 ± 0.021 (+0.0 σ)	$D_M(0.51)$	1982.0	1983 ± 10 (−0.0 σ)
τ	0.0565	0.0566 ± 0.0078 (+0.2 σ)	z_{re}	7.91	7.90 ± 0.77 (+0.2 σ)	$H(0.61)$	95.281	95.26 ± 0.24 (+0.1 σ)
α_{-1}	−0.00008	$-0.0009^{+0.0015}_{-0.0011}$	$10^9 A_s$	2.1057	2.107 ± 0.034 (+0.3 σ)	$D_M(0.61)$	2306.4	2307 ± 11 (−0.0 σ)
$\ln(10^{10} A_s)$	3.0472	3.048 ± 0.016 (+0.3 σ)	$10^9 A_s e^{-2\tau}$	1.8806	1.881 ± 0.012 (+0.2 σ)	$H(2.33)$	235.89	235.95 ± 0.73 (+0.2 σ)
n_s	0.9654	$0.9637^{+0.0051}_{-0.0060}$ (−0.6 σ)	D_{40}	1221.4	1216^{+17}_{-26} (−1.0 σ)	$D_M(2.33)$	5765.4	5766 ± 12 (−0.2 σ)
y_{cal}	1.00074	1.0007 ± 0.0025 (−0.0 σ)	D_{220}	5728.5	5728 ± 41 (+0.1 σ)	$f\sigma_8(0.15)$	0.4558	0.4557 ± 0.0061 (−0.1 σ)
A_{217}^{CIB}	50.3	48 ± 7 (−0.0 σ)	D_{810}	2538.5	2538 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7478	0.7468 ± 0.0057 (−0.2 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.099	—	D_{1420}	816.35	815.5 ± 5.0 (−0.0 σ)	$f\sigma_8(0.38)$	0.4743	0.4740 ± 0.0051 (−0.1 σ)
A_{143}^{tSZ}	7.14	$5.0^{+2.2}_{-2.0}$ (−0.0 σ)	D_{2000}	230.31	230.0 ± 1.7 (−0.0 σ)	$\sigma_8(0.38)$	0.6629	0.6620 ± 0.0050 (−0.2 σ)
A_{100}^{PS}	256.9	264 ± 28 (+0.0 σ)	$n_{s,0.002}$	0.9654	$0.9637^{+0.0051}_{-0.0060}$ (−0.6 σ)	$f\sigma_8(0.51)$	0.47293	0.4725 ± 0.0046 (−0.1 σ)
A_{143}^{PS}	45.7	48 ± 8 (−0.0 σ)	Y_{P}	0.245360	$0.245359^{+0.000097}_{-0.000083}$ (+0.4 σ)	$\sigma_8(0.51)$	0.62040	0.6195 ± 0.0047 (−0.2 σ)
$A_{143 \times 217}^{\text{PS}}$	40.6	43^{+9}_{-10} (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246686	$0.246685^{+0.000097}_{-0.000083}$ (+0.4 σ)	$f\sigma_8(0.61)$	0.46801	0.4676 ± 0.0042 (−0.1 σ)
A_{217}^{PS}	116.4	115 ± 10 (+0.0 σ)	$10^5 D/H$	2.6023	2.602 ± 0.042 (−0.4 σ)	$\sigma_8(0.61)$	0.59034	0.5895 ± 0.0045 (−0.2 σ)
A^{kSZ}	0.01	< 4.96 (+0.0 σ)	Age/Gyr	13.8027	13.804 ± 0.028 (−0.2 σ)	$f\sigma_8(2.33)$	0.29768	0.2972 ± 0.0023 (−0.2 σ)
A_{100}^{dustTT}	8.89	8.9 ± 1.8 (−0.0 σ)	z_*	1089.954	1089.96 ± 0.31 (−0.3 σ)	$\sigma_8(2.33)$	0.30692	0.3064 ± 0.0025 (−0.2 σ)
A_{143}^{dustTT}	10.75	10.7 ± 1.7 (+0.0 σ)	r_*	144.728	144.70 ± 0.31 (−0.3 σ)	f_{2000}^{143}	30.38	31.0 ± 2.9 (+0.0 σ)
$A_{143 \times 217}^{\text{dustTT}}$	18.93	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.041115	1.04104 ± 0.00047 (−0.3 σ)	$f_{2000}^{143 \times 217}$	33.10	33.3 ± 2.0 (−0.0 σ)
A_{217}^{dustTT}	93.9	93.6 ± 7.5 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9013	13.899 ± 0.030 (−0.2 σ)	f_{2000}^{217}	107.70	108.0 ± 1.9 (+0.0 σ)
c_{100}	0.99965	0.99963 ± 0.00061 (+0.0 σ)	z_{drag}	1059.67	1059.69 ± 0.51 (+0.4 σ)	χ_{lensing}^2	8.783	9.25 ± 0.72 (−0.0 σ)
c_{217}	0.99827	0.99829 ± 0.00061 (+0.0 σ)	r_{drag}	147.425	147.39 ± 0.36 (−0.3 σ)	χ_{small}^2	396.43	397.3 ± 1.8 (+0.1 σ)
H_0	67.592	67.54 ± 0.50 (+0.0 σ)	k_{D}	0.140447	0.14048 ± 0.00050 (+0.4 σ)	χ_{lowl}^2	22.31	22 ± 3 (−1.0 σ)
Ω_Λ	0.6891	0.6884 ± 0.0067 (−0.1 σ)	$100\theta_{\text{D}}$	0.160910	0.16089 ± 0.00032 (−0.5 σ)	χ_{plik}^2	759.8	773.6 ± 5.7 (+0.4 σ)
Ω_{m}	0.3109	0.3116 ± 0.0067 (+0.1 σ)	z_{eq}	3378.9	3381 ± 26 (+0.1 σ)	$\chi_{6\text{DF}}^2$	0.0294	0.068 ± 0.080 (+0.1 σ)
$\Omega_{\text{m}} h^2$	0.14204	0.1421 ± 0.0011 (+0.1 σ)	k_{eq}	0.010313	0.010320 ± 0.000081 (+0.1 σ)	χ_{MGS}^2	1.217	1.23 ± 0.47 (−0.1 σ)
$\Omega_{\text{m}} h^3$	0.096008	0.09600 ± 0.00046 (+0.2 σ)	$100\theta_{\text{eq}}$	0.81723	0.8168 ± 0.0048 (−0.1 σ)	χ_{DR12BAO}^2	4.40	5.1 ± 1.7 (+0.1 σ)
σ_8	0.8092	0.8082 ± 0.0063 (−0.1 σ)	$100\theta_{\text{s,eq}}$	0.45150	0.4513 ± 0.0025 (−0.1 σ)	χ_{prior}^2	1.57	7.2 ± 3.7 (−0.0 σ)
S_8	0.8237	0.824 ± 0.012 (−0.0 σ)	$H(0.15)$	72.864	72.82 ± 0.43 (+0.0 σ)	χ_{CMB}^2	1187.3	1202.5 ± 5.7 (+0.2 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4512	0.4511 ± 0.0066 (−0.0 σ)	$D_M(0.15)$	641.43	641.9 ± 4.3 (−0.0 σ)	χ_{BAO}^2	5.64	6.4 ± 1.4 (+0.1 σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6042	0.6038 ± 0.0063 (−0.1 σ)	$H(0.38)$	82.961	82.93 ± 0.33 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1194.56$; $\Delta\chi_{\text{eff}}^2 = -0.13$; $\bar{\chi}_{\text{eff}}^2 = 1216.09$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.36$; $R - 1 = 0.02745$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.40 (Δ 0.02) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.78 (Δ -0.09) small_100x143_offlike5_EE_Aplanck: 396.43 (Δ 0.34) commander_dx12_v3_2.29: 22.31 (Δ -0.65) plik_rd12_HM_v22.TT: 759.82 (Δ 0.02)

5.5 base_alpha1_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00023 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.464 \pm 0.014 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4465 \pm 0.0049 \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1214 \pm 0.0022 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.614 \pm 0.012 \quad (+0.2\sigma)$	$H(0.15)$	$72.03 \pm 0.81 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04048 \pm 0.00055 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.997 \pm 0.016 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$650.1 \pm 8.4 \quad (+0.3\sigma)$
τ	$0.0551^{+0.0054}_{-0.0086} \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$97.9 \pm 1.7 \quad (-0.4\sigma)$	$H(0.38)$	$82.37 \pm 0.58 \quad (-0.3\sigma)$
α_{-1}	$-0.0015^{+0.0017}_{-0.0010}$	$\langle d^2 \rangle^{1/2}$	$2.468 \pm 0.039 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1547 \pm 17 \quad (+0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.014}_{-0.017} \quad (+0.5\sigma)$	z_{re}	$7.81^{+0.61}_{-0.84} \quad (+0.2\sigma)$	$H(0.51)$	$89.23 \pm 0.45 \quad (-0.3\sigma)$
n_{s}	$0.9576^{+0.0067}_{-0.0078} \quad (-0.9\sigma)$	10^9A_{s}	$2.112^{+0.029}_{-0.037} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$2002 \pm 19 \quad (+0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.892 \pm 0.015 \quad (+0.6\sigma)$	$H(0.61)$	$94.95^{+0.33}_{-0.37} \quad (-0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1217^{+18}_{-22} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2328 \pm 21 \quad (+0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5719 \pm 42 \quad (+0.1\sigma)$	$H(2.33)$	$237.3 \pm 1.4 \quad (+0.5\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5779 \pm 16 \quad (+0.1\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.0\sigma)$	D_{1420}	$814.2 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.467 \pm 0.013 \quad (+0.3\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	D_{2000}	$229.4 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7502 \pm 0.0071 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9576^{+0.0067}_{-0.0078} \quad (-0.9\sigma)$	$f\sigma_8(0.38)$	$0.4825 \pm 0.0098 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.24532^{+0.00010}_{-0.000085} \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6635 \pm 0.0056 \quad (-0.1\sigma)$
A^{kSZ}	$< 5.14 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00011}_{-0.000085} \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4795 \pm 0.0082 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.618 \pm 0.043 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6203^{+0.0047}_{-0.0053} \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.833 \pm 0.037 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4734 \pm 0.0072 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.26 \pm 0.40 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5899^{+0.0044}_{-0.0050} \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	r_*	$144.21 \pm 0.53 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.2969^{+0.0021}_{-0.0025} \quad (-0.3\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04068 \pm 0.00055 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3055^{+0.0022}_{-0.0027} \quad (-0.4\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.857 \pm 0.048 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.4 \pm 2.9 \quad (+0.1\sigma)$
H_0	$66.60 \pm 0.96 \quad (-0.3\sigma)$	z_{drag}	$1059.64 \pm 0.49 \quad (+0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.0 \quad (+0.1\sigma)$
Ω_{Λ}	$0.675 \pm 0.014 \quad (-0.4\sigma)$	r_{drag}	$146.92 \pm 0.54 \quad (-0.6\sigma)$	f_{2000}^{217}	$108.2 \pm 1.9 \quad (+0.1\sigma)$
Ω_{m}	$0.325 \pm 0.014 \quad (+0.4\sigma)$	k_{D}	$0.14092 \pm 0.00061 \quad (+0.7\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1442 \pm 0.0022 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16089 \pm 0.00030 \quad (-0.7\sigma)$	χ_{lowl}^2	$22.1 \pm 2.1 \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09603 \pm 0.00047 \quad (+0.3\sigma)$	z_{eq}	$3431 \pm 51 \quad (+0.4\sigma)$	χ_{plik}^2	$773.9 \pm 5.8 \quad (+0.5\sigma)$
σ_8	$0.8133 \pm 0.0086 \quad (+0.1\sigma)$	k_{eq}	$0.01047 \pm 0.00016 \quad (+0.4\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.847 \pm 0.025 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8075 \pm 0.0094 \quad (-0.4\sigma)$	χ_{CMB}^2	$1193.0 \pm 5.7 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.29$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.97$; $R - 1 = 0.00693$

5.6 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02229 \pm 0.00022 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.982 \pm 0.011 \quad (-0.1\sigma)$	$D_M(0.38)$	$1529.8 \pm 9.3 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1191 \pm 0.0012 \quad (+0.1\sigma)$	$r_{\text{drag}} h$	$99.67 \pm 0.96 \quad (-0.1\sigma)$	$H(0.51)$	$89.67 \pm 0.29 \quad (+0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04087 \pm 0.00047 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.026 \quad (+0.0\sigma)$	$D_M(0.51)$	$1982 \pm 11 \quad (+0.0\sigma)$
τ	$0.0563^{+0.0061}_{-0.0087} \quad (+0.2\sigma)$	z_{re}	$7.87^{+0.65}_{-0.86} \quad (+0.1\sigma)$	$H(0.61)$	$95.28 \pm 0.24 \quad (+0.1\sigma)$
α_{-1}	$-0.0009^{+0.0015}_{-0.0011}$	$10^9 A_s$	$2.104^{+0.030}_{-0.038} \quad (+0.2\sigma)$	$D_M(0.61)$	$2306 \pm 12 \quad (+0.0\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.015}_{-0.018} \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.012 \quad (+0.2\sigma)$	$H(2.33)$	$235.85 \pm 0.81 \quad (+0.2\sigma)$
n_s	$0.9642^{+0.0053}_{-0.0061} \quad (-0.6\sigma)$	D_{40}	$1214^{+18}_{-26} \quad (-0.9\sigma)$	$D_M(2.33)$	$5766 \pm 12 \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5725 \pm 41 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4547 \pm 0.0075 \quad (-0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7461 \pm 0.0064 \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$815.3 \pm 5.0 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4731 \pm 0.0063 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6614 \pm 0.0055 \quad (-0.2\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9642^{+0.0053}_{-0.0061} \quad (-0.6\sigma)$	$f\sigma_8(0.51)$	$0.4718 \pm 0.0056 \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.245358^{+0.000097}_{-0.000083} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6190 \pm 0.0051 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43^{+9}_{-10} \quad (-0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246685^{+0.000098}_{-0.000083} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4669 \pm 0.0052 \quad (-0.1\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (+0.0\sigma)$	10^5D/H	$2.602 \pm 0.042 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5890^{+0.0046}_{-0.0051} \quad (-0.2\sigma)$
A^{kSZ}	$< 5.03 \quad (+0.1\sigma)$	Age/Gyr	$13.803 \pm 0.028 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2970^{+0.0023}_{-0.0026} \quad (-0.2\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.94 \pm 0.32 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0023}_{-0.0027} \quad (-0.2\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.74 \pm 0.34 \quad (-0.3\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00048 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.0\sigma)$
A_{217}^{dustTT}	$93.5 \pm 7.5 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.903 \pm 0.032 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.0\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.68 \pm 0.52 \quad (+0.4\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (+0.0\sigma)$
c_{217}	$0.99829 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.43 \pm 0.39 \quad (-0.3\sigma)$	χ_{lowl}^2	$22 \pm 2 \quad (-0.9\sigma)$
H_0	$67.60 \pm 0.54 \quad (-0.0\sigma)$	k_{D}	$0.14044 \pm 0.00052 \quad (+0.4\sigma)$	χ_{plik}^2	$774.0 \pm 5.8 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6892 \pm 0.0074 \quad (-0.1\sigma)$	$100\theta_{\text{D}}$	$0.16090 \pm 0.00032 \quad (-0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.066 \pm 0.085 \quad (+0.1\sigma)$
Ω_{m}	$0.3108 \pm 0.0074 \quad (+0.1\sigma)$	z_{eq}	$3378 \pm 29 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.30 \pm 0.52 \quad (-0.1\sigma)$
$\Omega_{\text{m}} h^2$	$0.1420 \pm 0.0012 \quad (+0.2\sigma)$	k_{eq}	$0.010309 \pm 0.000090 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$5.0 \pm 1.8 \quad (+0.1\sigma)$
$\Omega_{\text{m}} h^3$	$0.09599 \pm 0.00047 \quad (+0.2\sigma)$	$100\theta_{\text{eq}}$	$0.8175 \pm 0.0054 \quad (-0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.8073 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4516 \pm 0.0028 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.4 \pm 1.5 \quad (+0.1\sigma)$
S_8	$0.822 \pm 0.015 \quad (-0.0\sigma)$	$H(0.15)$	$72.87 \pm 0.47 \quad (-0.0\sigma)$	χ_{CMB}^2	$1193.4 \pm 5.6 \quad (+0.2\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4500 \pm 0.0080 \quad (-0.0\sigma)$	$D_M(0.15)$	$641.4 \pm 4.6 \quad (+0.0\sigma)$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6028 \pm 0.0077 \quad (-0.0\sigma)$	$H(0.38)$	$82.97 \pm 0.35 \quad (-0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1207.05$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.29$; $R - 1 = 0.02346$

5.7 base_alpha1_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02224 \pm 0.00022 \quad (+0.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6095 \pm 0.0077 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$647.0 \pm 6.2 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1205 \pm 0.0016 \quad (+0.3\sigma)$	$\sigma_8 / h^{0.5}$	$0.990^{+0.011}_{-0.0099} \quad (+0.0\sigma)$	$H(0.38)$	$82.57 \pm 0.45 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04058 \pm 0.00051 \quad (-0.5\sigma)$	$r_{\mathrm{drag}} h$	$98.5 \pm 1.3 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 12 \quad (+0.2\sigma)$
τ	$0.0549^{+0.0055}_{-0.0084} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.453 \pm 0.025 \quad (+0.2\sigma)$	$H(0.51)$	$89.37 \pm 0.36 \quad (-0.1\sigma)$
α_{-1}	$-0.0014^{+0.0017}_{-0.0010}$	z_{re}	$7.77^{+0.61}_{-0.80} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 15 \quad (+0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.015} \quad (+0.4\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.026}_{-0.033} \quad (+0.4\sigma)$	$H(0.61)$	$95.06 \pm 0.29 \quad (-0.1\sigma)$
n_{s}	$0.9595^{+0.0056}_{-0.0069} \quad (-0.9\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.887 \pm 0.013 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320 \pm 16 \quad (+0.2\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1215^{+16}_{-22} \quad (-1.3\sigma)$	$H(2.33)$	$236.8 \pm 1.0 \quad (+0.4\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 41 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5775 \pm 14 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4623 \pm 0.0083 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{1420}	$814.2 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7479 \pm 0.0053 \quad (-0.2\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.0\sigma)$	D_{2000}	$229.5 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4787^{+0.0066}_{-0.0060} \quad (+0.1\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9595^{+0.0056}_{-0.0069} \quad (-0.9\sigma)$	$\sigma_8(0.38)$	$0.6620 \pm 0.0046 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (-0.1\sigma)$	Y_{P}	$0.245337^{+0.000099}_{-0.000082} \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4763^{+0.0056}_{-0.0050} \quad (+0.1\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246664^{+0.000099}_{-0.000082} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6192^{+0.0041}_{-0.0046} \quad (-0.3\sigma)$
A^{kSZ}	$< 5.25 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.611 \pm 0.042 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4706^{+0.0050}_{-0.0044} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.823 \pm 0.032 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5889^{+0.0039}_{-0.0044} \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.35 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2966^{+0.0021}_{-0.0024} \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.39 \pm 0.40 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3054^{+0.0023}_{-0.0027} \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04078 \pm 0.00051 \quad (-0.6\sigma)$	f_{2000}^{143}	$31.4 \pm 3.0 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.874 \pm 0.036 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.6 \pm 2.0 \quad (+0.0\sigma)$
c_{217}	$0.99828 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.67 \pm 0.49 \quad (+0.6\sigma)$	f_{2000}^{217}	$108.2 \pm 1.9 \quad (+0.0\sigma)$
H_0	$66.95 \pm 0.72 \quad (-0.3\sigma)$	r_{drag}	$147.10 \pm 0.43 \quad (-0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.50 \pm 0.98 \quad (+0.1\sigma)$
Ω_{Λ}	$0.680 \pm 0.010 \quad (-0.3\sigma)$	k_{D}	$0.14076 \pm 0.00053 \quad (+0.7\sigma)$	χ_{small}^2	$396.9 \pm 1.5 \quad (+0.0\sigma)$
Ω_{m}	$0.320 \pm 0.010 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16088 \pm 0.00030 \quad (-0.7\sigma)$	χ_{lowl}^2	$22.0 \pm 2.2 \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1434 \pm 0.0016 \quad (+0.4\sigma)$	z_{eq}	$3412 \pm 37 \quad (+0.4\sigma)$	χ_{plik}^2	$773.6 \pm 5.7 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09601 \pm 0.00046 \quad (+0.3\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+0.4\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.8103 \pm 0.0060 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8110 \pm 0.0069 \quad (-0.4\sigma)$	χ_{CMB}^2	$1202.0 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.837 \pm 0.017 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4483 \pm 0.0036 \quad (-0.4\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4585 \pm 0.0090 \quad (+0.2\sigma)$	$H(0.15)$	$72.32 \pm 0.61 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1209.29; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.13; R - 1 = 0.01342$$

5.8 base_alpha1_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02229 \pm 0.00022 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.9837 \pm 0.0089 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1530.6 \pm 8.6 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1192 \pm 0.0011 \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.58 \pm 0.86 \quad (-0.1\sigma)$	$H(0.51)$	$89.65 \pm 0.27 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04085 \pm 0.00047 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.021 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1983 \pm 10 \quad (-0.0\sigma)$
τ	$0.0572^{+0.0066}_{-0.0080} \quad (+0.2\sigma)$	z_{re}	$7.97 \pm 0.70 \quad (+0.2\sigma)$	$H(0.61)$	$95.27 \pm 0.23 \quad (+0.1\sigma)$
α_{-1}	$-0.0009^{+0.0015}_{-0.0011}$	$10^9 A_{\mathrm{s}}$	$2.110^{+0.029}_{-0.034} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2307 \pm 11 \quad (-0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.049^{+0.014}_{-0.016} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.012 \quad (+0.2\sigma)$	$H(2.33)$	$235.94 \pm 0.73 \quad (+0.2\sigma)$
n_{s}	$0.9637^{+0.0051}_{-0.0060} \quad (-0.6\sigma)$	D_{40}	$1216^{+17}_{-26} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 12 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5728 \pm 40 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0061 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7471 \pm 0.0055 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.5 \pm 5.0 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4741 \pm 0.0051 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$230.0 \pm 1.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0048 \quad (-0.2\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9637^{+0.0051}_{-0.0060} \quad (-0.6\sigma)$	$f\sigma_8(0.51)$	$0.4727 \pm 0.0045 \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.0\sigma)$	Y_{P}	$0.245361^{+0.000095}_{-0.000083} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6198 \pm 0.0045 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246687^{+0.000096}_{-0.000083} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0041 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.601 \pm 0.042 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.5897 \pm 0.0043 \quad (-0.2\sigma)$
A^{kSZ}	$< 4.97 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.804 \pm 0.027 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2973 \pm 0.0022 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1089.95 \pm 0.31 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3066 \pm 0.0024 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.7 \quad (+0.0\sigma)$	r_*	$144.70 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00047 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.5 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.030 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.0\sigma)$
c_{100}	$0.99963 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.70 \pm 0.51 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.21 \pm 0.67 \quad (-0.0\sigma)$
c_{217}	$0.99829 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.39 \pm 0.36 \quad (-0.4\sigma)$	χ_{small}^2	$397.3 \pm 1.8 \quad (+0.1\sigma)$
H_0	$67.56 \pm 0.50 \quad (-0.0\sigma)$	k_{D}	$0.14049 \pm 0.00050 \quad (+0.4\sigma)$	χ_{lowl}^2	$22 \pm 2 \quad (-1.1\sigma)$
Ω_{Λ}	$0.6885 \pm 0.0067 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16088 \pm 0.00032 \quad (-0.5\sigma)$	χ_{plik}^2	$773.6 \pm 5.7 \quad (+0.4\sigma)$
Ω_{m}	$0.3115 \pm 0.0067 \quad (+0.1\sigma)$	z_{eq}	$3381 \pm 26 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.066 \pm 0.079 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1421 \pm 0.0011 \quad (+0.2\sigma)$	k_{eq}	$0.010319 \pm 0.000080 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.24 \pm 0.47 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09601 \pm 0.00046 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8169 \pm 0.0048 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.7 \quad (+0.2\sigma)$
σ_8	$0.8085 \pm 0.0061 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4513 \pm 0.0025 \quad (-0.2\sigma)$	χ_{prior}^2	$7.2 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.83 \pm 0.43 \quad (+0.0\sigma)$	χ_{CMB}^2	$1202.4 \pm 5.6 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0066 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.8 \pm 4.3 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6040 \pm 0.0062 \quad (-0.1\sigma)$	$H(0.38)$	$82.94 \pm 0.33 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.96$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.39$; $R - 1 = 0.02803$

5.9 base_alpha1_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022381	0.02236 ± 0.00015 (+0.0 σ)	$\Omega_{\text{m}}h^2$	0.14328	0.1435 ± 0.0018 (+0.2 σ)	k_{eq}	0.010403	0.01042 ± 0.00013 (+0.2 σ)
$\Omega_{\text{c}}h^2$	0.12025	0.1205 ± 0.0018 (+0.2 σ)	$\Omega_{\text{m}}h^3$	0.096366	0.09634 ± 0.00030 (+0.0 σ)	$100\theta_{\text{eq}}$	0.8122	0.8113 ± 0.0079 (−0.2 σ)
$100\theta_{\text{MC}}$	1.040863	1.04082 ± 0.00046 (−0.3 σ)	σ_8	0.8123	0.8126 ± 0.0077 (+0.1 σ)	$100\theta_{\text{s,eq}}$	0.44879	0.4483 ± 0.0041 (−0.2 σ)
τ	0.0543	0.0546 ± 0.0077 (+0.0 σ)	S_8	0.8347	0.837 ± 0.020 (+0.2 σ)	$H(0.15)$	72.60	72.51 ± 0.68 (−0.2 σ)
α_{-1}	$-0.6 \cdot 10^{-5}$	-0.00012 ± 0.00055	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4572	0.459 ± 0.011 (+0.2 σ)	$D_{\text{M}}(0.15)$	644.2	645.2 ± 6.9 (+0.2 σ)
$\ln(10^{10}A_{\text{s}})$	3.0459	3.046 ± 0.016 (+0.1 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6094	0.6104 ± 0.0098 (+0.2 σ)	$H(0.38)$	82.811	82.75 ± 0.48 (−0.2 σ)
n_{s}	0.9649	$0.9635^{+0.0066}_{-0.0075}$ (−0.3 σ)	$\sigma_8/h^{0.5}$	0.9905	0.992 ± 0.013 (+0.2 σ)	$D_{\text{M}}(0.38)$	1535.1	1537 ± 14 (+0.2 σ)
y_{cal}	1.00076	1.0006 ± 0.0025 (+0.0 σ)	$r_{\text{drag}}h$	98.88	98.7 ± 1.4 (−0.2 σ)	$H(0.51)$	89.587	89.54 ± 0.37 (−0.2 σ)
A_{217}^{CIB}	46.8	47 ± 7 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4490	2.454 ± 0.034 (+0.2 σ)	$D_{\text{M}}(0.51)$	1987.8	1990 ± 16 (+0.2 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.51	—	z_{re}	7.68	7.70 ± 0.78 (+0.0 σ)	$H(0.61)$	95.251	95.21 ± 0.29 (−0.2 σ)
A_{143}^{tSZ}	7.20	$5.4^{+2.2}_{-1.9}$ (−0.0 σ)	$10^9 A_{\text{s}}$	2.1029	2.104 ± 0.034 (+0.1 σ)	$D_{\text{M}}(0.61)$	2312.4	2315 ± 17 (+0.2 σ)
A_{100}^{PS}	249.6	259 ± 28 (+0.0 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8866	1.886 ± 0.014 (+0.2 σ)	$H(2.33)$	236.73	236.9 ± 1.1 (+0.2 σ)
A_{143}^{PS}	49.1	46 ± 8 (+0.0 σ)	D_{40}	1230.5	1231 ± 14 (−0.1 σ)	$D_{\text{M}}(2.33)$	5764.4	5766 ± 13 (+0.2 σ)
$A_{143 \times 217}^{\text{PS}}$	50.0	42 ± 9 (+0.0 σ)	D_{220}	5737.2	5733 ± 39 (+0.1 σ)	$f\sigma_8(0.15)$	0.4613	0.463 ± 0.010 (+0.2 σ)
A_{217}^{PS}	120.7	115 ± 10 (−0.0 σ)	D_{810}	2542.8	2540 ± 13 (+0.1 σ)	$\sigma_8(0.15)$	0.7501	0.7502 ± 0.0066 (+0.1 σ)
A^{kSZ}	0.00	< 4.26 (−0.0 σ)	D_{1420}	818.49	817.1 ± 4.8 (−0.0 σ)	$f\sigma_8(0.38)$	0.4785	0.4793 ± 0.0080 (+0.2 σ)
A_{100}^{dustTT}	8.78	8.9 ± 1.8 (+0.0 σ)	D_{2000}	231.29	230.8 ± 1.6 (−0.0 σ)	$\sigma_8(0.38)$	0.6644	0.6643 ± 0.0055 (+0.0 σ)
A_{143}^{dustTT}	11.01	10.9 ± 1.8 (+0.0 σ)	$n_{\text{s},0.002}$	0.9649	$0.9635^{+0.0066}_{-0.0075}$ (−0.3 σ)	$f\sigma_8(0.51)$	0.4765	0.4771 ± 0.0068 (+0.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.02	18.6 ± 3.3 (−0.0 σ)	Y_{P}	0.245400	$0.245389^{+0.000062}_{-0.000055}$ (+0.0 σ)	$\sigma_8(0.51)$	0.62150	0.6214 ± 0.0051 (+0.0 σ)
A_{217}^{dustTT}	95.3	93.7 ± 7.4 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246726	$0.246716^{+0.000063}_{-0.000055}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4711	0.4716 ± 0.0061 (+0.1 σ)
A_{100}^{dustTE}	0.1141	0.115 ± 0.038 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.5834	2.588 ± 0.028 (−0.0 σ)	$\sigma_8(0.61)$	0.59123	0.5910 ± 0.0048 (+0.0 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1356	0.135 ± 0.030 (+0.0 σ)	Age/Gyr	13.7989	13.803 ± 0.028 (+0.1 σ)	$f\sigma_8(2.33)$	0.29789	0.2977 ± 0.0025 (−0.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085 (+0.0 σ)	z_*	1089.929	1089.98 ± 0.29 (+0.1 σ)	$\sigma_8(2.33)$	0.30689	0.3067 ± 0.0027 (−0.1 σ)
A_{143}^{dustTE}	0.226	0.227 ± 0.054 (+0.0 σ)	r_*	144.358	144.32 ± 0.43 (−0.2 σ)	f_{2000}^{143}	28.92	29.6 ± 2.8 (+0.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.666 ± 0.079 (−0.0 σ)	$100\theta_*$	1.041050	1.04100 ± 0.00046 (−0.3 σ)	$f_{2000}^{143 \times 217}$	32.11	32.2 ± 1.9 (+0.0 σ)
A_{217}^{dustTE}	2.077	2.09 ± 0.27 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8666	13.863 ± 0.038 (−0.2 σ)	f_{2000}^{217}	106.71	107.1 ± 1.8 (+0.0 σ)
c_{100}	0.99974	0.99967 ± 0.00061 (+0.0 σ)	z_{drag}	1059.971	1059.95 ± 0.32 (+0.1 σ)	χ_{small}^2	396.06	397.1 ± 1.9 (−0.0 σ)
c_{217}	0.99820	0.99819 ± 0.00062 (+0.0 σ)	r_{drag}	147.014	146.98 ± 0.44 (−0.2 σ)	χ_{lowl}^2	23.22	23.4 ± 1.6 (−0.2 σ)
H_0	67.26	67.15 ± 0.80 (−0.2 σ)	k_{D}	0.140959	0.14098 ± 0.00047 (+0.2 σ)	χ_{plik}^2	2344.8	2361.5 ± 6.1 (+0.4 σ)
Ω_{Λ}	0.6833	0.682 ± 0.011 (−0.2 σ)	$100\theta_{\text{D}}$	0.160726	0.16074 ± 0.00020 (−0.1 σ)	χ_{prior}^2	1.72	11.5 ± 4.5 (−0.0 σ)
Ω_{m}	0.3167	0.318 ± 0.011 (+0.2 σ)	z_{eq}	3408.5	3414 ± 42 (+0.2 σ)	χ_{CMB}^2	2764.1	2782.1 ± 6.0 (+0.3 σ)

Best-fit $\chi_{\text{eff}}^2 = 2765.78$; $\Delta\chi_{\text{eff}}^2 = 0.01$; $\bar{\chi}_{\text{eff}}^2 = 2793.61$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.84$; $R - 1 = 0.01294$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2.29: 23.22 (Δ -0.04) plik_rd12_HM_v22b_TTTEEE: 2344.78 (Δ 0.14)

5.10 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022431	0.02240 ± 0.00014 (-0.1σ)	σ_8	0.8109	0.8097 ± 0.0071 (-0.0σ)	$D_M(0.15)$	640.04	640.0 ± 4.4 (-0.2σ)
$\Omega_c h^2$	0.11917	0.1191 ± 0.0012 (-0.2σ)	S_8	0.8242	0.823 ± 0.014 (-0.2σ)	$H(0.38)$	83.107	83.10 ± 0.32 $(+0.2\sigma)$
$100\theta_{MC}$	1.041066	1.04109 ± 0.00038 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4515	0.4506 ± 0.0075 (-0.2σ)	$D_M(0.38)$	1526.8	1526.9 ± 8.7 (-0.2σ)
τ	0.0561	$0.0555^{+0.0071}_{-0.0079}$ (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6051	0.6040 ± 0.0073 (-0.1σ)	$H(0.51)$	89.813	$89.81^{+0.24}_{-0.27}$ $(+0.2\sigma)$
α_{-1}	$2.2 \cdot 10^{-5}$	$0.00015^{+0.00035}_{-0.00041}$	$\sigma_8/h^{0.5}$	0.9852	0.984 ± 0.011 (-0.1σ)	$D_M(0.51)$	1978.1	1978 ± 10 (-0.2σ)
$\ln(10^{10} A_s)$	3.0466	3.044 ± 0.016 (-0.1σ)	$r_{drag} h$	99.75	99.79 ± 0.92 $(+0.2\sigma)$	$H(0.61)$	95.424	$95.41^{+0.19}_{-0.22}$ $(+0.1\sigma)$
n_s	0.9693	0.9681 ± 0.0052 $(+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4330	2.433 ± 0.026 (-0.1σ)	$D_M(0.61)$	2302.0	2302 ± 11 (-0.2σ)
y_{cal}	1.00082	1.0007 ± 0.0024 $(+0.0\sigma)$	z_{re}	7.83	7.76 ± 0.77 (-0.0σ)	$H(2.33)$	236.09	236.03 ± 0.73 (-0.2σ)
A_{217}^{CIB}	45.1	47 ± 7 $(+0.0\sigma)$	$10^9 A_s$	2.1043	2.100 ± 0.034 (-0.1σ)	$D_M(2.33)$	5757.2	5758.0 ± 9.4 (-0.1σ)
$\xi^{tSZ \times CIB}$	0.76	—	$10^9 A_s e^{-2\tau}$	1.8811	1.879 ± 0.012 (-0.1σ)	$f\sigma_8(0.15)$	0.4562	0.4554 ± 0.0071 (-0.1σ)
A_{143}^{tSZ}	7.05	$5.5^{+2.3}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1227.3	1230 ± 14 $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7495	0.7483 ± 0.0063 (-0.0σ)
A_{100}^{PS}	246.4	258 ± 28 (-0.0σ)	D_{220}	5734.5	5734 ± 38 (-0.0σ)	$f\sigma_8(0.38)$	0.4749	0.4740 ± 0.0059 (-0.1σ)
A_{143}^{PS}	51.3	45 ± 8 (-0.0σ)	D_{810}	2542.5	2539 ± 13 (-0.0σ)	$\sigma_8(0.38)$	0.6645	0.6635 ± 0.0055 $(+0.0\sigma)$
$A_{143 \times 217}^{PS}$	55.4	42 ± 9 (-0.0σ)	D_{1420}	819.89	818.0 ± 4.6 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4737	0.4728 ± 0.0053 (-0.1σ)
A_{217}^{PS}	122.9	115 ± 10 (-0.0σ)	D_{2000}	231.90	231.2 ± 1.5 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6220	0.6210 ± 0.0051 $(+0.0\sigma)$
A^{kSZ}	0.00	< 4.16 (-0.0σ)	$n_{s,0.002}$	0.9693	0.9681 ± 0.0052 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.46881	0.4680 ± 0.0049 (-0.1σ)
A_{100}^{dustTT}	8.87	9.0 ± 1.8 $(+0.1\sigma)$	Y_P	0.245419	$0.245406^{+0.000058}_{-0.000053}$ (-0.1σ)	$\sigma_8(0.61)$	0.59187	0.5910 ± 0.0048 $(+0.0\sigma)$
A_{143}^{dustTT}	11.03	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246746	$0.246733^{+0.000058}_{-0.000053}$ (-0.1σ)	$f\sigma_8(2.33)$	0.29849	0.2980 ± 0.0024 $(+0.0\sigma)$
$A_{143 \times 217}^{dustTT}$	20.24	18.7 ± 3.3 $(+0.0\sigma)$	$10^5 D/H$	2.5742	2.580 ± 0.026 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.30779	0.3074 ± 0.0026 $(+0.1\sigma)$
A_{217}^{dustTT}	95.8	93.9 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.7834	13.785 ± 0.021 (-0.1σ)	f_{2000}^{143}	28.14	29.2 ± 2.7 (-0.0σ)
A_{100}^{dustTE}	0.1136	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.771	1089.80 ± 0.23 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	31.63	32.0 ± 1.9 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1344	0.136 ± 0.030 $(+0.0\sigma)$	r_*	144.600	144.64 ± 0.30 $(+0.3\sigma)$	f_{2000}^{217}	106.17	106.9 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.481	0.480 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041248	1.04127 ± 0.00039 $(+0.3\sigma)$	χ_{simall}^2	396.37	397.2 ± 2.0 (-0.0σ)
A_{143}^{dustTE}	0.225	0.227 ± 0.054 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8872	13.890 ± 0.027 $(+0.2\sigma)$	χ_{lowl}^2	23.20	23.8 ± 1.7 $(+0.8\sigma)$
$A_{143 \times 217}^{dustTE}$	0.664	0.666 ± 0.079 $(+0.0\sigma)$	z_{drag}	1060.009	1059.95 ± 0.32 (-0.2σ)	χ_{plik}^2	2345.2	2360.9 ± 6.0 $(+0.2\sigma)$
A_{217}^{dustTE}	2.080	2.08 ± 0.27 (-0.0σ)	r_{drag}	147.245	147.29 ± 0.31 $(+0.3\sigma)$	χ_{6DF}^2	0.0225	0.056 ± 0.072 (-0.0σ)
c_{100}	0.99974	0.99965 ± 0.00061 (-0.0σ)	k_D	0.140752	0.14068 ± 0.00038 (-0.3σ)	χ_{MGS}^2	1.28	1.36 ± 0.52 $(+0.3\sigma)$
c_{217}	0.99815	0.99820 ± 0.00062 $(+0.0\sigma)$	$100\theta_D$	0.160724	0.16077 ± 0.00021 $(+0.2\sigma)$	$\chi_{DR12BAO}^2$	4.25	4.8 ± 1.6 (-0.1σ)
H_0	67.75	67.75 ± 0.51 $(+0.2\sigma)$	z_{eq}	3383.8	3382 ± 27 (-0.2σ)	χ_{prior}^2	1.60	11.7 ± 4.4 $(+0.0\sigma)$
Ω_Λ	0.6901	0.6902 ± 0.0070 $(+0.2\sigma)$	k_{eq}	0.010328	0.010322 ± 0.000083 (-0.2σ)	χ_{BAO}^2	5.55	6.2 ± 1.3 (-0.0σ)
Ω_m	0.3099	0.3098 ± 0.0070 (-0.2σ)	$100\theta_{eq}$	0.8169	0.8172 ± 0.0051 $(+0.2\sigma)$	χ_{CMB}^2	2764.7	2781.9 ± 5.9 $(+0.3\sigma)$
$\Omega_m h^2$	0.14224	0.1422 ± 0.0011 (-0.2σ)	$100\theta_{s,eq}$	0.45122	0.4514 ± 0.0026 $(+0.2\sigma)$			
$\Omega_m h^3$	0.096365	0.09631 ± 0.00030 (-0.1σ)	$H(0.15)$	73.015	73.02 ± 0.44 $(+0.2\sigma)$			

Best-fit $\chi_{eff}^2 = 2771.88$; $\Delta\chi_{eff}^2 = -0.04$; $\bar{\chi}_{eff}^2 = 2799.77$; $\Delta\bar{\chi}_{eff}^2 = 1.87$; $R - 1 = 0.02417$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.25 (Δ -0.16) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.37 (Δ 0.17) commander_dx12_v3_2_29: 23.20 (Δ 0.32) plik_rd12_HM_v22b_TTTEEE: 2345.16 (Δ -0.35)

5.11 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022410	0.02238 ± 0.00015 (+0.0 σ)	$\Omega_{\text{m}}h^3$	0.096407	0.09633 ± 0.00030 (+0.0 σ)	$100\theta_{\text{s,eq}}$	0.44914	0.4491 ± 0.0034 (−0.1 σ)
$\Omega_{\text{c}}h^2$	0.12008	0.1201 ± 0.0015 (+0.1 σ)	σ_8	0.8115	0.8113 ± 0.0059 (+0.0 σ)	$H(0.15)$	72.68	72.64 ± 0.57 (−0.1 σ)
$100\theta_{\text{MC}}$	1.040904	1.04087 ± 0.00043 (−0.2 σ)	S_8	0.8322	0.833 ± 0.015 (+0.1 σ)	$D_{\text{M}}(0.15)$	643.4	643.9 ± 5.7 (+0.1 σ)
τ	0.0543	0.0544 ± 0.0075 (+0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4558	0.4561 ± 0.0081 (+0.1 σ)	$H(0.38)$	82.875	82.84 ± 0.41 (−0.1 σ)
α_{-1}	$-0.3 \cdot 10^{-5}$	-0.00006 ± 0.00051	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6082	0.6083 ± 0.0070 (+0.1 σ)	$D_{\text{M}}(0.38)$	1533.4	1534 ± 11 (+0.1 σ)
$\ln(10^{10}A_{\text{s}})$	3.0446	3.045 ± 0.014 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9888	0.9889 ± 0.0095 (+0.1 σ)	$H(0.51)$	89.639	89.60 ± 0.32 (−0.1 σ)
n_{s}	0.9657	0.9645 ± 0.0061 (−0.1 σ)	$r_{\text{drag}}h$	99.03	99.0 ± 1.2 (−0.1 σ)	$D_{\text{M}}(0.51)$	1985.8	1987 ± 13 (+0.1 σ)
y_{cal}	1.00022	1.0006 ± 0.0024 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4441	2.447 ± 0.024 (+0.1 σ)	$H(0.61)$	95.295	95.26 ± 0.25 (−0.1 σ)
A_{217}^{CIB}	46.1	47 ± 7 (−0.0 σ)	z_{re}	7.68	7.67 ± 0.75 (+0.0 σ)	$D_{\text{M}}(0.61)$	2310.2	2312 ± 14 (+0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.60	—	$10^9 A_{\text{s}}$	2.1002	2.101 ± 0.030 (+0.0 σ)	$H(2.33)$	236.65	236.64 ± 0.92 (+0.1 σ)
A_{143}^{tSZ}	7.11	$5.5^{+2.2}_{-1.9}$ (+0.0 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8840	1.884 ± 0.012 (+0.1 σ)	$D_{\text{M}}(2.33)$	5762.3	5764 ± 11 (+0.1 σ)
A_{100}^{PS}	248.0	259 ± 28 (−0.0 σ)	D_{40}	1228.1	1230 ± 14 (−0.1 σ)	$f\sigma_8(0.15)$	0.4601	0.4603 ± 0.0074 (+0.1 σ)
A_{143}^{PS}	49.7	46^{+8}_{-7} (−0.0 σ)	D_{220}	5732.0	5734 ± 38 (−0.0 σ)	$\sigma_8(0.15)$	0.7495	0.7492 ± 0.0053 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	51.7	42 ± 9 (−0.0 σ)	D_{810}	2540.6	2540 ± 13 (+0.0 σ)	$f\sigma_8(0.38)$	0.4776	0.4776 ± 0.0057 (+0.1 σ)
A_{217}^{PS}	121.3	115 ± 10 (+0.0 σ)	D_{1420}	818.21	817.2 ± 4.8 (−0.0 σ)	$\sigma_8(0.38)$	0.66392	0.6636 ± 0.0048 (−0.0 σ)
A^{kSZ}	0.00	< 4.28 (−0.0 σ)	D_{2000}	231.28	230.8 ± 1.6 (−0.0 σ)	$f\sigma_8(0.51)$	0.47568	0.4757 ± 0.0049 (+0.1 σ)
A_{100}^{dustTT}	8.79	8.9 ± 1.8 (+0.0 σ)	$n_{\text{s},0.002}$	0.9657	0.9645 ± 0.0061 (−0.1 σ)	$\sigma_8(0.51)$	0.62114	0.6208 ± 0.0045 (−0.0 σ)
A_{143}^{dustTT}	11.00	10.9 ± 1.8 (+0.0 σ)	Y_{P}	0.245411	$0.245396^{+0.000061}_{-0.000054}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.47037	0.4703 ± 0.0043 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.14	18.7 ± 3.3 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246738	$0.246722^{+0.000061}_{-0.000054}$ (+0.0 σ)	$\sigma_8(0.61)$	0.59092	0.5906 ± 0.0044 (−0.0 σ)
A_{217}^{dustTT}	95.5	93.8 ± 7.3 (+0.0 σ)	10^5D/H	2.5781	2.585 ± 0.027 (−0.0 σ)	$f\sigma_8(2.33)$	0.29778	0.2976 ± 0.0024 (−0.0 σ)
A_{100}^{dustTE}	0.1139	0.116 ± 0.038 (+0.0 σ)	Age/Gyr	13.7942	13.799 ± 0.025 (+0.1 σ)	$\sigma_8(2.33)$	0.30683	0.3066 ± 0.0026 (−0.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1354	0.136 ± 0.030 (+0.0 σ)	z_*	1089.877	1089.92 ± 0.26 (+0.0 σ)	f_{2000}^{143}	28.56	29.6 ± 2.8 (−0.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.086 (+0.0 σ)	r_*	144.380	144.40 ± 0.36 (−0.1 σ)	$f_{2000}^{143 \times 217}$	31.86	$32.2^{+1.7}_{-2.0}$ (−0.0 σ)
A_{143}^{dustTE}	0.226	0.226 ± 0.055 (+0.0 σ)	$100\theta_*$	1.041087	1.04105 ± 0.00043 (−0.2 σ)	f_{2000}^{217}	106.36	107.0 ± 1.8 (−0.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.667	0.666 ± 0.079 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8682	13.870 ± 0.032 (−0.1 σ)	χ_{lensing}^2	8.835	9.35 ± 0.81 (+0.2 σ)
A_{217}^{dustTE}	2.081	2.08 ± 0.27 (−0.0 σ)	z_{drag}	1060.047	1059.96 ± 0.32 (+0.0 σ)	χ_{simall}^2	396.04	397.0 ± 1.8 (+0.0 σ)
c_{100}	0.99972	0.99966 ± 0.00061 (−0.0 σ)	r_{drag}	147.025	147.06 ± 0.37 (−0.1 σ)	χ_{lowl}^2	23.15	23.4 ± 1.7 (−0.1 σ)
c_{217}	0.99817	0.99820 ± 0.00063 (+0.0 σ)	k_{D}	0.140966	0.14091 ± 0.00041 (+0.1 σ)	χ_{plik}^2	2345.1	2361.2 ± 6.0 (+0.3 σ)
H_0	67.35	67.30 ± 0.67 (−0.1 σ)	$100\theta_{\text{D}}$	0.160699	0.16074 ± 0.00020 (−0.1 σ)	χ_{prior}^2	1.58	11.6 ± 4.5 (+0.0 σ)
Ω_{Λ}	0.6845	0.6838 ± 0.0093 (−0.1 σ)	z_{eq}	3405.1	3405 ± 35 (+0.1 σ)	χ_{CMB}^2	2773.1	2791.0 ± 6.1 (+0.3 σ)
Ω_{m}	0.3155	0.3162 ± 0.0093 (+0.1 σ)	k_{eq}	0.010393	0.01039 ± 0.00011 (+0.1 σ)			
$\Omega_{\text{m}}h^2$	0.14314	0.1431 ± 0.0014 (+0.1 σ)	$100\theta_{\text{eq}}$	0.8129	0.8128 ± 0.0065 (−0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2774.65$; $\Delta\chi_{\text{eff}}^2 = 0.02$; $\bar{\chi}_{\text{eff}}^2 = 2802.58$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.89$; $R - 1 = 0.01462$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.84 (Δ -0.03) simall_100x143_offlike5_EE_Aplanck_B: 396.04 (Δ -0.01) commander_dx12_v3_2_29: 23.15 (Δ -0.10) plik_rd12_HM_v22b_TTTEEE: 2345.06 (Δ 0.13)

5.12 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022420	0.02241 ± 0.00014 (-0.1σ)	σ_8	0.8109	0.8105 ± 0.0059 $(+0.0\sigma)$	$D_M(0.15)$	640.55	640.2 ± 4.0 (-0.1σ)
$\Omega_c h^2$	0.11927	0.1192 ± 0.0011 (-0.2σ)	S_8	0.8252	0.824 ± 0.011 (-0.1σ)	$H(0.38)$	83.067	$83.09^{+0.27}_{-0.31}$ $(+0.1\sigma)$
$100\theta_{MC}$	1.041024	1.04107 ± 0.00038 $(+0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4520	0.4513 ± 0.0062 (-0.1σ)	$D_M(0.38)$	1527.9	$1527.2^{+8.4}_{-7.6}$ (-0.1σ)
τ	0.0560	$0.0563^{+0.0066}_{-0.0075}$ $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6054	0.6048 ± 0.0058 (-0.0σ)	$H(0.51)$	89.781	$89.80^{+0.22}_{-0.25}$ $(+0.1\sigma)$
α_{-1}	$1.3 \cdot 10^{-5}$	$0.00013^{+0.00035}_{-0.00039}$	$\sigma_8/h^{0.5}$	0.9857	0.9848 ± 0.0084 (-0.0σ)	$D_M(0.51)$	1979.3	$1978.6^{+9.9}_{-8.9}$ (-0.1σ)
$\ln(10^{10} A_s)$	3.0467	3.046 ± 0.014 (-0.0σ)	$r_{\text{drag}} h$	99.66	99.74 ± 0.84 $(+0.2\sigma)$	$H(0.61)$	95.397	$95.41^{+0.18}_{-0.20}$ $(+0.1\sigma)$
n_s	0.9684	0.9678 ± 0.0050 $(+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4355	2.436 ± 0.021 (-0.1σ)	$D_M(0.61)$	2303.3	$2303^{+11}_{-9.6}$ (-0.1σ)
y_{cal}	1.00086	1.0008 ± 0.0024 $(+0.0\sigma)$	z_{re}	7.83	7.84 ± 0.72 $(+0.0\sigma)$	$H(2.33)$	236.14	236.07 ± 0.67 (-0.2σ)
A_{217}^{CIB}	46.4	47 ± 7 (-0.0σ)	$10^9 A_s$	2.1045	$2.104^{+0.028}_{-0.031}$ (-0.0σ)	$D_M(2.33)$	5758.5	5758.2 ± 9.1 (-0.1σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.54	—	$10^9 A_s e^{-2\tau}$	1.8815	1.880 ± 0.011 (-0.1σ)	$f\sigma_8(0.15)$	0.4567	0.4560 ± 0.0058 (-0.1σ)
A_{143}^{tSZ}	7.12	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1228.3	1231 ± 14 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7494	0.7491 ± 0.0054 $(+0.1\sigma)$
A_{100}^{PS}	249.0	258 ± 28 (-0.0σ)	D_{220}	5736.3	5737 ± 38 (-0.1σ)	$f\sigma_8(0.38)$	0.47520	0.4747 ± 0.0048 (-0.1σ)
A_{143}^{PS}	48.6	45 ± 8 (-0.1σ)	D_{810}	2542.0	2539 ± 13 (-0.0σ)	$\sigma_8(0.38)$	0.66441	0.6641 ± 0.0048 $(+0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	49.9	42 ± 9 (-0.0σ)	D_{1420}	819.36	818.1 ± 4.6 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.47389	0.4734 ± 0.0043 (-0.0σ)
A_{217}^{PS}	120.7	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.68	231.2 ± 1.5 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.62181	0.6216 ± 0.0045 $(+0.1\sigma)$
A^{kSZ}	0.00	< 4.08 (-0.1σ)	$n_{s,0.002}$	0.9684	0.9678 ± 0.0050 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.46898	0.4686 ± 0.0039 (-0.0σ)
A_{100}^{dustTT}	8.92	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245415	$0.245408^{+0.000058}_{-0.000052}$ (-0.1σ)	$\sigma_8(0.61)$	0.59169	0.5915 ± 0.0043 $(+0.1\sigma)$
A_{143}^{dustTT}	11.07	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246742	$0.246734^{+0.000058}_{-0.000052}$ (-0.1σ)	$f\sigma_8(2.33)$	0.29837	0.2983 ± 0.0022 $(+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	19.99	18.7 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5762	2.579 ± 0.026 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.30764	0.3076 ± 0.0024 $(+0.1\sigma)$
A_{217}^{dustTT}	95.4	93.9 ± 7.4 $(+0.1\sigma)$	Age/Gyr	13.7862	13.786 ± 0.020 (-0.1σ)	f_{2000}^{143}	28.49	29.2 ± 2.7 (-0.1σ)
A_{100}^{dustTE}	0.1142	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.792	1089.80 ± 0.22 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	31.78	32.0 ± 1.9 (-0.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1341	0.136 ± 0.030 $(+0.0\sigma)$	r_*	144.582	144.62 ± 0.27 $(+0.2\sigma)$	f_{2000}^{217}	106.43	106.9 ± 1.8 (-0.0σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085 (-0.0σ)	$100\theta_*$	1.041204	1.04125 ± 0.00038 $(+0.2\sigma)$	χ_{lensing}^2	8.742	9.14 ± 0.62 $(+0.1\sigma)$
A_{143}^{dustTE}	0.225	0.226 ± 0.054 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8861	13.889 ± 0.024 $(+0.2\sigma)$	χ_{small}^2	396.38	397.3 ± 2.0 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.667	0.665 ± 0.078 (-0.0σ)	z_{drag}	1060.009	1059.96 ± 0.32 (-0.2σ)	χ_{lowl}^2	23.24	23.8 ± 1.7 $(+0.7\sigma)$
A_{217}^{dustTE}	2.086	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	147.229	147.27 ± 0.29 $(+0.3\sigma)$	χ_{plik}^2	2344.9	2360.6 ± 5.9 $(+0.2\sigma)$
c_{100}	0.99974	0.99965 ± 0.00061 (-0.0σ)	k_D	0.140759	0.14071 ± 0.00036 (-0.3σ)	$\chi_{6\text{DF}}^2$	0.0290	0.053 ± 0.065 (-0.0σ)
c_{217}	0.99817	0.99820 ± 0.00062 $(+0.0\sigma)$	$100\theta_D$	0.160729	0.16076 ± 0.00021 $(+0.2\sigma)$	χ_{MGS}^2	1.217	1.33 ± 0.47 $(+0.2\sigma)$
H_0	67.687	$67.73^{+0.44}_{-0.50}$ $(+0.2\sigma)$	z_{eq}	3385.9	3383 ± 25 (-0.2σ)	χ_{DR12BAO}^2	4.41	4.7 ± 1.5 (-0.1σ)
Ω_Λ	0.6893	0.6899 ± 0.0064 $(+0.2\sigma)$	k_{eq}	0.010334	0.010326 ± 0.000075 (-0.2σ)	χ_{prior}^2	1.69	11.6 ± 4.4 $(+0.0\sigma)$
Ω_m	0.3107	0.3101 ± 0.0064 (-0.2σ)	$100\theta_{\text{eq}}$	0.81644	0.8169 ± 0.0046 $(+0.2\sigma)$	χ_{CMB}^2	2773.3	2790.9 ± 6.0 $(+0.3\sigma)$
$\Omega_m h^2$	0.14233	0.1422 ± 0.0010 (-0.2σ)	$100\theta_{s,\text{eq}}$	0.45099	0.4513 ± 0.0024 $(+0.2\sigma)$	χ_{BAO}^2	5.66	6.1 ± 1.2 (-0.0σ)
$\Omega_m h^3$	0.096341	0.09632 ± 0.00030 (-0.1σ)	$H(0.15)$	72.963	$73.00^{+0.38}_{-0.43}$ $(+0.1\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2780.63$; $\Delta\chi_{\text{eff}}^2 = -0.07$; $\bar{\chi}_{\text{eff}}^2 = 2808.59$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.75$; $R - 1 = 0.02748$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.41 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.74 (Δ 0.01) simall_100x143_offlike5_EE_Aplanck: 396.38 (Δ -0.14) commander_dx12_v3.2_29: 23.24 (Δ 0.34) plik_rd12_HM_v22b.TTTEEE: 2344.91 (Δ -0.41)

5.13 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022493	$0.02247^{+0.00015}_{-0.00014} \quad (-0.1\sigma)$	$\Omega_m h^3$	0.096396	$0.09633 \pm 0.00029 \quad (-0.2\sigma)$	$100\theta_{s,eq}$	0.45328	$0.4543^{+0.0038}_{-0.0034} \quad (+0.7\sigma)$
$\Omega_c h^2$	0.11824	$0.1178^{+0.0015}_{-0.0017} \quad (-0.6\sigma)$	σ_8	0.8078	$0.8068 \pm 0.0076 \quad (-0.2\sigma)$	$H(0.15)$	73.39	$73.53^{+0.64}_{-0.57} \quad (+0.6\sigma)$
$100\theta_{MC}$	1.041238	$1.04134^{+0.00046}_{-0.00038} \quad (+0.8\sigma)$	S_8	0.8133	$0.809^{+0.016}_{-0.018} \quad (-0.5\sigma)$	$D_M(0.15)$	636.4	$635.0^{+5.5}_{-6.3} \quad (-0.6\sigma)$
τ	0.0564	$0.0568^{+0.0073}_{-0.0084} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4455	$0.4432^{+0.0088}_{-0.010} \quad (-0.5\sigma)$	$H(0.38)$	83.377	$83.48 \pm 0.44 \quad (+0.6\sigma)$
α_{-1}	0.000061	$0.00041^{+0.00035}_{-0.00063}$	$\sigma_8 \Omega_m^{0.25}$	0.5999	$0.5980 \pm 0.0089 \quad (-0.5\sigma)$	$D_M(0.38)$	1519.5	$1517^{+11}_{-13} \quad (-0.6\sigma)$
$\ln(10^{10} A_s)$	3.0446	$3.043 \pm 0.017 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	0.9783	$0.976 \pm 0.012 \quad (-0.4\sigma)$	$H(0.51)$	90.025	$90.10 \pm 0.34 \quad (+0.6\sigma)$
n_s	0.9714	$0.9723^{+0.0067}_{-0.0055} \quad (+0.9\sigma)$	$r_{drag} h$	100.51	$100.9^{+1.3}_{-1.2} \quad (+0.7\sigma)$	$D_M(0.51)$	1969.5	$1966^{+13}_{-15} \quad (-0.6\sigma)$
y_{cal}	1.00075	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4179	$2.414 \pm 0.030 \quad (-0.5\sigma)$	$H(0.61)$	95.591	$95.64 \pm 0.27 \quad (+0.5\sigma)$
A_{217}^{CIB}	46.3	$47 \pm 6 \quad (+0.0\sigma)$	z_{re}	7.83	$7.86 \pm 0.80 \quad (-0.1\sigma)$	$D_M(0.61)$	2292.7	$2289^{+14}_{-16} \quad (-0.6\sigma)$
$\xi^{tSZ \times CIB}$	0.59	—	$10^9 A_s$	2.1002	$2.098 \pm 0.035 \quad (-0.2\sigma)$	$H(2.33)$	235.56	$235.27^{+0.90}_{-1.0} \quad (-0.7\sigma)$
A_{143}^{tSZ}	7.14	$5.7^{+2.3}_{-2.0} \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8763	$1.872 \pm 0.013 \quad (-0.4\sigma)$	$D_M(2.33)$	5750.1	$5748 \pm 12 \quad (-0.5\sigma)$
A_{100}^{PS}	248.0	$255^{+26}_{-30} \quad (-0.1\sigma)$	D_{40}	1225.4	$1229 \pm 14 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	0.4506	$0.4485^{+0.0083}_{-0.0092} \quad (-0.5\sigma)$
A_{143}^{PS}	48.5	$44 \pm 8 \quad (-0.1\sigma)$	D_{220}	5739.6	$5738 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	0.7472	$0.7465 \pm 0.0067 \quad (-0.1\sigma)$
$A_{143 \times 217}^{PS}$	50.7	$41 \pm 9 \quad (-0.0\sigma)$	D_{810}	2540.8	$2537 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	0.4706	$0.4689 \pm 0.0073 \quad (-0.5\sigma)$
A_{217}^{PS}	120.6	$114.7 \pm 9.8 \quad (-0.0\sigma)$	D_{1420}	820.04	$818.9 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	0.6631	$0.6628 \pm 0.0056 \quad (-0.1\sigma)$
A^{kSZ}	0.00	$< 4.03 \quad (-0.0\sigma)$	D_{2000}	232.00	$231.6 \pm 1.5 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	0.4700	$0.4687 \pm 0.0064 \quad (-0.4\sigma)$
A_{100}^{dustTT}	8.86	$8.9 \pm 1.9 \quad (+0.1\sigma)$	$n_{s,0.002}$	0.9714	$0.9723^{+0.0067}_{-0.0055} \quad (+0.9\sigma)$	$\sigma_8(0.51)$	0.6209	$0.6207 \pm 0.0052 \quad (-0.0\sigma)$
A_{143}^{dustTT}	11.05	$11.1 \pm 1.8 \quad (+0.1\sigma)$	Y_P	0.245442	$0.245433^{+0.000059}_{-0.000048} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	0.4657	$0.4645 \pm 0.0058 \quad (-0.4\sigma)$
$A_{143 \times 217}^{dustTT}$	20.00	$18.8 \pm 3.4 \quad (+0.1\sigma)$	Y_P^{BBN}	0.246769	$0.246760^{+0.000059}_{-0.000048} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	0.59101	$0.5909 \pm 0.0049 \quad (+0.0\sigma)$
A_{217}^{dustTT}	95.3	$93.9 \pm 7.4 \quad (+0.0\sigma)$	$10^5 D/H$	2.5631	$2.567^{+0.024}_{-0.028} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	0.29829	$0.2983 \pm 0.0025 \quad (+0.1\sigma)$
A_{100}^{dustTE}	0.1129	$0.115 \pm 0.037 \quad (+0.0\sigma)$	Age/Gyr	13.7682	$13.765 \pm 0.026 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	0.30785	$0.3080 \pm 0.0027 \quad (+0.2\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1330	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	1089.612	$1089.60^{+0.25}_{-0.28} \quad (-0.2\sigma)$	f_{2000}^{143}	28.12	$28.7 \pm 2.8 \quad (-0.1\sigma)$
$A_{100 \times 217}^{dustTE}$	0.480	$0.481 \pm 0.082 \quad (+0.0\sigma)$	r_*	144.792	$144.92^{+0.41}_{-0.36} \quad (+0.8\sigma)$	$f_{2000}^{143 \times 217}$	31.51	$31.6 \pm 1.9 \quad (-0.0\sigma)$
A_{143}^{dustTE}	0.222	$0.223 \pm 0.055 \quad (-0.0\sigma)$	$100\theta_*$	1.041410	$1.04151^{+0.00046}_{-0.00038} \quad (+0.8\sigma)$	f_{2000}^{217}	106.13	$106.6 \pm 1.8 \quad (+0.0\sigma)$
$A_{143 \times 217}^{dustTE}$	0.663	$0.666 \pm 0.077 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.9035	$13.914^{+0.036}_{-0.032} \quad (+0.7\sigma)$	χ_{small}^2	396.35	$397.5 \pm 2.5 \quad (-0.0\sigma)$
A_{217}^{dustTE}	2.068	$2.08 \pm 0.26 \quad (+0.0\sigma)$	z_{drag}	1060.085	$1060.02 \pm 0.31 \quad (-0.3\sigma)$	χ_{lowl}^2	23.14	$23.9 \pm 1.6 \quad (+1.2\sigma)$
c_{100}	0.99972	$0.99964 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	147.421	$147.55^{+0.42}_{-0.36} \quad (+0.8\sigma)$	χ_{plik}^2	2346.3	$2362.6 \pm 6.3 \quad (+0.2\sigma)$
c_{217}	0.99817	$0.99817 \pm 0.00063 \quad (+0.0\sigma)$	k_D	0.140613	$0.14046^{+0.00040}_{-0.00047} \quad (-0.8\sigma)$	$\chi_{H073p45}^2$	10.07	$9.6 \pm 2.6 \quad (-0.6\sigma)$
H_0	68.18	$68.35^{+0.75}_{-0.67} \quad (+0.6\sigma)$	$100\theta_D$	0.160695	$0.16075 \pm 0.00019 \quad (+0.5\sigma)$	χ_{prior}^2	1.69	$11.7 \pm 4.4 \quad (-0.0\sigma)$
Ω_Λ	0.6959	$0.698^{+0.010}_{-0.0085} \quad (+0.6\sigma)$	z_{eq}	3363.2	$3353^{+34}_{-39} \quad (-0.7\sigma)$	χ_{CMB}^2	2765.8	$2784.0 \pm 6.5 \quad (+0.4\sigma)$
Ω_m	0.3041	$0.3018^{+0.0085}_{-0.010} \quad (-0.6\sigma)$	k_{eq}	0.010265	$0.01023^{+0.00010}_{-0.00012} \quad (-0.7\sigma)$			
$\Omega_m h^2$	0.14138	$0.1409^{+0.0014}_{-0.0016} \quad (-0.7\sigma)$	$100\theta_{eq}$	0.8209	$0.8229^{+0.0074}_{-0.0066} \quad (+0.7\sigma)$			

Best-fit $\chi_{eff}^2 = 2777.60$; $\Delta\chi_{eff}^2 = -0.34$; $\bar{\chi}_{eff}^2 = 2805.32$; $\Delta\bar{\chi}_{eff}^2 = 1.15$; $R - 1 = 0.05553$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.36 (Δ -0.12) commander_dx12_v3.2.29: 23.14 (Δ 0.59) plik_rd12_HM_v22b_TTTEEE: 2346.34 (Δ -0.42) Hubble
- H073p45: 10.07 (Δ -0.51)

5.14 base_alpha1_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02236 \pm 0.00015 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}} h^2$	$0.1435 \pm 0.0018 \quad (+0.2\sigma)$	k_{eq}	$0.01042 \pm 0.00013 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1205 \pm 0.0018 \quad (+0.2\sigma)$	$\Omega_{\mathrm{m}} h^3$	$0.09634 \pm 0.00030 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8114 \pm 0.0078 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04082 \pm 0.00046 \quad (-0.3\sigma)$	σ_8	$0.8133 \pm 0.0073 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4484 \pm 0.0041 \quad (-0.2\sigma)$
τ	$0.0556^{+0.0054}_{-0.0080} \quad (+0.0\sigma)$	S_8	$0.838 \pm 0.020 \quad (+0.2\sigma)$	$H(0.15)$	$72.52 \pm 0.68 \quad (-0.2\sigma)$
α_{-1}	-0.00012 ± 0.00055	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.459 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.1 \pm 6.8 \quad (+0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.048^{+0.013}_{-0.016} \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6108 \pm 0.0096 \quad (+0.2\sigma)$	$H(0.38)$	$82.75 \pm 0.48 \quad (-0.2\sigma)$
n_{s}	$0.9636^{+0.0066}_{-0.0074} \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.013 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 14 \quad (+0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$98.7 \pm 1.4 \quad (-0.2\sigma)$	$H(0.51)$	$89.54 \pm 0.37 \quad (-0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.033 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1990 \pm 16 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.81^{+0.59}_{-0.79} \quad (+0.0\sigma)$	$H(0.61)$	$95.22 \pm 0.29 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.108^{+0.026}_{-0.035} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2315 \pm 17 \quad (+0.2\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.886 \pm 0.014 \quad (+0.2\sigma)$	$H(2.33)$	$236.8 \pm 1.1 \quad (+0.2\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1231 \pm 14 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 13 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5733 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.463 \pm 0.010 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7509^{+0.0057}_{-0.0065} \quad (+0.1\sigma)$
A^{kSZ}	$< 4.23 \quad (-0.0\sigma)$	D_{1420}	$817.1 \pm 4.8 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4797 \pm 0.0079 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$230.8 \pm 1.6 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6649^{+0.0045}_{-0.0054} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9636^{+0.0066}_{-0.0074} \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4775 \pm 0.0067 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Y_{P}	$0.245390^{+0.000062}_{-0.000055} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6219^{+0.0041}_{-0.0051} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246717^{+0.000062}_{-0.000055} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4719 \pm 0.0059 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.587 \pm 0.028 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5916^{+0.0039}_{-0.0048} \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.028 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0020}_{-0.0024} \quad (-0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.480 \pm 0.085 \quad (+0.0\sigma)$	z_*	$1089.97 \pm 0.29 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0022}_{-0.0026} \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.227 \pm 0.054 \quad (+0.0\sigma)$	r_*	$144.32 \pm 0.43 \quad (-0.2\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.666 \pm 0.079 \quad (+0.0\sigma)$	$100\theta_*$	$1.04101 \pm 0.00046 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.9 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.864 \pm 0.038 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (+0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.95 \pm 0.32 \quad (+0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.0\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$146.98 \pm 0.44 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.4 \pm 1.6 \quad (-0.2\sigma)$
H_0	$67.16 \pm 0.80 \quad (-0.2\sigma)$	k_{D}	$0.14098^{+0.00050}_{-0.00045} \quad (+0.2\sigma)$	χ_{plik}^2	$2361.4 \pm 6.1 \quad (+0.4\sigma)$
Ω_{Λ}	$0.682 \pm 0.011 \quad (-0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00020 \quad (-0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.318 \pm 0.011 \quad (+0.2\sigma)$	z_{eq}	$3413 \pm 42 \quad (+0.2\sigma)$	χ_{CMB}^2	$2781.9 \pm 6.0 \quad (+0.3\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2793.42$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.88$; $R - 1 = 0.01296$

5.15 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240 \pm 0.00014 \quad (-0.1\sigma)$	σ_8	$0.8103^{+0.0063}_{-0.0071} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.0 \pm 4.4 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0012 \quad (-0.2\sigma)$	S_8	$0.823 \pm 0.014 \quad (-0.1\sigma)$	$H(0.38)$	$83.11^{+0.30}_{-0.34} \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04109 \pm 0.00039 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4509 \pm 0.0074 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.8 \pm 8.7 \quad (-0.2\sigma)$
τ	$0.0563^{+0.0056}_{-0.0080} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6045 \pm 0.0071 \quad (-0.1\sigma)$	$H(0.51)$	$89.81^{+0.24}_{-0.27} \quad (+0.1\sigma)$
α_{-1}	$0.00015^{+0.00035}_{-0.00040}$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.010 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978 \pm 10 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.016} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.80 \pm 0.92 \quad (+0.2\sigma)$	$H(0.61)$	$95.42^{+0.19}_{-0.22} \quad (+0.1\sigma)$
n_{s}	$0.9682 \pm 0.0052 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.025 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302 \pm 11 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.85^{+0.60}_{-0.80} \quad (-0.0\sigma)$	$H(2.33)$	$236.02 \pm 0.73 \quad (-0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.026}_{-0.035} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757.9 \pm 9.4 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0070 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.3}_{-1.9} \quad (-0.0\sigma)$	D_{40}	$1230 \pm 14 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7489^{+0.0055}_{-0.0063} \quad (-0.0\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4744 \pm 0.0058 \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6641^{+0.0047}_{-0.0055} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.0 \pm 4.6 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4732 \pm 0.0051 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$231.2 \pm 1.5 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6215^{+0.0043}_{-0.0051} \quad (+0.0\sigma)$
A^{kSZ}	$< 4.14 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9682 \pm 0.0052 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4684 \pm 0.0047 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.9 \quad (+0.1\sigma)$	Y_{P}	$0.245407^{+0.000058}_{-0.000052} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0041}_{-0.0048} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246733^{+0.000058}_{-0.000052} \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2983^{+0.0020}_{-0.0024} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.7 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.580 \pm 0.026 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3076^{+0.0022}_{-0.0026} \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.9 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.785 \pm 0.021 \quad (-0.1\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.80 \pm 0.23 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.9 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	r_*	$144.64 \pm 0.30 \quad (+0.3\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.479 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00039 \quad (+0.3\sigma)$	χ_{small}^2	$397.2 \pm 2.1 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.890 \pm 0.027 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.8 \pm 1.7 \quad (+0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.666 \pm 0.079 \quad (+0.0\sigma)$	z_{drag}	$1059.95 \pm 0.32 \quad (-0.2\sigma)$	χ_{plik}^2	$2360.8 \pm 6.0 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.29 \pm 0.31 \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.056 \pm 0.071 \quad (-0.0\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14068 \pm 0.00038 \quad (-0.3\sigma)$	χ_{MGS}^2	$1.36 \pm 0.52 \quad (+0.2\sigma)$
c_{217}	$0.99820 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00021 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.6 \quad (-0.1\sigma)$
H_0	$67.75 \pm 0.51 \quad (+0.2\sigma)$	z_{eq}	$3382 \pm 27 \quad (-0.2\sigma)$	χ_{prior}^2	$11.7 \pm 4.4 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6903 \pm 0.0070 \quad (+0.2\sigma)$	k_{eq}	$0.010321 \pm 0.000083 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (+0.0\sigma)$
Ω_{m}	$0.3097 \pm 0.0070 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8172 \pm 0.0051 \quad (+0.2\sigma)$	χ_{CMB}^2	$2781.8 \pm 5.9 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1422 \pm 0.0011 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4514 \pm 0.0026 \quad (+0.2\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.09631 \pm 0.00030 \quad (-0.1\sigma)$	$H(0.15)$	$73.02 \pm 0.44 \quad (+0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.63; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.91; R - 1 = 0.02644$$

5.16 base_alpha1_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02238 \pm 0.00015 \quad (+0.0\sigma)$	$\Omega_{\text{m}}h^3$	$0.09633 \pm 0.00030 \quad (+0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4493 \pm 0.0033 \quad (-0.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1200 \pm 0.0015 \quad (+0.1\sigma)$	σ_8	$0.8118 \pm 0.0056 \quad (+0.0\sigma)$	$H(0.15)$	$72.67 \pm 0.56 \quad (-0.1\sigma)$
$100\theta_{\text{MC}}$	$1.04088 \pm 0.00043 \quad (-0.1\sigma)$	S_8	$0.833 \pm 0.015 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$643.6 \pm 5.6 \quad (+0.1\sigma)$
τ	$0.0553^{+0.0052}_{-0.0077} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4561 \pm 0.0081 \quad (+0.1\sigma)$	$H(0.38)$	$82.86 \pm 0.40 \quad (-0.1\sigma)$
α_{-1}	-0.00006 ± 0.00051	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6084 \pm 0.0069 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1534 \pm 11 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.011}_{-0.014} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9893 \pm 0.0094 \quad (+0.1\sigma)$	$H(0.51)$	$89.62 \pm 0.31 \quad (-0.1\sigma)$
n_{s}	$0.9647 \pm 0.0060 \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$99.0 \pm 1.2 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1986 \pm 13 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.024 \quad (+0.1\sigma)$	$H(0.61)$	$95.27 \pm 0.25 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.77^{+0.57}_{-0.75} \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2311 \pm 14 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.104^{+0.023}_{-0.030} \quad (+0.0\sigma)$	$H(2.33)$	$236.59 \pm 0.90 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.884 \pm 0.012 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5764 \pm 11 \quad (+0.1\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (-0.0\sigma)$	D_{40}	$1230 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4603 \pm 0.0074 \quad (+0.1\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7497^{+0.0047}_{-0.0052} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4777 \pm 0.0057 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$817.2 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6641^{+0.0040}_{-0.0048} \quad (-0.0\sigma)$
A^{kSZ}	$< 4.28 \quad (-0.0\sigma)$	D_{2000}	$230.9 \pm 1.6 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4758 \pm 0.0048 \quad (+0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9647 \pm 0.0060 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6213^{+0.0038}_{-0.0045} \quad (-0.0\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245397^{+0.000060}_{-0.000053} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4705 \pm 0.0043 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246724^{+0.000060}_{-0.000053} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5911^{+0.0036}_{-0.0044} \quad (-0.0\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.584 \pm 0.027 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0019}_{-0.0023} \quad (-0.0\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	Age/Gyr	$13.798 \pm 0.025 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3069^{+0.0022}_{-0.0026} \quad (-0.0\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	z_*	$1089.91 \pm 0.26 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.5 \pm 2.7 \quad (-0.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.086 \quad (-0.0\sigma)$	r_*	$144.41 \pm 0.35 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.2^{+1.7}_{-2.0} \quad (-0.0\sigma)$
A_{143}^{dustTE}	$0.226 \pm 0.054 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00043 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.666 \pm 0.079 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.872 \pm 0.031 \quad (-0.1\sigma)$	χ_{lensing}^2	$9.34 \pm 0.82 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.96 \pm 0.32 \quad (+0.0\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
c_{100}	$0.99966 \pm 0.00060 \quad (-0.0\sigma)$	r_{drag}	$147.07 \pm 0.36 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.4 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$0.99820 \pm 0.00063 \quad (+0.0\sigma)$	k_{D}	$0.14090 \pm 0.00041 \quad (+0.1\sigma)$	χ_{plik}^2	$2361.0 \pm 6.0 \quad (+0.3\sigma)$
H_0	$67.34 \pm 0.65 \quad (-0.1\sigma)$	$100\theta_{\text{D}}$	$0.16074 \pm 0.00020 \quad (-0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.4 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6843 \pm 0.0091 \quad (-0.1\sigma)$	z_{eq}	$3403 \pm 34 \quad (+0.1\sigma)$	χ_{CMB}^2	$2790.8 \pm 6.0 \quad (+0.3\sigma)$
Ω_{m}	$0.3157 \pm 0.0091 \quad (+0.1\sigma)$	k_{eq}	$0.01039 \pm 0.00010 \quad (+0.1\sigma)$		
$\Omega_{\text{m}}h^2$	$0.1431 \pm 0.0014 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8131 \pm 0.0064 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2802.36; \Delta\bar{\chi}_{\text{eff}}^2 = 1.86; R - 1 = 0.01801$$

5.17 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02241 \pm 0.00014 \quad (-0.1\sigma)$	σ_8	$0.8108 \pm 0.0057 \quad (+0.0\sigma)$	$D_M(0.15)$	$640.2^{+4.2}_{-3.8} \quad (-0.2\sigma)$
$\Omega_c h^2$	$0.1192 \pm 0.0011 \quad (-0.2\sigma)$	S_8	$0.824 \pm 0.011 \quad (-0.1\sigma)$	$H(0.38)$	$83.10^{+0.27}_{-0.31} \quad (+0.1\sigma)$
$100\theta_{MC}$	$1.04107 \pm 0.00038 \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4514 \pm 0.0062 \quad (-0.1\sigma)$	$D_M(0.38)$	$1527.1^{+8.4}_{-7.6} \quad (-0.1\sigma)$
τ	$0.0568^{+0.0056}_{-0.0077} \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6050 \pm 0.0058 \quad (-0.0\sigma)$	$H(0.51)$	$89.80^{+0.22}_{-0.25} \quad (+0.1\sigma)$
α_{-1}	$0.00013^{+0.00035}_{-0.00039}$	$\sigma_8/h^{0.5}$	$0.9852 \pm 0.0083 \quad (-0.0\sigma)$	$D_M(0.51)$	$1978.4^{+9.9}_{-8.8} \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$r_{drag} h$	$99.76 \pm 0.84 \quad (+0.2\sigma)$	$H(0.61)$	$95.41^{+0.18}_{-0.21} \quad (+0.1\sigma)$
n_s	$0.9679 \pm 0.0050 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.437 \pm 0.021 \quad (-0.1\sigma)$	$D_M(0.61)$	$2302^{+11}_{-9.5} \quad (-0.1\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.89^{+0.60}_{-0.75} \quad (+0.0\sigma)$	$H(2.33)$	$236.05 \pm 0.66 \quad (-0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.106^{+0.025}_{-0.031} \quad (-0.0\sigma)$	$D_M(2.33)$	$5758.0 \pm 9.1 \quad (-0.1\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.879 \pm 0.011 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4561 \pm 0.0057 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1231 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7494 \pm 0.0051 \quad (+0.1\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5737 \pm 38 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4748 \pm 0.0047 \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6644 \pm 0.0045 \quad (+0.1\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.0 \pm 4.6 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0042 \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 1.5 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6219 \pm 0.0043 \quad (+0.1\sigma)$
A^{kSZ}	$< 4.08 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9679 \pm 0.0050 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4687 \pm 0.0039 \quad (-0.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245408^{+0.000058}_{-0.000051} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5918 \pm 0.0041 \quad (+0.1\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246735^{+0.000058}_{-0.000052} \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2984^{+0.0020}_{-0.0023} \quad (+0.1\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 D/H$	$2.579 \pm 0.026 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3077^{+0.0021}_{-0.0024} \quad (+0.1\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.3 \quad (+0.0\sigma)$	Age/Gyr	$13.785 \pm 0.020 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (-0.1\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.80 \pm 0.22 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.9 \quad (-0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	r_*	$144.62 \pm 0.27 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (-0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00038 \quad (+0.2\sigma)$	$\chi_{lensing}^2$	$9.12 \pm 0.58 \quad (+0.1\sigma)$
A_{143}^{dustTE}	$0.226 \pm 0.054 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.889 \pm 0.024 \quad (+0.2\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.665 \pm 0.078 \quad (-0.0\sigma)$	z_{drag}	$1059.96 \pm 0.32 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.8 \pm 1.7 \quad (+0.7\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$147.27 \pm 0.29 \quad (+0.3\sigma)$	χ_{plik}^2	$2360.6 \pm 5.9 \quad (+0.2\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	k_D	$0.14070 \pm 0.00036 \quad (-0.3\sigma)$	χ_{6DF}^2	$0.052 \pm 0.064 \quad (-0.0\sigma)$
c_{217}	$0.99820 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_D$	$0.16076 \pm 0.00021 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.34 \pm 0.47 \quad (+0.2\sigma)$
H_0	$67.74^{+0.44}_{-0.50} \quad (+0.2\sigma)$	z_{eq}	$3383 \pm 25 \quad (-0.2\sigma)$	$\chi_{DR12BAO}^2$	$4.7 \pm 1.4 \quad (-0.1\sigma)$
Ω_Λ	$0.6900 \pm 0.0064 \quad (+0.2\sigma)$	k_{eq}	$0.010325 \pm 0.000075 \quad (-0.2\sigma)$	χ_{prior}^2	$11.6 \pm 4.4 \quad (+0.0\sigma)$
Ω_m	$0.3100 \pm 0.0064 \quad (-0.2\sigma)$	$100\theta_{eq}$	$0.8170 \pm 0.0046 \quad (+0.2\sigma)$	χ_{CMB}^2	$2790.8 \pm 6.0 \quad (+0.3\sigma)$
$\Omega_m h^2$	$0.1422 \pm 0.0010 \quad (-0.2\sigma)$	$100\theta_{s,eq}$	$0.4513 \pm 0.0024 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.09632 \pm 0.00030 \quad (-0.1\sigma)$	$H(0.15)$	$73.00^{+0.38}_{-0.43} \quad (+0.1\sigma)$		

$$\bar{\chi}_{eff}^2 = 2808.47; \Delta\bar{\chi}_{eff}^2 = 1.75; R - 1 = 0.02935$$

5.18 base_alpha1_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02247^{+0.00015}_{-0.00014} \quad (-0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09633 \pm 0.00029 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4543^{+0.0038}_{-0.0033} \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1178^{+0.0014}_{-0.0017} \quad (-0.6\sigma)$	σ_8	$0.8074^{+0.0066}_{-0.0074} \quad (-0.2\sigma)$	$H(0.15)$	$73.53^{+0.63}_{-0.56} \quad (+0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04133^{+0.00046}_{-0.00037} \quad (+0.8\sigma)$	S_8	$0.810^{+0.015}_{-0.018} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.0^{+5.3}_{-6.3} \quad (-0.6\sigma)$
τ	$0.0576^{+0.0059}_{-0.0084} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4436^{+0.0083}_{-0.010} \quad (-0.5\sigma)$	$H(0.38)$	$83.48^{+0.46}_{-0.41} \quad (+0.6\sigma)$
α_{-1}	$0.00040^{+0.00034}_{-0.00061}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5985^{+0.0077}_{-0.0090} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517^{+11}_{-13} \quad (-0.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.016} \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.977^{+0.011}_{-0.012} \quad (-0.4\sigma)$	$H(0.51)$	$90.10 \pm 0.34 \quad (+0.6\sigma)$
n_{s}	$0.9723^{+0.0067}_{-0.0053} \quad (+0.8\sigma)$	$r_{\mathrm{drag}}h$	$100.9^{+1.3}_{-1.2} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966^{+13}_{-15} \quad (-0.6\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.416^{+0.026}_{-0.031} \quad (-0.5\sigma)$	$H(0.61)$	$95.64 \pm 0.27 \quad (+0.5\sigma)$
A_{217}^{CIB}	$47 \pm 6 \quad (+0.0\sigma)$	z_{re}	$7.94^{+0.61}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289^{+14}_{-16} \quad (-0.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.101^{+0.028}_{-0.035} \quad (-0.2\sigma)$	$H(2.33)$	$235.28^{+0.86}_{-1.0} \quad (-0.7\sigma)$
A_{143}^{tSZ}	$5.7^{+2.3}_{-2.0} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.013 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 12 \quad (-0.5\sigma)$
A_{100}^{PS}	$255^{+26}_{-30} \quad (-0.1\sigma)$	D_{40}	$1229 \pm 14 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4489^{+0.0078}_{-0.0093} \quad (-0.5\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5738 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7471^{+0.0056}_{-0.0065} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4693^{+0.0064}_{-0.0074} \quad (-0.5\sigma)$
A_{217}^{PS}	$114.7 \pm 9.8 \quad (-0.0\sigma)$	D_{1420}	$818.9 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6633^{+0.0047}_{-0.0055} \quad (-0.0\sigma)$
A^{kSZ}	$< 3.97 \quad (-0.0\sigma)$	D_{2000}	$231.6 \pm 1.5 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4691^{+0.0056}_{-0.0064} \quad (-0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9723^{+0.0067}_{-0.0053} \quad (+0.8\sigma)$	$\sigma_8(0.51)$	$0.6212^{+0.0042}_{-0.0051} \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.1 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.245434^{+0.000058}_{-0.000048} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4649^{+0.0051}_{-0.0057} \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.8 \pm 3.4 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246760^{+0.000058}_{-0.000048} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5913^{+0.0040}_{-0.0049} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$94.0 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.567^{+0.024}_{-0.028} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2986^{+0.0021}_{-0.0024} \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.765 \pm 0.025 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3082^{+0.0022}_{-0.0026} \quad (+0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.60^{+0.24}_{-0.28} \quad (-0.2\sigma)$	f_{2000}^{143}	$28.6 \pm 2.8 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.082 \quad (+0.0\sigma)$	r_*	$144.91^{+0.41}_{-0.34} \quad (+0.7\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 1.9 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.055 \quad (-0.0\sigma)$	$100\theta_*$	$1.04151^{+0.00046}_{-0.00037} \quad (+0.8\sigma)$	f_{2000}^{217}	$106.6 \pm 1.8 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.667 \pm 0.077 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.914^{+0.036}_{-0.031} \quad (+0.6\sigma)$	χ_{small}^2	$397.6 \pm 2.5 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.26 \quad (+0.0\sigma)$	z_{drag}	$1060.02 \pm 0.30 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.9 \pm 1.6 \quad (+1.2\sigma)$
c_{100}	$0.99964 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.55^{+0.42}_{-0.35} \quad (+0.8\sigma)$	χ_{plik}^2	$2362.3 \pm 6.2 \quad (+0.2\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14046^{+0.00039}_{-0.00046} \quad (-0.8\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$9.6 \pm 2.6 \quad (-0.6\sigma)$
H_0	$68.35^{+0.74}_{-0.65} \quad (+0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00019 \quad (+0.5\sigma)$	χ_{prior}^2	$11.7 \pm 4.4 \quad (+0.0\sigma)$
Ω_{Λ}	$0.698^{+0.010}_{-0.0082} \quad (+0.6\sigma)$	z_{eq}	$3353^{+32}_{-39} \quad (-0.7\sigma)$	χ_{CMB}^2	$2783.8 \pm 6.4 \quad (+0.4\sigma)$
Ω_{m}	$0.3019^{+0.0082}_{-0.010} \quad (-0.6\sigma)$	k_{eq}	$0.010234^{+0.000099}_{-0.00012} \quad (-0.7\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1410^{+0.0014}_{-0.0016} \quad (-0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8229^{+0.0074}_{-0.0064} \quad (+0.7\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2805.11$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.22$; $R - 1 = 0.05749$

5.19 base_alpha1_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022139	0.02220 ± 0.00023 (+0.3 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4615	0.461 ± 0.013 (+0.2 σ)	$H(0.15)$	72.11	72.16 ± 0.81 (−0.2 σ)
$\Omega_{\mathrm{c}} h^2$	0.12106	0.1210 ± 0.0022 (+0.3 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6120	0.612 ± 0.012 (+0.2 σ)	$D_{\mathrm{M}}(0.15)$	649.1	648.7 ± 8.3 (+0.2 σ)
$100\theta_{\mathrm{MC}}$	1.04066	1.04059 ± 0.00056 (−0.5 σ)	$\sigma_8/h^{0.5}$	0.9938	0.993 ± 0.016 (+0.1 σ)	$H(0.38)$	82.42	82.47 ± 0.58 (−0.2 σ)
τ	0.0526	0.0537 ± 0.0084 (+0.2 σ)	$r_{\mathrm{drag}} h$	98.11	98.2 ± 1.7 (−0.3 σ)	$D_{\mathrm{M}}(0.38)$	1545.1	1544 ± 16 (+0.2 σ)
α_{-1}	$-22 \cdot 10^{-5}$	$-0.0012^{+0.0017}_{-0.0012}$	$\langle d^2 \rangle^{1/2}$	2.4559	2.457 ± 0.039 (+0.2 σ)	$H(0.51)$	89.250	89.29 ± 0.45 (−0.2 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0417	3.045 ± 0.018 (+0.4 σ)	z_{re}	7.57	7.65 ± 0.85 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1999.7	1999 ± 19 (+0.2 σ)
n_{s}	0.9607	$0.9596^{+0.0071}_{-0.0083}$ (−0.7 σ)	$10^9 A_{\mathrm{s}}$	2.0940	2.101 ± 0.038 (+0.4 σ)	$H(0.61)$	94.956	$95.00^{+0.33}_{-0.37}$ (−0.2 σ)
y_{cal}	1.00035	1.0005 ± 0.0025 (+0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8850	1.887 ± 0.015 (+0.4 σ)	$D_{\mathrm{M}}(0.61)$	2325.4	2324 ± 21 (+0.2 σ)
A_{100}^{PS}	240.1	244 ± 25 (+0.1 σ)	D_{40}	1221.5	1216^{+18}_{-24} (−0.8 σ)	$H(2.33)$	237.00	237.0 ± 1.4 (+0.3 σ)
A_{143}^{PS}	39.3	41 ± 8 (+0.1 σ)	D_{220}	5701.3	5709 ± 42 (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5779.3	5777 ± 16 (+0.1 σ)
A_{217}^{PS}	99.2	100 ± 10 (−0.0 σ)	D_{810}	2534.4	2536 ± 14 (+0.1 σ)	$f\sigma_8(0.15)$	0.4651	0.465 ± 0.012 (+0.2 σ)
A_{217}^{CIB}	45.6	41 ± 7 (+0.0 σ)	D_{1420}	813.5	813.8 ± 5.3 (−0.1 σ)	$\sigma_8(0.15)$	0.7489	0.7485 ± 0.0075 (−0.0 σ)
A_{143}^{tSZ}	5.89	$3.7^{+1.7}_{-2.6}$ (−0.0 σ)	D_{2000}	229.24	229.4 ± 1.9 (−0.1 σ)	$f\sigma_8(0.38)$	0.4808	0.4804 ± 0.0096 (+0.2 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.560	0.64 ± 0.13 (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9607	$0.9596^{+0.0071}_{-0.0083}$ (−0.7 σ)	$\sigma_8(0.38)$	0.6626	0.6623 ± 0.0061 (−0.1 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.762	$0.59^{+0.40}_{-0.12}$ (+0.0 σ)	Y_{P}	0.245301	$0.24532^{+0.00011}_{-0.000085}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.4780	0.4776 ± 0.0082 (+0.1 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.02	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246627	$0.24665^{+0.00011}_{-0.000085}$ (+0.3 σ)	$\sigma_8(0.51)$	0.6195	0.6193 ± 0.0055 (−0.1 σ)
A^{kSZ}	1.5	—	$10^5 \mathrm{D}/\mathrm{H}$	2.6295	2.619 ± 0.044 (−0.3 σ)	$f\sigma_8(0.61)$	0.4721	0.4717 ± 0.0072 (+0.1 σ)
A_{100}^{dust}	1.017	1.02 ± 0.19 (+0.0 σ)	Age/Gyr	13.8331	13.829 ± 0.037 (+0.1 σ)	$\sigma_8(0.61)$	0.5892	0.5889 ± 0.0052 (−0.1 σ)
A_{143}^{dust}	0.993	0.98 ± 0.18 (+0.0 σ)	z_*	1090.306	1090.23 ± 0.40 (−0.1 σ)	$f\sigma_8(2.33)$	0.29662	0.2965 ± 0.0026 (−0.2 σ)
A_{217}^{dust}	0.962	0.97 ± 0.10 (+0.0 σ)	r_*	144.34	144.31 ± 0.53 (−0.4 σ)	$\sigma_8(2.33)$	0.30531	0.3052 ± 0.0028 (−0.2 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.005	1.03 ± 0.16 (+0.0 σ)	$100\theta_*$	1.04086	1.04079 ± 0.00056 (−0.6 σ)	f_{2000}^{143}	31.32	31.1 ± 3.0 (+0.1 σ)
c_{100}	0.99750	0.9975 ± 0.0011 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8670	13.865 ± 0.048 (−0.3 σ)	f_{2000}^{217}	107.80	107.7 ± 2.0 (+0.1 σ)
c_{217}	1.00144	1.0012 ± 0.0016 (+0.0 σ)	z_{drag}	1059.47	1059.60 ± 0.51 (+0.4 σ)	$f_{2000}^{143 \times 217}$	33.15	33.2 ± 2.1 (+0.1 σ)
H_0	66.71	66.76 ± 0.95 (−0.2 σ)	r_{drag}	147.07	147.02 ± 0.55 (−0.4 σ)	χ_{small}^2	395.89	397.1 ± 1.8 (+0.1 σ)
Ω_{Λ}	0.6767	0.677 ± 0.014 (−0.3 σ)	k_{D}	0.14071	$0.14080^{+0.00065}_{-0.00059}$ (+0.5 σ)	χ_{lowl}^2	22.30	22.2 ± 2.4 (−1.0 σ)
Ω_{m}	0.3233	0.323 ± 0.014 (+0.3 σ)	$100\theta_{\mathrm{D}}$	0.161006	$0.16092^{+0.00029}_{-0.00034}$ (−0.5 σ)	$\chi_{\mathrm{CamSpec}}^2$	7050.8	7065.8 ± 5.8 (+0.4 σ)
$\Omega_{\mathrm{m}} h^2$	0.14384	0.1438 ± 0.0021 (+0.3 σ)	z_{eq}	3422	3422 ± 51 (+0.3 σ)	χ_{prior}^2	2.35	7.6 ± 3.5 (−0.0 σ)
$\Omega_{\mathrm{m}} h^3$	0.095951	0.09601 ± 0.00047 (+0.2 σ)	k_{eq}	0.010444	0.01044 ± 0.00016 (+0.3 σ)	χ_{CMB}^2	7469.0	7485.1 ± 5.8 (+0.2 σ)
σ_8	0.8117	0.8112 ± 0.0089 (+0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8090	0.8092 ± 0.0094 (−0.3 σ)			
S_8	0.8426	0.842 ± 0.025 (+0.2 σ)	$100\theta_{\mathrm{s,eq}}$	0.44728	0.4473 ± 0.0049 (−0.3 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7471.39$; $\Delta\chi_{\mathrm{eff}}^2 = -0.35$; $\bar{\chi}_{\mathrm{eff}}^2 = 7492.71$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.18$; $R - 1 = 0.00444$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.05) commander_dx12_v3.2.29: 22.30 (Δ -1.10) CamSpec like_10.7HM: 7050.85 (Δ 0.51)

5.20 base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02228 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6017 \pm 0.0080 \quad (-0.0\sigma)$	$H(0.38)$	$82.99 \pm 0.35 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1190 \pm 0.0012 \quad (+0.1\sigma)$	$\sigma_8 / h^{0.5}$	$0.980 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.1 \pm 9.4 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00048 \quad (-0.3\sigma)$	$r_{\mathrm{drag}} h$	$99.76 \pm 0.96 \quad (-0.1\sigma)$	$H(0.51)$	$89.69 \pm 0.29 \quad (+0.0\sigma)$
τ	$0.0550 \pm 0.0084 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.028 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 11 \quad (+0.0\sigma)$
α_{-1}	$-0.0007^{+0.0015}_{-0.0012}$	z_{re}	$7.73 \pm 0.83 \quad (+0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.25 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.042 \pm 0.018 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.035}_{-0.039} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 12 \quad (+0.0\sigma)$
n_{s}	$0.9656^{+0.0057}_{-0.0065} \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.013 \quad (+0.2\sigma)$	$H(2.33)$	$235.79 \pm 0.81 \quad (+0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1214^{+21}_{-27} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 12 \quad (-0.0\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5716 \pm 42 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4537 \pm 0.0076 \quad (+0.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7452 \pm 0.0069 \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$815.1 \pm 5.2 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4723 \pm 0.0065 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6607 \pm 0.0059 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9656^{+0.0057}_{-0.0065} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4710 \pm 0.0058 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.24535^{+0.00010}_{-0.000081} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6184 \pm 0.0055 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.465 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24668^{+0.00011}_{-0.000082} \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4662 \pm 0.0054 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.604^{+0.040}_{-0.046} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5885 \pm 0.0052 \quad (-0.1\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.802 \pm 0.028 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0026 \quad (-0.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.95 \pm 0.32 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3060 \pm 0.0027 \quad (-0.1\sigma)$
A_{143}^{dust}	$0.99 \pm 0.18 \quad (+0.1\sigma)$	r_*	$144.77 \pm 0.35 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.6 \pm 3.0 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00048 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.032 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1059.64^{+0.56}_{-0.50} \quad (+0.3\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.47 \pm 0.39 \quad (-0.2\sigma)$	χ_{lowl}^2	$22 \pm 3 \quad (-0.4\sigma)$
H_0	$67.65 \pm 0.55 \quad (-0.0\sigma)$	k_{D}	$0.14039^{+0.00056}_{-0.00050} \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.8 \pm 5.9 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6898 \pm 0.0074 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16093^{+0.00031}_{-0.00036} \quad (-0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.061 \pm 0.079 \quad (+0.1\sigma)$
Ω_{m}	$0.3102 \pm 0.0074 \quad (+0.1\sigma)$	z_{eq}	$3375 \pm 29 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.35 \pm 0.53 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	k_{eq}	$0.010302 \pm 0.000090 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09598 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0054 \quad (-0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8063 \pm 0.0078 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0028 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (+0.1\sigma)$
S_8	$0.820 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$72.91 \pm 0.47 \quad (-0.0\sigma)$	χ_{CMB}^2	$7485.4 \pm 5.8 \quad (+0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0081 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.0 \pm 4.7 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7499.33$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.77$; $R - 1 = 0.01534$

5.21 base_alpha1_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222 \pm 0.00023 \quad (+0.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4583 \pm 0.0091 \quad (+0.1\sigma)$	$H(0.15)$	$72.31 \pm 0.63 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1206 \pm 0.0016 \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6093 \pm 0.0077 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$647.1 \pm 6.4 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04063 \pm 0.00052 \quad (-0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.010 \quad (+0.0\sigma)$	$H(0.38)$	$82.57 \pm 0.46 \quad (-0.1\sigma)$
τ	$0.0539 \pm 0.0081 \quad (+0.2\sigma)$	$r_{\mathrm{drag}} h$	$98.5 \pm 1.3 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 13 \quad (+0.2\sigma)$
α_{-1}	$-0.0012^{+0.0017}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.450 \pm 0.026 \quad (+0.2\sigma)$	$H(0.51)$	$89.37 \pm 0.37 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044 \pm 0.016 \quad (+0.3\sigma)$	z_{re}	$7.66 \pm 0.81 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 15 \quad (+0.2\sigma)$
n_{s}	$0.9604^{+0.0061}_{-0.0071} \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.031}_{-0.035} \quad (+0.3\sigma)$	$H(0.61)$	$95.05 \pm 0.30 \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885 \pm 0.013 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320 \pm 16 \quad (+0.2\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	D_{40}	$1216^{+17}_{-25} \quad (-1.1\sigma)$	$H(2.33)$	$236.8 \pm 1.0 \quad (+0.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5712 \pm 42 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5775 \pm 15 \quad (+0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4622 \pm 0.0083 \quad (+0.1\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$814.0 \pm 5.3 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7475 \pm 0.0056 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.6^{+1.7}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$229.4 \pm 1.9 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4785 \pm 0.0063 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9604^{+0.0061}_{-0.0071} \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.6617 \pm 0.0050 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.59^{+0.40}_{-0.13} \quad (+0.0\sigma)$	Y_{P}	$0.24533^{+0.00011}_{-0.000083} \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4761 \pm 0.0054 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00011}_{-0.000083} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6189 \pm 0.0048 \quad (-0.2\sigma)$
A^{kSZ}	$5.2^{+3.8}_{-2.4} \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.615 \pm 0.043 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0047 \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.823 \pm 0.033 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5886 \pm 0.0046 \quad (-0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1090.16 \pm 0.36 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2965 \pm 0.0025 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.40 \pm 0.41 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3053 \pm 0.0027 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04083 \pm 0.00052 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.1 \pm 3.0 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.873 \pm 0.037 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.7 \pm 2.0 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.63 \pm 0.51 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.1 \quad (+0.0\sigma)$
H_0	$66.94 \pm 0.74 \quad (-0.2\sigma)$	r_{drag}	$147.11 \pm 0.44 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.52 \pm 0.91 \quad (+0.0\sigma)$
Ω_{Λ}	$0.680 \pm 0.010 \quad (-0.2\sigma)$	k_{D}	$0.14073 \pm 0.00054 \quad (+0.5\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (+0.0\sigma)$
Ω_{m}	$0.320 \pm 0.010 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091^{+0.00030}_{-0.00033} \quad (-0.6\sigma)$	χ_{lowl}^2	$22.2 \pm 2.4 \quad (-1.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1434 \pm 0.0016 \quad (+0.3\sigma)$	z_{eq}	$3412 \pm 38 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.3 \pm 5.8 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09601 \pm 0.00047 \quad (+0.2\sigma)$	k_{eq}	$0.01042 \pm 0.00012 \quad (+0.3\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
σ_8	$0.8099 \pm 0.0063 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8109 \pm 0.0071 \quad (-0.2\sigma)$	χ_{CMB}^2	$7494.0 \pm 5.9 \quad (+0.3\sigma)$
S_8	$0.837 \pm 0.017 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4482 \pm 0.0037 \quad (-0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7501.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.40$; $R - 1 = 0.00636$

5.22 base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02228 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6040 \pm 0.0062 \quad (-0.0\sigma)$	$H(0.38)$	$82.95 \pm 0.33 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1192 \pm 0.0011 \quad (+0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.9836 \pm 0.0090 \quad (-0.1\sigma)$	$D_M(0.38)$	$1530.4 \pm 8.7 \quad (-0.0\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00047 \quad (-0.3\sigma)$	$r_{drag} h$	$99.59 \pm 0.86 \quad (-0.1\sigma)$	$H(0.51)$	$89.66 \pm 0.27 \quad (+0.0\sigma)$
τ	$0.0566^{+0.0072}_{-0.0081} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.022 \quad (+0.0\sigma)$	$D_M(0.51)$	$1983 \pm 10 \quad (-0.0\sigma)$
α_{-1}	$-0.0007^{+0.0015}_{-0.0012}$	z_{re}	$7.90 \pm 0.77 \quad (+0.1\sigma)$	$H(0.61)$	$95.28 \pm 0.24 \quad (+0.1\sigma)$
$\ln(10^{10} A_s)$	$3.047 \pm 0.016 \quad (+0.3\sigma)$	$10^9 A_s$	$2.105^{+0.032}_{-0.036} \quad (+0.3\sigma)$	$D_M(0.61)$	$2307 \pm 11 \quad (-0.0\sigma)$
n_s	$0.9648^{+0.0054}_{-0.0064} \quad (-0.4\sigma)$	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$235.94 \pm 0.72 \quad (+0.1\sigma)$
y_{cal}	$1.0009 \pm 0.0025 \quad (+0.1\sigma)$	D_{40}	$1216^{+19}_{-27} \quad (-0.7\sigma)$	$D_M(2.33)$	$5766 \pm 12 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 42 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0061 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7471 \pm 0.0057 \quad (-0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4741 \pm 0.0051 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0051 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9648^{+0.0054}_{-0.0064} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4727 \pm 0.0045 \quad (-0.0\sigma)$
$r_{143 \times 217}^{PS}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_P	$0.24536^{+0.00010}_{-0.000082} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6198 \pm 0.0048 \quad (-0.1\sigma)$
$r_{143 \times 217}^{CIB}$	$0.58^{+0.41}_{-0.13} \quad (+0.0\sigma)$	Y_P^{BBN}	$0.24668^{+0.00010}_{-0.000082} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0042 \quad (-0.1\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^5 D/H$	$2.603^{+0.041}_{-0.046} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5897 \pm 0.0045 \quad (-0.1\sigma)$
A^{kSZ}	—	Age/Gyr	$13.803 \pm 0.028 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974 \pm 0.0024 \quad (-0.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.32 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3066 \pm 0.0025 \quad (-0.1\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.71 \pm 0.31 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (-0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00047 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{dust}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.899 \pm 0.029 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1059.67 \pm 0.53 \quad (+0.3\sigma)$	$\chi_{lensing}^2$	$9.35 \pm 0.80 \quad (-0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.40 \pm 0.36 \quad (-0.3\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (+0.0\sigma)$
H_0	$67.56 \pm 0.50 \quad (-0.0\sigma)$	k_D	$0.14047^{+0.00053}_{-0.00048} \quad (+0.3\sigma)$	χ_{lowl}^2	$23 \pm 3 \quad (-0.6\sigma)$
Ω_Λ	$0.6886 \pm 0.0067 \quad (-0.0\sigma)$	$100\theta_D$	$0.16091^{+0.00031}_{-0.00035} \quad (-0.4\sigma)$	$\chi_{CamSpec}^2$	$7065.2 \pm 5.7 \quad (+0.4\sigma)$
Ω_m	$0.3114 \pm 0.0067 \quad (+0.0\sigma)$	z_{eq}	$3381 \pm 26 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.065 \pm 0.077 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.1421 \pm 0.0011 \quad (+0.1\sigma)$	k_{eq}	$0.010319 \pm 0.000080 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.25 \pm 0.47 \quad (-0.1\sigma)$
$\Omega_m h^3$	$0.09602 \pm 0.00047 \quad (+0.2\sigma)$	$100\theta_{eq}$	$0.8169 \pm 0.0048 \quad (-0.1\sigma)$	$\chi_{DR12BAO}^2$	$5.0 \pm 1.7 \quad (+0.1\sigma)$
σ_8	$0.8085 \pm 0.0063 \quad (-0.1\sigma)$	$100\theta_{s,eq}$	$0.4513 \pm 0.0025 \quad (-0.1\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.84 \pm 0.43 \quad (+0.0\sigma)$	χ_{CMB}^2	$7494.3 \pm 5.9 \quad (+0.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.4512 \pm 0.0065 \quad (-0.0\sigma)$	$D_M(0.15)$	$641.7 \pm 4.3 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (+0.1\sigma)$

$\bar{\chi}_{eff}^2 = 7508.28$; $\Delta\bar{\chi}_{eff}^2 = 1.80$; $R - 1 = 0.01595$

5.23 base_alpha1_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02221 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.461 \pm 0.013 \quad (+0.2\sigma)$	$H(0.15)$	$72.18 \pm 0.81 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1210 \pm 0.0022 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.612 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$648.5 \pm 8.2 \quad (+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04059 \pm 0.00056 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.016 \quad (+0.1\sigma)$	$H(0.38)$	$82.48 \pm 0.58 \quad (-0.2\sigma)$
τ	$0.0551^{+0.0052}_{-0.0087} \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$98.2 \pm 1.7 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1544 \pm 16 \quad (+0.2\sigma)$
α_{-1}	$-0.0013^{+0.0017}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.459 \pm 0.039 \quad (+0.2\sigma)$	$H(0.51)$	$89.31^{+0.42}_{-0.47} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.048^{+0.014}_{-0.018} \quad (+0.4\sigma)$	z_{re}	$7.80^{+0.58}_{-0.85} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1998 \pm 19 \quad (+0.2\sigma)$
n_{s}	$0.9596^{+0.0070}_{-0.0083} \quad (-0.8\sigma)$	10^9A_{s}	$2.107^{+0.028}_{-0.038} \quad (+0.4\sigma)$	$H(0.61)$	$95.01^{+0.33}_{-0.37} \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.887 \pm 0.015 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2324 \pm 20 \quad (+0.2\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	D_{40}	$1216^{+18}_{-24} \quad (-0.9\sigma)$	$H(2.33)$	$237.0 \pm 1.4 \quad (+0.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.1\sigma)$	D_{220}	$5710 \pm 42 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5777 \pm 16 \quad (+0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.465 \pm 0.012 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$813.8 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7493 \pm 0.0071 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$229.4 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4807 \pm 0.0096 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9596^{+0.0070}_{-0.0083} \quad (-0.8\sigma)$	$\sigma_8(0.38)$	$0.6630^{+0.0052}_{-0.0059} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.59^{+0.41}_{-0.12} \quad (+0.0\sigma)$	Y_{P}	$0.24532^{+0.00011}_{-0.000084} \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4780 \pm 0.0081 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00011}_{-0.000084} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6200^{+0.0047}_{-0.0054} \quad (-0.2\sigma)$
A^{kSZ}	—	$10^5\mathrm{D}/\mathrm{H}$	$2.617 \pm 0.043 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4721 \pm 0.0071 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.827 \pm 0.036 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5896^{+0.0043}_{-0.0051} \quad (-0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1090.21 \pm 0.40 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2969^{+0.0021}_{-0.0026} \quad (-0.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.31 \pm 0.53 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3056^{+0.0023}_{-0.0028} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04079 \pm 0.00055 \quad (-0.6\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.865 \pm 0.048 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.7 \pm 2.0 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.62 \pm 0.50 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.1 \quad (+0.1\sigma)$
H_0	$66.78 \pm 0.95 \quad (-0.3\sigma)$	r_{drag}	$147.02 \pm 0.55 \quad (-0.5\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (+0.1\sigma)$
Ω_{Λ}	$0.677 \pm 0.014 \quad (-0.3\sigma)$	k_{D}	$0.14081^{+0.00065}_{-0.00059} \quad (+0.6\sigma)$	χ_{lowl}^2	$22.2 \pm 2.3 \quad (-1.1\sigma)$
Ω_{m}	$0.323 \pm 0.014 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091^{+0.00029}_{-0.00033} \quad (-0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.7 \pm 5.8 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1438 \pm 0.0021 \quad (+0.3\sigma)$	z_{eq}	$3421 \pm 51 \quad (+0.3\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09603 \pm 0.00047 \quad (+0.2\sigma)$	k_{eq}	$0.01044 \pm 0.00016 \quad (+0.3\sigma)$	χ_{CMB}^2	$7484.8 \pm 5.7 \quad (+0.2\sigma)$
σ_8	$0.8121 \pm 0.0085 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8093 \pm 0.0094 \quad (-0.3\sigma)$		
S_8	$0.842 \pm 0.025 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4474 \pm 0.0049 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7492.46; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.20; R - 1 = 0.00453$$

5.24 base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02228 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6022 \pm 0.0078 \quad (-0.0\sigma)$	$H(0.38)$	$83.00 \pm 0.35 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1190 \pm 0.0012 \quad (+0.1\sigma)$	$\sigma_8 / h^{0.5}$	$0.981 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.9 \pm 9.4 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00047 \quad (-0.3\sigma)$	$r_{\mathrm{drag}} h$	$99.77 \pm 0.96 \quad (-0.1\sigma)$	$H(0.51)$	$89.70 \pm 0.29 \quad (+0.0\sigma)$
τ	$0.0562^{+0.0055}_{-0.0086} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.428 \pm 0.027 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 11 \quad (+0.0\sigma)$
α_{-1}	$-0.0007^{+0.0015}_{-0.0012}$	z_{re}	$7.86^{+0.59}_{-0.85} \quad (+0.2\sigma)$	$H(0.61)$	$95.30 \pm 0.25 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.018} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.027}_{-0.039} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 12 \quad (+0.0\sigma)$
n_{s}	$0.9655^{+0.0056}_{-0.0065} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.013 \quad (+0.2\sigma)$	$H(2.33)$	$235.79 \pm 0.81 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1214^{+20}_{-27} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 12 \quad (-0.0\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5716 \pm 42 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4541 \pm 0.0076 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7459^{+0.0061}_{-0.0068} \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$815.1 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4727 \pm 0.0064 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6614^{+0.0051}_{-0.0058} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9655^{+0.0056}_{-0.0065} \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4714 \pm 0.0057 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.24536^{+0.00010}_{-0.000080} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6190^{+0.0047}_{-0.0054} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.59^{+0.41}_{-0.12} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24668^{+0.00010}_{-0.000081} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4666 \pm 0.0052 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.602^{+0.040}_{-0.046} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5890^{+0.0044}_{-0.0051} \quad (-0.1\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.801 \pm 0.028 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0022}_{-0.0026} \quad (-0.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.94 \pm 0.32 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0023}_{-0.0027} \quad (-0.2\sigma)$
A_{143}^{dust}	$0.99 \pm 0.18 \quad (+0.1\sigma)$	r_*	$144.77 \pm 0.35 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00048 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.032 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.66^{+0.55}_{-0.50} \quad (+0.3\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.46 \pm 0.39 \quad (-0.2\sigma)$	χ_{lowl}^2	$22 \pm 3 \quad (-0.5\sigma)$
H_0	$67.66 \pm 0.55 \quad (-0.0\sigma)$	k_{D}	$0.14041^{+0.00056}_{-0.00050} \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.7 \pm 5.9 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6899 \pm 0.0074 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16092^{+0.00031}_{-0.00035} \quad (-0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.060 \pm 0.079 \quad (+0.1\sigma)$
Ω_{m}	$0.3101 \pm 0.0074 \quad (+0.1\sigma)$	z_{eq}	$3375 \pm 29 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.35 \pm 0.53 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	k_{eq}	$0.010302 \pm 0.000090 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09599 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0054 \quad (-0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8071 \pm 0.0074 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0028 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.4 \quad (+0.1\sigma)$
S_8	$0.820 \pm 0.015 \quad (-0.0\sigma)$	$H(0.15)$	$72.92 \pm 0.47 \quad (-0.0\sigma)$	χ_{CMB}^2	$7485.2 \pm 5.7 \quad (+0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4494 \pm 0.0081 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.9 \pm 4.7 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7499.10$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.79$; $R - 1 = 0.01710$

5.25 base_alpha1_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02223 \pm 0.00023 \quad (+0.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4582 \pm 0.0091 \quad (+0.1\sigma)$	$H(0.15)$	$72.35 \pm 0.62 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1205 \pm 0.0016 \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6094 \pm 0.0077 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.7 \pm 6.3 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04064 \pm 0.00052 \quad (-0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.010 \quad (+0.0\sigma)$	$H(0.38)$	$82.60 \pm 0.45 \quad (-0.1\sigma)$
τ	$0.0551^{+0.0052}_{-0.0086} \quad (+0.2\sigma)$	$r_{\mathrm{drag}} h$	$98.5 \pm 1.3 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1540 \pm 13 \quad (+0.2\sigma)$
α_{-1}	$-0.0012^{+0.0017}_{-0.0011}$	$\langle d^2 \rangle^{1/2}$	$2.451 \pm 0.025 \quad (+0.1\sigma)$	$H(0.51)$	$89.39 \pm 0.36 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.016} \quad (+0.4\sigma)$	z_{re}	$7.78^{+0.58}_{-0.83} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1994 \pm 15 \quad (+0.2\sigma)$
n_{s}	$0.9606^{+0.0060}_{-0.0071} \quad (-0.8\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.035} \quad (+0.4\sigma)$	$H(0.61)$	$95.07 \pm 0.30 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885 \pm 0.012 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2319 \pm 16 \quad (+0.2\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	D_{40}	$1215^{+16}_{-24} \quad (-1.1\sigma)$	$H(2.33)$	$236.7 \pm 1.0 \quad (+0.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5713 \pm 42 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5774 \pm 14 \quad (+0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4621 \pm 0.0083 \quad (+0.1\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$814.0 \pm 5.2 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7481 \pm 0.0053 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$229.4 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4786 \pm 0.0063 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9606^{+0.0060}_{-0.0071} \quad (-0.8\sigma)$	$\sigma_8(0.38)$	$0.6623^{+0.0043}_{-0.0049} \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.59^{+0.40}_{-0.12} \quad (+0.0\sigma)$	Y_{P}	$0.24533^{+0.00010}_{-0.000082} \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4762 \pm 0.0053 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00010}_{-0.000082} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6194^{+0.0040}_{-0.0047} \quad (-0.3\sigma)$
A^{kSZ}	$5.2^{+3.8}_{-2.4} \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.613 \pm 0.043 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4706 \pm 0.0047 \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.822 \pm 0.032 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5892^{+0.0039}_{-0.0045} \quad (-0.3\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.35 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2967^{+0.0020}_{-0.0024} \quad (-0.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.41 \pm 0.40 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3056^{+0.0023}_{-0.0027} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04084 \pm 0.00052 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.875 \pm 0.037 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.6 \pm 2.0 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.65 \pm 0.51 \quad (+0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.1 \quad (+0.0\sigma)$
H_0	$66.98 \pm 0.73 \quad (-0.2\sigma)$	r_{drag}	$147.12 \pm 0.43 \quad (-0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.50 \pm 0.91 \quad (+0.0\sigma)$
Ω_{Λ}	$0.680 \pm 0.010 \quad (-0.2\sigma)$	k_{D}	$0.14073^{+0.00056}_{-0.00051} \quad (+0.5\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{m}	$0.320 \pm 0.010 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16090^{+0.00029}_{-0.00033} \quad (-0.6\sigma)$	χ_{lowl}^2	$22.1 \pm 2.3 \quad (-1.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1434 \pm 0.0016 \quad (+0.3\sigma)$	z_{eq}	$3410 \pm 37 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.2 \pm 5.7 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09601 \pm 0.00046 \quad (+0.2\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+0.3\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
σ_8	$0.8105 \pm 0.0061 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8113 \pm 0.0069 \quad (-0.3\sigma)$	χ_{CMB}^2	$7493.7 \pm 5.8 \quad (+0.3\sigma)$
S_8	$0.837 \pm 0.017 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4484 \pm 0.0036 \quad (-0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7501.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.38$; $R - 1 = 0.00867$

5.26 base_alpha1_CamSpecHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02229 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6041 \pm 0.0062 \quad (-0.0\sigma)$	$H(0.38)$	$82.95 \pm 0.33 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192 \pm 0.0011 \quad (+0.1\sigma)$	$\sigma_8 / h^{0.5}$	$0.9840 \pm 0.0089 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1530.2 \pm 8.6 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00047 \quad (-0.3\sigma)$	$r_{\mathrm{drag}} h$	$99.61 \pm 0.86 \quad (-0.1\sigma)$	$H(0.51)$	$89.67 \pm 0.27 \quad (+0.0\sigma)$
τ	$0.0573^{+0.0060}_{-0.0083} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.021 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1982 \pm 10 \quad (+0.0\sigma)$
α_{-1}	$-0.0008^{+0.0015}_{-0.0011}$	z_{re}	$7.97^{+0.63}_{-0.80} \quad (+0.1\sigma)$	$H(0.61)$	$95.28 \pm 0.24 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.048^{+0.013}_{-0.017} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.108^{+0.028}_{-0.036} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2307 \pm 11 \quad (-0.0\sigma)$
n_{s}	$0.9647^{+0.0054}_{-0.0064} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$235.93 \pm 0.72 \quad (+0.1\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.1\sigma)$	D_{40}	$1216^{+19}_{-27} \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 12 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 42 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0061 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7474 \pm 0.0055 \quad (-0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.4 \pm 5.1 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4742 \pm 0.0050 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6626 \pm 0.0049 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9647^{+0.0054}_{-0.0064} \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4728 \pm 0.0045 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.24536^{+0.00010}_{-0.000081} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6201 \pm 0.0046 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.13} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24668^{+0.00010}_{-0.000082} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4679 \pm 0.0041 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.602^{+0.040}_{-0.045} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5900 \pm 0.0044 \quad (-0.1\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.028 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2975 \pm 0.0023 \quad (-0.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.95 \pm 0.31 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3067^{+0.0022}_{-0.0025} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.71 \pm 0.31 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00047 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.029 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1059.68 \pm 0.52 \quad (+0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.32 \pm 0.76 \quad (-0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.40 \pm 0.36 \quad (-0.3\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (+0.1\sigma)$
H_0	$67.57 \pm 0.50 \quad (-0.0\sigma)$	k_{D}	$0.14047^{+0.00053}_{-0.00048} \quad (+0.3\sigma)$	χ_{lowl}^2	$22 \pm 3 \quad (-0.7\sigma)$
Ω_{Λ}	$0.6887 \pm 0.0066 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16090^{+0.00031}_{-0.00035} \quad (-0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.2 \pm 5.7 \quad (+0.4\sigma)$
Ω_{m}	$0.3113 \pm 0.0066 \quad (+0.1\sigma)$	z_{eq}	$3380 \pm 26 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.063 \pm 0.076 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1421 \pm 0.0011 \quad (+0.1\sigma)$	k_{eq}	$0.010317 \pm 0.000080 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.26 \pm 0.47 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09602 \pm 0.00047 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8170 \pm 0.0048 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.6 \quad (+0.1\sigma)$
σ_8	$0.8088 \pm 0.0061 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4514 \pm 0.0025 \quad (-0.1\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.85 \pm 0.43 \quad (-0.0\sigma)$	χ_{CMB}^2	$7494.2 \pm 5.8 \quad (+0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0065 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.6 \pm 4.3 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.1\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7508.12$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.79$; $R - 1 = 0.01736$

6 mnu

6.1 base_mnu_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022161	0.02205 ± 0.00024 (-0.3σ)	$\sigma_8 \Omega_m^{0.5}$	0.4615	0.457 ± 0.014 (-0.2σ)	$H(0.15)$	72.80	$71.2^{+2.0}_{-0.91}$ (-1.3σ)
$\Omega_c h^2$	0.12044	0.1210 ± 0.0022 $(+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6170	$0.600^{+0.022}_{-0.012}$ (-0.9σ)	$D_M(0.15)$	642.2	$658.5^{+8.6}_{-21}$ $(+1.4\sigma)$
$100\theta_{MC}$	1.04081	1.04064 ± 0.00051 (-0.3σ)	$\sigma_8/h^{0.5}$	1.0040	$0.973^{+0.039}_{-0.017}$ (-1.2σ)	$H(0.38)$	82.94	$81.7^{+1.5}_{-0.68}$ (-1.4σ)
τ	0.0525	0.0517 ± 0.0079 (-0.1σ)	$r_{drag}h$	99.37	$96.7^{+3.6}_{-1.8}$ (-1.1σ)	$D_M(0.38)$	1531.2	1564^{+17}_{-43} $(+1.4\sigma)$
Σm_ν [eV]	0.001	< 0.195	$\langle d^2 \rangle^{1/2}$	2.4593	2.448 ± 0.038 (-0.2σ)	$H(0.51)$	89.68	$88.7^{+1.3}_{-0.55}$ (-1.5σ)
$\ln(10^{10} A_s)$	3.0413	3.040 ± 0.016 (-0.0σ)	z_{re}	7.55	7.49 ± 0.82 (-0.0σ)	$D_M(0.51)$	1983.3	2022^{+21}_{-50} $(+1.4\sigma)$
n_s	0.9640	0.9613 ± 0.0062 (-0.2σ)	$10^9 A_s$	2.0933	2.091 ± 0.034 (-0.0σ)	$H(0.61)$	95.31	$94.5^{+1.1}_{-0.45}$ (-1.5σ)
y_{cal}	1.00038	1.0005 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8845	1.886 ± 0.014 $(+0.1\sigma)$	$D_M(0.61)$	2307.6	2350^{+22}_{-55} $(+1.4\sigma)$
A_{217}^{CIB}	48.6	48 ± 7 $(+0.0\sigma)$	D_{40}	1231.4	1234 ± 15 $(+0.0\sigma)$	$H(2.33)$	236.30	$237.6^{+1.3}_{-2.0}$ $(+0.7\sigma)$
$\xi^{tSZ \times CIB}$	0.35	—	D_{220}	5713.3	5712 ± 41 (-0.0σ)	$D_M(2.33)$	5762.6	5806^{+19}_{-54} $(+1.7\sigma)$
A_{143}^{tSZ}	6.96	5.0 ± 2.0 (-0.0σ)	D_{810}	2537.6	2537 ± 14 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4653	0.460 ± 0.013 (-0.3σ)
A_{100}^{PS}	253.9	265 ± 29 $(+0.1\sigma)$	D_{1420}	815.4	814.4 ± 5.1 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7619	$0.727^{+0.039}_{-0.010}$ (-3.0σ)
A_{143}^{PS}	49.8	50 ± 8 $(+0.1\sigma)$	D_{2000}	230.08	229.2 ± 1.9 (-0.2σ)	$f\sigma_8(0.38)$	0.4834	$0.473^{+0.016}_{-0.0096}$ (-0.7σ)
$A_{143 \times 217}^{PS}$	47.7	44 ± 9 $(+0.1\sigma)$	$n_{s,0.002}$	0.9640	0.9613 ± 0.0062 (-0.2σ)	$\sigma_8(0.38)$	0.6750	$0.642^{+0.036}_{-0.0089}$ (-3.5σ)
A_{217}^{PS}	119.6	115 ± 10 $(+0.0\sigma)$	Y_P	0.245310	$0.24525^{+0.00012}_{-0.000093}$ (-0.3σ)	$f\sigma_8(0.51)$	0.4817	$0.469^{+0.017}_{-0.0081}$ (-1.0σ)
A^{kSZ}	0.01	< 5.10 $(+0.1\sigma)$	Y_P^{BBN}	0.246636	$0.24658^{+0.00012}_{-0.000093}$ (-0.3σ)	$\sigma_8(0.51)$	0.6315	$0.600^{+0.034}_{-0.0083}$ (-3.6σ)
A_{100}^{dustTT}	8.88	8.9 ± 1.8 (-0.0σ)	$10^5 D/H$	2.6254	2.648 ± 0.047 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.4765	$0.463^{+0.018}_{-0.0071}$ (-1.2σ)
A_{143}^{dustTT}	10.82	10.7 ± 1.8 $(+0.0\sigma)$	Age/Gyr	13.795	$13.896^{+0.043}_{-0.12}$ $(+1.8\sigma)$	$\sigma_8(0.61)$	0.6008	$0.571^{+0.033}_{-0.0079}$ (-3.7σ)
$A_{143 \times 217}^{dustTT}$	19.45	18.3 ± 3.3 $(+0.0\sigma)$	z_*	1090.219	$1090.45^{+0.42}_{-0.50}$ $(+0.4\sigma)$	$f\sigma_8(2.33)$	0.3019	$0.288^{+0.015}_{-0.0034}$ (-3.4σ)
A_{217}^{dustTT}	94.7	93.4 ± 7.3 $(+0.0\sigma)$	r_*	144.484	144.38 ± 0.50 (-0.2σ)	$\sigma_8(2.33)$	0.3116	$0.296^{+0.018}_{-0.0041}$ (-3.9σ)
c_{100}	0.99965	0.99961 ± 0.00062 (-0.0σ)	$100\theta_*$	1.040989	1.04091 ± 0.00047 (-0.1σ)	f_{2000}^{143}	30.23	31.8 ± 3.0 $(+0.2\sigma)$
c_{217}	0.99826	0.99827 ± 0.00062 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8795	13.871 ± 0.046 (-0.2σ)	$f_{2000}^{143 \times 217}$	33.18	34.1 ± 2.1 $(+0.2\sigma)$
H_0	67.50	$65.7^{+2.3}_{-1.1}$ (-1.3σ)	z_{drag}	1059.475	1059.28 ± 0.48 (-0.3σ)	f_{2000}^{217}	107.60	108.6 ± 2.0 $(+0.2\sigma)$
Ω_Λ	0.6870	$0.663^{+0.033}_{-0.013}$ (-1.3σ)	r_{drag}	147.216	147.15 ± 0.49 (-0.1σ)	χ_{simall}^2	395.87	396.9 ± 1.7 (-0.0σ)
Ω_m	0.3130	$0.337^{+0.013}_{-0.033}$ $(+1.3\sigma)$	k_D	0.14057	0.14057 ± 0.00052 $(+0.0\sigma)$	χ_{lowl}^2	23.66	23.9 ± 1.3 $(+0.0\sigma)$
$\Omega_m h^2$	0.14261	$0.1450^{+0.0021}_{-0.0035}$ $(+0.8\sigma)$	$100\theta_D$	0.161022	0.16112 ± 0.00027 $(+0.2\sigma)$	χ_{plik}^2	758.1	772.5 ± 5.7 $(+0.2\sigma)$
$\Omega_\nu h^2$	0.00001	< 0.00210	z_{eq}	3407.7	3419 ± 50 $(+0.2\sigma)$	χ_{prior}^2	1.33	7.3 ± 3.7 $(+0.0\sigma)$
$\Omega_m h^3$	0.09626	$0.0952^{+0.0014}_{-0.00050}$ (-1.5σ)	k_{eq}	0.010401	0.01044 ± 0.00015 $(+0.2\sigma)$	χ_{CMB}^2	1177.6	1193.4 ± 5.8 $(+0.2\sigma)$
σ_8	0.8249	$0.789^{+0.041}_{-0.011}$ (-2.6σ)	$100\theta_{eq}$	0.8116	0.8095 ± 0.0092 (-0.2σ)			
S_8	0.8426	0.834 ± 0.025 (-0.2σ)	$100\theta_{s,eq}$	0.44865	0.4476 ± 0.0047 (-0.2σ)			

Best-fit $\chi_{eff}^2 = 1178.95$; $\Delta\chi_{eff}^2 = -0.62$; $\bar{\chi}_{eff}^2 = 1200.74$; $\Delta\bar{\chi}_{eff}^2 = 1.16$; $R - 1 = 0.00818$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.00) commander_dx12_v3_2_29: 23.66 (Δ 0.06) plik_rd12_HM_v22_TT: 758.09 (Δ -0.66)

6.2 base_mnu_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02206 \pm 0.00024 \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.457 \pm 0.014 \quad (-0.2\sigma)$	$H(0.15)$	$71.3^{+2.0}_{-0.92} \quad (-1.3\sigma)$
$\Omega_c h^2$	$0.1209 \pm 0.0022 \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.601^{+0.022}_{-0.012} \quad (-0.9\sigma)$	$D_M(0.15)$	$658.1^{+8.6}_{-21} \quad (+1.4\sigma)$
$100\theta_{MC}$	$1.04065 \pm 0.00051 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.974^{+0.039}_{-0.017} \quad (-1.3\sigma)$	$H(0.38)$	$81.8^{+1.5}_{-0.68} \quad (-1.4\sigma)$
τ	$0.0533^{+0.0047}_{-0.0080} \quad (-0.1\sigma)$	$r_{drag} h$	$96.8^{+3.6}_{-1.8} \quad (-1.1\sigma)$	$D_M(0.38)$	$1563^{+18}_{-43} \quad (+1.4\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.196	$\langle d^2 \rangle^{1/2}$	$2.451 \pm 0.037 \quad (-0.2\sigma)$	$H(0.51)$	$88.7^{+1.3}_{-0.55} \quad (-1.5\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.016} \quad (-0.0\sigma)$	z_{re}	$7.67^{+0.52}_{-0.82} \quad (-0.0\sigma)$	$D_M(0.51)$	$2021^{+21}_{-50} \quad (+1.4\sigma)$
n_s	$0.9615 \pm 0.0062 \quad (-0.2\sigma)$	$10^9 A_s$	$2.098^{+0.024}_{-0.033} \quad (-0.0\sigma)$	$H(0.61)$	$94.5^{+1.1}_{-0.45} \quad (-1.5\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.885 \pm 0.014 \quad (+0.1\sigma)$	$D_M(0.61)$	$2349^{+22}_{-55} \quad (+1.4\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1234 \pm 15 \quad (+0.0\sigma)$	$H(2.33)$	$237.5^{+1.3}_{-2.0} \quad (+0.7\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5712 \pm 41 \quad (-0.0\sigma)$	$D_M(2.33)$	$5805^{+20}_{-54} \quad (+1.7\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.461 \pm 0.013 \quad (-0.3\sigma)$
A_{100}^{PS}	$265 \pm 29 \quad (+0.1\sigma)$	D_{1420}	$814.4 \pm 5.1 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.728^{+0.039}_{-0.010} \quad (-3.2\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.1\sigma)$	D_{2000}	$229.2 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.473^{+0.016}_{-0.0097} \quad (-0.7\sigma)$
$A_{143 \times 217}^{PS}$	$44 \pm 9 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9615 \pm 0.0062 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.643^{+0.036}_{-0.0088} \quad (-3.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_P	$0.24526^{+0.00012}_{-0.000092} \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.470^{+0.017}_{-0.0081} \quad (-1.0\sigma)$
A^{kSZ}	$< 5.06 \quad (+0.1\sigma)$	Y_P^{BBN}	$0.24658^{+0.00012}_{-0.000092} \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.601^{+0.034}_{-0.0082} \quad (-4.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	$2.646 \pm 0.047 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.463^{+0.018}_{-0.0071} \quad (-1.3\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.894^{+0.043}_{-0.12} \quad (+1.8\sigma)$	$\sigma_8(0.61)$	$0.571^{+0.033}_{-0.0079} \quad (-4.2\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.43^{+0.42}_{-0.50} \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.289^{+0.015}_{-0.0034} \quad (-3.9\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.3 \quad (+0.0\sigma)$	r_*	$144.40 \pm 0.50 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.296^{+0.017}_{-0.0041} \quad (-4.4\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04092 \pm 0.00047 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.7 \pm 3.0 \quad (+0.2\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.872 \pm 0.046 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$34.0 \pm 2.1 \quad (+0.2\sigma)$
H_0	$65.8^{+2.3}_{-1.1} \quad (-1.3\sigma)$	z_{drag}	$1059.29 \pm 0.48 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.5 \pm 2.0 \quad (+0.2\sigma)$
Ω_Λ	$0.663^{+0.033}_{-0.013} \quad (-1.3\sigma)$	r_{drag}	$147.17 \pm 0.49 \quad (-0.1\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.0\sigma)$
Ω_m	$0.337^{+0.013}_{-0.033} \quad (+1.3\sigma)$	k_D	$0.14056 \pm 0.00052 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.9 \pm 1.3 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.1449^{+0.0021}_{-0.0035} \quad (+0.8\sigma)$	$100\theta_D$	$0.16112 \pm 0.00027 \quad (+0.2\sigma)$	χ_{plik}^2	$772.4 \pm 5.7 \quad (+0.2\sigma)$
$\Omega_\nu h^2$	< 0.00211	z_{eq}	$3417 \pm 50 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.0952^{+0.0014}_{-0.00051} \quad (-1.5\sigma)$	k_{eq}	$0.01043 \pm 0.00015 \quad (+0.2\sigma)$	χ_{CMB}^2	$1193.1 \pm 5.7 \quad (+0.2\sigma)$
σ_8	$0.790^{+0.040}_{-0.011} \quad (-2.7\sigma)$	$100\theta_{eq}$	$0.8099 \pm 0.0092 \quad (-0.2\sigma)$		
S_8	$0.835 \pm 0.025 \quad (-0.2\sigma)$	$100\theta_{s,eq}$	$0.4478 \pm 0.0047 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 1200.49; \Delta\bar{\chi}_{\text{eff}}^2 = 1.17; R - 1 = 0.01089$$

6.3 base_mnu_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022395	0.02235 ± 0.00015 (-0.1σ)	$\Omega_\nu h^2$	0.00001	< 0.00115	$100\theta_{\text{eq}}$	0.8131	0.8123 ± 0.0059 (-0.0σ)
$\Omega_c h^2$	0.12003	0.1202 ± 0.0014 $(+0.0\sigma)$	$\Omega_m h^3$	0.09669	$0.09622^{+0.00067}_{-0.00034}$ (-0.4σ)	$100\theta_{\text{s,eq}}$	0.44925	0.4489 ± 0.0030 (-0.0σ)
$100\theta_{\text{MC}}$	1.040945	1.04089 ± 0.00032 (-0.0σ)	σ_8	0.8258	$0.807^{+0.021}_{-0.0092}$ (-0.7σ)	$H(0.15)$	73.14	$72.4^{+1.0}_{-0.62}$ (-0.4σ)
τ	0.0552	0.0545 ± 0.0079 $(+0.0\sigma)$	S_8	0.8383	0.833 ± 0.017 (-0.1σ)	$D_{\text{M}}(0.15)$	638.9	$646.3^{+6.0}_{-10}$ $(+0.4\sigma)$
Σm_ν [eV]	0.001	< 0.107	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4592	0.4561 ± 0.0091 (-0.1σ)	$H(0.38)$	83.23	$82.66^{+0.78}_{-0.46}$ (-0.4σ)
$\ln(10^{10} A_{\text{s}})$	3.0469	3.045 ± 0.016 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6158	$0.607^{+0.012}_{-0.0089}$ (-0.3σ)	$D_{\text{M}}(0.38)$	1524.2	1539^{+12}_{-21} $(+0.4\sigma)$
n_{s}	0.96684	0.9646 ± 0.0044 (-0.1σ)	$\sigma_8/h^{0.5}$	1.0024	$0.986^{+0.021}_{-0.013}$ (-0.4σ)	$H(0.51)$	89.94	$89.46^{+0.65}_{-0.37}$ (-0.5σ)
y_{cal}	1.00064	1.0006 ± 0.0025 $(+0.1\sigma)$	$r_{\text{drag}} h$	99.82	$98.6^{+1.9}_{-1.2}$ (-0.3σ)	$D_{\text{M}}(0.51)$	1974.8	1993^{+14}_{-25} $(+0.4\sigma)$
A_{217}^{CIB}	44.8	47 ± 7 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4543	2.446 ± 0.029 (-0.1σ)	$H(0.61)$	95.551	$95.14^{+0.54}_{-0.30}$ (-0.5σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.79	—	z_{re}	7.76	7.69 ± 0.80 $(+0.0\sigma)$	$D_{\text{M}}(0.61)$	2298.3	2318^{+15}_{-27} $(+0.4\sigma)$
A_{143}^{tSZ}	6.98	$5.5^{+2.1}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.1050	2.102 ± 0.034 $(+0.0\sigma)$	$H(2.33)$	236.28	$236.87^{+0.88}_{-1.1}$ $(+0.2\sigma)$
A_{100}^{PS}	246.4	259 ± 28 $(+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8851	1.884 ± 0.012 $(+0.1\sigma)$	$D_{\text{M}}(2.33)$	5749.9	5770^{+13}_{-27} $(+0.5\sigma)$
A_{143}^{PS}	51.9	46 ± 8 $(+0.0\sigma)$	D_{40}	1228.3	1232 ± 13 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4633	0.4604 ± 0.0085 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	56.3	43 ± 9 $(+0.0\sigma)$	D_{220}	5729.6	5732 ± 39 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7632	$0.745^{+0.021}_{-0.0083}$ (-0.8σ)
A_{217}^{PS}	123.6	115 ± 10 $(+0.0\sigma)$	D_{810}	2542.2	2540 ± 13 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4823	$0.4769^{+0.0086}_{-0.0071}$ (-0.2σ)
A^{kSZ}	0.01	< 4.23 (-0.0σ)	D_{1420}	818.92	817.4 ± 4.7 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6766	$0.660^{+0.019}_{-0.0073}$ (-0.8σ)
A_{100}^{dustTT}	8.82	8.9 ± 1.8 $(+0.0\sigma)$	D_{2000}	231.68	230.9 ± 1.6 (-0.0σ)	$f\sigma_8(0.51)$	0.4811	$0.4746^{+0.0089}_{-0.0063}$ (-0.3σ)
A_{143}^{dustTT}	11.02	10.9 ± 1.8 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.96684	0.9646 ± 0.0044 (-0.1σ)	$\sigma_8(0.51)$	0.6332	$0.617^{+0.018}_{-0.0068}$ (-0.9σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.19	18.6 ± 3.3 $(+0.0\sigma)$	Y_{P}	0.245405	$0.245385^{+0.000064}_{-0.000056}$ (-0.1σ)	$f\sigma_8(0.61)$	0.4761	$0.4691^{+0.0092}_{-0.0058}$ (-0.3σ)
A_{217}^{dustTT}	95.7	93.7 ± 7.4 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246732	$0.246712^{+0.000065}_{-0.000056}$ (-0.1σ)	$\sigma_8(0.61)$	0.6025	$0.587^{+0.017}_{-0.0065}$ (-0.9σ)
A_{100}^{dustTE}	0.1140	0.114 ± 0.038 (-0.0σ)	10^5D/H	2.5809	2.590 ± 0.028 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.3029	$0.2961^{+0.0078}_{-0.0030}$ (-0.7σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.135 ± 0.029 (-0.0σ)	Age/Gyr	13.7660	$13.813^{+0.030}_{-0.061}$ $(+0.6\sigma)$	$\sigma_8(2.33)$	0.3128	$0.3046^{+0.0092}_{-0.0034}$ (-0.9σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.481 ± 0.085 $(+0.0\sigma)$	z_*	1089.887	1089.97 ± 0.29 $(+0.1\sigma)$	f_{2000}^{143}	28.17	29.6 ± 2.7 $(+0.0\sigma)$
A_{143}^{dustTE}	0.225	0.226 ± 0.054 (-0.0σ)	r_*	144.411	144.38 ± 0.31 (-0.0σ)	$f_{2000}^{143 \times 217}$	31.68	32.3 ± 1.8 $(+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.667 ± 0.080 $(+0.0\sigma)$	$100\theta_*$	1.041097	1.04110 ± 0.00031 $(+0.0\sigma)$	f_{2000}^{217}	106.25	107.1 ± 1.8 $(+0.1\sigma)$
A_{217}^{dustTE}	2.085	2.09 ± 0.27 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8710	13.868 ± 0.029 (-0.0σ)	χ_{simall}^2	396.20	397.2 ± 2.0 $(+0.0\sigma)$
c_{100}	0.99975	0.99968 ± 0.00061 $(+0.0\sigma)$	z_{drag}	1060.009	1059.91 ± 0.30 (-0.1σ)	χ_{lowl}^2	23.24	23.56 ± 0.97 $(+0.0\sigma)$
c_{217}	0.99817	0.99820 ± 0.00062 $(+0.0\sigma)$	r_{drag}	147.061	147.05 ± 0.31 (-0.0σ)	χ_{plik}^2	2343.8	2360.2 ± 6.0 $(+0.1\sigma)$
H_0	67.88	$67.0^{+1.2}_{-0.72}$ (-0.4σ)	k_{D}	0.140911	0.14090 ± 0.00033 (-0.0σ)	χ_{prior}^2	1.49	11.5 ± 4.5 (-0.0σ)
Ω_Λ	0.6909	$0.680^{+0.016}_{-0.0093}$ (-0.4σ)	$100\theta_{\text{D}}$	0.160729	0.16078 ± 0.00017 $(+0.1\sigma)$	χ_{CMB}^2	2763.2	2780.9 ± 6.1 $(+0.1\sigma)$
Ω_{m}	0.3091	$0.3199^{+0.0093}_{-0.016}$ $(+0.4\sigma)$	z_{eq}	3403.6	3408 ± 32 $(+0.0\sigma)$			
$\Omega_{\text{m}} h^2$	0.14244	$0.1436^{+0.0014}_{-0.0018}$ $(+0.3\sigma)$	k_{eq}	0.010388	0.010400 ± 0.000097 $(+0.0\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2764.74$; $\Delta\chi_{\text{eff}}^2 = -1.03$; $\bar{\chi}_{\text{eff}}^2 = 2792.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.65$; $R - 1 = 0.01278$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.20 (Δ 0.15) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2343.80 (Δ -0.85)

6.4 base_mnu_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022502	0.02250 ± 0.00014 (+0.1 σ)	$\Omega_\nu h^2$	$0.9 \cdot 10^{-5}$	< 0.000423	$100\theta_{\text{eq}}$	0.8194	$0.8193^{+0.0056}_{-0.0049}$ (+0.0 σ)
$\Omega_c h^2$	0.11856	$0.1186^{+0.0011}_{-0.0013}$ (-0.0 σ)	$\Omega_m h^3$	0.096708	$0.09662^{+0.00036}_{-0.00031}$ (+0.9 σ)	$100\theta_{\text{s,eq}}$	0.45247	$0.4524^{+0.0029}_{-0.0025}$ (+0.0 σ)
$100\theta_{\text{MC}}$	1.041120	1.04114 ± 0.00030 (+0.2 σ)	σ_8	0.8207	$0.8154^{+0.0098}_{-0.0080}$ (+0.9 σ)	$H(0.15)$	73.72	$73.50^{+0.58}_{-0.47}$ (+0.6 σ)
τ	0.0561	0.0571 ± 0.0079 (-0.0 σ)	S_8	0.8209	0.820 ± 0.014 (+0.2 σ)	$D_{\text{M}}(0.15)$	633.2	$635.4^{+4.5}_{-5.7}$ (-0.5 σ)
Σm_ν [eV]	0.0009	< 0.0394	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4496	0.4491 ± 0.0079 (+0.2 σ)	$H(0.38)$	83.651	$83.48^{+0.44}_{-0.35}$ (+0.6 σ)
$\ln(10^{10} A_{\text{s}})$	3.0451	$3.047^{+0.015}_{-0.017}$ (-0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6075	0.6051 ± 0.0082 (+0.4 σ)	$D_{\text{M}}(0.38)$	1512.9	$1517.2^{+9.1}_{-12}$ (-0.6 σ)
n_{s}	0.96955	0.9686 ± 0.0040 (-0.0 σ)	$\sigma_8/h^{0.5}$	0.9912	0.987 ± 0.012 (+0.5 σ)	$H(0.51)$	90.264	$90.13^{+0.35}_{-0.28}$ (+0.7 σ)
y_{cal}	1.00057	1.0006 ± 0.0024 (+0.0 σ)	$r_{\text{drag}} h$	101.00	$100.6^{+1.1}_{-0.94}$ (+0.5 σ)	$D_{\text{M}}(0.51)$	1961.6	1967^{+11}_{-14} (-0.6 σ)
A_{217}^{CIB}	45.7	47 ± 7 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4309	2.431 ± 0.027 (+0.2 σ)	$H(0.61)$	95.805	$95.69^{+0.29}_{-0.23}$ (+0.7 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.654	> 0.389 (+0.0 σ)	z_{re}	7.80	7.89 ± 0.78 (-0.0 σ)	$D_{\text{M}}(0.61)$	2284.0	2290^{+12}_{-15} (-0.6 σ)
A_{143}^{tSZ}	7.17	5.5 ± 2.0 (-0.0 σ)	$10^9 A_{\text{s}}$	2.1012	$2.105^{+0.031}_{-0.036}$ (-0.0 σ)	$H(2.33)$	235.43	$235.63^{+0.71}_{-0.80}$ (-0.2 σ)
A_{100}^{PS}	247.1	257 ± 27 (+0.0 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8782	1.878 ± 0.011 (+0.0 σ)	$D_{\text{M}}(2.33)$	5739.4	5745^{+10}_{-14} (-0.8 σ)
A_{143}^{PS}	49.5	45 ± 8 (+0.0 σ)	D_{40}	1222.5	1225 ± 12 (+0.1 σ)	$f\sigma_8(0.15)$	0.4544	0.4540 ± 0.0075 (+0.2 σ)
$A_{143 \times 217}^{\text{PS}}$	52.6	42 ± 9 (+0.0 σ)	D_{220}	5739.5	5742 ± 38 (+0.1 σ)	$\sigma_8(0.15)$	0.7593	$0.7542^{+0.0092}_{-0.0071}$ (+1.0 σ)
A_{217}^{PS}	121.7	115 ± 10 (+0.0 σ)	D_{810}	2540.1	2539 ± 13 (+0.0 σ)	$f\sigma_8(0.38)$	0.4754	0.4742 ± 0.0065 (+0.3 σ)
A^{kSZ}	0.00	< 4.09 (-0.0 σ)	D_{1420}	819.12	818.3 ± 4.7 (-0.0 σ)	$\sigma_8(0.38)$	0.6741	$0.6694^{+0.0082}_{-0.0061}$ (+1.1 σ)
A_{100}^{dustTT}	8.84	8.9 ± 1.8 (+0.0 σ)	D_{2000}	231.79	231.5 ± 1.6 (+0.0 σ)	$f\sigma_8(0.51)$	0.4752	0.4737 ± 0.0060 (+0.4 σ)
A_{143}^{dustTT}	11.08	10.9 ± 1.7 (-0.0 σ)	$n_{\text{s},0.002}$	0.96955	0.9686 ± 0.0040 (-0.0 σ)	$\sigma_8(0.51)$	0.6313	$0.6268^{+0.0078}_{-0.0057}$ (+1.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.16	18.4 ± 3.4 (-0.0 σ)	Y_{P}	0.245445	$0.245442^{+0.000056}_{-0.000050}$ (+0.1 σ)	$f\sigma_8(0.61)$	0.4711	0.4694 ± 0.0056 (+0.5 σ)
A_{217}^{dustTT}	95.6	93.3 ± 7.6 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246772	$0.246768^{+0.000056}_{-0.000050}$ (+0.1 σ)	$\sigma_8(0.61)$	0.6010	$0.5966^{+0.0074}_{-0.0054}$ (+1.1 σ)
A_{100}^{dustTE}	0.1134	0.114 ± 0.036 (+0.0 σ)	10^5D/H	2.5615	2.563 ± 0.026 (-0.1 σ)	$f\sigma_8(2.33)$	0.30248	$0.3008^{+0.0034}_{-0.0027}$ (+1.0 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.134 ± 0.029 (-0.0 σ)	Age/Gyr	13.7433	$13.756^{+0.023}_{-0.030}$ (-0.8 σ)	$\sigma_8(2.33)$	0.31282	$0.3106^{+0.0039}_{-0.0028}$ (+1.1 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.484	0.483 ± 0.087 (+0.0 σ)	z_*	1089.624	$1089.64^{+0.23}_{-0.27}$ (-0.1 σ)	f_{2000}^{143}	28.15	28.9 ± 2.6 (-0.0 σ)
A_{143}^{dustTE}	0.223	0.224 ± 0.055 (+0.0 σ)	r_*	144.710	144.70 ± 0.28 (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.58	$31.7^{+1.6}_{-1.8}$ (-0.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.666 ± 0.079 (+0.0 σ)	$100\theta_*$	1.041267	1.04130 ± 0.00029 (+0.1 σ)	f_{2000}^{217}	106.14	106.6 ± 1.7 (+0.0 σ)
A_{217}^{dustTE}	2.071	2.08 ± 0.27 (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8975	13.896 ± 0.026 (-0.0 σ)	χ_{simall}^2	396.23	397.5 ± 2.2 (-0.1 σ)
c_{100}	0.99974	0.99969 ± 0.00061 (+0.1 σ)	z_{drag}	1060.123	1060.12 ± 0.29 (+0.1 σ)	χ_{lowl}^2	22.73	22.98 ± 0.85 (+0.1 σ)
c_{217}	0.99817	0.99819 ± 0.00060 (+0.0 σ)	r_{drag}	147.334	147.33 ± 0.28 (+0.0 σ)	χ_{plik}^2	2345.3	2360.3 ± 5.9 (-0.1 σ)
H_0	68.55	$68.30^{+0.67}_{-0.55}$ (+0.5 σ)	k_{D}	0.140707	0.14071 ± 0.00031 (+0.0 σ)	χ_{H073p45}^2	8.71	9.8 ± 2.4 (-0.5 σ)
Ω_Λ	0.6998	$0.6966^{+0.0088}_{-0.0069}$ (+0.4 σ)	$100\theta_{\text{D}}$	0.160656	0.16067 ± 0.00017 (-0.0 σ)	χ_{prior}^2	1.65	11.3 ± 4.5 (-0.1 σ)
Ω_{m}	0.3002	$0.3034^{+0.0069}_{-0.0088}$ (-0.4 σ)	z_{eq}	3371.0	3372^{+26}_{-30} (-0.0 σ)	χ_{CMB}^2	2764.2	2780.7 ± 5.9 (-0.1 σ)
$\Omega_{\text{m}} h^2$	0.14107	$0.1415^{+0.0011}_{-0.0013}$ (-0.2 σ)	k_{eq}	0.010288	$0.010291^{+0.000078}_{-0.000090}$ (-0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2774.59$; $\Delta\chi_{\text{eff}}^2 = -3.35$; $\bar{\chi}_{\text{eff}}^2 = 2801.83$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.33$; $R - 1 = 0.06998$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.23 (Δ -0.24) commander_dx12.v3.2.29: 22.73 (Δ 0.19) plik_rd12_HM_v22b_TTTEEE: 2345.26 (Δ -1.50) Hubble
- H073p45: 8.71 (Δ -1.88)

6.5 base_mnu_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235 \pm 0.00015 \quad (-0.1\sigma)$	$\Omega_{\nu}h^2$	< 0.00116	$100\theta_{\mathrm{eq}}$	$0.8125 \pm 0.0059 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1202 \pm 0.0014 \quad (+0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09622^{+0.00067}_{-0.00035} \quad (-0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4490 \pm 0.0030 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00032 \quad (-0.0\sigma)$	σ_8	$0.808^{+0.021}_{-0.0089} \quad (-0.7\sigma)$	$H(0.15)$	$72.4^{+1.0}_{-0.62} \quad (-0.4\sigma)$
τ	$0.0556^{+0.0055}_{-0.0082} \quad (+0.0\sigma)$	S_8	$0.833 \pm 0.017 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.2^{+6.0}_{-10} \quad (+0.4\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.108	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4564 \pm 0.0091 \quad (-0.1\sigma)$	$H(0.38)$	$82.67^{+0.79}_{-0.46} \quad (-0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.607^{+0.012}_{-0.0089} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1539^{+12}_{-21} \quad (+0.4\sigma)$
n_{s}	$0.9647 \pm 0.0044 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.986^{+0.021}_{-0.013} \quad (-0.4\sigma)$	$H(0.51)$	$89.46^{+0.65}_{-0.37} \quad (-0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.6^{+1.9}_{-1.2} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1993^{+14}_{-25} \quad (+0.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.028 \quad (-0.1\sigma)$	$H(0.61)$	$95.15^{+0.55}_{-0.30} \quad (-0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.81^{+0.59}_{-0.81} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2318^{+15}_{-27} \quad (+0.4\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.025}_{-0.035} \quad (+0.0\sigma)$	$H(2.33)$	$236.85^{+0.88}_{-1.1} \quad (+0.2\sigma)$
A_{100}^{PS}	$258 \pm 27 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.884 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5770^{+14}_{-27} \quad (+0.5\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1232 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4607 \pm 0.0085 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5732 \pm 39 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.746^{+0.020}_{-0.0080} \quad (-0.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4772^{+0.0085}_{-0.0070} \quad (-0.2\sigma)$
A^{kSZ}	$< 4.21 \quad (-0.0\sigma)$	D_{1420}	$817.3 \pm 4.7 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.660^{+0.019}_{-0.0071} \quad (-0.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 1.6 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4750^{+0.0089}_{-0.0062} \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9647 \pm 0.0044 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.617^{+0.018}_{-0.0066} \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Y_{P}	$0.245387^{+0.000064}_{-0.000056} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4694^{+0.0091}_{-0.0057} \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246713^{+0.000065}_{-0.000056} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.587^{+0.017}_{-0.0063} \quad (-1.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.589 \pm 0.028 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0077}_{-0.0029} \quad (-0.8\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.812^{+0.030}_{-0.061} \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3049^{+0.0091}_{-0.0033} \quad (-0.9\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.29 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.5 \pm 2.7 \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	r_*	$144.39 \pm 0.31 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.8 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.666 \pm 0.079 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.1 \pm 1.8 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.869 \pm 0.029 \quad (-0.0\sigma)$	χ_{small}^2	$397.2 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.91 \pm 0.30 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.57 \pm 0.97 \quad (+0.0\sigma)$
c_{217}	$0.99820 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.05 \pm 0.31 \quad (-0.0\sigma)$	χ_{plik}^2	$2360.0 \pm 6.0 \quad (+0.1\sigma)$
H_0	$67.0^{+1.2}_{-0.72} \quad (-0.4\sigma)$	k_{D}	$0.14090 \pm 0.00032 \quad (-0.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.680^{+0.016}_{-0.0092} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00017 \quad (+0.1\sigma)$	χ_{CMB}^2	$2780.7 \pm 6.0 \quad (+0.1\sigma)$
Ω_{m}	$0.3197^{+0.0092}_{-0.016} \quad (+0.4\sigma)$	z_{eq}	$3407 \pm 32 \quad (+0.0\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1435^{+0.0014}_{-0.0019} \quad (+0.3\sigma)$	k_{eq}	$0.010398 \pm 0.000097 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2792.20; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.67; R - 1 = 0.01347$$

6.6 base_mnu_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02250 \pm 0.00014 \quad (+0.1\sigma)$	$\Omega_\nu h^2$	< 0.000424	$100\theta_{\text{eq}}$	$0.8194^{+0.0056}_{-0.0048} \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1186^{+0.0011}_{-0.0013} \quad (-0.0\sigma)$	$\Omega_m h^3$	$0.09662^{+0.00036}_{-0.00030} \quad (+0.9\sigma)$	$100\theta_{\text{s,eq}}$	$0.4525^{+0.0028}_{-0.0025} \quad (+0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04114 \pm 0.00029 \quad (+0.2\sigma)$	σ_8	$0.8158^{+0.0095}_{-0.0078} \quad (+1.0\sigma)$	$H(0.15)$	$73.51^{+0.58}_{-0.47} \quad (+0.6\sigma)$
τ	$0.0579^{+0.0063}_{-0.0080} \quad (-0.0\sigma)$	S_8	$0.820^{+0.014}_{-0.015} \quad (+0.2\sigma)$	$D_{\text{M}}(0.15)$	$635.2^{+4.4}_{-5.7} \quad (-0.6\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0394	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4492^{+0.0074}_{-0.0083} \quad (+0.2\sigma)$	$H(0.38)$	$83.49^{+0.43}_{-0.35} \quad (+0.6\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.048^{+0.013}_{-0.017} \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6053 \pm 0.0081 \quad (+0.4\sigma)$	$D_{\text{M}}(0.38)$	$1517.0^{+9.0}_{-11} \quad (-0.6\sigma)$
n_{s}	$0.9687 \pm 0.0040 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.987 \pm 0.012 \quad (+0.6\sigma)$	$H(0.51)$	$90.13^{+0.35}_{-0.28} \quad (+0.7\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$100.7^{+1.1}_{-0.93} \quad (+0.5\sigma)$	$D_{\text{M}}(0.51)$	$1966^{+11}_{-14} \quad (-0.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.026 \quad (+0.2\sigma)$	$H(0.61)$	$95.69^{+0.29}_{-0.23} \quad (+0.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.389 \quad (+0.1\sigma)$	z_{re}	$7.97^{+0.64}_{-0.79} \quad (-0.0\sigma)$	$D_{\text{M}}(0.61)$	$2289^{+11}_{-15} \quad (-0.6\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.108^{+0.027}_{-0.036} \quad (+0.0\sigma)$	$H(2.33)$	$235.62^{+0.70}_{-0.80} \quad (-0.2\sigma)$
A_{100}^{PS}	$257 \pm 27 \quad (+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5745^{+10}_{-13} \quad (-0.8\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 12 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4541 \pm 0.0074 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5742 \pm 38 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7547^{+0.0088}_{-0.0069} \quad (+1.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4744 \pm 0.0064 \quad (+0.3\sigma)$
A^{kSZ}	$< 4.06 \quad (-0.0\sigma)$	D_{1420}	$818.3 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6698^{+0.0079}_{-0.0059} \quad (+1.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$231.5 \pm 1.6 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4740 \pm 0.0059 \quad (+0.5\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.7 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9687 \pm 0.0040 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6272^{+0.0074}_{-0.0055} \quad (+1.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4 \pm 3.4 \quad (-0.0\sigma)$	Y_{P}	$0.245443^{+0.000056}_{-0.000050} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4696 \pm 0.0055 \quad (+0.5\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.5 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246770^{+0.000056}_{-0.000050} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5970^{+0.0071}_{-0.0052} \quad (+1.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.036 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.562 \pm 0.025 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.3009^{+0.0032}_{-0.0026} \quad (+1.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	Age/Gyr	$13.756^{+0.023}_{-0.030} \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3108^{+0.0037}_{-0.0027} \quad (+1.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.483 \pm 0.087 \quad (+0.1\sigma)$	z_*	$1089.63^{+0.23}_{-0.27} \quad (-0.1\sigma)$	f_{2000}^{143}	$28.8 \pm 2.5 \quad (-0.0\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (+0.0\sigma)$	r_*	$144.71 \pm 0.28 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 1.7 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.665 \pm 0.079 \quad (+0.0\sigma)$	$100\theta_*$	$1.04130 \pm 0.00029 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.5 \pm 1.7 \quad (-0.0\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.897 \pm 0.026 \quad (-0.0\sigma)$	χ_{small}^2	$397.5 \pm 2.2 \quad (-0.1\sigma)$
c_{100}	$0.99969 \pm 0.00060 \quad (+0.0\sigma)$	z_{drag}	$1060.13 \pm 0.29 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.98 \pm 0.85 \quad (+0.1\sigma)$
c_{217}	$0.99819 \pm 0.00060 \quad (+0.0\sigma)$	r_{drag}	$147.33 \pm 0.28 \quad (+0.0\sigma)$	χ_{plik}^2	$2360.1 \pm 5.9 \quad (-0.1\sigma)$
H_0	$68.31^{+0.67}_{-0.54} \quad (+0.6\sigma)$	k_{D}	$0.14071 \pm 0.00031 \quad (+0.0\sigma)$	χ_{H073p45}^2	$9.7 \pm 2.3 \quad (-0.5\sigma)$
Ω_Λ	$0.6968^{+0.0088}_{-0.0068} \quad (+0.5\sigma)$	$100\theta_{\text{D}}$	$0.16067 \pm 0.00017 \quad (-0.0\sigma)$	χ_{prior}^2	$11.3 \pm 4.5 \quad (-0.1\sigma)$
Ω_{m}	$0.3032^{+0.0068}_{-0.0088} \quad (-0.5\sigma)$	z_{eq}	$3371^{+25}_{-29} \quad (-0.0\sigma)$	χ_{CMB}^2	$2780.6 \pm 5.9 \quad (-0.1\sigma)$
$\Omega_{\text{m}} h^2$	$0.1414^{+0.0011}_{-0.0013} \quad (-0.2\sigma)$	k_{eq}	$0.010289^{+0.000077}_{-0.000089} \quad (-0.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2801.63; \Delta\bar{\chi}_{\text{eff}}^2 = -2.26; R - 1 = 0.07310$$

6.7 base_mnu_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022145	0.02205 ± 0.00025 (-0.4σ)	S_8	0.8412	0.833 ± 0.025 (-0.2σ)	$100\theta_{s,eq}$	0.44852	0.4477 ± 0.0047 (-0.2σ)
$\Omega_c h^2$	0.12051	0.1210 ± 0.0022 $(+0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4607	0.456 ± 0.014 (-0.2σ)	$H(0.15)$	72.77	$71.2^{+2.1}_{-0.88}$ (-1.4σ)
$100\theta_{MC}$	1.04085	1.04070 ± 0.00051 (-0.3σ)	$\sigma_8 \Omega_m^{0.25}$	0.6158	$0.599^{+0.024}_{-0.012}$ (-0.9σ)	$D_M(0.15)$	642.4	$658.6^{+8.2}_{-23}$ $(+1.5\sigma)$
τ	0.0507	0.0517 ± 0.0081 (-0.0σ)	$\sigma_8/h^{0.5}$	1.0019	$0.971^{+0.041}_{-0.017}$ (-1.3σ)	$H(0.38)$	82.92	$81.7^{+1.6}_{-0.66}$ (-1.5σ)
Σm_ν [eV]	0.001	< 0.201	$r_{drag} h$	99.32	$96.7^{+3.8}_{-1.8}$ (-1.2σ)	$D_M(0.38)$	1531.7	1564^{+17}_{-45} $(+1.5\sigma)$
$\ln(10^{10} A_s)$	3.0361	3.039 ± 0.016 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4542	2.444 ± 0.038 (-0.1σ)	$H(0.51)$	89.66	$88.7^{+1.3}_{-0.53}$ (-1.6σ)
n_s	0.9637	0.9621 ± 0.0063 (-0.3σ)	z_{re}	7.36	7.49 ± 0.83 $(+0.0\sigma)$	$D_M(0.51)$	1983.9	2022^{+20}_{-53} $(+1.5\sigma)$
y_{cal}	1.00034	1.0005 ± 0.0025 (-0.0σ)	$10^9 A_s$	2.0825	2.088 ± 0.034 (-0.0σ)	$H(0.61)$	95.30	$94.5^{+1.1}_{-0.44}$ (-1.7σ)
A_{100}^{PS}	239.3	244 ± 25 $(+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8816	1.883 ± 0.014 $(+0.1\sigma)$	$D_M(0.61)$	2308.2	2350^{+21}_{-58} $(+1.5\sigma)$
A_{143}^{PS}	38.7	42 ± 9 $(+0.2\sigma)$	D_{40}	1229.4	1230 ± 15 $(+0.0\sigma)$	$H(2.33)$	236.34	$237.6^{+1.3}_{-2.1}$ $(+0.7\sigma)$
A_{217}^{PS}	99.7	101 ± 10 (-0.0σ)	D_{220}	5702.9	5701 ± 42 (-0.1σ)	$D_M(2.33)$	5763.1	5806^{+19}_{-57} $(+1.9\sigma)$
A_{217}^{CIB}	44.5	41 ± 7 $(+0.1\sigma)$	D_{810}	2533.4	2535 ± 14 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4644	0.460 ± 0.013 (-0.2σ)
A_{143}^{tSZ}	5.47	$3.7^{+1.7}_{-2.6}$ (-0.0σ)	D_{1420}	813.9	814.0 ± 5.3 (-0.1σ)	$\sigma_8(0.15)$	0.7601	$0.725^{+0.041}_{-0.010}$ (-3.1σ)
$r_{143 \times 217}^{PS}$	0.578	0.65 ± 0.13 (-0.0σ)	D_{2000}	229.58	229.1 ± 2.0 (-0.3σ)	$f\sigma_8(0.38)$	0.4824	$0.472^{+0.016}_{-0.0096}$ (-0.7σ)
$r_{143 \times 217}^{CIB}$	0.713	> 0.474 $(+0.0\sigma)$	$n_{s,0.002}$	0.9637	0.9621 ± 0.0063 (-0.3σ)	$\sigma_8(0.38)$	0.6734	$0.641^{+0.037}_{-0.0089}$ (-3.6σ)
$\xi^{tSZ \times CIB}$	0.04	—	Y_P	0.245303	$0.24526^{+0.00013}_{-0.000095}$ (-0.4σ)	$f\sigma_8(0.51)$	0.4807	$0.468^{+0.018}_{-0.0082}$ (-1.0σ)
A^{kSZ}	1.8	—	Y_P^{BBN}	0.246629	$0.24658^{+0.00013}_{-0.000096}$ (-0.4σ)	$\sigma_8(0.51)$	0.6300	$0.599^{+0.036}_{-0.0084}$ (-3.8σ)
A_{100}^{dust}	1.014	1.01 ± 0.19 (-0.0σ)	$10^5 D/H$	2.6285	$2.646^{+0.045}_{-0.051}$ $(+0.4\sigma)$	$f\sigma_8(0.61)$	0.4755	$0.462^{+0.019}_{-0.0073}$ (-1.3σ)
A_{143}^{dust}	0.980	0.98 ± 0.18 $(+0.0\sigma)$	Age/Gyr	13.796	$13.896^{+0.042}_{-0.13}$ $(+1.9\sigma)$	$\sigma_8(0.61)$	0.5993	$0.569^{+0.034}_{-0.0080}$ (-3.9σ)
A_{217}^{dust}	0.965	0.97 ± 0.10 $(+0.0\sigma)$	z_*	1090.247	$1090.44^{+0.43}_{-0.52}$ $(+0.4\sigma)$	$f\sigma_8(2.33)$	0.3011	$0.288^{+0.016}_{-0.0034}$ (-3.6σ)
$A_{143 \times 217}^{dust}$	1.011	1.03 ± 0.16 $(+0.0\sigma)$	r_*	144.478	144.39 ± 0.50 (-0.2σ)	$\sigma_8(2.33)$	0.3108	$0.295^{+0.018}_{-0.0042}$ (-4.1σ)
c_{100}	0.99748	0.9975 ± 0.0010 (-0.0σ)	$100\theta_*$	1.041019	1.04097 ± 0.00047 (-0.2σ)	f_{2000}^{143}	30.78	31.5 ± 3.2 $(+0.2\sigma)$
c_{217}	1.00139	1.0013 ± 0.0016 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8785	13.871 ± 0.046 (-0.2σ)	f_{2000}^{217}	107.44	108.0 ± 2.2 $(+0.2\sigma)$
H_0	67.47	$65.7^{+2.5}_{-1.0}$ (-1.4σ)	z_{drag}	1059.437	1059.29 ± 0.49 (-0.3σ)	$f_{2000}^{143 \times 217}$	32.87	33.5 ± 2.3 $(+0.3\sigma)$
Ω_Λ	0.6866	$0.662^{+0.034}_{-0.012}$ (-1.4σ)	r_{drag}	147.215	147.15 ± 0.49 (-0.2σ)	χ_{small}^2	395.71	397.0 ± 1.8 $(+0.0\sigma)$
Ω_m	0.3134	$0.338^{+0.012}_{-0.034}$ $(+1.4\sigma)$	k_D	0.14056	0.14057 ± 0.00053 $(+0.1\sigma)$	χ_{lowl}^2	23.54	23.6 ± 1.3 $(+0.1\sigma)$
$\Omega_m h^2$	0.14267	$0.1450^{+0.0021}_{-0.0036}$ $(+0.9\sigma)$	$100\theta_D$	0.161047	0.16112 ± 0.00028 $(+0.2\sigma)$	$\chi_{CamSpec}^2$	7049.7	7064.5 ± 5.7 $(+0.2\sigma)$
$\Omega_\nu h^2$	0.00001	< 0.00216	z_{eq}	3409.1	3418 ± 50 $(+0.2\sigma)$	χ_{prior}^2	2.27	7.7 ± 3.5 (-0.0σ)
$\Omega_m h^3$	0.09626	$0.0952^{+0.0014}_{-0.00050}$ (-1.6σ)	k_{eq}	0.010405	0.01043 ± 0.00015 $(+0.2\sigma)$	χ_{CMB}^2	7469.0	7485.1 ± 5.8 $(+0.2\sigma)$
σ_8	0.8230	$0.787^{+0.042}_{-0.011}$ (-2.7σ)	$100\theta_{eq}$	0.8113	0.8097 ± 0.0092 (-0.2σ)			

Best-fit $\chi_{eff}^2 = 7471.23$; $\Delta\chi_{eff}^2 = -0.51$; $\bar{\chi}_{eff}^2 = 7492.77$; $\Delta\bar{\chi}_{eff}^2 = 1.23$; $R - 1 = 0.00611$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.71 (Δ -0.12) commander_dx12_v3.2.29: 23.54 (Δ 0.14) CamSpec like_10.7HM: 7049.70 (Δ -0.64)

6.8 base_mnu_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02206 \pm 0.00025 \quad (-0.4\sigma)$	S_8	$0.833 \pm 0.025 \quad (-0.2\sigma)$	$100\theta_{s,eq}$	$0.4479 \pm 0.0047 \quad (-0.2\sigma)$
$\Omega_c h^2$	$0.1209 \pm 0.0022 \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.456 \pm 0.014 \quad (-0.2\sigma)$	$H(0.15)$	$71.3^{+2.1}_{-0.89} \quad (-1.4\sigma)$
$100\theta_{MC}$	$1.04071 \pm 0.00051 \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.599^{+0.024}_{-0.012} \quad (-0.9\sigma)$	$D_M(0.15)$	$658.3^{+8.2}_{-23} \quad (+1.5\sigma)$
τ	$0.0534^{+0.0046}_{-0.0082} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.972^{+0.041}_{-0.017} \quad (-1.3\sigma)$	$H(0.38)$	$81.8^{+1.6}_{-0.66} \quad (-1.5\sigma)$
Σm_ν [eV]	< 0.202	$r_{drag} h$	$96.7^{+3.9}_{-1.8} \quad (-1.2\sigma)$	$D_M(0.38)$	$1564^{+17}_{-46} \quad (+1.5\sigma)$
$\ln(10^{10} A_s)$	$3.042^{+0.011}_{-0.016} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.037 \quad (-0.1\sigma)$	$H(0.51)$	$88.7^{+1.3}_{-0.53} \quad (-1.6\sigma)$
n_s	$0.9624 \pm 0.0063 \quad (-0.3\sigma)$	z_{re}	$7.67^{+0.51}_{-0.85} \quad (-0.0\sigma)$	$D_M(0.51)$	$2022^{+20}_{-54} \quad (+1.5\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_s$	$2.095^{+0.023}_{-0.034} \quad (-0.0\sigma)$	$H(0.61)$	$94.5^{+1.1}_{-0.44} \quad (-1.7\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.014 \quad (+0.1\sigma)$	$D_M(0.61)$	$2349^{+21}_{-58} \quad (+1.5\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.1\sigma)$	D_{40}	$1230 \pm 15 \quad (+0.0\sigma)$	$H(2.33)$	$237.5^{+1.3}_{-2.1} \quad (+0.7\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5701 \pm 42 \quad (-0.1\sigma)$	$D_M(2.33)$	$5806^{+19}_{-57} \quad (+1.9\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.460 \pm 0.013 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	D_{1420}	$814.0 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.726^{+0.041}_{-0.010} \quad (-3.4\sigma)$
$r_{143 \times 217}^{PS}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$229.2 \pm 2.0 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.473^{+0.016}_{-0.0097} \quad (-0.7\sigma)$
$r_{143 \times 217}^{CIB}$	$> 0.473 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9624 \pm 0.0063 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.642^{+0.037}_{-0.0088} \quad (-4.1\sigma)$
$\xi^{tSZ \times CIB}$	—	Y_P	$0.24526^{+0.00013}_{-0.000095} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.469^{+0.018}_{-0.0082} \quad (-1.0\sigma)$
A^{kSZ}	—	Y_P^{BBN}	$0.24659^{+0.00013}_{-0.000095} \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.600^{+0.035}_{-0.0082} \quad (-4.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$10^5 D/H$	$2.645^{+0.045}_{-0.051} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.462^{+0.019}_{-0.0072} \quad (-1.3\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	Age/Gyr	$13.895^{+0.042}_{-0.13} \quad (+2.0\sigma)$	$\sigma_8(0.61)$	$0.570^{+0.034}_{-0.0078} \quad (-4.5\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1090.42^{+0.43}_{-0.53} \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.288^{+0.016}_{-0.0033} \quad (-4.2\sigma)$
$A_{143 \times 217}^{dust}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.40 \pm 0.50 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.018}_{-0.0041} \quad (-4.8\sigma)$
c_{100}	$0.9974 \pm 0.0010 \quad (-0.0\sigma)$	$100\theta_*$	$1.04098 \pm 0.00047 \quad (-0.2\sigma)$	f_{2000}^{143}	$31.4 \pm 3.2 \quad (+0.2\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.872 \pm 0.046 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.0 \pm 2.2 \quad (+0.2\sigma)$
H_0	$65.7^{+2.5}_{-1.0} \quad (-1.4\sigma)$	z_{drag}	$1059.30 \pm 0.50 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.3 \quad (+0.2\sigma)$
Ω_Λ	$0.663^{+0.035}_{-0.012} \quad (-1.4\sigma)$	r_{drag}	$147.17 \pm 0.49 \quad (-0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (+0.0\sigma)$
Ω_m	$0.337^{+0.012}_{-0.035} \quad (+1.4\sigma)$	k_D	$0.14056 \pm 0.00053 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.6 \pm 1.3 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.1449^{+0.0021}_{-0.0037} \quad (+0.9\sigma)$	$100\theta_D$	$0.16112 \pm 0.00028 \quad (+0.2\sigma)$	$\chi_{CamSpec}^2$	$7064.4 \pm 5.7 \quad (+0.2\sigma)$
$\Omega_\nu h^2$	< 0.00217	z_{eq}	$3416 \pm 50 \quad (+0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_m h^3$	$0.0952^{+0.0014}_{-0.00050} \quad (-1.7\sigma)$	k_{eq}	$0.01043 \pm 0.00015 \quad (+0.2\sigma)$	χ_{CMB}^2	$7484.8 \pm 5.7 \quad (+0.2\sigma)$
σ_8	$0.788^{+0.042}_{-0.011} \quad (-2.8\sigma)$	$100\theta_{eq}$	$0.8101 \pm 0.0092 \quad (-0.2\sigma)$		

$\bar{\chi}_{eff}^2 = 7492.51$; $\Delta\bar{\chi}_{eff}^2 = 1.25$; $R - 1 = 0.00841$

6.9 base_mnu_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022312	0.02227 ± 0.00017 (-0.2σ)	σ_8	0.8205	$0.795^{+0.030}_{-0.010}$ (-1.8σ)	$100\theta_{s,eq}$	0.45053	0.4502 ± 0.0030 (-0.0σ)
$\Omega_c h^2$	0.11951	0.1197 ± 0.0014 $(+0.1\sigma)$	S_8	0.8298	0.822 ± 0.018 (-0.3σ)	$H(0.15)$	73.22	$72.2^{+1.4}_{-0.62}$ (-1.0σ)
$100\theta_{MC}$	1.040926	1.04082 ± 0.00034 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4545	0.4504 ± 0.0096 (-0.3σ)	$D_M(0.15)$	638.0	$648.7^{+5.8}_{-14}$ $(+1.1\sigma)$
τ	0.0522	0.0528 ± 0.0079 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6107	$0.598^{+0.017}_{-0.0092}$ (-0.8σ)	$H(0.38)$	83.26	$82.4^{+1.1}_{-0.46}$ (-1.1σ)
Σm_ν [eV]	0.001	< 0.149	$\sigma_8/h^{0.5}$	0.9951	$0.972^{+0.029}_{-0.013}$ (-1.0σ)	$D_M(0.38)$	1522.7	1544^{+12}_{-28} $(+1.1\sigma)$
$\ln(10^{10} A_s)$	3.0374	3.039 ± 0.016 $(+0.0\sigma)$	$r_{drag} h$	100.14	$98.4^{+2.4}_{-1.2}$ (-0.9σ)	$H(0.51)$	89.94	$89.25^{+0.88}_{-0.37}$ (-1.2σ)
n_s	0.96667	0.9652 ± 0.0047 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4385	2.428 ± 0.029 (-0.2σ)	$D_M(0.51)$	1973.3	1999^{+14}_{-34} $(+1.1\sigma)$
y_{cal}	1.00034	1.0006 ± 0.0024 $(+0.0\sigma)$	z_{re}	7.46	7.53 ± 0.81 $(+0.0\sigma)$	$H(0.61)$	95.53	$94.94^{+0.75}_{-0.31}$ (-1.2σ)
A_{100}^{PS}	231.3	241 ± 25 $(+0.1\sigma)$	$10^9 A_s$	2.0851	2.088 ± 0.034 $(+0.0\sigma)$	$D_M(0.61)$	2296.8	2325^{+15}_{-37} $(+1.1\sigma)$
A_{143}^{PS}	45.8	40 ± 8 $(+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8786	1.879 ± 0.011 $(+0.0\sigma)$	$H(2.33)$	235.85	$236.65^{+0.89}_{-1.3}$ $(+0.5\sigma)$
A_{217}^{PS}	103.5	102 ± 10 (-0.0σ)	D_{40}	1224.5	1227 ± 13 $(+0.0\sigma)$	$D_M(2.33)$	5752.6	5782^{+14}_{-37} $(+1.4\sigma)$
A_{217}^{CIB}	43.3	40 ± 7 $(+0.0\sigma)$	D_{220}	5716.5	5720 ± 38 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4587	$0.4549^{+0.0094}_{-0.0085}$ (-0.3σ)
A_{143}^{tSZ}	6.55	$3.8^{+1.8}_{-2.6}$ (-0.0σ)	D_{810}	2535.3	2536 ± 13 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7585	$0.733^{+0.029}_{-0.0091}$ (-2.0σ)
$r_{143 \times 217}^{PS}$	0.674	0.65 ± 0.13 (-0.0σ)	D_{1420}	816.03	815.7 ± 4.8 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4782	$0.471^{+0.011}_{-0.0071}$ (-0.6σ)
$r_{143 \times 217}^{CIB}$	0.848	$0.57^{+0.40}_{-0.16}$ $(+0.0\sigma)$	D_{2000}	230.50	230.1 ± 1.7 (-0.1σ)	$\sigma_8(0.38)$	0.6727	$0.649^{+0.027}_{-0.0081}$ (-2.2σ)
$\xi^{tSZ \times CIB}$	0.49	—	$n_{s,0.002}$	0.96667	0.9652 ± 0.0047 (-0.1σ)	$f\sigma_8(0.51)$	0.4772	$0.468^{+0.012}_{-0.0063}$ (-0.8σ)
A^{kSZ}	0.04	$4.8^{+2.6}_{-3.7}$ $(+0.0\sigma)$	Y_P	0.245372	$0.245351^{+0.000072}_{-0.000063}$ (-0.2σ)	$\sigma_8(0.51)$	0.6296	$0.607^{+0.026}_{-0.0076}$ (-2.2σ)
A_{100}^{dust}	1.006	1.01 ± 0.20 $(+0.0\sigma)$	Y_P^{BBN}	0.246698	$0.246677^{+0.000072}_{-0.000063}$ (-0.2σ)	$f\sigma_8(0.61)$	0.4725	$0.463^{+0.013}_{-0.0058}$ (-1.0σ)
A_{143}^{dust}	0.981	0.97 ± 0.18 $(+0.0\sigma)$	$10^5 D/H$	2.5965	2.606 ± 0.032 $(+0.2\sigma)$	$\sigma_8(0.61)$	0.5991	$0.578^{+0.025}_{-0.0072}$ (-2.3σ)
A_{217}^{dust}	0.976	0.97 ± 0.10 (-0.0σ)	Age/Gyr	13.773	$13.841^{+0.031}_{-0.085}$ $(+1.4\sigma)$	$f\sigma_8(2.33)$	0.3013	$0.292^{+0.011}_{-0.0032}$ (-2.0σ)
$A_{143 \times 217}^{dust}$	1.005	1.03 ± 0.16 (-0.0σ)	z_*	1089.946	1090.04 ± 0.31 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.3113	$0.300^{+0.013}_{-0.0038}$ (-2.3σ)
c_{100}	0.99774	0.9975 ± 0.0011 $(+0.0\sigma)$	r_*	144.609	144.57 ± 0.32 (-0.0σ)	f_{2000}^{143}	29.84	30.2 ± 2.9 $(+0.1\sigma)$
c_{217}	1.00133	1.0011 ± 0.0016 $(+0.0\sigma)$	$100\theta_*$	1.041078	1.04105 ± 0.00032 (-0.1σ)	f_{2000}^{217}	106.52	107.2 ± 2.0 $(+0.1\sigma)$
c_{TE}	0.99645	0.9971 ± 0.0050 $(+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8903	13.887 ± 0.029 (-0.0σ)	$f_{2000}^{143 \times 217}$	31.94	32.5 ± 2.1 $(+0.1\sigma)$
c_{EE}	0.99230	0.9924 ± 0.0049 $(+0.0\sigma)$	z_{drag}	1059.780	1059.68 ± 0.34 (-0.2σ)	χ_{simall}^2	395.78	396.9 ± 1.7 (-0.0σ)
H_0	67.99	$66.8^{+1.6}_{-0.71}$ (-1.0σ)	r_{drag}	147.291	147.27 ± 0.32 (-0.0σ)	χ_{lowl}^2	23.03	23.13 ± 0.94 (-0.0σ)
Ω_Λ	0.6931	$0.678^{+0.021}_{-0.0087}$ (-1.0σ)	k_D	0.140605	0.14061 ± 0.00035 (-0.0σ)	$\chi_{CamSpec}^2$	11499.2	11515.5 ± 6.0 $(+0.2\sigma)$
Ω_m	0.3069	$0.3221^{+0.0087}_{-0.021}$ $(+1.0\sigma)$	$100\theta_D$	0.160856	0.16089 ± 0.00020 $(+0.1\sigma)$	χ_{prior}^2	2.06	7.8 ± 3.4 (-0.0σ)
$\Omega_m h^2$	0.14183	$0.1434^{+0.0014}_{-0.0023}$ $(+0.6\sigma)$	z_{eq}	3389.1	3393 ± 31 $(+0.0\sigma)$	χ_{CMB}^2	11918.0	11935.6 ± 6.1 $(+0.2\sigma)$
$\Omega_\nu h^2$	0.00001	< 0.00160	k_{eq}	0.010344	0.010356 ± 0.000096 $(+0.0\sigma)$			
$\Omega_m h^3$	0.09642	$0.09572^{+0.00094}_{-0.00037}$ (-1.2σ)	$100\theta_{eq}$	0.8154	0.8147 ± 0.0059 (-0.0σ)			

Best-fit $\chi_{eff}^2 = 11920.07$; $\Delta\chi_{eff}^2 = -0.70$; $\bar{\chi}_{eff}^2 = 11943.39$; $\Delta\bar{\chi}_{eff}^2 = 0.93$; $R - 1 = 0.01661$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.78 (Δ -0.12) commander_dx12_v3.2.29: 23.03 (Δ 0.03) CamSpec like_10.7HM_1400_unified: 11499.19 (Δ -0.46)

6.10 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}} h^2$	$0.02243^{+0.00015}_{-0.00017} \quad (+0.1\sigma)$	σ_8	$0.810^{+0.011}_{-0.0085} \quad (+0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4539 \pm 0.0028 \quad (+0.0\sigma)$
$\Omega_{\text{c}} h^2$	$0.1180 \pm 0.0013 \quad (-0.1\sigma)$	S_8	$0.811 \pm 0.015 \quad (+0.1\sigma)$	$H(0.15)$	$73.59^{+0.61}_{-0.55} \quad (+0.5\sigma)$
$100\theta_{\text{MC}}$	$1.04110 \pm 0.00032 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4444 \pm 0.0084 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$634.4^{+5.2}_{-6.0} \quad (-0.5\sigma)$
τ	$0.0549 \pm 0.0080 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6000 \pm 0.0087 \quad (+0.3\sigma)$	$H(0.38)$	$83.52^{+0.46}_{-0.41} \quad (+0.6\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.0450	$\sigma_8/h^{0.5}$	$0.979 \pm 0.013 \quad (+0.4\sigma)$	$D_{\text{M}}(0.38)$	$1516^{+11}_{-12} \quad (-0.5\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.040 \pm 0.016 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$101.0 \pm 1.1 \quad (+0.4\sigma)$	$H(0.51)$	$90.13^{+0.37}_{-0.33} \quad (+0.6\sigma)$
n_{s}	$0.9697 \pm 0.0044 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.414 \pm 0.028 \quad (+0.1\sigma)$	$D_{\text{M}}(0.51)$	$1965^{+12}_{-14} \quad (-0.5\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.68 \pm 0.81 \quad (-0.1\sigma)$	$H(0.61)$	$95.67^{+0.31}_{-0.27} \quad (+0.6\sigma)$
A_{100}^{PS}	$239 \pm 24 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.091 \pm 0.034 \quad (-0.0\sigma)$	$D_{\text{M}}(0.61)$	$2288^{+13}_{-15} \quad (-0.5\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.873 \pm 0.011 \quad (+0.0\sigma)$	$H(2.33)$	$235.18 \pm 0.80 \quad (-0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1220 \pm 13 \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5747^{+12}_{-14} \quad (-0.7\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5730 \pm 40 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4495 \pm 0.0079 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.4} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.750^{+0.010}_{-0.0076} \quad (+0.8\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$817.0 \pm 4.9 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4701 \pm 0.0068 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.43}_{-0.15} \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 1.7 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6656^{+0.0092}_{-0.0064} \quad (+0.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$0.48^{+0.36}_{-0.44} \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9697 \pm 0.0044 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4700 \pm 0.0063 \quad (+0.3\sigma)$
A^{kSZ}	$4.7^{+1.7}_{-4.5} \quad (+0.0\sigma)$	Y_{P}	$0.245417 \pm 0.000061 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6233^{+0.0087}_{-0.0060} \quad (+1.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246743 \pm 0.000062 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4658 \pm 0.0060 \quad (+0.4\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.575 \pm 0.029 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5934^{+0.0083}_{-0.0056} \quad (+1.0\sigma)$
A_{217}^{dust}	$0.977^{+0.093}_{-0.10} \quad (+0.0\sigma)$	Age/Gyr	$13.763^{+0.028}_{-0.032} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.2993^{+0.0038}_{-0.0028} \quad (+0.9\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.15 \quad (-0.0\sigma)$	z_*	$1089.67 \pm 0.27 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3092^{+0.0044}_{-0.0030} \quad (+1.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	r_*	$144.91 \pm 0.29 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.9 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (+0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00032 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (-0.0\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.917 \pm 0.028 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.1 \quad (-0.0\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (-0.0\sigma)$	z_{drag}	$1059.93^{+0.31}_{-0.36} \quad (+0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (-0.0\sigma)$
H_0	$68.42^{+0.71}_{-0.63} \quad (+0.5\sigma)$	r_{drag}	$147.57 \pm 0.30 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.56 \pm 0.85 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6991^{+0.0091}_{-0.0078} \quad (+0.4\sigma)$	k_{D}	$0.14041 \pm 0.00034 \quad (-0.0\sigma)$	χ_{CamSpec}^2	$11516.2 \pm 6.0 \quad (-0.0\sigma)$
Ω_{m}	$0.3009^{+0.0078}_{-0.0091} \quad (-0.4\sigma)$	$100\theta_{\text{D}}$	$0.16077 \pm 0.00019 \quad (-0.0\sigma)$	χ_{H073p45}^2	$9.3 \pm 2.5 \quad (-0.5\sigma)$
$\Omega_{\text{m}} h^2$	$0.1408 \pm 0.0013 \quad (-0.2\sigma)$	z_{eq}	$3355 \pm 29 \quad (-0.0\sigma)$	χ_{prior}^2	$7.5 \pm 3.3 \quad (-0.1\sigma)$
$\Omega_{\nu} h^2$	< 0.000484	k_{eq}	$0.010241 \pm 0.000088 \quad (-0.0\sigma)$	χ_{CMB}^2	$11935.8 \pm 6.0 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.09635 \pm 0.00038 \quad (+0.6\sigma)$	$100\theta_{\text{eq}}$	$0.8221 \pm 0.0056 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11952.66; \Delta\bar{\chi}_{\text{eff}}^2 = -1.61; R - 1 = 0.05737$$

6.11 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02227 \pm 0.00017 \quad (-0.2\sigma)$	σ_8	$0.795^{+0.030}_{-0.0097} \quad (-2.0\sigma)$	$100\theta_{s,eq}$	$0.4503 \pm 0.0030 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.1197 \pm 0.0014 \quad (+0.1\sigma)$	S_8	$0.823 \pm 0.018 \quad (-0.3\sigma)$	$H(0.15)$	$72.2^{+1.4}_{-0.62} \quad (-1.1\sigma)$
$100\theta_{MC}$	$1.04083 \pm 0.00034 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4507 \pm 0.0096 \quad (-0.3\sigma)$	$D_M(0.15)$	$648.5^{+5.8}_{-14} \quad (+1.1\sigma)$
τ	$0.0543^{+0.0047}_{-0.0081} \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.599^{+0.016}_{-0.0091} \quad (-0.9\sigma)$	$H(0.38)$	$82.4^{+1.1}_{-0.46} \quad (-1.1\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.150	$\sigma_8/h^{0.5}$	$0.973^{+0.029}_{-0.013} \quad (-1.1\sigma)$	$D_M(0.38)$	$1544^{+12}_{-29} \quad (+1.1\sigma)$
$\ln(10^{10} A_s)$	$3.042^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$r_{drag} h$	$98.4^{+2.4}_{-1.2} \quad (-0.9\sigma)$	$H(0.51)$	$89.26^{+0.89}_{-0.38} \quad (-1.2\sigma)$
n_s	$0.9654 \pm 0.0046 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.028 \quad (-0.2\sigma)$	$D_M(0.51)$	$1999^{+14}_{-34} \quad (+1.1\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.69^{+0.53}_{-0.80} \quad (-0.0\sigma)$	$H(0.61)$	$94.94^{+0.75}_{-0.31} \quad (-1.3\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.1\sigma)$	$10^9 A_s$	$2.094^{+0.024}_{-0.033} \quad (-0.0\sigma)$	$D_M(0.61)$	$2324^{+15}_{-37} \quad (+1.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.0\sigma)$	$H(2.33)$	$236.63^{+0.89}_{-1.3} \quad (+0.5\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 13 \quad (+0.0\sigma)$	$D_M(2.33)$	$5782^{+14}_{-37} \quad (+1.4\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4552^{+0.0094}_{-0.0084} \quad (-0.3\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.734^{+0.029}_{-0.0088} \quad (-2.3\sigma)$
$r_{143 \times 217}^{PS}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$815.7 \pm 4.8 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.471^{+0.011}_{-0.0071} \quad (-0.6\sigma)$
$r_{143 \times 217}^{CIB}$	$0.57^{+0.41}_{-0.16} \quad (+0.0\sigma)$	D_{2000}	$230.1 \pm 1.7 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.650^{+0.027}_{-0.0078} \quad (-2.5\sigma)$
$\xi^{tSZ \times CIB}$	—	$n_{s,0.002}$	$0.9654 \pm 0.0046 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.469^{+0.012}_{-0.0062} \quad (-0.9\sigma)$
A^{kSZ}	$4.8^{+2.6}_{-3.8} \quad (+0.0\sigma)$	Y_P	$0.245353^{+0.000072}_{-0.000063} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.608^{+0.025}_{-0.0072} \quad (-2.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246679^{+0.000072}_{-0.000063} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.463^{+0.013}_{-0.0057} \quad (-1.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$10^5 D/H$	$2.605 \pm 0.032 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.578^{+0.024}_{-0.0069} \quad (-2.7\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	Age/Gyr	$13.840^{+0.031}_{-0.086} \quad (+1.5\sigma)$	$f\sigma_8(2.33)$	$0.292^{+0.011}_{-0.0031} \quad (-2.4\sigma)$
$A_{143 \times 217}^{dust}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	z_*	$1090.03 \pm 0.31 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.300^{+0.013}_{-0.0036} \quad (-2.7\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$144.58 \pm 0.31 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.1 \pm 2.9 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00032 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.1 \pm 2.0 \quad (+0.1\sigma)$
c_{TE}	$0.9970 \pm 0.0050 \quad (+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.888 \pm 0.029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.0 \quad (+0.1\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (+0.1\sigma)$	z_{drag}	$1059.69 \pm 0.34 \quad (-0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
H_0	$66.8^{+1.6}_{-0.71} \quad (-1.0\sigma)$	r_{drag}	$147.28 \pm 0.31 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.14 \pm 0.94 \quad (-0.0\sigma)$
Ω_Λ	$0.678^{+0.021}_{-0.0087} \quad (-1.0\sigma)$	k_D	$0.14060 \pm 0.00035 \quad (-0.0\sigma)$	$\chi_{CamSpec}^2$	$11515.4 \pm 6.0 \quad (+0.2\sigma)$
Ω_m	$0.3219^{+0.0087}_{-0.021} \quad (+1.0\sigma)$	$100\theta_D$	$0.16089 \pm 0.00019 \quad (+0.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1433^{+0.0014}_{-0.0023} \quad (+0.6\sigma)$	z_{eq}	$3392 \pm 31 \quad (+0.0\sigma)$	χ_{CMB}^2	$11935.4 \pm 6.1 \quad (+0.2\sigma)$
$\Omega_\nu h^2$	< 0.00161	k_{eq}	$0.010353 \pm 0.000095 \quad (+0.0\sigma)$		
$\Omega_m h^3$	$0.09572^{+0.00095}_{-0.00037} \quad (-1.2\sigma)$	$100\theta_{eq}$	$0.8149 \pm 0.0059 \quad (-0.0\sigma)$		

$$\bar{\chi}_{eff}^2 = 11943.12; \Delta\bar{\chi}_{eff}^2 = 0.93; R - 1 = 0.01799$$

6.12 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243^{+0.00015}_{-0.00017} \quad (+0.1\sigma)$	σ_8	$0.811^{+0.010}_{-0.0083} \quad (+0.8\sigma)$	$100\theta_{s,eq}$	$0.4540 \pm 0.0028 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1180 \pm 0.0013 \quad (-0.0\sigma)$	S_8	$0.812 \pm 0.015 \quad (+0.1\sigma)$	$H(0.15)$	$73.60^{+0.61}_{-0.55} \quad (+0.5\sigma)$
$100\theta_{MC}$	$1.04111 \pm 0.00032 \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4446 \pm 0.0083 \quad (+0.1\sigma)$	$D_M(0.15)$	$634.3^{+5.2}_{-6.0} \quad (-0.5\sigma)$
τ	$0.0561^{+0.0059}_{-0.0079} \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6004 \pm 0.0085 \quad (+0.3\sigma)$	$H(0.38)$	$83.53^{+0.46}_{-0.41} \quad (+0.5\sigma)$
Σm_ν [eV]	< 0.0453	$\sigma_8/h^{0.5}$	$0.980 \pm 0.013 \quad (+0.4\sigma)$	$D_M(0.38)$	$1515^{+11}_{-12} \quad (-0.5\sigma)$
$\ln(10^{10} A_s)$	$3.042^{+0.013}_{-0.016} \quad (-0.0\sigma)$	$r_{drag} h$	$101.0 \pm 1.1 \quad (+0.4\sigma)$	$H(0.51)$	$90.14^{+0.37}_{-0.33} \quad (+0.6\sigma)$
n_s	$0.9698 \pm 0.0044 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.416 \pm 0.027 \quad (+0.1\sigma)$	$D_M(0.51)$	$1965^{+13}_{-14} \quad (-0.5\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.80^{+0.60}_{-0.81} \quad (-0.1\sigma)$	$H(0.61)$	$95.68^{+0.31}_{-0.28} \quad (+0.6\sigma)$
A_{100}^{PS}	$239 \pm 24 \quad (+0.0\sigma)$	$10^9 A_s$	$2.095^{+0.027}_{-0.034} \quad (-0.0\sigma)$	$D_M(0.61)$	$2288^{+14}_{-15} \quad (-0.5\sigma)$
A_{143}^{PS}	$38 \pm 8 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.873 \pm 0.011 \quad (-0.0\sigma)$	$H(2.33)$	$235.16 \pm 0.80 \quad (-0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1220 \pm 13 \quad (+0.0\sigma)$	$D_M(2.33)$	$5747^{+13}_{-14} \quad (-0.7\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5730 \pm 41 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4498 \pm 0.0078 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.4} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7503^{+0.0097}_{-0.0073} \quad (+0.9\sigma)$
$r_{143 \times 217}^{PS}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$816.9 \pm 4.9 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4705 \pm 0.0067 \quad (+0.3\sigma)$
$r_{143 \times 217}^{CIB}$	$0.55^{+0.43}_{-0.16} \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 1.7 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6662^{+0.0087}_{-0.0061} \quad (+1.0\sigma)$
$\xi^{tSZ \times CIB}$	$0.48^{+0.34}_{-0.44} \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9698 \pm 0.0044 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4704 \pm 0.0061 \quad (+0.3\sigma)$
A^{kSZ}	$4.7^{+1.6}_{-4.6} \quad (+0.0\sigma)$	Y_P	$0.245418 \pm 0.000061 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6239^{+0.0082}_{-0.0056} \quad (+1.1\sigma)$
A_{100}^{dust}	$1.02 \pm 0.19 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246745 \pm 0.000061 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4663 \pm 0.0058 \quad (+0.4\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$10^5 D/H$	$2.574 \pm 0.029 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5940^{+0.0079}_{-0.0053} \quad (+1.1\sigma)$
A_{217}^{dust}	$0.977^{+0.091}_{-0.10} \quad (+0.0\sigma)$	Age/Gyr	$13.762^{+0.028}_{-0.032} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.2996^{+0.0035}_{-0.0026} \quad (+1.0\sigma)$
$A_{143 \times 217}^{dust}$	$1.02 \pm 0.15 \quad (-0.0\sigma)$	z_*	$1089.66 \pm 0.27 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3095^{+0.0041}_{-0.0028} \quad (+1.1\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	r_*	$144.92 \pm 0.29 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.1 \pm 2.9 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (+0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00032 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (+0.0\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.1\sigma)$	$D_M(z_*)/Gpc$	$13.917 \pm 0.028 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.1 \quad (-0.0\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (-0.0\sigma)$	z_{drag}	$1059.93^{+0.32}_{-0.36} \quad (+0.0\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
H_0	$68.44 \pm 0.67 \quad (+0.5\sigma)$	r_{drag}	$147.57 \pm 0.30 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.57 \pm 0.86 \quad (+0.1\sigma)$
Ω_Λ	$0.6992^{+0.0091}_{-0.0078} \quad (+0.4\sigma)$	k_D	$0.14041 \pm 0.00034 \quad (-0.0\sigma)$	$\chi_{CamSpec}^2$	$11516.1 \pm 6.0 \quad (-0.0\sigma)$
Ω_m	$0.3008^{+0.0078}_{-0.0091} \quad (-0.4\sigma)$	$100\theta_D$	$0.16077 \pm 0.00019 \quad (-0.0\sigma)$	$\chi_{H073p45}^2$	$9.3 \pm 2.5 \quad (-0.4\sigma)$
$\Omega_m h^2$	$0.1408 \pm 0.0013 \quad (-0.2\sigma)$	z_{eq}	$3355 \pm 29 \quad (-0.0\sigma)$	χ_{prior}^2	$7.5 \pm 3.2 \quad (-0.1\sigma)$
$\Omega_\nu h^2$	< 0.000487	k_{eq}	$0.010239 \pm 0.000088 \quad (-0.0\sigma)$	χ_{CMB}^2	$11935.7 \pm 6.0 \quad (-0.0\sigma)$
$\Omega_m h^3$	$0.09635^{+0.00038}_{-0.00034} \quad (+0.6\sigma)$	$100\theta_{eq}$	$0.8222 \pm 0.0055 \quad (+0.0\sigma)$		

$\bar{\chi}_{eff}^2 = 11952.44$; $\Delta\bar{\chi}_{eff}^2 = -1.57$; $R - 1 = 0.06967$

6.13 base_mnu_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022386	0.02232 ± 0.00028 (-0.7σ)	$\sigma_8/h^{0.5}$	0.907	$0.861^{+0.090}_{-0.056}$ (-5.6σ)	$100\theta_{\text{eq}}$	0.8228	0.8231 ± 0.0090 (-0.1σ)
$\Omega_c h^2$	0.11793	0.1181 ± 0.0021 $(+0.2\sigma)$	$r_{\text{drag}} h$	97.4	$94.0^{+6.5}_{-4.0}$ (-4.4σ)	$100\theta_{\text{s,eq}}$	0.45436	0.4546 ± 0.0046 (-0.0σ)
$100\theta_{\text{MC}}$	1.04122	1.04113 ± 0.00053 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.3618	2.364 ± 0.045 (-0.5σ)	$H(0.15)$	71.44	$69.5^{+3.7}_{-2.3}$ (-5.2σ)
τ	0.0493	0.0481 ± 0.0085 (-0.2σ)	z_{re}	7.16	$7.06^{+0.92}_{-0.75}$ (-0.1σ)	$D_{\text{M}}(0.15)$	655.6	678^{+22}_{-43} $(+5.7\sigma)$
Σm_ν [eV]	0.312	< 0.717	$10^9 A_{\text{s}}$	2.0371	2.028 ± 0.042 (-0.4σ)	$H(0.38)$	81.82	$80.4^{+2.8}_{-1.8}$ (-5.5σ)
$\ln(10^{10} A_{\text{s}})$	3.0141	3.009 ± 0.021 (-0.4σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8458	1.841 ± 0.020 (-0.5σ)	$D_{\text{M}}(0.38)$	1559	1603^{+45}_{-85} $(+5.7\sigma)$
n_{s}	0.9623	0.958 ± 0.013 (-0.8σ)	D_{40}	1215.0	1210 ± 27 (-0.1σ)	$H(0.51)$	88.69	$87.5^{+2.3}_{-1.6}$ (-5.7σ)
A_{100}^{dustTE}	0.1132	0.113 ± 0.038 (-0.0σ)	D_{220}	5694	5705 ± 59 $(+0.2\sigma)$	$D_{\text{M}}(0.51)$	2017	2068^{+54}_{-99} $(+5.8\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1350	0.135 ± 0.029 (-0.0σ)	D_{810}	2498.4	2494 ± 26 (-0.5σ)	$H(0.61)$	94.42	$93.4^{+1.9}_{-1.4}$ (-6.0σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.478 ± 0.085 $(+0.0\sigma)$	D_{1420}	802.9	801 ± 12 (-0.5σ)	$D_{\text{M}}(0.61)$	2344	2399^{+59}_{-110} $(+5.8\sigma)$
A_{143}^{dustTE}	0.219	0.219 ± 0.055 (-0.0σ)	D_{2000}	225.52	224.4 ± 4.7 (-0.8σ)	$H(2.33)$	236.64	$238.3^{+1.9}_{-3.2}$ $(+2.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.654	0.658 ± 0.080 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.9623	0.958 ± 0.013 (-0.8σ)	$D_{\text{M}}(2.33)$	5809	5864^{+64}_{-110} $(+6.9\sigma)$
A_{217}^{dustTE}	2.016	2.04 ± 0.27 $(+0.0\sigma)$	Y_{P}	0.245402	$0.24537^{+0.00012}_{-0.000099}$ (-0.7σ)	$f\sigma_8(0.15)$	0.4289	$0.416^{+0.026}_{-0.019}$ (-2.0σ)
c_{100}	1.00018	1.00017 ± 0.00070 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246729	$0.24670^{+0.00012}_{-0.00010}$ (-0.7σ)	$\sigma_8(0.15)$	0.680	$0.633^{+0.094}_{-0.052}$ (-10.5σ)
c_{217}	0.99800	0.99800 ± 0.00065 $(+0.0\sigma)$	10^5D/H	2.582	$2.596^{+0.049}_{-0.055}$ $(+0.7\sigma)$	$f\sigma_8(0.38)$	0.4425	$0.423^{+0.037}_{-0.023}$ (-3.7σ)
y_{cal}	1.00001	1.0000 ± 0.0025 $(+0.0\sigma)$	Age/Gyr	13.904	$14.03^{+0.14}_{-0.26}$ $(+7.2\sigma)$	$\sigma_8(0.38)$	0.601	$0.558^{+0.088}_{-0.048}$ (-11.7σ)
H_0	65.99	$63.8^{+4.3}_{-2.6}$ (-5.1σ)	z_*	1089.76	$1089.99^{+0.48}_{-0.61}$ $(+1.0\sigma)$	$f\sigma_8(0.51)$	0.4395	$0.418^{+0.042}_{-0.024}$ (-4.8σ)
Ω_{Λ}	0.6701	$0.635^{+0.066}_{-0.029}$ (-5.4σ)	r_*	144.90	$144.71^{+0.56}_{-0.50}$ (-0.5σ)	$\sigma_8(0.51)$	0.562	$0.521^{+0.084}_{-0.045}$ (-12.2σ)
Ω_{m}	0.3299	$0.365^{+0.029}_{-0.066}$ $(+5.4\sigma)$	$100\theta_*$	1.041533	1.04152 ± 0.00049 (-0.1σ)	$f\sigma_8(0.61)$	0.4339	$0.411^{+0.045}_{-0.025}$ (-5.6σ)
$\Omega_{\text{m}} h^2$	0.14366	$0.1466^{+0.0035}_{-0.0057}$ $(+3.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9125	$13.894^{+0.052}_{-0.047}$ (-0.5σ)	$\sigma_8(0.61)$	0.535	$0.495^{+0.081}_{-0.044}$ (-12.5σ)
$\Omega_{\nu} h^2$	0.00335	< 0.00771	z_{drag}	1059.86	1059.82 ± 0.56 (-0.4σ)	$f\sigma_8(2.33)$	0.2727	$0.253^{+0.040}_{-0.019}$ (-11.9σ)
$\Omega_{\text{m}} h^3$	0.09481	$0.0934^{+0.0029}_{-0.0017}$ (-5.8σ)	r_{drag}	147.57	$147.39^{+0.55}_{-0.50}$ (-0.4σ)	$\sigma_8(2.33)$	0.2785	$0.257^{+0.044}_{-0.023}$ (-13.2σ)
σ_8	0.737	$0.689^{+0.097}_{-0.055}$ (-9.5σ)	k_{D}	0.14041	$0.14066^{+0.00058}_{-0.00067}$ $(+0.4\sigma)$	χ_{small}^2	395.65	396.9 ± 1.6 $(+0.0\sigma)$
S_8	0.7728	$0.753^{+0.041}_{-0.036}$ (-1.8σ)	$100\theta_{\text{D}}$	0.160819	0.16075 ± 0.00032 $(+0.0\sigma)$	χ_{plikTE}^2	852.62	860.3 ± 3.9 $(+0.1\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4233	$0.412^{+0.023}_{-0.020}$ (-1.8σ)	z_{eq}	3353.0	3356 ± 47 $(+0.1\sigma)$	χ_{prior}^2	0.43	7.4 ± 3.7 (-0.0σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5585	$0.533^{+0.050}_{-0.034}$ (-4.4σ)	k_{eq}	0.010236	0.01025 ± 0.00014 $(+0.2\sigma)$	χ_{CMB}^2	1248.27	1257.2 ± 4.2 $(+0.2\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 1248.70$; $\Delta\chi_{\text{eff}}^2 = -0.28$; $\bar{\chi}_{\text{eff}}^2 = 1264.56$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.56$; $R - 1 = 0.00834$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.04) plik_rd12_HM_v22_TE: 852.62 (Δ -0.23)

6.14 base_mnu_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00028 \quad (-0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.865^{+0.089}_{-0.055} \quad (-5.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8234 \pm 0.0089 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0020 \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$94.2^{+6.4}_{-4.0} \quad (-4.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4547 \pm 0.0046 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04114 \pm 0.00053 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.370 \pm 0.043 \quad (-0.5\sigma)$	$H(0.15)$	$69.6^{+3.7}_{-2.3} \quad (-5.2\sigma)$
τ	$0.0516^{+0.0035}_{-0.0076} \quad (-0.2\sigma)$	z_{re}	$7.43^{+0.29}_{-0.86} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$677^{+22}_{-42} \quad (+5.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.708	$10^9 A_{\mathrm{s}}$	$2.042^{+0.030}_{-0.036} \quad (-0.5\sigma)$	$H(0.38)$	$80.5^{+2.8}_{-1.8} \quad (-5.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.016^{+0.015}_{-0.017} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.842 \pm 0.020 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1601^{+45}_{-83} \quad (+5.7\sigma)$
n_{s}	$0.959 \pm 0.013 \quad (-0.8\sigma)$	D_{40}	$1210 \pm 27 \quad (-0.1\sigma)$	$H(0.51)$	$87.6^{+2.3}_{-1.6} \quad (-5.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	D_{220}	$5704 \pm 58 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$2065^{+54}_{-98} \quad (+5.7\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	D_{810}	$2496 \pm 26 \quad (-0.5\sigma)$	$H(0.61)$	$93.5^{+1.9}_{-1.4} \quad (-5.9\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.478 \pm 0.084 \quad (+0.0\sigma)$	D_{1420}	$802 \pm 12 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2397^{+59}_{-110} \quad (+5.7\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.219 \pm 0.055 \quad (-0.0\sigma)$	D_{2000}	$224.7 \pm 4.7 \quad (-0.8\sigma)$	$H(2.33)$	$238.2^{+1.9}_{-3.2} \quad (+2.5\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.658 \pm 0.080 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.013 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5861^{+64}_{-110} \quad (+6.8\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	Y_{P}	$0.24537^{+0.00012}_{-0.00010} \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.417^{+0.025}_{-0.019} \quad (-2.0\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24670^{+0.00012}_{-0.00010} \quad (-0.7\sigma)$	$\sigma_8(0.15)$	$0.637^{+0.094}_{-0.051} \quad (-11.6\sigma)$
c_{217}	$0.99799 \pm 0.00065 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.594^{+0.050}_{-0.055} \quad (+0.7\sigma)$	$f\sigma_8(0.38)$	$0.425^{+0.037}_{-0.022} \quad (-3.8\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.03^{+0.14}_{-0.25} \quad (+7.1\sigma)$	$\sigma_8(0.38)$	$0.562^{+0.088}_{-0.047} \quad (-13.3\sigma)$
H_0	$63.9^{+4.2}_{-2.6} \quad (-5.1\sigma)$	z_*	$1089.96^{+0.48}_{-0.60} \quad (+1.0\sigma)$	$f\sigma_8(0.51)$	$0.419^{+0.042}_{-0.023} \quad (-4.9\sigma)$
Ω_{Λ}	$0.637^{+0.065}_{-0.029} \quad (-5.4\sigma)$	r_*	$144.72^{+0.56}_{-0.49} \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.524^{+0.084}_{-0.045} \quad (-14.0\sigma)$
Ω_{m}	$0.363^{+0.029}_{-0.065} \quad (+5.4\sigma)$	$100\theta_*$	$1.04153 \pm 0.00049 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.413^{+0.045}_{-0.024} \quad (-5.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1465^{+0.0034}_{-0.0056} \quad (+3.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895^{+0.052}_{-0.046} \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.498^{+0.081}_{-0.043} \quad (-14.4\sigma)$
$\Omega_{\nu}h^2$	< 0.00761	z_{drag}	$1059.84 \pm 0.56 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.255^{+0.040}_{-0.019} \quad (-13.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0934^{+0.0029}_{-0.0016} \quad (-5.7\sigma)$	r_{drag}	$147.40^{+0.55}_{-0.50} \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.259^{+0.044}_{-0.022} \quad (-15.5\sigma)$
σ_8	$0.693^{+0.096}_{-0.054} \quad (-10.3\sigma)$	k_{D}	$0.14066^{+0.00058}_{-0.00067} \quad (+0.4\sigma)$	χ_{small}^2	$396.5 \pm 1.3 \quad (+0.1\sigma)$
S_8	$0.755^{+0.041}_{-0.035} \quad (-1.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00032 \quad (+0.0\sigma)$	χ_{plikTE}^2	$860.3 \pm 3.9 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.414^{+0.022}_{-0.019} \quad (-1.8\sigma)$	z_{eq}	$3354 \pm 46 \quad (+0.1\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.535^{+0.050}_{-0.033} \quad (-4.5\sigma)$	k_{eq}	$0.01025 \pm 0.00014 \quad (+0.2\sigma)$	χ_{CMB}^2	$1256.8 \pm 4.1 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1264.17$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.52$; $R - 1 = 0.01053$

6.15 base_mnu_plikHM_EE_lowE

Parameter	Best fit	68% limits		Parameter	Best fit	68% limits		Parameter	Best fit	68% limits	
$\Omega_b h^2$	0.02046	$0.0218^{+0.0015}_{-0.0019}$	(-1.8σ)	D_{40}	1166.8	1186 ± 37	(-1.5σ)	$H(0.38)$	69.59	$73.6^{+1.1}_{-5.2}$	(-5.8σ)
$\Omega_c h^2$	0.1181	0.1191 ± 0.0059	$(+0.7\sigma)$	D_{220}	5357	5638 ± 310	(-1.7σ)	$D_M(0.38)$	2079	1889^{+300}_{-100}	$(+8.7\sigma)$
$100\theta_{MC}$	1.04062	1.0401 ± 0.0010	$(+0.1\sigma)$	D_{810}	2544.6	2569^{+47}_{-42}	(-0.6σ)	$H(0.51)$	79.66	$82.56^{+0.54}_{-3.6}$	(-5.3σ)
τ	0.0411	$0.0444^{+0.0078}_{-0.0090}$	(-0.9σ)	D_{1420}	820.4	832^{+24}_{-21}	(-0.6σ)	$D_M(0.51)$	2602	2390^{+300}_{-100}	$(+8.3\sigma)$
Σm_ν [eV]	4.27	—		D_{2000}	226.3	$232^{+10}_{-8.9}$	(-1.2σ)	$H(0.61)$	87.72	$89.80^{+0.20}_{-2.6}$	(-4.8σ)
$\ln(10^{10} A_s)$	3.0118	3.027 ± 0.025	(-1.1σ)	$n_{s,0.002}$	0.9279	$0.947^{+0.018}_{-0.026}$	(-2.3σ)	$D_M(0.61)$	2961	2739^{+300}_{-100}	$(+8.1\sigma)$
n_s	0.9279	$0.947^{+0.018}_{-0.026}$	(-2.3σ)	Y_P	0.24454	0.24510 ± 0.00072	(-2.0σ)	$H(2.33)$	261.1	252^{+12}_{-15}	$(+8.3\sigma)$
y_{cal}	1.00002	1.0001 ± 0.0025	$(+0.1\sigma)$	Y_P^{BBN}	0.24586	0.24643 ± 0.00073	(-2.0σ)	$D_M(2.33)$	6313	6134^{+240}_{-73}	$(+6.6\sigma)$
H_0	42.9	$50.9^{+3.8}_{-11}$	(-7.0σ)	$10^5 D/H$	2.981	$2.73^{+0.31}_{-0.37}$	$(+2.1\sigma)$	$f\sigma_8(0.15)$	0.3475	$0.374^{+0.032}_{-0.043}$	(-2.1σ)
Ω_Λ	-0.004	$0.27^{+0.34}_{-0.29}$	(-14.8σ)	Age/Gyr	15.183	$14.72^{+0.64}_{-0.22}$	$(+7.2\sigma)$	$\sigma_8(0.15)$	0.344	$0.447^{+0.029}_{-0.14}$	(-20.3σ)
Ω_m	1.004	$0.73^{+0.29}_{-0.34}$	$(+14.8\sigma)$	z_*	1095.35	1092.5 ± 3.4	$(+2.9\sigma)$	$f\sigma_8(0.38)$	0.290	$0.340^{+0.028}_{-0.073}$	(-5.0σ)
$\Omega_m h^2$	0.1845	$0.170^{+0.021}_{-0.0096}$	$(+8.1\sigma)$	r_*	140.72	$141.9^{+1.2}_{-1.9}$	(-3.7σ)	$\sigma_8(0.38)$	0.287	$0.384^{+0.024}_{-0.12}$	(-26.8σ)
$\Omega_\nu h^2$	0.0459	< 0.0398		$100\theta_*$	1.04154	1.0408 ± 0.0011	$(+0.9\sigma)$	$f\sigma_8(0.51)$	0.265	$0.322^{+0.026}_{-0.080}$	(-6.9σ)
$\Omega_m h^3$	0.0791	$0.0853^{+0.0037}_{-0.0085}$	(-7.4σ)	$D_M(z_*)/\text{Gpc}$	13.511	13.64 ± 0.15	(-3.9σ)	$\sigma_8(0.51)$	0.263	$0.355^{+0.022}_{-0.12}$	(-30.1σ)
σ_8	0.395	$0.500^{+0.031}_{-0.14}$	(-16.3σ)	z_{drag}	1057.64	1059.8 ± 3.0	(-1.4σ)	$f\sigma_8(0.61)$	0.249	$0.309^{+0.025}_{-0.083}$	(-8.5σ)
S_8	0.723	$0.731^{+0.060}_{-0.068}$	(-0.9σ)	r_{drag}	143.89	$144.73^{+0.93}_{-1.4}$	(-2.5σ)	$\sigma_8(0.61)$	0.246	$0.335^{+0.021}_{-0.11}$	(-32.3σ)
$\sigma_8 \Omega_m^{0.5}$	0.3962	$0.401^{+0.033}_{-0.037}$	(-0.9σ)	k_D	0.14437	0.1439 ± 0.0015	$(+1.0\sigma)$	$f\sigma_8(2.33)$	0.1221	$0.169^{+0.012}_{-0.060}$	(-36.3σ)
$\sigma_8 \Omega_m^{0.25}$	0.396	$0.445^{+0.031}_{-0.077}$	(-5.1σ)	$100\theta_D$	0.16105	$0.1601^{+0.0015}_{-0.0020}$	$(+1.0\sigma)$	$\sigma_8(2.33)$	0.1202	$0.169^{+0.010}_{-0.061}$	(-37.8σ)
$\sigma_8/h^{0.5}$	0.604	$0.695^{+0.046}_{-0.14}$	(-6.7σ)	z_{eq}	3312	3366^{+130}_{-110}	$(+0.3\sigma)$	χ_{small}^2	396.30	397.2 ± 1.6	$(+0.3\sigma)$
$r_{drag} h$	61.7	$73.8^{+5.7}_{-17}$	(-7.2σ)	k_{eq}	0.010443	$0.01046^{+0.00033}_{-0.00036}$	$(+1.0\sigma)$	χ_{plikEE}^2	738.00	743.7 ± 3.2	(-0.1σ)
$\langle d^2 \rangle^{1/2}$	2.623	2.51 ± 0.13	$(+1.8\sigma)$	$100\theta_{eq}$	0.8467	$0.831^{+0.022}_{-0.031}$	$(+0.1\sigma)$	χ_{prior}^2	0.000	0.98 ± 1.4	(-0.0σ)
z_{re}	7.16	$7.03^{+0.90}_{-0.79}$	(-0.1σ)	$100\theta_{s,eq}$	0.4691	$0.460^{+0.011}_{-0.017}$	$(+0.4\sigma)$	χ_{CMB}^2	1134.30	1140.9 ± 3.6	$(+0.1\sigma)$
$10^9 A_s$	2.032	$2.065^{+0.048}_{-0.053}$	(-1.1σ)	$H(0.15)$	52.9	$59.2^{+2.6}_{-8.5}$	(-6.5σ)				
$10^9 A_s e^{-2\tau}$	1.8719	1.889 ± 0.027	(-0.6σ)	$D_M(0.15)$	944	836^{+200}_{-200}	$(+9.6\sigma)$				

Best-fit $\chi_{\text{eff}}^2 = 1134.30$; $\Delta\chi_{\text{eff}}^2 = -0.26$; $\bar{\chi}_{\text{eff}}^2 = 1141.86$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.25$; $R - 1 = 0.00789$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.30 (Δ 0.71) plik_rd12_HM.v22_EE: 738.00 (Δ -0.96)

6.16 base_mnu_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.0218^{+0.0015}_{-0.0019} \quad (-1.8\sigma)$	D_{40}	$1186 \pm 37 \quad (-1.4\sigma)$	$H(0.38)$	$73.7^{+1.2}_{-5.3} \quad (-5.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192 \pm 0.0059 \quad (+0.7\sigma)$	D_{220}	$5634 \pm 310 \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1886^{+300}_{-100} \quad (+8.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0401 \pm 0.0010 \quad (+0.1\sigma)$	D_{810}	$2568 \pm 45 \quad (-0.6\sigma)$	$H(0.51)$	$82.63^{+0.60}_{-3.7} \quad (-5.2\sigma)$
τ	$0.0476^{+0.0050}_{-0.0085} \quad (-1.2\sigma)$	D_{1420}	$832^{+24}_{-21} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$2387^{+300}_{-100} \quad (+8.2\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	—	D_{2000}	$232^{+10}_{-9.1} \quad (-1.2\sigma)$	$H(0.61)$	$89.86^{+0.24}_{-2.7} \quad (-4.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.033^{+0.021}_{-0.024} \quad (-1.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.948^{+0.019}_{-0.027} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2735^{+300}_{-100} \quad (+7.9\sigma)$
n_{s}	$0.948^{+0.019}_{-0.027} \quad (-2.3\sigma)$	Y_{P}	$0.24510 \pm 0.00073 \quad (-1.9\sigma)$	$H(2.33)$	$252^{+12}_{-15} \quad (+8.2\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24642 \pm 0.00074 \quad (-1.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$6131^{+250}_{-77} \quad (+6.5\sigma)$
H_0	$51.1^{+4.1}_{-11} \quad (-6.9\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.73^{+0.32}_{-0.37} \quad (+2.1\sigma)$	$f\sigma_8(0.15)$	$0.376^{+0.031}_{-0.043} \quad (-2.0\sigma)$
Ω_{Λ}	$0.27^{+0.34}_{-0.30} \quad (-14.6\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.71^{+0.65}_{-0.23} \quad (+7.1\sigma)$	$\sigma_8(0.15)$	$0.452^{+0.031}_{-0.14} \quad (-21.0\sigma)$
Ω_{m}	$0.73^{+0.30}_{-0.34} \quad (+14.6\sigma)$	z_{*}	$1092.5 \pm 3.4 \quad (+2.8\sigma)$	$f\sigma_8(0.38)$	$0.343^{+0.029}_{-0.074} \quad (-5.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.170^{+0.021}_{-0.025} \quad (+8.0\sigma)$	r_{*}	$142.0^{+1.7}_{-1.9} \quad (-3.6\sigma)$	$\sigma_8(0.38)$	$0.388^{+0.026}_{-0.13} \quad (-28.5\sigma)$
$\Omega_{\nu} h^2$	< 0.0397	$100\theta_{*}$	$1.0408 \pm 0.0011 \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.325^{+0.027}_{-0.081} \quad (-6.8\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0853^{+0.0038}_{-0.0087} \quad (-7.2\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.64 \pm 0.15 \quad (-3.9\sigma)$	$\sigma_8(0.51)$	$0.358^{+0.024}_{-0.12} \quad (-32.6\sigma)$
σ_8	$0.505^{+0.033}_{-0.14} \quad (-16.6\sigma)$	z_{drag}	$1059.8 \pm 3.0 \quad (-1.4\sigma)$	$f\sigma_8(0.61)$	$0.312^{+0.026}_{-0.084} \quad (-8.4\sigma)$
S_8	$0.735^{+0.060}_{-0.068} \quad (-0.8\sigma)$	r_{drag}	$144.76^{+0.97}_{-1.5} \quad (-2.5\sigma)$	$\sigma_8(0.61)$	$0.338^{+0.023}_{-0.12} \quad (-35.4\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.403^{+0.033}_{-0.037} \quad (-0.8\sigma)$	k_{D}	$0.1438 \pm 0.0015 \quad (+1.0\sigma)$	$f\sigma_8(2.33)$	$0.171^{+0.013}_{-0.061} \quad (-41.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.448^{+0.031}_{-0.079} \quad (-5.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.1601^{+0.0015}_{-0.0021} \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.170^{+0.011}_{-0.062} \quad (-42.9\sigma)$
$\sigma_8/h^{0.5}$	$0.701^{+0.046}_{-0.14} \quad (-6.6\sigma)$	z_{eq}	$3368 \pm 120 \quad (+0.3\sigma)$	χ_{simall}^2	$396.9 \pm 1.4 \quad (+0.3\sigma)$
$r_{\mathrm{drag}} h$	$74.0^{+6.1}_{-17} \quad (-7.0\sigma)$	k_{eq}	$0.01046^{+0.00032}_{-0.00037} \quad (+1.0\sigma)$	χ_{plikEE}^2	$743.6 \pm 3.2 \quad (-0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.52^{+0.14}_{-0.13} \quad (+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.831^{+0.022}_{-0.030} \quad (+0.1\sigma)$	χ_{prior}^2	$0.98 \pm 1.4 \quad (-0.0\sigma)$
z_{re}	$7.42^{+0.23}_{-0.91} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.459^{+0.011}_{-0.016} \quad (+0.3\sigma)$	χ_{CMB}^2	$1140.5 \pm 3.4 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	$2.077^{+0.043}_{-0.051} \quad (-1.3\sigma)$	$H(0.15)$	$59.4^{+2.7}_{-8.7} \quad (-6.4\sigma)$		
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.889 \pm 0.027 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$834^{+200}_{-200} \quad (+9.4\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 1141.50; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.19; R - 1 = 0.01065$					

6.17 base_mnu_plikHM_TE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022461	0.02249 ± 0.00023 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.3776	2.363 ± 0.043 (−0.9 σ)	$H(0.38)$	83.18	$83.07^{+0.54}_{-0.47}$ (−0.9 σ)
$\Omega_c h^2$	0.11756	0.1171 ± 0.0016 (−0.8 σ)	z_{re}	7.25	$7.07^{+0.91}_{-0.75}$ (+0.0 σ)	$D_{\text{M}}(0.38)$	1523.8	1527^{+11}_{-13} (+0.8 σ)
$100\theta_{\text{MC}}$	1.041331	1.04142 ± 0.00046 (+0.2 σ)	$10^9 A_s$	2.0466	2.038 ± 0.041 (−0.2 σ)	$H(0.51)$	89.842	$89.73^{+0.48}_{-0.40}$ (−1.0 σ)
τ	0.0506	0.0492 ± 0.0085 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8495	1.846 ± 0.019 (−0.4 σ)	$D_{\text{M}}(0.51)$	1974.8	1978^{+14}_{-16} (+0.8 σ)
Σm_ν [eV]	0.120	$0.158^{+0.051}_{-0.15}$	D_{40}	1214.5	1211 ± 25 (−0.2 σ)	$H(0.61)$	95.415	$95.31^{+0.44}_{-0.36}$ (−1.1 σ)
$\ln(10^{10} A_s)$	3.0188	3.014 ± 0.020 (−0.2 σ)	D_{220}	5694	5695 ± 58 (−0.0 σ)	$D_{\text{M}}(0.61)$	2298.6	2302^{+15}_{-17} (+0.9 σ)
n_s	0.9659	0.967 ± 0.010 (+0.1 σ)	D_{810}	2504.1	2502 ± 26 (−0.2 σ)	$H(2.33)$	235.41	235.37 ± 0.82 (−0.1 σ)
y_{cal}	1.00003	0.99999 ± 0.0025 (−0.0 σ)	D_{1420}	805.7	806 ± 12 (−0.1 σ)	$D_{\text{M}}(2.33)$	5759.8	5766^{+19}_{-24} (+1.1 σ)
A_{100}^{dustTE}	0.1120	0.113 ± 0.038 (−0.0 σ)	D_{2000}	227.02	226.9 ± 4.2 (−0.1 σ)	$f\sigma_8(0.15)$	0.4381	$0.433^{+0.016}_{-0.012}$ (−1.2 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1333	0.136 ± 0.030 (−0.0 σ)	$n_{s,0.002}$	0.9659	0.967 ± 0.010 (+0.1 σ)	$\sigma_8(0.15)$	0.7229	$0.712^{+0.032}_{-0.020}$ (−2.5 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.477	0.477 ± 0.085 (+0.0 σ)	Y_{P}	0.245430	0.245438 ± 0.000091 (+0.2 σ)	$f\sigma_8(0.38)$	0.4572	$0.451^{+0.017}_{-0.012}$ (−1.5 σ)
A_{143}^{dustTE}	0.216	0.220 ± 0.054 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246757	0.246765 ± 0.000092 (+0.2 σ)	$\sigma_8(0.38)$	0.6416	$0.632^{+0.029}_{-0.018}$ (−2.6 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.658	0.655 ± 0.080 (−0.0 σ)	10^5D/H	2.5689	2.565 ± 0.042 (−0.2 σ)	$f\sigma_8(0.51)$	0.4565	$0.450^{+0.017}_{-0.012}$ (−1.7 σ)
A_{217}^{dustTE}	2.046	2.03 ± 0.27 (−0.0 σ)	Age/Gyr	13.7913	$13.805^{+0.043}_{-0.055}$ (+1.2 σ)	$\sigma_8(0.51)$	0.6008	$0.592^{+0.027}_{-0.017}$ (−2.6 σ)
c_{100}	1.00017	1.00019 ± 0.00070 (+0.0 σ)	z_*	1089.595	1089.53 ± 0.35 (−0.4 σ)	$f\sigma_8(0.61)$	0.4522	$0.446^{+0.017}_{-0.012}$ (−1.8 σ)
c_{217}	0.99800	0.99800 ± 0.00064 (+0.0 σ)	r_*	144.993	145.07 ± 0.41 (+0.7 σ)	$\sigma_8(0.61)$	0.5719	$0.563^{+0.026}_{-0.016}$ (−2.6 σ)
H_0	67.96	$67.81^{+0.73}_{-0.66}$ (−0.8 σ)	$100\theta_*$	1.041549	1.04165 ± 0.00047 (+0.3 σ)	$f\sigma_8(2.33)$	0.2896	$0.286^{+0.011}_{-0.0070}$ (−2.2 σ)
Ω_Λ	0.6940	$0.6925^{+0.0087}_{-0.0077}$ (−0.6 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9209	13.927 ± 0.039 (+0.6 σ)	$\sigma_8(2.33)$	0.2982	$0.294^{+0.013}_{-0.0079}$ (−2.5 σ)
Ω_{m}	0.3060	$0.3075^{+0.0077}_{-0.0087}$ (+0.6 σ)	z_{drag}	1059.97	1060.01 ± 0.52 (+0.0 σ)	χ_{simall}^2	395.67	396.8 ± 1.6 (−0.0 σ)
$\Omega_{\text{m}} h^2$	0.14132	0.1413 ± 0.0012 (+0.1 σ)	r_{drag}	147.636	147.71 ± 0.44 (+0.6 σ)	χ_{plikTE}^2	852.84	859.6 ± 3.6 (+0.1 σ)
$\Omega_\nu h^2$	0.00129	$0.00170^{+0.00055}_{-0.0016}$	k_{D}	0.14036	0.14031 ± 0.00054 (−0.4 σ)	$\chi_{6\text{DF}}^2$	0.00099	0.052 ± 0.074 (+0.3 σ)
$\Omega_{\text{m}} h^3$	0.09603	$0.09582^{+0.00088}_{-0.00072}$ (−1.0 σ)	$100\theta_{\text{D}}$	0.160780	0.16076 ± 0.00030 (−0.0 σ)	χ_{MGS}^2	1.61	1.59 ± 0.62 (−0.5 σ)
σ_8	0.7816	$0.770^{+0.035}_{-0.022}$ (−2.4 σ)	z_{eq}	3346.1	3336 ± 38 (−0.8 σ)	χ_{DR12BAO}^2	3.54	4.4 ± 1.5 (+0.5 σ)
S_8	0.7894	$0.779^{+0.030}_{-0.024}$ (−1.2 σ)	k_{eq}	0.010213	0.01018 ± 0.00012 (−0.8 σ)	χ_{prior}^2	0.42	7.5 ± 3.7 (+0.0 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4324	$0.427^{+0.017}_{-0.013}$ (−1.2 σ)	$100\theta_{\text{eq}}$	0.8241	$0.8262^{+0.0068}_{-0.0079}$ (+0.9 σ)	χ_{BAO}^2	5.15	6.1 ± 1.3 (+0.2 σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5813	$0.573^{+0.024}_{-0.017}$ (−1.8 σ)	$100\theta_{\text{s,eq}}$	0.45495	$0.4560^{+0.0035}_{-0.0041}$ (+0.9 σ)	χ_{CMB}^2	1248.51	1256.4 ± 4.0 (+0.1 σ)
$\sigma_8/h^{0.5}$	0.9481	$0.935^{+0.038}_{-0.026}$ (−2.0 σ)	$H(0.15)$	73.18	$73.04^{+0.65}_{-0.58}$ (−0.8 σ)			
$r_{\text{drag}} h$	100.33	100.2 ± 1.1 (−0.5 σ)	$D_{\text{M}}(0.15)$	638.3	$639.7^{+5.5}_{-6.4}$ (+0.8 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1254.08$; $\Delta\chi_{\text{eff}}^2 = -0.15$; $\bar{\chi}_{\text{eff}}^2 = 1269.93$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.51$; $R - 1 = 0.00751$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.61 (Δ -0.14) DR12BAO: 3.54 (Δ 0.10) CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.67 (Δ 0.00) plik_rd12_HM_v22_TE: 852.84 (Δ -0.10)

6.18 base_mnu_plikHM_TE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02250 \pm 0.00022 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.420 \pm 0.030 \quad (-0.0\sigma)$	$H(0.38)$	$83.30 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0012 \quad (-0.0\sigma)$	z_{re}	$7.60 \pm 0.76 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522 \pm 10 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04129 \pm 0.00046 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.085 \pm 0.032 \quad (-0.1\sigma)$	$H(0.51)$	$89.99 \pm 0.34 \quad (+0.1\sigma)$
τ	$0.0542 \pm 0.0076 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.871 \pm 0.014 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 12 \quad (-0.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0765	D_{40}	$1222 \pm 24 \quad (+0.0\sigma)$	$H(0.61)$	$95.58 \pm 0.30 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.037 \pm 0.015 \quad (-0.1\sigma)$	D_{220}	$5722 \pm 58 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2296 \pm 13 \quad (-0.1\sigma)$
n_{s}	$0.9674^{+0.0096}_{-0.011} \quad (-0.0\sigma)$	D_{810}	$2529 \pm 22 \quad (+0.0\sigma)$	$H(2.33)$	$236.00 \pm 0.75 \quad (-0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0027 \quad (+0.1\sigma)$	D_{1420}	$815 \pm 10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 15 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 3.8 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4518 \pm 0.0068 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9674^{+0.0096}_{-0.011} \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.745^{+0.012}_{-0.0079} \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.474 \pm 0.088 \quad (-0.1\sigma)$	Y_{P}	$0.245443 \pm 0.000084 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4710 \pm 0.0062 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.220 \pm 0.052 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246770 \pm 0.000085 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.661^{+0.011}_{-0.0071} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.659 \pm 0.077 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.563 \pm 0.039 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4702 \pm 0.0060 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.05 \pm 0.27 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.766 \pm 0.035 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.619^{+0.010}_{-0.0067} \quad (+0.1\sigma)$
c_{100}	$1.00021 \pm 0.00070 \quad (+0.1\sigma)$	z_*	$1089.66 \pm 0.32 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4656^{+0.0062}_{-0.0051} \quad (+0.1\sigma)$
c_{217}	$0.99799 \pm 0.00062 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.30 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.589^{+0.010}_{-0.0064} \quad (+0.1\sigma)$
H_0	$68.01 \pm 0.60 \quad (+0.1\sigma)$	$100\theta_*$	$1.04147 \pm 0.00045 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0044}_{-0.0031} \quad (+0.1\sigma)$
Ω_{Λ}	$0.6927 \pm 0.0076 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886 \pm 0.030 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3066^{+0.0051}_{-0.0035} \quad (+0.1\sigma)$
Ω_{m}	$0.3073 \pm 0.0076 \quad (-0.0\sigma)$	z_{drag}	$1060.15 \pm 0.48 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.6 \pm 2.0 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1421 \pm 0.0012 \quad (+0.0\sigma)$	r_{drag}	$147.24 \pm 0.33 \quad (+0.1\sigma)$	χ_{simall}^2	$396.9 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\nu} h^2$	< 0.000823	k_{D}	$0.14080 \pm 0.00044 \quad (-0.1\sigma)$	χ_{plikTE}^2	$860.0 \pm 3.6 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09661 \pm 0.00054 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16068 \pm 0.00028 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.045 \pm 0.062 \quad (+0.1\sigma)$
σ_8	$0.806^{+0.013}_{-0.0085} \quad (+0.1\sigma)$	z_{eq}	$3379 \pm 28 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.56 \pm 0.57 \quad (+0.1\sigma)$
S_8	$0.816 \pm 0.013 \quad (+0.0\sigma)$	k_{eq}	$0.010312 \pm 0.000085 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.3 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4468 \pm 0.0073 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8182 \pm 0.0052 \quad (+0.0\sigma)$	χ_{prior}^2	$7.5 \pm 4.0 \quad (+0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6002^{+0.0089}_{-0.0076} \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4518 \pm 0.0027 \quad (+0.0\sigma)$	χ_{CMB}^2	$1267.5 \pm 3.9 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.978^{+0.014}_{-0.011} \quad (+0.0\sigma)$	$H(0.15)$	$73.25 \pm 0.53 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.1\sigma)$
$r_{\mathrm{drag}} h$	$100.14 \pm 0.97 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.8 \pm 5.1 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1280.97$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.28$; $R - 1 = 0.04268$

6.19 base_mnu_plikHM_TE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02250 \pm 0.00023 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.367 \pm 0.043 \quad (-1.1\sigma)$	$H(0.38)$	$83.07^{+0.54}_{-0.48} \quad (-0.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1171 \pm 0.0017 \quad (-0.8\sigma)$	z_{re}	$7.43^{+0.26}_{-0.91} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527^{+12}_{-13} \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04143 \pm 0.00046 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.051^{+0.029}_{-0.037} \quad (-0.2\sigma)$	$H(0.51)$	$89.73^{+0.48}_{-0.41} \quad (-1.0\sigma)$
τ	$0.0526^{+0.0035}_{-0.0078} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.846 \pm 0.019 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978^{+14}_{-16} \quad (+0.9\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$0.162^{+0.060}_{-0.14}$	D_{40}	$1209 \pm 24 \quad (-0.3\sigma)$	$H(0.61)$	$95.31^{+0.44}_{-0.37} \quad (-1.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.021^{+0.014}_{-0.018} \quad (-0.2\sigma)$	D_{220}	$5693 \pm 57 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302^{+15}_{-18} \quad (+0.9\sigma)$
n_{s}	$0.968 \pm 0.010 \quad (+0.2\sigma)$	D_{810}	$2504 \pm 26 \quad (-0.2\sigma)$	$H(2.33)$	$235.36 \pm 0.82 \quad (-0.1\sigma)$
y_{cal}	$0.9999 \pm 0.0025 \quad (-0.0\sigma)$	D_{1420}	$806 \pm 12 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766^{+19}_{-24} \quad (+1.2\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	D_{2000}	$227.3 \pm 4.2 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.434^{+0.016}_{-0.012} \quad (-1.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.010 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.714^{+0.033}_{-0.020} \quad (-3.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.476 \pm 0.085 \quad (-0.0\sigma)$	Y_{P}	$0.245443 \pm 0.000091 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.452^{+0.017}_{-0.012} \quad (-1.7\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.220 \pm 0.054 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246770 \pm 0.000091 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.633^{+0.029}_{-0.017} \quad (-3.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.655 \pm 0.081 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.563 \pm 0.042 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.452^{+0.017}_{-0.012} \quad (-1.9\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.03 \pm 0.27 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.805^{+0.044}_{-0.055} \quad (+1.2\sigma)$	$\sigma_8(0.51)$	$0.593^{+0.027}_{-0.016} \quad (-3.3\sigma)$
c_{100}	$1.00019 \pm 0.00070 \quad (+0.0\sigma)$	z_*	$1089.51 \pm 0.34 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.447^{+0.017}_{-0.011} \quad (-2.1\sigma)$
c_{217}	$0.99800 \pm 0.00064 \quad (+0.0\sigma)$	r_*	$145.08 \pm 0.41 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.564^{+0.026}_{-0.015} \quad (-3.3\sigma)$
H_0	$67.81 \pm 0.71 \quad (-0.8\sigma)$	$100\theta_*$	$1.04166 \pm 0.00047 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.286^{+0.011}_{-0.0068} \quad (-2.8\sigma)$
Ω_{Λ}	$0.6926^{+0.0087}_{-0.0078} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.928 \pm 0.039 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.013}_{-0.0077} \quad (-3.2\sigma)$
Ω_{m}	$0.3074^{+0.0078}_{-0.0087} \quad (+0.6\sigma)$	z_{drag}	$1060.03 \pm 0.52 \quad (+0.0\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1413 \pm 0.0012 \quad (+0.1\sigma)$	r_{drag}	$147.72 \pm 0.44 \quad (+0.6\sigma)$	χ_{plikTE}^2	$859.6 \pm 3.6 \quad (+0.1\sigma)$
$\Omega_{\nu}h^2$	$0.00174^{+0.00064}_{-0.0015}$	k_{D}	$0.14032 \pm 0.00054 \quad (-0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.052 \pm 0.075 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09581^{+0.00089}_{-0.00072} \quad (-1.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00030 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.59 \pm 0.63 \quad (-0.5\sigma)$
σ_8	$0.772^{+0.035}_{-0.021} \quad (-3.0\sigma)$	z_{eq}	$3335 \pm 38 \quad (-0.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.5 \quad (+0.5\sigma)$
S_8	$0.781^{+0.030}_{-0.024} \quad (-1.4\sigma)$	k_{eq}	$0.01018 \pm 0.00012 \quad (-0.8\sigma)$	χ_{prior}^2	$7.5 \pm 3.7 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.428^{+0.017}_{-0.013} \quad (-1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8265^{+0.0069}_{-0.0079} \quad (+0.9\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.574^{+0.024}_{-0.016} \quad (-2.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4562^{+0.0036}_{-0.0041} \quad (+0.9\sigma)$	χ_{CMB}^2	$1256.0 \pm 3.8 \quad (+0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.937^{+0.039}_{-0.026} \quad (-2.3\sigma)$	$H(0.15)$	$73.04 \pm 0.63 \quad (-0.8\sigma)$		
$r_{\mathrm{drag}}h$	$100.2 \pm 1.1 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.7^{+5.7}_{-6.4} \quad (+0.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1269.50$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.51$; $R - 1 = 0.00760$

6.20 base_mnu_plikHM_TE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02251 \pm 0.00022 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.421 \pm 0.030 \quad (-0.0\sigma)$	$H(0.38)$	$83.31 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0012 \quad (-0.0\sigma)$	z_{re}	$7.72^{+0.55}_{-0.82} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522 \pm 11 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04130 \pm 0.00045 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.090^{+0.026}_{-0.032} \quad (-0.0\sigma)$	$H(0.51)$	$89.99 \pm 0.35 \quad (+0.1\sigma)$
τ	$0.0553^{+0.0056}_{-0.0078} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.871 \pm 0.014 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 13 \quad (-0.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0794	D_{40}	$1222 \pm 24 \quad (+0.0\sigma)$	$H(0.61)$	$95.58 \pm 0.31 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.040^{+0.012}_{-0.015} \quad (-0.0\sigma)$	D_{220}	$5721 \pm 58 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2296 \pm 14 \quad (-0.1\sigma)$
n_{s}	$0.968 \pm 0.010 \quad (+0.0\sigma)$	D_{810}	$2529 \pm 22 \quad (+0.0\sigma)$	$H(2.33)$	$235.98 \pm 0.75 \quad (-0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0027 \quad (+0.1\sigma)$	D_{1420}	$815 \pm 11 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 15 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 3.8 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4520 \pm 0.0067 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.010 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.746^{+0.012}_{-0.0078} \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.473 \pm 0.087 \quad (-0.1\sigma)$	Y_{P}	$0.245445 \pm 0.000084 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4712 \pm 0.0061 \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.220 \pm 0.053 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246772 \pm 0.000085 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.662^{+0.011}_{-0.0070} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.659 \pm 0.078 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.561 \pm 0.039 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4704^{+0.0062}_{-0.0053} \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.766^{+0.033}_{-0.037} \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.619^{+0.011}_{-0.0066} \quad (+0.1\sigma)$
c_{100}	$1.00022 \pm 0.00070 \quad (+0.1\sigma)$	z_*	$1089.65 \pm 0.31 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4658^{+0.0062}_{-0.0050} \quad (+0.1\sigma)$
c_{217}	$0.99800 \pm 0.00061 \quad (-0.0\sigma)$	r_*	$144.63 \pm 0.30 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.590^{+0.010}_{-0.0063} \quad (+0.1\sigma)$
H_0	$68.02 \pm 0.61 \quad (+0.1\sigma)$	$100\theta_*$	$1.04147 \pm 0.00045 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0044}_{-0.0031} \quad (+0.1\sigma)$
Ω_{Λ}	$0.6929 \pm 0.0077 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.030 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3069^{+0.0052}_{-0.0035} \quad (+0.1\sigma)$
Ω_{m}	$0.3071 \pm 0.0077 \quad (-0.0\sigma)$	z_{drag}	$1060.16 \pm 0.48 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.5 \pm 1.9 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0012 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.33 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\nu}h^2$	< 0.000854	k_{D}	$0.14080 \pm 0.00045 \quad (-0.0\sigma)$	χ_{plikTE}^2	$860.0 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09661 \pm 0.00054 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16067^{+0.00025}_{-0.00028} \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.045 \pm 0.063 \quad (+0.1\sigma)$
σ_8	$0.807^{+0.013}_{-0.0084} \quad (+0.1\sigma)$	z_{eq}	$3378 \pm 28 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.58 \pm 0.57 \quad (+0.1\sigma)$
S_8	$0.816 \pm 0.013 \quad (-0.0\sigma)$	k_{eq}	$0.010309 \pm 0.000084 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.3 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4470 \pm 0.0072 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8184 \pm 0.0051 \quad (+0.0\sigma)$	χ_{prior}^2	$7.5 \pm 3.9 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6004^{+0.0088}_{-0.0075} \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0026 \quad (+0.0\sigma)$	χ_{CMB}^2	$1267.3 \pm 3.8 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.978^{+0.014}_{-0.011} \quad (+0.0\sigma)$	$H(0.15)$	$73.26 \pm 0.53 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.16 \pm 0.98 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.7 \pm 5.2 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1280.75$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.23$; $R - 1 = 0.05310$

6.21 base_mnu_plikHM_EE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02346	$0.02412^{+0.00081}_{-0.0010}$ (+1.0 σ)	D_{220}	5888	5988 ± 170 (+0.7 σ)	$H(0.51)$	90.50	90.42 ± 0.62 (−0.2 σ)
$\Omega_c h^2$	0.11759	$0.1150^{+0.0036}_{-0.0023}$ (−1.8 σ)	D_{810}	2579.1	2595 ± 37 (+0.4 σ)	$D_M(0.51)$	1956.4	1959 ± 19 (+0.2 σ)
$100\theta_{MC}$	1.03983	1.04008 ± 0.00080 (+0.3 σ)	D_{1420}	837.7	847 ± 17 (+0.6 σ)	$H(0.61)$	96.05	95.98 ± 0.58 (−0.1 σ)
τ	0.0519	0.0529 ± 0.0085 (+0.1 σ)	D_{2000}	238.8	241.9 ± 6.1 (+0.6 σ)	$D_M(0.61)$	2278.0	2281 ± 21 (+0.2 σ)
Σm_ν [eV]	0.069	< 0.315	$n_{s,0.002}$	0.9751	0.981 ± 0.011 (+0.6 σ)	$H(2.33)$	236.00	236.0 ± 1.0 (−0.0 σ)
$\ln(10^{10} A_s)$	3.0490	3.051 ± 0.022 (+0.1 σ)	Y_P	0.245852	$0.24609^{+0.00032}_{-0.00038}$ (+1.0 σ)	$D_M(2.33)$	5724.7	5729 ± 31 (+0.1 σ)
n_s	0.9751	0.981 ± 0.011 (+0.6 σ)	Y_P^{BBN}	0.247180	$0.24742^{+0.00032}_{-0.00038}$ (+1.0 σ)	$f\sigma_8(0.15)$	0.4452	$0.420^{+0.033}_{-0.018}$ (−2.6 σ)
y_{cal}	0.99986	0.9999 ± 0.0025 (−0.0 σ)	$10^5 D/H$	2.394	2.30 ± 0.14 (−0.9 σ)	$\sigma_8(0.15)$	0.7426	$0.697^{+0.058}_{-0.028}$ (−5.0 σ)
H_0	68.74	68.63 ± 0.88 (−0.2 σ)	Age/Gyr	13.709	13.719 ± 0.072 (+0.2 σ)	$f\sigma_8(0.38)$	0.4659	$0.440^{+0.034}_{-0.018}$ (−3.1 σ)
Ω_Λ	0.6999	$0.6987^{+0.0097}_{-0.0088}$ (−0.1 σ)	z_*	1088.40	$1087.5^{+1.2}_{-1.1}$ (−1.1 σ)	$\sigma_8(0.38)$	0.6595	$0.619^{+0.051}_{-0.024}$ (−5.2 σ)
Ω_m	0.3001	0.3013 ± 0.0093 (+0.1 σ)	r_*	144.22	144.34 ± 0.55 (+0.3 σ)	$f\sigma_8(0.51)$	0.4659	$0.440^{+0.034}_{-0.017}$ (−3.4 σ)
$\Omega_m h^2$	0.14180	0.1418 ± 0.0014 (+0.1 σ)	$100\theta_*$	1.03991	1.04017 ± 0.00082 (+0.3 σ)	$\sigma_8(0.51)$	0.6178	$0.580^{+0.048}_{-0.022}$ (−5.2 σ)
$\Omega_\nu h^2$	0.00074	< 0.00339	$D_M(z_*)/\text{Gpc}$	13.869	13.877 ± 0.053 (+0.2 σ)	$f\sigma_8(0.61)$	0.4619	$0.436^{+0.033}_{-0.017}$ (−3.6 σ)
$\Omega_m h^3$	0.09747	0.0973 ± 0.0013 (−0.1 σ)	z_{drag}	1062.26	$1063.5^{+1.8}_{-2.0}$ (+0.9 σ)	$\sigma_8(0.61)$	0.5881	$0.552^{+0.045}_{-0.021}$ (−5.2 σ)
σ_8	0.8023	$0.753^{+0.063}_{-0.030}$ (−4.9 σ)	r_{drag}	146.53	146.46 ± 0.71 (−0.1 σ)	$f\sigma_8(2.33)$	0.2972	$0.281^{+0.020}_{-0.0093}$ (−4.5 σ)
S_8	0.8025	$0.754^{+0.062}_{-0.036}$ (−2.6 σ)	k_D	0.14225	0.1428 ± 0.0012 (+0.4 σ)	$\sigma_8(2.33)$	0.3068	$0.289^{+0.022}_{-0.010}$ (−4.9 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4395	$0.413^{+0.034}_{-0.020}$ (−2.6 σ)	$100\theta_D$	0.15924	0.1586 ± 0.0010 (−0.8 σ)	χ_{small}^2	395.62	396.7 ± 1.5 (−0.0 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5939	$0.557^{+0.046}_{-0.024}$ (−3.5 σ)	z_{eq}	3371	3324^{+67}_{-49} (−1.4 σ)	χ_{plikEE}^2	739.05	744.0 ± 3.2 (+0.3 σ)
$\sigma_8/h^{0.5}$	0.968	$0.908^{+0.075}_{-0.038}$ (−3.9 σ)	k_{eq}	0.010287	$0.01015^{+0.00020}_{-0.00015}$ (−1.4 σ)	χ_{6DF}^2	0.0017	0.058 ± 0.081 (+0.0 σ)
$r_{drag} h$	100.72	100.5 ± 1.2 (−0.2 σ)	$100\theta_{eq}$	0.8212	$0.8323^{+0.0093}_{-0.015}$ (+1.9 σ)	χ_{MGS}^2	1.82	1.77 ± 0.71 (−0.2 σ)
$\langle d^2 \rangle^{1/2}$	2.401	$2.342^{+0.075}_{-0.056}$ (−1.7 σ)	$100\theta_{s,eq}$	0.4526	$0.4579^{+0.0047}_{-0.0074}$ (+1.7 σ)	$\chi_{DR12BAO}^2$	3.62	4.7 ± 1.6 (+0.2 σ)
z_{re}	7.17	$7.11^{+0.86}_{-0.72}$ (−0.0 σ)	$H(0.15)$	73.92	73.82 ± 0.80 (−0.2 σ)	χ_{prior}^2	0.003	0.99 ± 1.4 (−0.0 σ)
$10^9 A_s$	2.1093	2.115 ± 0.046 (+0.1 σ)	$D_M(0.15)$	631.5	632.5 ± 7.5 (+0.2 σ)	χ_{BAO}^2	5.44	6.5 ± 1.4 (+0.1 σ)
$10^9 A_s e^{-2\tau}$	1.9015	1.902 ± 0.025 (−0.0 σ)	$H(0.38)$	83.87	83.79 ± 0.68 (−0.2 σ)	χ_{CMB}^2	1134.66	1140.7 ± 3.5 (+0.2 σ)
D_{40}	1231.6	1226 ± 31 (−0.2 σ)	$D_M(0.38)$	1508.8	1511 ± 16 (+0.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1140.11$; $\Delta\chi_{\text{eff}}^2 = -0.05$; $\bar{\chi}_{\text{eff}}^2 = 1148.18$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.82$; $R - 1 = 0.00933$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.82 (Δ -0.07) DR12BAO: 3.62 (Δ 0.02) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.62 (Δ 0.00) plik_rd12_HM_v22_EE: 739.05 (Δ 0.00)

6.22 base_mnu_plikHM_EE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02390^{+0.00067}_{-0.00076} \quad (+0.9\sigma)$	D_{220}	$5959 \pm 140 \quad (+0.7\sigma)$	$H(0.51)$	$90.52 \pm 0.57 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1164 \pm 0.0017 \quad (-0.7\sigma)$	D_{810}	$2593 \pm 31 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1957 \pm 18 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03995 \pm 0.00077 \quad (+0.1\sigma)$	D_{1420}	$845 \pm 15 \quad (+0.8\sigma)$	$H(0.61)$	$96.08 \pm 0.53 \quad (+0.1\sigma)$
τ	$0.0532 \pm 0.0081 \quad (+0.3\sigma)$	D_{2000}	$241.3 \pm 5.3 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2278 \pm 20 \quad (+0.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$0.162^{+0.068}_{-0.13}$	$n_{\mathrm{s},0.002}$	$0.978 \pm 0.010 \quad (+0.4\sigma)$	$H(2.33)$	$236.19 \pm 0.87 \quad (+0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.054 \pm 0.018 \quad (+0.6\sigma)$	Y_{P}	$0.24600 \pm 0.00028 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5723 \pm 27 \quad (-0.1\sigma)$
n_{s}	$0.978 \pm 0.010 \quad (+0.4\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24733 \pm 0.00028 \quad (+0.8\sigma)$	$f\sigma_8(0.15)$	$0.433^{+0.014}_{-0.012} \quad (-1.1\sigma)$
y_{cal}	$0.99999 \pm 0.0024 \quad (+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.33 \pm 0.11 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.720^{+0.026}_{-0.017} \quad (-2.9\sigma)$
H_0	$68.71 \pm 0.86 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.705 \pm 0.063 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.454^{+0.014}_{-0.011} \quad (-1.4\sigma)$
Ω_{Λ}	$0.6990 \pm 0.0093 \quad (-0.2\sigma)$	z_*	$1087.85 \pm 0.89 \quad (-0.8\sigma)$	$\sigma_8(0.38)$	$0.640^{+0.023}_{-0.015} \quad (-3.0\sigma)$
Ω_{m}	$0.3010 \pm 0.0093 \quad (+0.2\sigma)$	r_*	$144.18 \pm 0.41 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.454^{+0.014}_{-0.010} \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0013 \quad (+0.5\sigma)$	$100\theta_*$	$1.04003 \pm 0.00078 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.600^{+0.021}_{-0.014} \quad (-3.0\sigma)$
$\Omega_{\nu}h^2$	$0.00174^{+0.00073}_{-0.0014}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.863 \pm 0.042 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.450^{+0.014}_{-0.010} \quad (-1.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0976 \pm 0.0010 \quad (+0.3\sigma)$	z_{drag}	$1063.1 \pm 1.5 \quad (+0.8\sigma)$	$\sigma_8(0.61)$	$0.571^{+0.020}_{-0.014} \quad (-3.0\sigma)$
σ_8	$0.778^{+0.028}_{-0.019} \quad (-2.8\sigma)$	r_{drag}	$146.35 \pm 0.58 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2899^{+0.0087}_{-0.0058} \quad (-2.4\sigma)$
S_8	$0.779^{+0.028}_{-0.023} \quad (-1.2\sigma)$	k_{D}	$0.1427 \pm 0.0011 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.298^{+0.010}_{-0.0067} \quad (-2.7\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.427^{+0.015}_{-0.013} \quad (-1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.15880 \pm 0.00083 \quad (-0.8\sigma)$	$\chi^2_{\mathrm{lensing}}$	$9.2 \pm 1.3 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.576^{+0.020}_{-0.015} \quad (-1.8\sigma)$	z_{eq}	$3353 \pm 31 \quad (-0.4\sigma)$	χ^2_{simall}	$396.7 \pm 1.4 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.939^{+0.033}_{-0.024} \quad (-2.0\sigma)$	k_{eq}	$0.010234 \pm 0.000096 \quad (-0.4\sigma)$	χ^2_{plikEE}	$742.9 \pm 2.6 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.6 \pm 1.2 \quad (-0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8259^{+0.0063}_{-0.0071} \quad (+0.7\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.059 \pm 0.084 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.375 \pm 0.037 \quad (-0.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4548 \pm 0.0032 \quad (+0.6\sigma)$	χ^2_{MGS}	$1.80 \pm 0.72 \quad (-0.3\sigma)$
z_{re}	$7.19^{+0.82}_{-0.75} \quad (+0.2\sigma)$	$H(0.15)$	$73.91 \pm 0.77 \quad (-0.1\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$4.7 \pm 1.5 \quad (+0.3\sigma)$
10^9A_{s}	$2.121 \pm 0.038 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$631.8 \pm 7.2 \quad (+0.1\sigma)$	χ^2_{prior}	$0.96 \pm 1.4 \quad (+0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.907 \pm 0.019 \quad (+0.5\sigma)$	$H(0.38)$	$83.88 \pm 0.64 \quad (-0.0\sigma)$	χ^2_{CMB}	$1148.8 \pm 3.4 \quad (+0.1\sigma)$
D_{40}	$1233 \pm 28 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509 \pm 15 \quad (+0.1\sigma)$	χ^2_{BAO}	$6.5 \pm 1.5 \quad (+0.1\sigma)$

$\bar{\chi}^2_{\mathrm{eff}} = 1156.24$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.55$; $R - 1 = 0.01129$

6.23 base_mnu_plikHM_EE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02409^{+0.00081}_{-0.0010} \quad (+1.0\sigma)$	D_{220}	$5981 \pm 170 \quad (+0.7\sigma)$	$H(0.51)$	$90.40 \pm 0.62 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1150^{+0.0035}_{-0.0023} \quad (-1.8\sigma)$	D_{810}	$2594 \pm 36 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1960 \pm 19 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04008 \pm 0.00080 \quad (+0.2\sigma)$	D_{1420}	$846 \pm 17 \quad (+0.6\sigma)$	$H(0.61)$	$95.96 \pm 0.58 \quad (-0.2\sigma)$
τ	$0.0560^{+0.0045}_{-0.0076} \quad (+0.2\sigma)$	D_{2000}	$241.8 \pm 6.1 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2282 \pm 21 \quad (+0.2\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.312	$n_{\mathrm{s},0.002}$	$0.981 \pm 0.011 \quad (+0.6\sigma)$	$H(2.33)$	$236.0 \pm 1.0 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.057 \pm 0.019 \quad (+0.1\sigma)$	Y_{P}	$0.24608^{+0.00031}_{-0.00039} \quad (+1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5730 \pm 31 \quad (+0.1\sigma)$
n_{s}	$0.981 \pm 0.011 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24740^{+0.00031}_{-0.00039} \quad (+1.0\sigma)$	$f\sigma_8(0.15)$	$0.422^{+0.032}_{-0.018} \quad (-2.6\sigma)$
y_{cal}	$0.9999 \pm 0.0025 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.30 \pm 0.14 \quad (-0.9\sigma)$	$\sigma_8(0.15)$	$0.699^{+0.058}_{-0.027} \quad (-5.6\sigma)$
H_0	$68.60 \pm 0.88 \quad (-0.2\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.721 \pm 0.072 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.441^{+0.033}_{-0.017} \quad (-3.3\sigma)$
Ω_{Λ}	$0.6985^{+0.0097}_{-0.0088} \quad (-0.2\sigma)$	z_*	$1087.6^{+1.2}_{-1.1} \quad (-1.1\sigma)$	$\sigma_8(0.38)$	$0.621^{+0.051}_{-0.023} \quad (-5.8\sigma)$
Ω_{m}	$0.3015 \pm 0.0093 \quad (+0.2\sigma)$	r_*	$144.36 \pm 0.55 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.441^{+0.033}_{-0.017} \quad (-3.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1418 \pm 0.0014 \quad (+0.1\sigma)$	$100\theta_*$	$1.04017 \pm 0.00082 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.582^{+0.048}_{-0.021} \quad (-5.9\sigma)$
$\Omega_{\nu} h^2$	< 0.00335	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.878 \pm 0.054 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.438^{+0.033}_{-0.016} \quad (-3.9\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0973 \pm 0.0013 \quad (-0.1\sigma)$	z_{drag}	$1063.5^{+1.7}_{-2.0} \quad (+0.9\sigma)$	$\sigma_8(0.61)$	$0.554^{+0.045}_{-0.020} \quad (-5.9\sigma)$
σ_8	$0.755^{+0.063}_{-0.029} \quad (-5.4\sigma)$	r_{drag}	$146.48 \pm 0.72 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.283^{+0.020}_{-0.0089} \quad (-5.1\sigma)$
S_8	$0.757^{+0.061}_{-0.036} \quad (-2.6\sigma)$	k_{D}	$0.1427 \pm 0.0012 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.290^{+0.022}_{-0.010} \quad (-5.5\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.415^{+0.034}_{-0.020} \quad (-2.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.1586 \pm 0.0010 \quad (-0.8\sigma)$	χ_{small}^2	$396.4 \pm 1.3 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.560^{+0.046}_{-0.024} \quad (-3.7\sigma)$	z_{eq}	$3324^{+65}_{-49} \quad (-1.4\sigma)$	χ_{plikEE}^2	$743.9 \pm 3.1 \quad (+0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.912^{+0.074}_{-0.037} \quad (-4.2\sigma)$	k_{eq}	$0.01015^{+0.00020}_{-0.00015} \quad (-1.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.080 \quad (+0.0\sigma)$
$r_{\mathrm{drag}} h$	$100.5 \pm 1.2 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8322^{+0.0094}_{-0.015} \quad (+1.9\sigma)$	χ_{MGS}^2	$1.75 \pm 0.71 \quad (-0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.349^{+0.073}_{-0.054} \quad (-1.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4579^{+0.0047}_{-0.0073} \quad (+1.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.6 \quad (+0.2\sigma)$
z_{re}	$7.43^{+0.34}_{-0.81} \quad (-0.0\sigma)$	$H(0.15)$	$73.79 \pm 0.80 \quad (-0.2\sigma)$	χ_{prior}^2	$0.99 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.127^{+0.038}_{-0.042} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$632.8 \pm 7.5 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.5 \pm 1.4 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.901 \pm 0.024 \quad (+0.0\sigma)$	$H(0.38)$	$83.76 \pm 0.68 \quad (-0.2\sigma)$	χ_{CMB}^2	$1140.3 \pm 3.4 \quad (+0.2\sigma)$
D_{40}	$1226 \pm 31 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511 \pm 16 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1147.83$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.76$; $R - 1 = 0.01081$

6.24 base_mnu_plikHM_EE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02387^{+0.00067}_{-0.00076}$ (+0.9 σ)	D_{220}	5954 ± 140 (+0.8 σ)	$H(0.51)$	90.48 ± 0.57 (+0.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.1163 ± 0.0017 (−0.8 σ)	D_{810}	2592 ± 31 (+0.8 σ)	$D_{\mathrm{M}}(0.51)$	1958 ± 18 (+0.1 σ)
$100\theta_{\mathrm{MC}}$	1.03996 ± 0.00078 (+0.1 σ)	D_{1420}	844^{+14}_{-15} (+0.8 σ)	$H(0.61)$	96.04 ± 0.52 (+0.1 σ)
τ	$0.0559^{+0.0047}_{-0.0075}$ (+0.3 σ)	D_{2000}	241.1 ± 5.3 (+0.8 σ)	$D_{\mathrm{M}}(0.61)$	2279 ± 20 (+0.1 σ)
Σm_{ν} [eV]	$0.168^{+0.075}_{-0.12}$	$n_{\mathrm{s},0.002}$	0.978 ± 0.011 (+0.4 σ)	$H(2.33)$	236.14 ± 0.86 (+0.6 σ)
$\ln(10^{10}A_{\mathrm{s}})$	$3.059^{+0.015}_{-0.017}$ (+0.7 σ)	Y_{P}	0.24599 ± 0.00028 (+0.9 σ)	$D_{\mathrm{M}}(2.33)$	5725 ± 27 (−0.1 σ)
n_{s}	0.978 ± 0.011 (+0.4 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24732 ± 0.00028 (+0.9 σ)	$f\sigma_8(0.15)$	$0.434^{+0.015}_{-0.012}$ (−1.2 σ)
y_{cal}	0.99999 ± 0.0025 (+0.0 σ)	$10^5D/H$	2.33 ± 0.11 (−0.9 σ)	$\sigma_8(0.15)$	$0.721^{+0.026}_{-0.018}$ (−3.6 σ)
H_0	68.67 ± 0.85 (−0.1 σ)	Age/Gyr	13.710 ± 0.063 (−0.1 σ)	$f\sigma_8(0.38)$	$0.454^{+0.015}_{-0.011}$ (−1.6 σ)
Ω_{Λ}	0.6987 ± 0.0093 (−0.3 σ)	z_*	1087.87 ± 0.89 (−0.9 σ)	$\sigma_8(0.38)$	$0.640^{+0.023}_{-0.016}$ (−3.7 σ)
Ω_{m}	0.3013 ± 0.0093 (+0.3 σ)	r_*	144.22 ± 0.40 (−0.4 σ)	$f\sigma_8(0.51)$	$0.454^{+0.014}_{-0.011}$ (−1.9 σ)
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0013 (+0.6 σ)	$100\theta_*$	1.04005 ± 0.00079 (+0.1 σ)	$\sigma_8(0.51)$	$0.600^{+0.022}_{-0.015}$ (−3.8 σ)
$\Omega_{\nu}h^2$	$0.00181^{+0.00081}_{-0.0013}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.867 ± 0.041 (−0.4 σ)	$f\sigma_8(0.61)$	$0.450^{+0.014}_{-0.010}$ (−2.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.0975 ± 0.0010 (+0.3 σ)	z_{drag}	1063.1 ± 1.5 (+0.9 σ)	$\sigma_8(0.61)$	$0.571^{+0.020}_{-0.014}$ (−3.8 σ)
σ_8	$0.779^{+0.028}_{-0.020}$ (−3.4 σ)	r_{drag}	146.40 ± 0.57 (−0.6 σ)	$f\sigma_8(2.33)$	$0.2900^{+0.0089}_{-0.0060}$ (−3.1 σ)
S_8	$0.780^{+0.028}_{-0.023}$ (−1.3 σ)	k_{D}	0.1426 ± 0.0010 (+0.8 σ)	$\sigma_8(2.33)$	$0.299^{+0.010}_{-0.0070}$ (−3.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.427^{+0.016}_{-0.013}$ (−1.3 σ)	$100\theta_{\mathrm{D}}$	0.15883 ± 0.00083 (−0.8 σ)	$\chi^2_{\mathrm{lensing}}$	9.2 ± 1.3 (+0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.577^{+0.020}_{-0.015}$ (−2.0 σ)	z_{eq}	3350 ± 31 (−0.4 σ)	χ^2_{simall}	396.5 ± 1.4 (+0.2 σ)
$\sigma_8/h^{0.5}$	$0.940^{+0.034}_{-0.025}$ (−2.3 σ)	k_{eq}	0.010226 ± 0.000095 (−0.4 σ)	χ^2_{plikEE}	742.8 ± 2.6 (+0.1 σ)
$r_{\mathrm{drag}}h$	100.5 ± 1.2 (−0.3 σ)	$100\theta_{\mathrm{eq}}$	0.8264 ± 0.0068 (+0.7 σ)	$\chi^2_{6\mathrm{DF}}$	0.058 ± 0.083 (+0.0 σ)
$\langle d^2 \rangle^{1/2}$	2.378 ± 0.037 (−0.8 σ)	$100\theta_{\mathrm{s,eq}}$	0.4550 ± 0.0032 (+0.6 σ)	χ^2_{MGS}	1.79 ± 0.71 (−0.3 σ)
z_{re}	$7.46^{+0.36}_{-0.84}$ (+0.1 σ)	$H(0.15)$	73.86 ± 0.77 (−0.1 σ)	$\chi^2_{\mathrm{DR12BAO}}$	4.7 ± 1.6 (+0.3 σ)
10^9A_{s}	$2.131^{+0.031}_{-0.036}$ (+0.7 σ)	$D_{\mathrm{M}}(0.15)$	632.1 ± 7.2 (+0.1 σ)	χ^2_{prior}	0.97 ± 1.4 (+0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.905 ± 0.019 (+0.6 σ)	$H(0.38)$	83.84 ± 0.64 (−0.0 σ)	χ^2_{CMB}	1148.5 ± 3.3 (+0.1 σ)
D_{40}	1233 ± 28 (+0.1 σ)	$D_{\mathrm{M}}(0.38)$	1510 ± 15 (+0.1 σ)	χ^2_{BAO}	6.5 ± 1.5 (+0.1 σ)

$\bar{\chi}^2_{\mathrm{eff}} = 1155.99$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.60$; $R - 1 = 0.01388$

6.25 base_mnu_plikHM_TT_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022295	0.02218 ± 0.00028 (-0.5σ)	S_8	0.8262	0.827 ± 0.017 (-0.1σ)	$100\theta_{\text{eq}}$	0.8235	0.820 ± 0.011 (-0.3σ)
$\Omega_c h^2$	0.11779	0.1186 ± 0.0025 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4525	0.4530 ± 0.0092 (-0.1σ)	$100\theta_{s,\text{eq}}$	0.4548	0.4532 ± 0.0055 (-0.2σ)
$100\theta_{\text{MC}}$	1.04092	1.04081 ± 0.00054 (-0.6σ)	$\sigma_8 \Omega_m^{0.25}$	0.5933	$0.590^{+0.020}_{-0.015}$ (-2.7σ)	$H(0.15)$	70.80	$70.3^{+2.6}_{-2.3}$ (-3.0σ)
τ	0.1141	0.107 ± 0.029 $(+1.1\sigma)$	$\sigma_8/h^{0.5}$	0.9629	$0.956^{+0.039}_{-0.028}$ (-3.4σ)	$D_{\text{M}}(0.15)$	662.2	669^{+22}_{-30} $(+3.2\sigma)$
Σm_ν [eV]	0.378	$0.41^{+0.18}_{-0.34}$	$r_{\text{drag}} h$	96.39	$95.4^{+4.6}_{-4.0}$ (-2.6σ)	$H(0.38)$	81.29	80.9 ± 1.8 (-3.2σ)
$\ln(10^{10} A_s)$	3.156	3.143 ± 0.053 $(+1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	2.5092	$2.515^{+0.043}_{-0.050}$ $(+1.5\sigma)$	$D_{\text{M}}(0.38)$	1573	1585^{+45}_{-59} $(+3.2\sigma)$
n_s	0.9724	0.9681 ± 0.0077 (-0.3σ)	z_{re}	13.08	$12.4^{+2.6}_{-2.1}$ $(+1.1\sigma)$	$H(0.51)$	88.22	88.0 ± 1.4 (-3.3σ)
y_{cal}	1.00018	1.0002 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s$	2.348	2.32 ± 0.12 $(+1.3\sigma)$	$D_{\text{M}}(0.51)$	2033	2047^{+53}_{-69} $(+3.2\sigma)$
A_{217}^{CIB}	44.9	47 ± 7 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8687	1.871 ± 0.015 $(+0.0\sigma)$	$H(0.61)$	94.00	93.8 ± 1.2 (-3.5σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.83	—	D_{40}	1228.8	1233 ± 13 $(+0.5\sigma)$	$D_{\text{M}}(0.61)$	2362	2378^{+58}_{-74} $(+3.3\sigma)$
A_{143}^{tSZ}	6.94	$5.3^{+2.2}_{-2.0}$ (-0.0σ)	D_{220}	5711.4	5714 ± 41 (-0.1σ)	$H(2.33)$	236.81	$237.5^{+2.1}_{-2.5}$ $(+1.6\sigma)$
A_{100}^{PS}	245.1	260 ± 28 $(+0.0\sigma)$	D_{810}	2533.1	2531 ± 14 $(+0.0\sigma)$	$D_{\text{M}}(2.33)$	5832	5844^{+60}_{-73} $(+4.1\sigma)$
A_{143}^{PS}	53.4	47 ± 8 $(+0.1\sigma)$	D_{1420}	816.9	814.8 ± 5.0 (-0.0σ)	$f\sigma_8(0.15)$	0.4584	0.4576 ± 0.0084 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	58.1	43 ± 9 $(+0.1\sigma)$	D_{2000}	231.16	230.1 ± 1.9 (-0.2σ)	$\sigma_8(0.15)$	0.7170	$0.708^{+0.048}_{-0.035}$ (-4.2σ)
A_{217}^{PS}	123.9	115 ± 10 $(+0.1\sigma)$	$n_{s,0.002}$	0.9724	0.9681 ± 0.0077 (-0.3σ)	$f\sigma_8(0.38)$	0.4710	$0.468^{+0.014}_{-0.0090}$ (-1.8σ)
A^{kSZ}	0.00	< 4.36 (-0.0σ)	Y_{P}	0.245365	$0.24531^{+0.00014}_{-0.00010}$ (-0.5σ)	$\sigma_8(0.38)$	0.6337	$0.625^{+0.046}_{-0.034}$ (-4.1σ)
A_{100}^{dustTT}	8.88	8.9 ± 1.8 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246692	$0.24664^{+0.00014}_{-0.00010}$ (-0.5σ)	$f\sigma_8(0.51)$	0.4670	$0.463^{+0.017}_{-0.011}$ (-2.6σ)
A_{143}^{dustTT}	10.85	10.7 ± 1.8 (-0.0σ)	10^5D/H	2.600	2.622 ± 0.053 $(+0.5\sigma)$	$\sigma_8(0.51)$	0.5923	$0.584^{+0.044}_{-0.033}$ (-4.0σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.11	18.2 ± 3.3 (-0.0σ)	Age/Gyr	13.957	$13.99^{+0.14}_{-0.17}$ $(+4.3\sigma)$	$f\sigma_8(0.61)$	0.4605	$0.456^{+0.020}_{-0.012}$ (-3.1σ)
A_{217}^{dustTT}	95.9	93.5 ± 7.3 (-0.0σ)	z_*	1089.88	$1090.12^{+0.54}_{-0.61}$ $(+0.6\sigma)$	$\sigma_8(0.61)$	0.5632	$0.555^{+0.043}_{-0.032}$ (-3.9σ)
c_{100}	0.99968	0.99959 ± 0.00062 (-0.0σ)	r_*	144.98	144.81 ± 0.57 (-0.4σ)	$f\sigma_8(2.33)$	0.2876	$0.283^{+0.021}_{-0.015}$ (-3.2σ)
c_{217}	0.99821	0.99825 ± 0.00062 $(+0.0\sigma)$	$100\theta_*$	1.041259	1.04117 ± 0.00050 (-0.3σ)	$\sigma_8(2.33)$	0.2929	$0.288^{+0.024}_{-0.018}$ (-3.5σ)
H_0	65.27	$64.7^{+3.0}_{-2.6}$ (-2.9σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.924	13.908 ± 0.052 (-0.4σ)	χ_{lensing}^2	8.04	9.1 ± 1.6 (-0.4σ)
Ω_Λ	0.6617	$0.650^{+0.047}_{-0.030}$ (-3.0σ)	z_{drag}	1059.67	1059.47 ± 0.52 (-0.4σ)	χ_{lowl}^2	23.65	24.4 ± 1.3 $(+0.9\sigma)$
Ω_{m}	0.3383	$0.350^{+0.030}_{-0.047}$ $(+3.0\sigma)$	r_{drag}	147.68	147.54 ± 0.55 (-0.4σ)	χ_{plik}^2	757.8	770.2 ± 5.5 (-0.0σ)
$\Omega_{\text{m}} h^2$	0.14415	$0.1452^{+0.0036}_{-0.0044}$ $(+1.9\sigma)$	k_{D}	0.14024	0.14033 ± 0.00055 $(+0.3\sigma)$	χ_{prior}^2	1.15	7.3 ± 3.7 (-0.0σ)
$\Omega_\nu h^2$	0.00407	$0.0045^{+0.0019}_{-0.0036}$	$100\theta_{\text{D}}$	0.160883	0.16097 ± 0.00028 $(+0.1\sigma)$	χ_{CMB}^2	789.5	803.7 ± 5.5 $(+0.0\sigma)$
$\Omega_{\text{m}} h^3$	0.09409	$0.0938^{+0.0019}_{-0.0014}$ (-4.6σ)	z_{eq}	3347	3365 ± 56 $(+0.3\sigma)$			
σ_8	0.7780	$0.769^{+0.049}_{-0.036}$ (-4.3σ)	k_{eq}	0.010220	0.01027 ± 0.00017 $(+0.3\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 790.68$; $\Delta\chi_{\text{eff}}^2 = -0.33$; $\bar{\chi}_{\text{eff}}^2 = 811.02$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.03$; $R - 1 = 0.01418$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.04 (Δ -1.07) commander_dx12_v3_2_29: 23.65 (Δ 0.73) plik_rd12_HM_v22_TT: 757.84 (Δ 0.07)

6.26 base_mnu_plikHM_TT_lowl_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02237 \pm 0.00021 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.605^{+0.011}_{-0.0096} \quad (-0.8\sigma)$	$H(0.38)$	$82.95^{+0.53}_{-0.46} \quad (-0.7\sigma)$
$\Omega_{\text{c}}h^2$	$0.1169 \pm 0.0017 \quad (-0.9\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.018}_{-0.016} \quad (-0.8\sigma)$	$D_{\text{M}}(0.38)$	$1529^{+11}_{-13} \quad (+0.6\sigma)$
$100\theta_{\text{MC}}$	$1.04116 \pm 0.00044 \quad (+0.2\sigma)$	$r_{\text{drag}}h$	$100.1 \pm 1.1 \quad (-0.3\sigma)$	$H(0.51)$	$89.61^{+0.47}_{-0.40} \quad (-0.8\sigma)$
τ	$0.097^{+0.025}_{-0.029} \quad (+1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.479 \pm 0.031 \quad (+0.4\sigma)$	$D_{\text{M}}(0.51)$	$1981^{+14}_{-16} \quad (+0.7\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.203	z_{re}	$11.5 \pm 2.2 \quad (+1.1\sigma)$	$H(0.61)$	$95.18^{+0.43}_{-0.35} \quad (-0.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.121^{+0.046}_{-0.052} \quad (+1.2\sigma)$	$10^9 A_{\text{s}}$	$2.269^{+0.099}_{-0.12} \quad (+1.2\sigma)$	$D_{\text{M}}(0.61)$	$2306^{+15}_{-17} \quad (+0.7\sigma)$
n_{s}	$0.9726^{+0.0056}_{-0.0063} \quad (+0.7\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.865 \pm 0.013 \quad (-0.5\sigma)$	$H(2.33)$	$235.07 \pm 0.79 \quad (-0.2\sigma)$
y_{cal}	$1.0001^{+0.0026}_{-0.0023} \quad (-0.1\sigma)$	D_{40}	$1228 \pm 11 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5773^{+18}_{-23} \quad (+1.0\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5720 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0071 \quad (-0.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	$2529 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.751^{+0.017}_{-0.014} \quad (-1.0\sigma)$
A_{143}^{tSZ}	$5.3^{+2.3}_{-2.0} \quad (+0.0\sigma)$	D_{1420}	$815.1 \pm 5.0 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4763 \pm 0.0073 \quad (-0.5\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.1\sigma)$	D_{2000}	$230.7 \pm 1.8 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.667^{+0.015}_{-0.012} \quad (-0.9\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9726^{+0.0056}_{-0.0063} \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4754 \pm 0.0073 \quad (-0.6\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.245392^{+0.000089}_{-0.000078} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.624^{+0.014}_{-0.012} \quad (-0.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246719^{+0.000089}_{-0.000078} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4709^{+0.0077}_{-0.0069} \quad (-0.6\sigma)$
A^{kSZ}	$< 4.29 \quad (-0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.586 \pm 0.040 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.594^{+0.014}_{-0.011} \quad (-0.9\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (+0.0\sigma)$	Age/Gyr	$13.824^{+0.041}_{-0.054} \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.3014^{+0.0058}_{-0.0053} \quad (-0.5\sigma)$
A_{143}^{dustTT}	$10.6 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1089.66 \pm 0.35 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3100^{+0.0069}_{-0.0060} \quad (-0.7\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	r_*	$145.23 \pm 0.40 \quad (+0.7\sigma)$	f_{2000}^{143}	$29.3 \pm 3.0 \quad (-0.2\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04140 \pm 0.00045 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.1 \quad (-0.2\sigma)$
c_{100}	$0.99961 \pm 0.00063 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.945 \pm 0.037 \quad (+0.7\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (-0.2\sigma)$
c_{217}	$0.99821 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.72 \pm 0.46 \quad (+0.2\sigma)$	χ_{lensing}^2	$9.3 \pm 1.6 \quad (-0.3\sigma)$
H_0	$67.71^{+0.73}_{-0.65} \quad (-0.6\sigma)$	r_{drag}	$147.91 \pm 0.41 \quad (+0.6\sigma)$	χ_{lowl}^2	$23.54 \pm 0.92 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6924^{+0.0088}_{-0.0077} \quad (-0.4\sigma)$	k_{D}	$0.14002 \pm 0.00047 \quad (-0.4\sigma)$	χ_{plik}^2	$770.4 \pm 5.5 \quad (+0.1\sigma)$
Ω_{m}	$0.3076^{+0.0077}_{-0.0088} \quad (+0.4\sigma)$	$100\theta_{\text{D}}$	$0.16089 \pm 0.00026 \quad (-0.2\sigma)$	$\chi_{6\text{DF}}^2$	$0.053 \pm 0.077 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^2$	$0.1410 \pm 0.0012 \quad (-0.0\sigma)$	z_{eq}	$3328 \pm 40 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.58 \pm 0.62 \quad (-0.3\sigma)$
$\Omega_{\nu}h^2$	< 0.00218	k_{eq}	$0.01016 \pm 0.00012 \quad (-0.9\sigma)$	χ_{DR12BAO}^2	$4.5 \pm 1.5 \quad (+0.3\sigma)$
$\Omega_{\text{m}}h^3$	$0.09544^{+0.00084}_{-0.00067} \quad (-1.1\sigma)$	$100\theta_{\text{eq}}$	$0.8272^{+0.0073}_{-0.0082} \quad (+0.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.812^{+0.018}_{-0.014} \quad (-1.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4567^{+0.0037}_{-0.0042} \quad (+0.9\sigma)$	χ_{CMB}^2	$803.2 \pm 5.4 \quad (+0.1\sigma)$
S_8	$0.822 \pm 0.014 \quad (-0.6\sigma)$	$H(0.15)$	$72.93^{+0.65}_{-0.58} \quad (-0.6\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4504 \pm 0.0078 \quad (-0.6\sigma)$	$D_{\text{M}}(0.15)$	$640.7^{+5.5}_{-6.4} \quad (+0.6\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 816.62$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.30$; $R - 1 = 0.05945$

6.27 base_mnu_plikHM_TT_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00028 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4529 \pm 0.0092 \quad (-0.0\sigma)$	$H(0.15)$	$70.3^{+2.6}_{-2.3} \quad (-3.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1186 \pm 0.0025 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.590^{+0.020}_{-0.015} \quad (-2.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$669^{+22}_{-30} \quad (+3.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04082 \pm 0.00054 \quad (-0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.956^{+0.039}_{-0.028} \quad (-3.6\sigma)$	$H(0.38)$	$80.9 \pm 1.8 \quad (-3.5\sigma)$
τ	$0.108 \pm 0.027 \quad (+1.1\sigma)$	$r_{\mathrm{drag}}h$	$95.4^{+4.7}_{-4.0} \quad (-2.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1585^{+45}_{-59} \quad (+3.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$0.42^{+0.19}_{-0.33}$	$\langle d^2 \rangle^{1/2}$	$2.516^{+0.041}_{-0.050} \quad (+1.6\sigma)$	$H(0.51)$	$87.9 \pm 1.4 \quad (-3.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.144 \pm 0.051 \quad (+1.3\sigma)$	z_{re}	$12.5^{+2.5}_{-2.1} \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$2048^{+54}_{-69} \quad (+3.7\sigma)$
n_{s}	$0.9682 \pm 0.0076 \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}}$	$2.32 \pm 0.12 \quad (+1.3\sigma)$	$H(0.61)$	$93.8 \pm 1.2 \quad (-3.9\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.871 \pm 0.015 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2378^{+58}_{-74} \quad (+3.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1233 \pm 13 \quad (+0.5\sigma)$	$H(2.33)$	$237.5^{+2.1}_{-2.5} \quad (+1.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5714 \pm 41 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5845^{+61}_{-72} \quad (+4.5\sigma)$
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0} \quad (-0.0\sigma)$	D_{810}	$2531 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4575 \pm 0.0084 \quad (-0.1\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (+0.0\sigma)$	D_{1420}	$814.8 \pm 5.0 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.708^{+0.048}_{-0.036} \quad (-4.8\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{2000}	$230.1 \pm 1.9 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.468^{+0.014}_{-0.0090} \quad (-1.8\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9682 \pm 0.0076 \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.625^{+0.046}_{-0.034} \quad (-4.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	Y_{P}	$0.24531^{+0.00014}_{-0.00010} \quad (-0.7\sigma)$	$f\sigma_8(0.51)$	$0.463^{+0.017}_{-0.011} \quad (-2.8\sigma)$
A^{kSZ}	$< 4.34 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00014}_{-0.00010} \quad (-0.7\sigma)$	$\sigma_8(0.51)$	$0.584^{+0.044}_{-0.033} \quad (-4.6\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.621 \pm 0.053 \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.020}_{-0.012} \quad (-3.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.99^{+0.14}_{-0.17} \quad (+4.7\sigma)$	$\sigma_8(0.61)$	$0.555^{+0.043}_{-0.032} \quad (-4.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	z_*	$1090.12^{+0.54}_{-0.61} \quad (+0.8\sigma)$	$f\sigma_8(2.33)$	$0.283^{+0.021}_{-0.015} \quad (-3.8\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (-0.0\sigma)$	r_*	$144.82 \pm 0.57 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.288^{+0.024}_{-0.018} \quad (-4.1\sigma)$
c_{100}	$0.99959 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00049 \quad (-0.3\sigma)$	f_{2000}^{143}	$30.1 \pm 3.2 \quad (+0.2\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.909 \pm 0.052 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.3 \quad (+0.2\sigma)$
H_0	$64.7^{+3.0}_{-2.6} \quad (-3.3\sigma)$	z_{drag}	$1059.48 \pm 0.52 \quad (-0.4\sigma)$	f_{2000}^{217}	$107.4 \pm 2.1 \quad (+0.2\sigma)$
Ω_{Λ}	$0.650^{+0.047}_{-0.030} \quad (-3.4\sigma)$	r_{drag}	$147.55 \pm 0.54 \quad (-0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.1 \pm 1.6 \quad (-0.4\sigma)$
Ω_{m}	$0.350^{+0.030}_{-0.047} \quad (+3.4\sigma)$	k_{D}	$0.14032 \pm 0.00055 \quad (+0.4\sigma)$	χ_{lowl}^2	$24.4 \pm 1.3 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1452^{+0.0036}_{-0.0044} \quad (+2.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16096 \pm 0.00028 \quad (+0.2\sigma)$	χ_{plik}^2	$770.2 \pm 5.4 \quad (-0.0\sigma)$
$\Omega_{\nu}h^2$	$0.0045^{+0.0021}_{-0.0035}$	z_{eq}	$3363 \pm 56 \quad (+0.4\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0938^{+0.0019}_{-0.0014} \quad (-4.7\sigma)$	k_{eq}	$0.01027 \pm 0.00017 \quad (+0.4\sigma)$	χ_{CMB}^2	$803.7 \pm 5.5 \quad (+0.0\sigma)$
σ_8	$0.769^{+0.049}_{-0.036} \quad (-4.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.821 \pm 0.011 \quad (-0.4\sigma)$		
S_8	$0.827 \pm 0.017 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4533 \pm 0.0055 \quad (-0.4\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 810.97; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.10; R - 1 = 0.01413$$

6.28 base_mnu_plikHM_TT_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02237 \pm 0.00021 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.605^{+0.011}_{-0.0096} \quad (-0.9\sigma)$	$H(0.38)$	$82.95^{+0.54}_{-0.46} \quad (-0.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1168^{+0.0018}_{-0.0016} \quad (-0.9\sigma)$	$\sigma_8 / h^{0.5}$	$0.987^{+0.018}_{-0.015} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529^{+11}_{-13} \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04117 \pm 0.00044 \quad (+0.2\sigma)$	$r_{\mathrm{drag}} h$	$100.1 \pm 1.1 \quad (-0.4\sigma)$	$H(0.51)$	$89.61^{+0.47}_{-0.40} \quad (-0.9\sigma)$
τ	$0.098^{+0.024}_{-0.029} \quad (+1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.480 \pm 0.031 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981^{+14}_{-16} \quad (+0.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.204	z_{re}	$11.5 \pm 2.1 \quad (+1.2\sigma)$	$H(0.61)$	$95.18^{+0.43}_{-0.36} \quad (-1.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.122^{+0.043}_{-0.053} \quad (+1.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.272^{+0.093}_{-0.12} \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2306^{+15}_{-18} \quad (+0.7\sigma)$
n_{s}	$0.9727^{+0.0056}_{-0.0062} \quad (+0.7\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.865 \pm 0.013 \quad (-0.5\sigma)$	$H(2.33)$	$235.06 \pm 0.78 \quad (-0.2\sigma)$
y_{cal}	$1.0001^{+0.0026}_{-0.0023} \quad (-0.1\sigma)$	D_{40}	$1228 \pm 11 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5774^{+18}_{-23} \quad (+1.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5720 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0071 \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2529 \pm 14 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.751^{+0.017}_{-0.013} \quad (-1.0\sigma)$
A_{143}^{tSZ}	$5.3^{+2.3}_{-2.0} \quad (+0.0\sigma)$	D_{1420}	$815.0 \pm 5.0 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4763 \pm 0.0073 \quad (-0.6\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.1\sigma)$	D_{2000}	$230.7 \pm 1.8 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.667^{+0.015}_{-0.012} \quad (-1.0\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9727^{+0.0056}_{-0.0062} \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4755^{+0.0076}_{-0.0069} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.245393^{+0.000088}_{-0.000078} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.624^{+0.014}_{-0.012} \quad (-1.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246720^{+0.000088}_{-0.000078} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4709^{+0.0077}_{-0.0069} \quad (-0.7\sigma)$
A^{kSZ}	$< 4.28 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.039 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.594^{+0.014}_{-0.011} \quad (-1.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.824^{+0.042}_{-0.054} \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.3015^{+0.0058}_{-0.0052} \quad (-0.6\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.6 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1089.65 \pm 0.35 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3101^{+0.0070}_{-0.0059} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	r_*	$145.23 \pm 0.39 \quad (+0.8\sigma)$	f_{2000}^{143}	$29.3 \pm 2.9 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04141 \pm 0.00045 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.1 \quad (-0.2\sigma)$
c_{100}	$0.99960 \pm 0.00063 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.946 \pm 0.037 \quad (+0.7\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (-0.2\sigma)$
c_{217}	$0.99821 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.73 \pm 0.46 \quad (+0.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.3 \pm 1.6 \quad (-0.3\sigma)$
H_0	$67.71^{+0.74}_{-0.65} \quad (-0.6\sigma)$	r_{drag}	$147.91 \pm 0.40 \quad (+0.6\sigma)$	χ_{lowl}^2	$23.54 \pm 0.92 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6924^{+0.0087}_{-0.0077} \quad (-0.4\sigma)$	k_{D}	$0.14002 \pm 0.00047 \quad (-0.4\sigma)$	χ_{plik}^2	$770.3 \pm 5.5 \quad (+0.1\sigma)$
Ω_{m}	$0.3076^{+0.0077}_{-0.0087} \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16089 \pm 0.00026 \quad (-0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.076 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1409 \pm 0.0012 \quad (-0.0\sigma)$	z_{eq}	$3327 \pm 39 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.58 \pm 0.62 \quad (-0.3\sigma)$
$\Omega_{\nu} h^2$	< 0.00219	k_{eq}	$0.01015 \pm 0.00012 \quad (-0.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.5 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09543^{+0.00084}_{-0.00066} \quad (-1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8274^{+0.0071}_{-0.0082} \quad (+1.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.812^{+0.018}_{-0.014} \quad (-1.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4567^{+0.0036}_{-0.0042} \quad (+1.0\sigma)$	χ_{CMB}^2	$803.2 \pm 5.4 \quad (+0.1\sigma)$
S_8	$0.822 \pm 0.014 \quad (-0.6\sigma)$	$H(0.15)$	$72.93^{+0.66}_{-0.58} \quad (-0.6\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0078 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6^{+5.5}_{-6.4} \quad (+0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 816.56$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.33$; $R - 1 = 0.05884$

6.29 base_mnu_plikHM_TTTEEE_lowl_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022505	0.02241 ± 0.00018 (-0.5σ)	$\Omega_{\mathrm{m}}h^2$	0.14100	$0.1448^{+0.0024}_{-0.0033}$ $(+2.2\sigma)$	z_{eq}	3369.1	3376 ± 36 $(+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11848	0.1189 ± 0.0016 $(+0.3\sigma)$	$\Omega_{\nu}h^2$	0.00001	< 0.00451	k_{eq}	0.010282	0.01031 ± 0.00011 $(+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	1.041120	1.04091 ± 0.00035 (-0.5σ)	$\Omega_{\mathrm{m}}h^3$	0.09670	$0.0948^{+0.0017}_{-0.00096}$ (-5.4σ)	$100\theta_{\mathrm{eq}}$	0.8197	0.8187 ± 0.0069 (-0.2σ)
τ	0.0725	0.101 ± 0.025 $(+1.2\sigma)$	σ_8	0.8335	$0.783^{+0.043}_{-0.027}$ (-3.8σ)	$100\theta_{\mathrm{s,eq}}$	0.45265	0.4522 ± 0.0035 (-0.2σ)
Σm_{ν} [eV]	0.001	< 0.420	S_8	0.8332	0.831 ± 0.014 (-0.2σ)	$H(0.15)$	73.75	$71.0^{+2.2}_{-1.5}$ (-3.7σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0764	3.132 ± 0.047 $(+1.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4564	0.4550 ± 0.0074 (-0.2σ)	$D_{\mathrm{M}}(0.15)$	633.0	661^{+15}_{-24} $(+3.9\sigma)$
n_{s}	0.9702	0.9685 ± 0.0054 (-0.2σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6167	$0.597^{+0.019}_{-0.012}$ (-2.2σ)	$H(0.38)$	83.67	$81.5^{+1.7}_{-1.2}$ (-3.9σ)
y_{cal}	1.00015	1.0002 ± 0.0025 $(+0.0\sigma)$	$\sigma_8/h^{0.5}$	1.0065	$0.968^{+0.035}_{-0.023}$ (-2.7σ)	$D_{\mathrm{M}}(0.38)$	1512.4	1569^{+30}_{-48} $(+3.9\sigma)$
A_{217}^{CIB}	46.8	46 ± 7 $(+0.0\sigma)$	$r_{\mathrm{drag}}h$	101.06	$96.4^{+3.8}_{-2.7}$ (-3.1σ)	$H(0.51)$	90.28	$88.5^{+1.4}_{-0.99}$ (-4.2σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.40	—	$\langle d^2 \rangle^{1/2}$	2.4672	$2.507^{+0.037}_{-0.045}$ $(+1.1\sigma)$	$D_{\mathrm{M}}(0.51)$	1961.0	2028^{+36}_{-57} $(+4.0\sigma)$
A_{143}^{tSZ}	7.31	$5.6^{+2.1}_{-1.8}$ (-0.0σ)	z_{re}	9.37	$11.9^{+2.3}_{-2.0}$ $(+1.2\sigma)$	$H(0.61)$	95.81	$94.3^{+1.2}_{-0.85}$ (-4.4σ)
A_{100}^{PS}	247.7	256 ± 28 $(+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	2.168	$2.30^{+0.10}_{-0.12}$ $(+1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	2283	2356^{+39}_{-62} $(+4.0\sigma)$
A_{143}^{PS}	44.7	45 ± 8 $(+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8753	1.874 ± 0.012 (-0.0σ)	$H(2.33)$	235.38	$237.4^{+1.4}_{-1.8}$ $(+1.9\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	45.3	42 ± 9 $(+0.1\sigma)$	D_{40}	1225.2	1235 ± 12 $(+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	5739	5817^{+40}_{-65} $(+5.1\sigma)$
A_{217}^{PS}	118.8	115 ± 10 $(+0.0\sigma)$	D_{220}	5729.6	5731 ± 39 (-0.0σ)	$f\sigma_8(0.15)$	0.4612	0.4600 ± 0.0072 (-0.2σ)
A^{kSZ}	0.00	< 3.87 $(+0.0\sigma)$	D_{810}	2535.6	2534 ± 14 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7713	$0.722^{+0.042}_{-0.026}$ (-3.9σ)
$A_{100}^{\mathrm{dustTT}}$	8.81	8.9 ± 1.8 (-0.0σ)	D_{1420}	817.61	816.9 ± 4.8 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4826	$0.472^{+0.012}_{-0.0076}$ (-1.5σ)
$A_{143}^{\mathrm{dustTT}}$	10.96	10.8 ± 1.8 (-0.0σ)	D_{2000}	231.70	231.2 ± 1.6 (-0.1σ)	$\sigma_8(0.38)$	0.6848	$0.638^{+0.040}_{-0.025}$ (-3.9σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.54	18.5 ± 3.3 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9702	0.9685 ± 0.0054 (-0.2σ)	$f\sigma_8(0.51)$	0.4825	$0.468^{+0.015}_{-0.0087}$ (-2.1σ)
$A_{217}^{\mathrm{dustTT}}$	94.8	93.6 ± 7.2 (-0.0σ)	Y_{P}	0.245446	$0.245409^{+0.000073}_{-0.000063}$ (-0.5σ)	$\sigma_8(0.51)$	0.6413	$0.596^{+0.038}_{-0.024}$ (-3.9σ)
$A_{100}^{\mathrm{dustTE}}$	0.1136	0.113 ± 0.038 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246773	$0.246735^{+0.000073}_{-0.000063}$ (-0.5σ)	$f\sigma_8(0.61)$	0.4783	$0.462^{+0.016}_{-0.0095}$ (-2.5σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1342	0.134 ± 0.029 (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5610	2.579 ± 0.033 $(+0.5\sigma)$	$\sigma_8(0.61)$	0.6105	$0.567^{+0.037}_{-0.023}$ (-3.9σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.483	0.482 ± 0.086 $(+0.0\sigma)$	Age/Gyr	13.743	$13.921^{+0.089}_{-0.15}$ $(+5.3\sigma)$	$f\sigma_8(2.33)$	0.3073	$0.288^{+0.017}_{-0.010}$ (-3.2σ)
$A_{143}^{\mathrm{dustTE}}$	0.222	0.222 ± 0.054 (-0.0σ)	z_*	1089.613	1089.83 ± 0.36 $(+0.6\sigma)$	$\sigma_8(2.33)$	0.3178	$0.294^{+0.020}_{-0.013}$ (-3.6σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.661	0.663 ± 0.081 $(+0.0\sigma)$	r_*	144.729	144.61 ± 0.36 (-0.4σ)	$\chi_{\mathrm{lensing}}^2$	9.71	9.4 ± 1.7 (-0.4σ)
$A_{217}^{\mathrm{dustTE}}$	2.066	2.08 ± 0.27 $(+0.0\sigma)$	$100\theta_*$	1.041259	1.04121 ± 0.00032 (-0.1σ)	χ_{lowl}^2	23.17	24.2 ± 1.2 $(+0.8\sigma)$
c_{100}	0.99970	0.99966 ± 0.00062 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8994	13.889 ± 0.033 (-0.4σ)	χ_{plik}^2	2342.0	2358.3 ± 6.0 $(+0.2\sigma)$
c_{217}	0.99815	0.99817 ± 0.00062 $(+0.0\sigma)$	z_{drag}	1060.123	1060.00 ± 0.33 (-0.3σ)	χ_{prior}^2	1.79	11.5 ± 4.5 (-0.0σ)
H_0	68.58	$65.5^{+2.5}_{-1.7}$ (-3.6σ)	r_{drag}	147.352	147.26 ± 0.34 (-0.3σ)	χ_{CMB}^2	2374.8	2391.9 ± 5.9 $(+0.2\sigma)$
Ω_{Λ}	0.7002	$0.661^{+0.036}_{-0.020}$ (-3.5σ)	k_{D}	0.140690	0.14077 ± 0.00035 $(+0.3\sigma)$			
Ω_{m}	0.2998	$0.339^{+0.020}_{-0.036}$ $(+3.5\sigma)$	$100\theta_{\mathrm{D}}$	0.160654	0.16068 ± 0.00019 $(+0.1\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2376.63$; $\Delta\chi_{\mathrm{eff}}^2 = 0.28$; $\bar{\chi}_{\mathrm{eff}}^2 = 2403.40$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.91$; $R - 1 = 0.01886$

χ_{eff}^2 : CMB - smicadx12.Dec5_ftl.mv2.ndclpp.p.teb.consext8: 9.71 (Δ 0.04) commander_dx12.v3.2.29: 23.17 (Δ 0.02) plik_rd12_HM.v22b.TTTEEE: 2341.97 (Δ -0.07)

6.30 base_mnu_plikHM_TTTEEE_lowl_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02251 \pm 0.00015 \quad (+0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09610^{+0.00064}_{-0.00041} \quad (-0.9\sigma)$	$H(0.15)$	$73.04^{+0.60}_{-0.54} \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0013 \quad (-0.3\sigma)$	σ_8	$0.819^{+0.015}_{-0.012} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.8^{+5.1}_{-5.9} \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00031 \quad (+0.0\sigma)$	S_8	$0.830 \pm 0.012 \quad (-0.1\sigma)$	$H(0.38)$	$83.10^{+0.48}_{-0.41} \quad (-0.7\sigma)$
τ	$0.088^{+0.019}_{-0.024} \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4548 \pm 0.0067 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527^{+11}_{-12} \quad (+0.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.144	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6102^{+0.0094}_{-0.0080} \quad (-0.4\sigma)$	$H(0.51)$	$89.78^{+0.42}_{-0.34} \quad (-0.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.105^{+0.036}_{-0.045} \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.994^{+0.015}_{-0.013} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978^{+12}_{-14} \quad (+0.7\sigma)$
n_{s}	$0.9710^{+0.0045}_{-0.0051} \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.96 \pm 1.0 \quad (-0.5\sigma)$	$H(0.61)$	$95.38^{+0.37}_{-0.29} \quad (-0.9\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.478 \pm 0.031 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302^{+14}_{-16} \quad (+0.7\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (+0.0\sigma)$	z_{re}	$10.6^{+1.8}_{-2.0} \quad (+0.5\sigma)$	$H(2.33)$	$235.71^{+0.72}_{-0.61} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$> 0.370 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.232^{+0.076}_{-0.10} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761^{+14}_{-19} \quad (+1.0\sigma)$
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.8} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.872 \pm 0.012 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4605 \pm 0.0063 \quad (-0.1\sigma)$
A_{100}^{PS}	$255 \pm 27 \quad (+0.0\sigma)$	D_{40}	$1230 \pm 11 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.757^{+0.014}_{-0.012} \quad (-0.6\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4799 \pm 0.0064 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.672^{+0.013}_{-0.011} \quad (-0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$817.0 \pm 4.9 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4789^{+0.0067}_{-0.0059} \quad (-0.3\sigma)$
A^{kSZ}	$< 3.61 \quad (-0.1\sigma)$	D_{2000}	$231.6 \pm 1.7 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.629^{+0.012}_{-0.010} \quad (-0.6\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9710^{+0.0045}_{-0.0051} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4741^{+0.0067}_{-0.0060} \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245449^{+0.000060}_{-0.000052} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.598^{+0.012}_{-0.0098} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.2 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246775^{+0.000060}_{-0.000052} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.3029 \pm 0.0050 \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.0 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.560^{+0.025}_{-0.029} \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3118^{+0.0061}_{-0.0053} \quad (-0.5\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.794^{+0.031}_{-0.045} \quad (+1.0\sigma)$	f_{2000}^{143}	$28.1 \pm 2.9 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.57 \pm 0.26 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 2.0 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.476 \pm 0.087 \quad (-0.0\sigma)$	r_*	$144.83^{+0.26}_{-0.31} \quad (+0.3\sigma)$	f_{2000}^{217}	$105.9 \pm 1.9 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.223 \pm 0.052 \quad (-0.0\sigma)$	$100\theta_*$	$1.04131 \pm 0.00031 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.99 \pm 1.9 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.661 \pm 0.079 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.909^{+0.025}_{-0.029} \quad (+0.3\sigma)$	χ_{lowl}^2	$23.55 \pm 0.87 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.07 \pm 0.26 \quad (+0.0\sigma)$	z_{drag}	$1060.13 \pm 0.31 \quad (+0.0\sigma)$	χ_{plik}^2	$2357.9 \pm 6.2 \quad (+0.2\sigma)$
c_{100}	$0.99967 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.46^{+0.26}_{-0.31} \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.074 \quad (+0.5\sigma)$
c_{217}	$0.99817 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14059^{+0.00033}_{-0.00030} \quad (-0.2\sigma)$	χ_{MGS}^2	$1.46 \pm 0.57 \quad (-0.5\sigma)$
H_0	$67.79^{+0.67}_{-0.61} \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16065 \pm 0.00018 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.6 \quad (+0.7\sigma)$
Ω_{Λ}	$0.6914 \pm 0.0078 \quad (-0.6\sigma)$	z_{eq}	$3358^{+32}_{-27} \quad (-0.3\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_{m}	$0.3086 \pm 0.0078 \quad (+0.6\sigma)$	k_{eq}	$0.010249^{+0.000097}_{-0.000082} \quad (-0.3\sigma)$	χ_{CMB}^2	$2391.4 \pm 5.9 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418^{+0.0011}_{-0.00096} \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8220^{+0.0051}_{-0.0062} \quad (+0.3\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.5\sigma)$
$\Omega_{\nu}h^2$	< 0.00154	$100\theta_{\mathrm{s,eq}}$	$0.4538^{+0.0026}_{-0.0032} \quad (+0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2409.01; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.36; R - 1 = 0.06296$$

6.31 base_mnu_plikHM_TTTEEE_lowl_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02241 \pm 0.00018 \quad (-0.5\sigma)$	$\Omega_{\nu}h^2$	< 0.00452	$100\theta_{\mathrm{eq}}$	$0.8188 \pm 0.0068 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0016 \quad (+0.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0948^{+0.0017}_{-0.00097} \quad (-5.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522 \pm 0.0035 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00035 \quad (-0.5\sigma)$	σ_8	$0.783^{+0.043}_{-0.027} \quad (-4.1\sigma)$	$H(0.15)$	$71.0^{+2.2}_{-1.5} \quad (-3.9\sigma)$
τ	$0.101 \pm 0.024 \quad (+1.3\sigma)$	S_8	$0.831 \pm 0.014 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$661^{+15}_{-24} \quad (+4.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.420	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4550 \pm 0.0074 \quad (-0.2\sigma)$	$H(0.38)$	$81.5^{+1.7}_{-1.2} \quad (-4.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.133 \pm 0.046 \quad (+1.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.597^{+0.019}_{-0.012} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1569^{+30}_{-48} \quad (+4.1\sigma)$
n_{s}	$0.9686 \pm 0.0053 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.968^{+0.035}_{-0.023} \quad (-2.8\sigma)$	$H(0.51)$	$88.5^{+1.4}_{-1.0} \quad (-4.3\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$96.4^{+3.9}_{-2.7} \quad (-3.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$2028^{+36}_{-57} \quad (+4.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.507^{+0.036}_{-0.045} \quad (+1.2\sigma)$	$H(0.61)$	$94.3^{+1.2}_{-0.85} \quad (-4.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$11.9 \pm 2.1 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2357^{+39}_{-62} \quad (+4.2\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.30^{+0.10}_{-0.12} \quad (+1.4\sigma)$	$H(2.33)$	$237.4^{+1.4}_{-1.8} \quad (+2.0\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.874 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5817^{+40}_{-65} \quad (+5.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (+0.1\sigma)$	D_{40}	$1235 \pm 12 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.4600 \pm 0.0072 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.722^{+0.042}_{-0.026} \quad (-4.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.472^{+0.012}_{-0.0077} \quad (-1.5\sigma)$
A^{kSZ}	$< 3.86 \quad (+0.0\sigma)$	D_{1420}	$816.9 \pm 4.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.638^{+0.040}_{-0.025} \quad (-4.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	D_{2000}	$231.2 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.468^{+0.015}_{-0.0088} \quad (-2.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9686 \pm 0.0053 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.596^{+0.039}_{-0.024} \quad (-4.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.245409^{+0.000073}_{-0.000063} \quad (-0.5\sigma)$	$f\sigma_8(0.61)$	$0.462^{+0.017}_{-0.0096} \quad (-2.6\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.2 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246736^{+0.000073}_{-0.000063} \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.567^{+0.037}_{-0.023} \quad (-4.2\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.578^{+0.031}_{-0.034} \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	$0.288^{+0.017}_{-0.010} \quad (-3.5\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.922^{+0.090}_{-0.15} \quad (+5.5\sigma)$	$\sigma_8(2.33)$	$0.294^{+0.020}_{-0.013} \quad (-3.9\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (+0.0\sigma)$	z_*	$1089.83 \pm 0.36 \quad (+0.7\sigma)$	f_{2000}^{143}	$28.7 \pm 2.9 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.222 \pm 0.054 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.36 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.663 \pm 0.081 \quad (+0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00032 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.4 \pm 1.9 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.033 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.4 \pm 1.7 \quad (-0.4\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1060.00 \pm 0.33 \quad (-0.4\sigma)$	χ_{lowl}^2	$24.2 \pm 1.2 \quad (+0.8\sigma)$
c_{217}	$0.99817 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.26 \pm 0.34 \quad (-0.4\sigma)$	χ_{plik}^2	$2358.2 \pm 6.0 \quad (+0.2\sigma)$
H_0	$65.5^{+2.6}_{-1.7} \quad (-3.8\sigma)$	k_{D}	$0.14077 \pm 0.00035 \quad (+0.4\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.661^{+0.036}_{-0.020} \quad (-3.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16068 \pm 0.00019 \quad (+0.1\sigma)$	χ_{CMB}^2	$2391.9 \pm 5.9 \quad (+0.2\sigma)$
Ω_{m}	$0.339^{+0.020}_{-0.036} \quad (+3.7\sigma)$	z_{eq}	$3375 \pm 36 \quad (+0.3\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1448^{+0.0024}_{-0.0033} \quad (+2.3\sigma)$	k_{eq}	$0.01031 \pm 0.00011 \quad (+0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2403.37$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.02$; $R - 1 = 0.01980$

6.32 base_mnu_plikHM_TTTEEE_lowl_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02252 \pm 0.00015 \quad (+0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09610^{+0.00064}_{-0.00041} \quad (-0.9\sigma)$	$H(0.15)$	$73.04^{+0.60}_{-0.53} \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0013 \quad (-0.3\sigma)$	σ_8	$0.819^{+0.015}_{-0.012} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.8^{+5.1}_{-5.9} \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00031 \quad (+0.0\sigma)$	S_8	$0.830 \pm 0.012 \quad (-0.2\sigma)$	$H(0.38)$	$83.10^{+0.48}_{-0.41} \quad (-0.8\sigma)$
τ	$0.088^{+0.018}_{-0.024} \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4548 \pm 0.0067 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526^{+10}_{-12} \quad (+0.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.144	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6103^{+0.0094}_{-0.0080} \quad (-0.4\sigma)$	$H(0.51)$	$89.78^{+0.42}_{-0.34} \quad (-0.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.105^{+0.035}_{-0.045} \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.995^{+0.015}_{-0.013} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978^{+12}_{-14} \quad (+0.7\sigma)$
n_{s}	$0.9711^{+0.0044}_{-0.0051} \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.97 \pm 1.0 \quad (-0.5\sigma)$	$H(0.61)$	$95.38^{+0.37}_{-0.29} \quad (-0.9\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.479 \pm 0.030 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302^{+14}_{-16} \quad (+0.7\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (+0.0\sigma)$	z_{re}	$10.7^{+1.7}_{-2.0} \quad (+0.5\sigma)$	$H(2.33)$	$235.71^{+0.72}_{-0.60} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$> 0.370 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.233^{+0.074}_{-0.10} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761^{+14}_{-19} \quad (+1.0\sigma)$
A_{143}^{tSZ}	$5.7^{+2.1}_{-1.7} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.872 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4605 \pm 0.0063 \quad (-0.1\sigma)$
A_{100}^{PS}	$255 \pm 27 \quad (+0.0\sigma)$	D_{40}	$1230 \pm 11 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.757^{+0.014}_{-0.012} \quad (-0.6\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4799 \pm 0.0064 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.672^{+0.013}_{-0.011} \quad (-0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$817.0 \pm 4.9 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4789^{+0.0066}_{-0.0059} \quad (-0.3\sigma)$
A^{kSZ}	$< 3.59 \quad (-0.1\sigma)$	D_{2000}	$231.6 \pm 1.7 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.629^{+0.012}_{-0.010} \quad (-0.6\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9711^{+0.0044}_{-0.0051} \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4742^{+0.0067}_{-0.0059} \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245449^{+0.000059}_{-0.000052} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.598^{+0.012}_{-0.0097} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.4 \pm 3.2 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246776^{+0.000059}_{-0.000052} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.3029 \pm 0.0050 \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.0 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.560^{+0.025}_{-0.029} \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3118^{+0.0061}_{-0.0053} \quad (-0.6\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.794^{+0.031}_{-0.044} \quad (+1.0\sigma)$	f_{2000}^{143}	$28.1 \pm 2.9 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.57 \pm 0.26 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 2.0 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.476 \pm 0.087 \quad (-0.0\sigma)$	r_*	$144.84^{+0.26}_{-0.31} \quad (+0.3\sigma)$	f_{2000}^{217}	$105.9 \pm 1.9 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04131 \pm 0.00031 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.99 \pm 1.9 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.079 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.909^{+0.024}_{-0.029} \quad (+0.3\sigma)$	χ_{lowl}^2	$23.55 \pm 0.87 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.07 \pm 0.26 \quad (+0.0\sigma)$	z_{drag}	$1060.13 \pm 0.31 \quad (+0.0\sigma)$	χ_{plik}^2	$2357.8 \pm 6.2 \quad (+0.2\sigma)$
c_{100}	$0.99967 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.46^{+0.26}_{-0.31} \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.074 \quad (+0.6\sigma)$
c_{217}	$0.99817 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14059^{+0.00033}_{-0.00030} \quad (-0.2\sigma)$	χ_{MGS}^2	$1.47 \pm 0.57 \quad (-0.5\sigma)$
H_0	$67.79^{+0.67}_{-0.61} \quad (-0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16065 \pm 0.00018 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.6 \quad (+0.7\sigma)$
Ω_{Λ}	$0.6914 \pm 0.0078 \quad (-0.6\sigma)$	z_{eq}	$3358^{+32}_{-27} \quad (-0.3\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (+0.0\sigma)$
Ω_{m}	$0.3086 \pm 0.0078 \quad (+0.6\sigma)$	k_{eq}	$0.010248^{+0.000096}_{-0.000081} \quad (-0.3\sigma)$	χ_{CMB}^2	$2391.4 \pm 5.9 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418^{+0.0011}_{-0.00096} \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8220^{+0.0051}_{-0.0062} \quad (+0.3\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.5\sigma)$
$\Omega_{\nu}h^2$	< 0.00155	$100\theta_{\mathrm{s,eq}}$	$0.4538^{+0.0026}_{-0.0032} \quad (+0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2408.99; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.41; R - 1 = 0.06301$$

6.33 base_mnu_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022207	$0.02206^{+0.00025}_{-0.00022} \quad (-0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4564	$0.4581 \pm 0.0090 \quad (+0.1\sigma)$	$H(0.15)$	73.09	$71.4^{+1.9}_{-0.84} \quad (-1.6\sigma)$
$\Omega_c h^2$	0.11967	$0.1210^{+0.0017}_{-0.0022} \quad (+0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6125	$0.603^{+0.013}_{-0.0083} \quad (-0.7\sigma)$	$D_M(0.15)$	639.3	$656.5^{+7.9}_{-20} \quad (+1.7\sigma)$
$100\theta_{MC}$	1.04091	$1.04066 \pm 0.00051 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	0.9981	$0.978^{+0.024}_{-0.012} \quad (-1.2\sigma)$	$H(0.38)$	83.15	$81.9^{+1.5}_{-0.64} \quad (-1.7\sigma)$
τ	0.0529	$0.0525 \pm 0.0077 \quad (+0.0\sigma)$	$r_{drag} h$	99.98	$97.0^{+3.5}_{-1.6} \quad (-1.5\sigma)$	$D_M(0.38)$	1525.4	$1560^{+16}_{-41} \quad (+1.7\sigma)$
Σm_ν [eV]	0.000	< 0.180	$\langle d^2 \rangle^{1/2}$	2.4453	$2.451 \pm 0.027 \quad (+0.2\sigma)$	$H(0.51)$	89.84	$88.8^{+1.2}_{-0.53} \quad (-1.7\sigma)$
$\ln(10^{10} A_s)$	3.0395	$3.042 \pm 0.015 \quad (+0.1\sigma)$	z_{re}	7.56	$7.57 \pm 0.79 \quad (+0.1\sigma)$	$D_M(0.51)$	1976.5	$2017^{+19}_{-48} \quad (+1.7\sigma)$
n_s	0.9657	$0.9613^{+0.0062}_{-0.0052} \quad (-0.4\sigma)$	$10^9 A_s$	2.0894	$2.095 \pm 0.032 \quad (+0.1\sigma)$	$H(0.61)$	95.43	$94.57^{+0.99}_{-0.44} \quad (-1.7\sigma)$
y_{cal}	1.00016	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8797	$1.886 \pm 0.013 \quad (+0.3\sigma)$	$D_M(0.61)$	2300.3	$2345^{+21}_{-52} \quad (+1.7\sigma)$
A_{217}^{CIB}	49.3	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	1226.5	$1235 \pm 14 \quad (+0.3\sigma)$	$H(2.33)$	235.85	$237.4^{+1.1}_{-2.0} \quad (+1.0\sigma)$
$\xi^{tSZ \times CIB}$	0.22	—	D_{220}	5712.0	$5714 \pm 41 \quad (-0.0\sigma)$	$D_M(2.33)$	5757.5	$5800^{+20}_{-50} \quad (+1.8\sigma)$
A_{143}^{tSZ}	7.16	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	2535.2	$2538 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	0.4606	$0.4618 \pm 0.0081 \quad (+0.1\sigma)$
A_{100}^{PS}	254.2	$265 \pm 28 \quad (+0.0\sigma)$	D_{1420}	815.2	$814.5 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	0.7598	$0.732^{+0.030}_{-0.0096} \quad (-2.9\sigma)$
A_{143}^{PS}	47.3	$50 \pm 8 \quad (+0.1\sigma)$	D_{2000}	230.06	$229.3 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	0.4797	$0.4751^{+0.0085}_{-0.0063} \quad (-0.5\sigma)$
$A_{143 \times 217}^{PS}$	44.0	$44 \pm 9 \quad (+0.1\sigma)$	$n_{s,0.002}$	0.9657	$0.9613^{+0.0062}_{-0.0052} \quad (-0.4\sigma)$	$\sigma_8(0.38)$	0.6736	$0.647^{+0.029}_{-0.0090} \quad (-3.2\sigma)$
A_{217}^{PS}	117.8	$115 \pm 10 \quad (+0.1\sigma)$	Y_P	0.245329	$0.24526^{+0.00013}_{-0.000087} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	0.4786	$0.471^{+0.010}_{-0.0055} \quad (-0.8\sigma)$
A^{kSZ}	0.00	$< 5.03 \quad (+0.0\sigma)$	Y_P^{BBN}	0.246655	$0.24659^{+0.00013}_{-0.000088} \quad (-0.4\sigma)$	$\sigma_8(0.51)$	0.6305	$0.605^{+0.028}_{-0.0086} \quad (-3.3\sigma)$
A_{100}^{dustTT}	8.90	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	2.6167	$2.645^{+0.042}_{-0.050} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	0.4738	$0.465^{+0.011}_{-0.0050} \quad (-1.1\sigma)$
A_{143}^{dustTT}	10.79	$10.7 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	13.784	$13.883^{+0.045}_{-0.11} \quad (+1.8\sigma)$	$\sigma_8(0.61)$	0.5999	$0.575^{+0.027}_{-0.0083} \quad (-3.3\sigma)$
$A_{143 \times 217}^{dustTT}$	19.24	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	1090.093	$1090.42^{+0.37}_{-0.51} \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	0.3016	$0.290^{+0.012}_{-0.0038} \quad (-2.8\sigma)$
A_{217}^{dustTT}	94.3	$93.3 \pm 7.3 \quad (+0.0\sigma)$	r_*	144.648	$144.39^{+0.48}_{-0.40} \quad (-0.5\sigma)$	$\sigma_8(2.33)$	0.3116	$0.298^{+0.015}_{-0.0047} \quad (-3.1\sigma)$
c_{100}	0.99964	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	1.041085	$1.04092 \pm 0.00048 \quad (-0.2\sigma)$	f_{2000}^{143}	30.16	$31.7 \pm 3.0 \quad (+0.2\sigma)$
c_{217}	0.99826	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8940	$13.871^{+0.044}_{-0.038} \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	33.04	$34.0 \pm 2.1 \quad (+0.2\sigma)$
H_0	67.84	$65.9^{+2.2}_{-0.97} \quad (-1.6\sigma)$	z_{drag}	1059.513	$1059.30 \pm 0.48 \quad (-0.2\sigma)$	f_{2000}^{217}	107.50	$108.5 \pm 2.0 \quad (+0.2\sigma)$
Ω_Λ	0.6917	$0.666^{+0.031}_{-0.012} \quad (-1.7\sigma)$	r_{drag}	147.369	$147.15^{+0.46}_{-0.41} \quad (-0.4\sigma)$	$\chi^2_{lensing}$	9.04	$9.43 \pm 0.99 \quad (-0.0\sigma)$
Ω_m	0.3083	$0.334^{+0.012}_{-0.031} \quad (+1.7\sigma)$	k_D	0.140444	$0.14057 \pm 0.00049 \quad (+0.2\sigma)$	χ^2_{small}	395.86	$397.0 \pm 1.7 \quad (+0.0\sigma)$
$\Omega_m h^2$	0.14188	$0.1447^{+0.0018}_{-0.0035} \quad (+1.2\sigma)$	$100\theta_D$	0.160997	$0.16111 \pm 0.00027 \quad (+0.2\sigma)$	χ^2_{lowl}	23.26	$24.0 \pm 1.2 \quad (+0.3\sigma)$
$\Omega_\nu h^2$	0.00000	< 0.00194	z_{eq}	3390.4	$3419^{+39}_{-48} \quad (+0.5\sigma)$	χ^2_{plik}	758.5	$771.9 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_m h^3$	0.09625	$0.0953^{+0.0012}_{-0.00054} \quad (-1.2\sigma)$	k_{eq}	0.010348	$0.01044^{+0.00012}_{-0.00015} \quad (+0.5\sigma)$	χ^2_{prior}	1.48	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	0.8221	$0.794^{+0.030}_{-0.010} \quad (-2.6\sigma)$	$100\theta_{eq}$	0.8149	$0.8095^{+0.0089}_{-0.0074} \quad (-0.5\sigma)$	χ^2_{CMB}	1186.6	$1202.3 \pm 5.8 \quad (+0.2\sigma)$
S_8	0.8333	$0.836 \pm 0.016 \quad (+0.1\sigma)$	$100\theta_{s,eq}$	0.45034	$0.4476^{+0.0045}_{-0.0038} \quad (-0.5\sigma)$			

Best-fit $\chi^2_{eff} = 1188.10$; $\Delta\chi^2_{eff} = -0.47$; $\bar{\chi}^2_{eff} = 1209.58$; $\Delta\bar{\chi}^2_{eff} = 1.16$; $R - 1 = 0.00659$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.04 (Δ 0.14) simall_100x143_offlike5_EE_Aplanck.B: 395.86 (Δ -0.00) commander_dx12_v3.2.29: 23.26 (Δ 0.03) plik_rd12_HM_v22.TT: 758.46 (Δ -0.86)

6.34 base_mnu_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02207^{+0.00026}_{-0.00022} \quad (-0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4580 \pm 0.0090 \quad (+0.1\sigma)$	$H(0.15)$	$71.4^{+2.0}_{-0.85} \quad (-1.7\sigma)$
$\Omega_{\text{c}}h^2$	$0.1209^{+0.0017}_{-0.0022} \quad (+0.6\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.603^{+0.013}_{-0.0083} \quad (-0.8\sigma)$	$D_{\text{M}}(0.15)$	$656.3^{+8.0}_{-20} \quad (+1.8\sigma)$
$100\theta_{\text{MC}}$	$1.04067 \pm 0.00051 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.978^{+0.025}_{-0.012} \quad (-1.2\sigma)$	$H(0.38)$	$81.9^{+1.5}_{-0.64} \quad (-1.8\sigma)$
τ	$0.0538^{+0.0049}_{-0.0081} \quad (-0.0\sigma)$	$r_{\text{drag}}h$	$97.1^{+3.6}_{-1.6} \quad (-1.6\sigma)$	$D_{\text{M}}(0.38)$	$1560^{+16}_{-41} \quad (+1.8\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.184	$\langle d^2 \rangle^{1/2}$	$2.452 \pm 0.027 \quad (+0.2\sigma)$	$H(0.51)$	$88.8^{+1.2}_{-0.53} \quad (-1.8\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.044^{+0.011}_{-0.015} \quad (+0.1\sigma)$	z_{re}	$7.71^{+0.54}_{-0.82} \quad (+0.0\sigma)$	$D_{\text{M}}(0.51)$	$2017^{+19}_{-48} \quad (+1.8\sigma)$
n_{s}	$0.9616^{+0.0062}_{-0.0051} \quad (-0.5\sigma)$	$10^9 A_{\text{s}}$	$2.100^{+0.023}_{-0.033} \quad (+0.1\sigma)$	$H(0.61)$	$94.6^{+1.0}_{-0.45} \quad (-1.8\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.886 \pm 0.012 \quad (+0.3\sigma)$	$D_{\text{M}}(0.61)$	$2344^{+21}_{-52} \quad (+1.8\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1235 \pm 14 \quad (+0.3\sigma)$	$H(2.33)$	$237.4^{+1.1}_{-2.0} \quad (+1.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	$5714 \pm 41 \quad (-0.0\sigma)$	$D_{\text{M}}(2.33)$	$5800^{+20}_{-50} \quad (+1.9\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4617 \pm 0.0081 \quad (+0.1\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.0\sigma)$	D_{1420}	$814.5 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.732^{+0.030}_{-0.0097} \quad (-3.3\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.1\sigma)$	D_{2000}	$229.3 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4751^{+0.0086}_{-0.0063} \quad (-0.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9616^{+0.0062}_{-0.0051} \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.647^{+0.029}_{-0.0090} \quad (-3.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	Y_{P}	$0.24526^{+0.00013}_{-0.000086} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.471^{+0.010}_{-0.0055} \quad (-0.9\sigma)$
A^{kSZ}	$< 5.02 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24659^{+0.00013}_{-0.000087} \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.605^{+0.028}_{-0.0086} \quad (-3.8\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.643^{+0.042}_{-0.050} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.465^{+0.011}_{-0.0050} \quad (-1.2\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.883^{+0.046}_{-0.12} \quad (+1.9\sigma)$	$\sigma_8(0.61)$	$0.575^{+0.027}_{-0.0084} \quad (-3.9\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.40^{+0.36}_{-0.51} \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.291^{+0.012}_{-0.0038} \quad (-3.3\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.3 \quad (+0.0\sigma)$	r_*	$144.41^{+0.48}_{-0.40} \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.298^{+0.015}_{-0.0047} \quad (-3.7\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	$1.04093 \pm 0.00048 \quad (-0.2\sigma)$	f_{2000}^{143}	$31.7 \pm 3.0 \quad (+0.2\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.873^{+0.044}_{-0.037} \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$34.0 \pm 2.1 \quad (+0.2\sigma)$
H_0	$65.9^{+2.3}_{-0.97} \quad (-1.7\sigma)$	z_{drag}	$1059.31 \pm 0.48 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.5 \pm 2.0 \quad (+0.2\sigma)$
Ω_{Λ}	$0.666^{+0.031}_{-0.012} \quad (-1.8\sigma)$	r_{drag}	$147.17^{+0.47}_{-0.41} \quad (-0.4\sigma)$	χ_{lensing}^2	$9.40 \pm 0.99 \quad (-0.0\sigma)$
Ω_{m}	$0.334^{+0.012}_{-0.031} \quad (+1.8\sigma)$	k_{D}	$0.14056 \pm 0.00049 \quad (+0.3\sigma)$	χ_{simall}^2	$396.9 \pm 1.8 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1447^{+0.0018}_{-0.0035} \quad (+1.3\sigma)$	$100\theta_{\text{D}}$	$0.16111 \pm 0.00027 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.9 \pm 1.2 \quad (+0.3\sigma)$
$\Omega_{\nu}h^2$	< 0.00197	z_{eq}	$3417^{+38}_{-48} \quad (+0.5\sigma)$	χ_{plik}^2	$771.8 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.0953^{+0.0012}_{-0.00054} \quad (-1.2\sigma)$	k_{eq}	$0.01043^{+0.00012}_{-0.00015} \quad (+0.5\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.794^{+0.031}_{-0.010} \quad (-2.9\sigma)$	$100\theta_{\text{eq}}$	$0.8099^{+0.0089}_{-0.0073} \quad (-0.5\sigma)$	χ_{CMB}^2	$1202.1 \pm 5.8 \quad (+0.2\sigma)$
S_8	$0.836 \pm 0.016 \quad (+0.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4478^{+0.0045}_{-0.0037} \quad (-0.5\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1209.38$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.22$; $R - 1 = 0.00698$

6.35 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022421	0.02236 ± 0.00015 (-0.1σ)	$\Omega_\nu h^2$	0.00000	< 0.00116	$100\theta_{\text{eq}}$	0.8145	0.8128 ± 0.0054 (-0.1σ)
$\Omega_c h^2$	0.11969	0.1201 ± 0.0013 $(+0.1\sigma)$	$\Omega_m h^3$	0.096681	$0.09623^{+0.00064}_{-0.00033}$ (-0.3σ)	$100\theta_{\text{s,eq}}$	0.44999	0.4491 ± 0.0027 (-0.1σ)
$100\theta_{\text{MC}}$	1.040979	1.04088 ± 0.00032 (-0.1σ)	σ_8	0.8224	$0.807^{+0.018}_{-0.0079}$ (-0.7σ)	$H(0.15)$	73.28	$72.4^{+1.1}_{-0.58}$ (-0.5σ)
τ	0.0532	0.0547 ± 0.0075 $(+0.0\sigma)$	S_8	0.8320	0.832 ± 0.013 $(+0.0\sigma)$	$D_{\text{M}}(0.15)$	637.6	$645.8^{+5.6}_{-11}$ $(+0.5\sigma)$
Σm_ν [eV]	0.000	< 0.108	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4557	0.4556 ± 0.0069 $(+0.0\sigma)$	$H(0.38)$	83.33	$82.69^{+0.80}_{-0.43}$ (-0.5σ)
$\ln(10^{10} A_{\text{s}})$	3.0417	3.046 ± 0.015 $(+0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6122	$0.6063^{+0.0092}_{-0.0068}$ (-0.2σ)	$D_{\text{M}}(0.38)$	1521.6	1538^{+11}_{-22} $(+0.5\sigma)$
n_{s}	0.96641	0.9647 ± 0.0043 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9970	$0.985^{+0.016}_{-0.010}$ (-0.4σ)	$H(0.51)$	90.01	$89.48^{+0.66}_{-0.35}$ (-0.5σ)
y_{cal}	1.00050	1.0007 ± 0.0025 $(+0.0\sigma)$	$r_{\text{drag}} h$	100.09	$98.7^{+1.9}_{-1.1}$ (-0.5σ)	$D_{\text{M}}(0.51)$	1971.8	1992^{+13}_{-25} $(+0.5\sigma)$
A_{217}^{CIB}	47.0	47 ± 7 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4451	2.445 ± 0.021 (-0.0σ)	$H(0.61)$	95.607	$95.16^{+0.55}_{-0.29}$ (-0.5σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.48	—	z_{re}	7.54	7.71 ± 0.75 $(+0.1\sigma)$	$D_{\text{M}}(0.61)$	2295.0	2317^{+14}_{-28} $(+0.5\sigma)$
A_{143}^{tSZ}	7.15	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0941	$2.103^{+0.029}_{-0.032}$ $(+0.1\sigma)$	$H(2.33)$	236.08	$236.80^{+0.79}_{-1.1}$ $(+0.3\sigma)$
A_{100}^{PS}	250.1	259 ± 28 (-0.0σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8828	1.884 ± 0.011 $(+0.1\sigma)$	$D_{\text{M}}(2.33)$	5747.6	5769^{+13}_{-27} $(+0.6\sigma)$
A_{143}^{PS}	48.2	46 ± 8 (-0.0σ)	D_{40}	1228.6	1233 ± 12 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4599	0.4599 ± 0.0064 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	48.6	42 ± 9 $(+0.0\sigma)$	D_{220}	5735.7	5736 ± 39 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7602	$0.745^{+0.018}_{-0.0074}$ (-0.8σ)
A_{217}^{PS}	119.9	115 ± 10 $(+0.0\sigma)$	D_{810}	2540.2	2540 ± 13 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4794	$0.4766^{+0.0062}_{-0.0053}$ (-0.1σ)
A^{kSZ}	0.00	< 4.27 (-0.0σ)	D_{1420}	818.07	817.5 ± 4.7 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6741	$0.660^{+0.017}_{-0.0067}$ (-0.9σ)
A_{100}^{dustTT}	8.76	8.9 ± 1.8 $(+0.0\sigma)$	D_{2000}	231.33	230.9 ± 1.6 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4784	$0.4744^{+0.0066}_{-0.0048}$ (-0.2σ)
A_{143}^{dustTT}	10.99	10.9 ± 1.8 (-0.0σ)	$n_{\text{s},0.002}$	0.96641	0.9647 ± 0.0043 (-0.0σ)	$\sigma_8(0.51)$	0.6310	$0.617^{+0.016}_{-0.0064}$ (-0.9σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.91	18.6 ± 3.3 $(+0.0\sigma)$	Y_{P}	0.245415	$0.245391^{+0.000064}_{-0.000056}$ (-0.1σ)	$f\sigma_8(0.61)$	0.4736	$0.4689^{+0.0070}_{-0.0045}$ (-0.3σ)
A_{217}^{dustTT}	95.2	93.7 ± 7.3 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246742	$0.246717^{+0.000064}_{-0.000056}$ (-0.1σ)	$\sigma_8(0.61)$	0.6004	$0.587^{+0.016}_{-0.0062}$ (-0.9σ)
A_{100}^{dustTE}	0.1136	0.114 ± 0.038 (-0.0σ)	10^5D/H	2.5760	2.587 ± 0.029 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.30194	$0.2962^{+0.0070}_{-0.0029}$ (-0.7σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1349	0.135 ± 0.029 (-0.0σ)	Age/Gyr	13.7610	$13.811^{+0.029}_{-0.062}$ $(+0.6\sigma)$	$\sigma_8(2.33)$	0.3119	$0.3048^{+0.0085}_{-0.0034}$ (-0.8σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.481 ± 0.085 $(+0.0\sigma)$	z_*	1089.823	1089.94 ± 0.28 $(+0.1\sigma)$	f_{2000}^{143}	28.74	29.6 ± 2.7 (-0.0σ)
A_{143}^{dustTE}	0.225	0.226 ± 0.054 $(+0.0\sigma)$	r_*	144.480	$144.40^{+0.29}_{-0.26}$ (-0.1σ)	$f_{2000}^{143 \times 217}$	31.89	32.2 ± 1.9 (-0.0σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.666 ± 0.080 (-0.0σ)	$100\theta_*$	1.041123	1.04108 ± 0.00030 (-0.0σ)	f_{2000}^{217}	106.51	107.1 ± 1.8 $(+0.0\sigma)$
A_{217}^{dustTE}	2.080	2.09 ± 0.27 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8773	13.870 ± 0.026 (-0.1σ)	χ_{lensing}^2	9.022	9.29 ± 0.73 $(+0.1\sigma)$
c_{100}	0.99972	0.99967 ± 0.00061 $(+0.0\sigma)$	z_{drag}	1060.009	1059.93 ± 0.31 (-0.0σ)	χ_{small}^2	395.85	397.1 ± 1.8 $(+0.1\sigma)$
c_{217}	0.99820	0.99820 ± 0.00062 $(+0.0\sigma)$	r_{drag}	147.126	$147.06^{+0.29}_{-0.26}$ (-0.1σ)	χ_{lowl}^2	23.26	23.55 ± 0.88 $(+0.0\sigma)$
H_0	68.03	$67.1^{+1.2}_{-0.67}$ (-0.5σ)	k_{D}	0.140866	0.14089 ± 0.00030 $(+0.1\sigma)$	χ_{plik}^2	2344.0	2359.8 ± 5.9 $(+0.1\sigma)$
Ω_Λ	0.6929	$0.681^{+0.016}_{-0.0085}$ (-0.5σ)	$100\theta_{\text{D}}$	0.160709	0.16076 ± 0.00018 $(+0.0\sigma)$	χ_{prior}^2	1.68	11.5 ± 4.6 $(+0.0\sigma)$
Ω_{m}	0.3071	$0.3191^{+0.0085}_{-0.016}$ $(+0.5\sigma)$	z_{eq}	3396.0	3405 ± 29 $(+0.1\sigma)$	χ_{CMB}^2	2772.2	2789.8 ± 6.1 $(+0.1\sigma)$
$\Omega_{\text{m}} h^2$	0.14211	$0.1435^{+0.0013}_{-0.0019}$ $(+0.4\sigma)$	k_{eq}	0.010365	0.010393 ± 0.000087 $(+0.1\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2773.86$; $\Delta\chi_{\text{eff}}^2 = -0.78$; $\bar{\chi}_{\text{eff}}^2 = 2801.35$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.66$; $R - 1 = 0.01138$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.02 (Δ 0.15) simall_100x143_offlike5_EE_Aplanck.B: 395.85 (Δ -0.20) commander_dx12.v3.2.29: 23.26 (Δ 0.01) plik_rd12_HM.v22b_TTTEEE: 2344.04 (Δ -0.89)

6.36 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00015 \quad (-0.1\sigma)$	$\Omega_{\nu}h^2$	< 0.00117	$100\theta_{\mathrm{eq}}$	$0.8130 \pm 0.0053 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0013 \quad (+0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09622^{+0.00064}_{-0.00033} \quad (-0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4492 \pm 0.0027 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00032 \quad (-0.1\sigma)$	σ_8	$0.807^{+0.018}_{-0.0078} \quad (-0.8\sigma)$	$H(0.15)$	$72.5^{+1.1}_{-0.58} \quad (-0.5\sigma)$
τ	$0.0556^{+0.0057}_{-0.0079} \quad (+0.1\sigma)$	S_8	$0.832 \pm 0.013 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.7^{+5.5}_{-11} \quad (+0.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.109	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4556 \pm 0.0069 \quad (+0.0\sigma)$	$H(0.38)$	$82.70^{+0.81}_{-0.43} \quad (-0.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.015} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6063^{+0.0092}_{-0.0068} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1538^{+11}_{-22} \quad (+0.6\sigma)$
n_{s}	$0.9649 \pm 0.0042 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.985^{+0.016}_{-0.010} \quad (-0.4\sigma)$	$H(0.51)$	$89.49^{+0.67}_{-0.35} \quad (-0.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.7^{+1.9}_{-1.1} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991^{+13}_{-26} \quad (+0.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.021 \quad (-0.0\sigma)$	$H(0.61)$	$95.16^{+0.56}_{-0.29} \quad (-0.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.80^{+0.62}_{-0.77} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316^{+14}_{-28} \quad (+0.6\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.024}_{-0.032} \quad (+0.1\sigma)$	$H(2.33)$	$236.78^{+0.78}_{-1.1} \quad (+0.4\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.884 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5769^{+13}_{-27} \quad (+0.6\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{40}	$1232 \pm 12 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4599 \pm 0.0064 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5736 \pm 39 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.745^{+0.018}_{-0.0073} \quad (-0.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4767^{+0.0063}_{-0.0053} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.25 \quad (-0.0\sigma)$	D_{1420}	$817.5 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.660^{+0.017}_{-0.0067} \quad (-1.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 1.5 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4745^{+0.0067}_{-0.0048} \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9649 \pm 0.0042 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.617^{+0.016}_{-0.0063} \quad (-1.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Y_{P}	$0.245392^{+0.000064}_{-0.000055} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4690^{+0.0071}_{-0.0044} \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246719^{+0.000064}_{-0.000055} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.587^{+0.016}_{-0.0061} \quad (-1.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.587 \pm 0.029 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2963^{+0.0070}_{-0.0029} \quad (-0.8\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.811^{+0.029}_{-0.062} \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3049^{+0.0085}_{-0.0034} \quad (-1.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	z_*	$1089.93 \pm 0.28 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.6 \pm 2.7 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.053 \quad (+0.0\sigma)$	r_*	$144.41^{+0.29}_{-0.26} \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.9 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.666 \pm 0.080 \quad (-0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00030 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.1 \pm 1.8 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.871 \pm 0.026 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.28 \pm 0.73 \quad (+0.1\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.93 \pm 0.31 \quad (-0.0\sigma)$	χ_{simall}^2	$397.1 \pm 1.9 \quad (+0.1\sigma)$
c_{217}	$0.99820 \pm 0.00063 \quad (+0.0\sigma)$	r_{drag}	$147.07^{+0.28}_{-0.26} \quad (-0.1\sigma)$	χ_{lowl}^2	$23.54 \pm 0.87 \quad (+0.0\sigma)$
H_0	$67.1^{+1.2}_{-0.66} \quad (-0.5\sigma)$	k_{D}	$0.14088 \pm 0.00030 \quad (+0.1\sigma)$	χ_{plik}^2	$2359.7 \pm 5.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.681^{+0.016}_{-0.0083} \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00018 \quad (+0.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.6 \quad (+0.0\sigma)$
Ω_{m}	$0.3189^{+0.0083}_{-0.016} \quad (+0.6\sigma)$	z_{eq}	$3404 \pm 28 \quad (+0.1\sigma)$	χ_{CMB}^2	$2789.7 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1434^{+0.0013}_{-0.0019} \quad (+0.4\sigma)$	k_{eq}	$0.010390 \pm 0.000086 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.19; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68; R - 1 = 0.01124$$

6.37 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022343	0.02227 ± 0.00016 (-0.1σ)	σ_8	0.8210	$0.802^{+0.021}_{-0.0089}$ (-1.2σ)	$100\theta_{s,eq}$	0.45078	0.4499 ± 0.0029 (-0.1σ)
$\Omega_c h^2$	0.11938	0.1199 ± 0.0013 $(+0.1\sigma)$	S_8	0.8292	0.827 ± 0.013 (-0.0σ)	$H(0.15)$	73.29	$72.3^{+1.2}_{-0.64}$ (-0.8σ)
$100\theta_{MC}$	1.040913	1.04083 ± 0.00033 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4541	0.4532 ± 0.0070 (-0.0σ)	$D_M(0.15)$	637.4	$646.9^{+6.1}_{-12}$ $(+0.8\sigma)$
τ	0.0532	0.0541 ± 0.0078 $(+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6106	$0.6028^{+0.0099}_{-0.0071}$ (-0.5σ)	$H(0.38)$	83.31	$82.58^{+0.89}_{-0.48}$ (-0.8σ)
Σm_ν [eV]	0.000	< 0.127	$\sigma_8/h^{0.5}$	0.9952	$0.980^{+0.018}_{-0.011}$ (-0.6σ)	$D_M(0.38)$	1521.5	1541^{+12}_{-24} $(+0.8\sigma)$
$\ln(10^{10} A_s)$	3.0396	3.042 ± 0.015 $(+0.1\sigma)$	$r_{drag} h$	100.24	$98.6^{+2.1}_{-1.2}$ (-0.7σ)	$H(0.51)$	89.98	$89.37^{+0.74}_{-0.39}$ (-0.8σ)
n_s	0.96734	0.9650 ± 0.0044 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4383	2.437 ± 0.022 (-0.0σ)	$D_M(0.51)$	1971.8	1995^{+15}_{-28} $(+0.8\sigma)$
y_{cal}	1.00052	1.0006 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.56	7.66 ± 0.79 $(+0.1\sigma)$	$H(0.61)$	95.560	$95.04^{+0.62}_{-0.33}$ (-0.9σ)
A_{100}^{PS}	232.8	241 ± 25 $(+0.1\sigma)$	$10^9 A_s$	2.0896	2.095 ± 0.032 $(+0.1\sigma)$	$D_M(0.61)$	2295.2	2320^{+16}_{-31} $(+0.8\sigma)$
A_{143}^{PS}	42.3	40 ± 8 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8786	1.880 ± 0.011 $(+0.1\sigma)$	$H(2.33)$	235.79	$236.59^{+0.89}_{-1.2}$ $(+0.4\sigma)$
A_{217}^{PS}	103.7	103 ± 10 $(+0.0\sigma)$	D_{40}	1223.7	1229 ± 12 $(+0.1\sigma)$	$D_M(2.33)$	5751.0	5776^{+15}_{-30} $(+0.9\sigma)$
A_{217}^{CIB}	42.7	40 ± 7 $(+0.0\sigma)$	D_{220}	5718.6	5721 ± 39 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4585	0.4576 ± 0.0065 (-0.0σ)
A_{143}^{tSZ}	6.19	$3.8^{+1.9}_{-2.5}$ (-0.0σ)	D_{810}	2536.0	2536 ± 13 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7591	$0.740^{+0.020}_{-0.0084}$ (-1.3σ)
$r_{143 \times 217}^{PS}$	0.665	0.66 ± 0.13 (-0.0σ)	D_{1420}	816.63	815.9 ± 4.9 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4781	$0.4741^{+0.0065}_{-0.0054}$ (-0.3σ)
$r_{143 \times 217}^{CIB}$	0.753	$0.56^{+0.39}_{-0.17}$ $(+0.0\sigma)$	D_{2000}	230.77	230.2 ± 1.7 (-0.0σ)	$\sigma_8(0.38)$	0.6733	$0.656^{+0.019}_{-0.0077}$ (-1.4σ)
$\xi^{tSZ \times CIB}$	0.36	—	$n_{s,0.002}$	0.96734	0.9650 ± 0.0044 (-0.1σ)	$f\sigma_8(0.51)$	0.4773	$0.4719^{+0.0071}_{-0.0050}$ (-0.4σ)
A^{kSZ}	0.47	$4.8^{+2.4}_{-3.8}$ $(+0.0\sigma)$	Y_P	0.245385	0.245354 ± 0.000066 (-0.1σ)	$\sigma_8(0.51)$	0.6302	$0.613^{+0.018}_{-0.0073}$ (-1.4σ)
A_{100}^{dust}	1.009	1.01 ± 0.19 $(+0.0\sigma)$	Y_P^{BBN}	0.246711	0.246680 ± 0.000066 (-0.1σ)	$f\sigma_8(0.61)$	0.4726	$0.4664^{+0.0077}_{-0.0047}$ (-0.5σ)
A_{143}^{dust}	0.972	0.96 ± 0.18 (-0.0σ)	$10^5 D/H$	2.5905	2.604 ± 0.030 $(+0.1\sigma)$	$\sigma_8(0.61)$	0.5997	$0.583^{+0.018}_{-0.0071}$ (-1.4σ)
A_{217}^{dust}	0.973	0.97 ± 0.10 (-0.0σ)	Age/Gyr	13.769	$13.827^{+0.033}_{-0.069}$ $(+0.9\sigma)$	$f\sigma_8(2.33)$	0.3016	$0.2946^{+0.0080}_{-0.0033}$ (-1.2σ)
$A_{143 \times 217}^{dust}$	1.018	1.02 ± 0.16 (-0.0σ)	z_*	1089.893	1090.04 ± 0.29 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.3117	$0.3030^{+0.0097}_{-0.0039}$ (-1.3σ)
c_{100}	0.99772	0.9976 ± 0.0011 $(+0.0\sigma)$	r_*	144.619	144.54 ± 0.31 (-0.1σ)	f_{2000}^{143}	29.32	29.9 ± 2.9 $(+0.1\sigma)$
c_{217}	1.00120	1.0011 ± 0.0016 (-0.0σ)	$100\theta_*$	1.041069	1.04104 ± 0.00031 (-0.1σ)	f_{2000}^{217}	106.32	107.0 ± 2.0 $(+0.1\sigma)$
c_{TE}	0.99612	0.9968 ± 0.0049 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8914	13.884 ± 0.029 (-0.1σ)	$f_{2000}^{143 \times 217}$	31.71	32.3 ± 2.0 $(+0.1\sigma)$
c_{EE}	0.99172	0.9921 ± 0.0049 $(+0.0\sigma)$	z_{drag}	1059.818	1059.70 ± 0.33 (-0.1σ)	$\chi_{lensing}^2$	8.92	9.44 ± 0.87 $(+0.2\sigma)$
H_0	68.06	$67.0^{+1.3}_{-0.74}$ (-0.8σ)	r_{drag}	147.293	147.24 ± 0.31 (-0.1σ)	χ_{simall}^2	395.86	397.1 ± 1.9 $(+0.1\sigma)$
Ω_Λ	0.6940	$0.680^{+0.018}_{-0.0092}$ (-0.8σ)	k_D	0.140629	0.14064 ± 0.00035 $(+0.0\sigma)$	χ_{lowl}^2	22.92	23.30 ± 0.87 $(+0.1\sigma)$
Ω_m	0.3060	$0.3198^{+0.0092}_{-0.018}$ $(+0.8\sigma)$	$100\theta_D$	0.160816	0.16089 ± 0.00019 $(+0.1\sigma)$	$\chi_{CamSpec}^2$	11499.3	11514.7 ± 5.6 $(+0.1\sigma)$
$\Omega_m h^2$	0.14172	$0.1432^{+0.0014}_{-0.0021}$ $(+0.5\sigma)$	z_{eq}	3386.7	3396 ± 30 $(+0.1\sigma)$	χ_{prior}^2	2.05	7.8 ± 3.5 (-0.0σ)
$\Omega_\nu h^2$	0.00000	< 0.00136	k_{eq}	0.010336	0.010366 ± 0.000092 $(+0.1\sigma)$	χ_{CMB}^2	11927.0	11944.5 ± 6.0 $(+0.2\sigma)$
$\Omega_m h^3$	0.09645	$0.09591^{+0.00071}_{-0.00039}$ (-0.6σ)	$100\theta_{eq}$	0.8159	0.8141 ± 0.0057 (-0.1σ)			

Best-fit $\chi_{eff}^2 = 11929.03$; $\Delta\chi_{eff}^2 = -0.62$; $\bar{\chi}_{eff}^2 = 11952.30$; $\Delta\bar{\chi}_{eff}^2 = 0.86$; $R - 1 = 0.01307$
 χ_{eff}^2 : CMB - smicadx12.Dec5_ftl.mv2_ndclpp_p.teb.consext8: 8.92 (Δ 0.09) simall_100x143_offlike5.EE_Aplanck.B: 395.86 (Δ -0.01) commander.dx12.v3.2.29: 22.93 (Δ -0.29) CamSpec like_10.7HM_1400_unified: 11499.28 (Δ -0.37)

6.38 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02228 \pm 0.00016 \quad (-0.2\sigma)$	σ_8	$0.802^{+0.021}_{-0.0090} \quad (-1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4500 \pm 0.0029 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1198 \pm 0.0013 \quad (+0.2\sigma)$	S_8	$0.827 \pm 0.013 \quad (-0.0\sigma)$	$H(0.15)$	$72.3^{+1.2}_{-0.64} \quad (-0.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04083 \pm 0.00033 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4532 \pm 0.0070 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.9^{+6.1}_{-12} \quad (+0.9\sigma)$
τ	$0.0552^{+0.0052}_{-0.0080} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6029^{+0.0099}_{-0.0072} \quad (-0.5\sigma)$	$H(0.38)$	$82.58^{+0.91}_{-0.48} \quad (-0.9\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.129	$\sigma_8/h^{0.5}$	$0.980^{+0.018}_{-0.011} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541^{+12}_{-24} \quad (+0.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.011}_{-0.015} \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.6^{+2.2}_{-1.2} \quad (-0.7\sigma)$	$H(0.51)$	$89.37^{+0.75}_{-0.39} \quad (-0.9\sigma)$
n_{s}	$0.9652 \pm 0.0044 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.022 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995^{+15}_{-29} \quad (+0.9\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	z_{re}	$7.78^{+0.57}_{-0.79} \quad (+0.1\sigma)$	$H(0.61)$	$95.04^{+0.63}_{-0.33} \quad (-0.9\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.024}_{-0.033} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320^{+16}_{-31} \quad (+0.9\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$236.57^{+0.88}_{-1.2} \quad (+0.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5776^{+15}_{-31} \quad (+1.0\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5721 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4577 \pm 0.0065 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.741^{+0.020}_{-0.0084} \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$815.9 \pm 4.9 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4742^{+0.0066}_{-0.0054} \quad (-0.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.17} \quad (+0.0\sigma)$	D_{2000}	$230.2 \pm 1.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.656^{+0.019}_{-0.0077} \quad (-1.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9652 \pm 0.0044 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4720^{+0.0072}_{-0.0050} \quad (-0.5\sigma)$
A^{kSZ}	$4.7^{+2.4}_{-3.8} \quad (+0.0\sigma)$	Y_{P}	$0.245355 \pm 0.000065 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.614^{+0.019}_{-0.0073} \quad (-1.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246682 \pm 0.000066 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4665^{+0.0078}_{-0.0047} \quad (-0.6\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.604 \pm 0.030 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.584^{+0.018}_{-0.0070} \quad (-1.6\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.828^{+0.033}_{-0.070} \quad (+1.0\sigma)$	$f\sigma_8(2.33)$	$0.2947^{+0.0081}_{-0.0032} \quad (-1.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	z_*	$1090.03 \pm 0.29 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3031^{+0.0098}_{-0.0038} \quad (-1.6\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$144.55 \pm 0.31 \quad (-0.1\sigma)$	f_{2000}^{143}	$29.9 \pm 2.9 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00031 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.0 \pm 2.0 \quad (+0.1\sigma)$
c_{TE}	$0.9968 \pm 0.0049 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.885 \pm 0.029 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.0 \quad (+0.1\sigma)$
c_{EE}	$0.9921 \pm 0.0049 \quad (+0.0\sigma)$	z_{drag}	$1059.71 \pm 0.33 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.39 \pm 0.83 \quad (+0.2\sigma)$
H_0	$67.0^{+1.4}_{-0.74} \quad (-0.8\sigma)$	r_{drag}	$147.25 \pm 0.31 \quad (-0.1\sigma)$	χ_{small}^2	$397.0 \pm 1.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.680^{+0.018}_{-0.0092} \quad (-0.8\sigma)$	k_{D}	$0.14063 \pm 0.00035 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.29 \pm 0.87 \quad (+0.1\sigma)$
Ω_{m}	$0.3197^{+0.0092}_{-0.018} \quad (+0.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16088 \pm 0.00019 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.6 \pm 5.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1432^{+0.0014}_{-0.0021} \quad (+0.6\sigma)$	z_{eq}	$3395 \pm 30 \quad (+0.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\nu}h^2$	< 0.00139	k_{eq}	$0.010362 \pm 0.000092 \quad (+0.1\sigma)$	χ_{CMB}^2	$11944.4 \pm 6.0 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09590^{+0.00071}_{-0.00039} \quad (-0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8143 \pm 0.0056 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11952.13$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.88$; $R - 1 = 0.01210$

6.39 base_mnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022202	0.02222 ± 0.00019 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6127	$0.603^{+0.012}_{-0.0089}$ (+0.1 σ)	$H(0.38)$	83.155	83.00 ± 0.40 (+0.1 σ)
$\Omega_c h^2$	0.11966	0.1190 ± 0.0013 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9983	$0.983^{+0.019}_{-0.013}$ (+0.1 σ)	$D_M(0.38)$	1525.2	1529 ± 10 (-0.1 σ)
$100\theta_{MC}$	1.040943	1.04100 ± 0.00042 (+0.0 σ)	$r_{drag}h$	99.99	99.82 ± 0.98 (+0.1 σ)	$H(0.51)$	89.841	89.70 ± 0.33 (+0.1 σ)
τ	0.0529	0.0534 ± 0.0080 (-0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4459	2.428 ± 0.030 (-0.0 σ)	$D_M(0.51)$	1976.3	1981 ± 12 (-0.1 σ)
Σm_ν [eV]	0.0026	< 0.0720	z_{re}	7.56	7.59 ± 0.82 (-0.1 σ)	$H(0.61)$	95.437	$95.30^{+0.30}_{-0.27}$ (+0.2 σ)
$\ln(10^{10} A_s)$	3.0404	3.039 ± 0.017 (-0.1 σ)	$10^9 A_s$	2.0913	2.090 ± 0.035 (-0.1 σ)	$D_M(0.61)$	2300.1	2305 ± 13 (-0.1 σ)
n_s	0.96587	0.9665 ± 0.0043 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8812	1.878 ± 0.012 (+0.0 σ)	$H(2.33)$	235.84	235.76 ± 0.78 (+0.0 σ)
y_{cal}	1.00046	1.0005 ± 0.0025 (-0.0 σ)	D_{40}	1227.2	1226 ± 13 (+0.0 σ)	$D_M(2.33)$	5757.3	5765^{+13}_{-15} (-0.2 σ)
A_{217}^{CIB}	48.7	48 ± 7 (-0.0 σ)	D_{220}	5715.9	5720 ± 40 (-0.0 σ)	$f\sigma_8(0.15)$	0.4607	0.4550 ± 0.0088 (+0.1 σ)
$\xi^{tSZ \times CIB}$	0.30	—	D_{810}	2537.4	2536 ± 14 (-0.0 σ)	$\sigma_8(0.15)$	0.7601	$0.748^{+0.015}_{-0.0082}$ (+0.2 σ)
A_{143}^{tSZ}	7.02	5.1 ± 2.0 (+0.0 σ)	D_{1420}	815.9	815.4 ± 5.1 (+0.0 σ)	$f\sigma_8(0.38)$	0.4799	$0.4736^{+0.0087}_{-0.0071}$ (+0.1 σ)
A_{100}^{PS}	254.4	262 ± 28 (-0.0 σ)	D_{2000}	230.27	230.0 ± 1.8 (+0.0 σ)	$\sigma_8(0.38)$	0.6739	$0.663^{+0.013}_{-0.0070}$ (+0.2 σ)
A_{143}^{PS}	48.7	48 ± 8 (-0.0 σ)	$n_{s,0.002}$	0.96587	0.9665 ± 0.0043 (+0.0 σ)	$f\sigma_8(0.51)$	0.4788	$0.4724^{+0.0084}_{-0.0064}$ (+0.1 σ)
$A_{143 \times 217}^{PS}$	46.0	43^{+9}_{-10} (+0.0 σ)	Y_P	0.245327	$0.245332^{+0.000084}_{-0.000073}$ (+0.0 σ)	$\sigma_8(0.51)$	0.6307	$0.620^{+0.012}_{-0.0065}$ (+0.2 σ)
A_{217}^{PS}	118.9	115 ± 10 (+0.0 σ)	Y_P^{BBN}	0.246653	$0.246658^{+0.000085}_{-0.000073}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4739	$0.4676^{+0.0082}_{-0.0059}$ (+0.2 σ)
A^{kSZ}	0.00	< 4.85 (-0.0 σ)	$10^5 D/H$	2.6176	2.614 ± 0.036 (-0.0 σ)	$\sigma_8(0.61)$	0.6002	$0.590^{+0.012}_{-0.0062}$ (+0.2 σ)
A_{100}^{dustTT}	8.85	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.7838	$13.802^{+0.030}_{-0.035}$ (-0.2 σ)	$f\sigma_8(2.33)$	0.30178	$0.2977^{+0.0051}_{-0.0030}$ (+0.3 σ)
A_{143}^{dustTT}	10.83	10.7 ± 1.8 (-0.0 σ)	z_*	1090.098	1090.02 ± 0.29 (-0.0 σ)	$\sigma_8(2.33)$	0.31171	$0.3070^{+0.0058}_{-0.0032}$ (+0.2 σ)
$A_{143 \times 217}^{dustTT}$	19.40	18.3 ± 3.3 (+0.0 σ)	r_*	144.655	144.80 ± 0.33 (-0.0 σ)	f_{2000}^{143}	30.13	30.8 ± 2.9 (-0.0 σ)
A_{217}^{dustTT}	94.6	93.4 ± 7.3 (+0.0 σ)	$100\theta_*$	1.041120	1.04120 ± 0.00042 (+0.0 σ)	$f_{2000}^{143 \times 217}$	33.01	33.2 ± 2.0 (-0.0 σ)
c_{100}	0.99966	0.99962 ± 0.00061 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8942	13.907 ± 0.032 (-0.1 σ)	f_{2000}^{217}	107.49	107.8 ± 1.9 (-0.0 σ)
c_{217}	0.99825	0.99825 ± 0.00063 (-0.0 σ)	z_{drag}	1059.513	1059.52 ± 0.43 (+0.0 σ)	χ_{simall}^2	395.87	397.0 ± 1.8 (-0.1 σ)
H_0	67.85	67.66 ± 0.59 (+0.1 σ)	r_{drag}	147.377	147.52 ± 0.35 (-0.1 σ)	χ_{lowl}^2	23.25	23.11 ± 0.94 (+0.0 σ)
Ω_Λ	0.6918	$0.6900^{+0.0081}_{-0.0073}$ (+0.0 σ)	k_D	0.140431	0.14030 ± 0.00045 (+0.0 σ)	χ_{plik}^2	758.6	772.0 ± 5.5 (-0.0 σ)
Ω_m	0.3082	$0.3100^{+0.0073}_{-0.0081}$ (-0.0 σ)	$100\theta_D$	0.161010	0.16101 ± 0.00025 (-0.0 σ)	χ_{6DF}^2	0.0101	0.059 ± 0.081 (-0.0 σ)
$\Omega_m h^2$	0.14189	0.1419 ± 0.0012 (+0.0 σ)	z_{eq}	3390.0	3375 ± 30 (+0.0 σ)	χ_{MGS}^2	1.41	1.39 ± 0.55 (+0.1 σ)
$\Omega_\nu h^2$	0.000028	< 0.000774	k_{eq}	0.010346	0.010301 ± 0.000092 (+0.0 σ)	$\chi_{DR12BAO}^2$	3.90	4.7 ± 1.7 (-0.0 σ)
$\Omega_m h^3$	0.09627	$0.09599^{+0.00056}_{-0.00047}$ (+0.2 σ)	$100\theta_{eq}$	0.8150	0.8178 ± 0.0056 (-0.0 σ)	χ_{prior}^2	1.33	7.3 ± 3.7 (-0.0 σ)
σ_8	0.8223	$0.809^{+0.016}_{-0.0091}$ (+0.2 σ)	$100\theta_{s,eq}$	0.45039	0.4519 ± 0.0029 (-0.0 σ)	χ_{BAO}^2	5.32	6.2 ± 1.4 (-0.0 σ)
S_8	0.8335	0.822 ± 0.017 (+0.1 σ)	$H(0.15)$	73.10	72.92 ± 0.52 (+0.1 σ)	χ_{CMB}^2	1177.7	1192.1 ± 5.6 (-0.1 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4565	0.4503 ± 0.0094 (+0.1 σ)	$D_M(0.15)$	639.2	640.9 ± 5.1 (-0.1 σ)			

Best-fit $\chi_{eff}^2 = 1184.39$; $\Delta\chi_{eff}^2 = -1.36$; $\bar{\chi}_{eff}^2 = 1205.62$; $\Delta\bar{\chi}_{eff}^2 = -0.41$; $R - 1 = 0.00712$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.90 (Δ -0.28) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.02) commander_dx12_v3_2_29: 23.25 (Δ 0.43) plik_rd12_HM_v22_TT: 758.61 (Δ -1.49)

6.40 base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022194	0.02223 ± 0.00019	$\sigma_8 \Omega_m^{0.25}$	0.6118	$0.603^{+0.011}_{-0.0086}$	$H(0.38)$	83.182	83.06 ± 0.37
$\Omega_c h^2$	0.11950	0.1189 ± 0.0012	$\sigma_8/h^{0.5}$	0.9971	$0.983^{+0.018}_{-0.013}$	$D_M(0.38)$	1524.4	1527.2 ± 9.7
$100\theta_{MC}$	1.040962	1.04102 ± 0.00042	$r_{drag}h$	100.11	99.98 ± 0.93	$H(0.51)$	89.859	89.75 ± 0.32
τ	0.0529	0.0536 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4431	2.426 ± 0.030	$D_M(0.51)$	1975.3	1979 ± 11
Σm_ν [eV]	0.0011	< 0.0684	z_{re}	7.56	7.60 ± 0.81	$H(0.61)$	95.447	95.34 ± 0.28
$\ln(10^{10} A_s)$	3.0395	3.039 ± 0.017	$10^9 A_s$	2.0895	2.090 ± 0.035	$D_M(0.61)$	2299.1	2303 ± 12
n_s	0.96602	0.9668 ± 0.0042	$10^9 A_s e^{-2\tau}$	1.8797	1.877 ± 0.012	$H(2.33)$	235.73	235.66 ± 0.75
y_{cal}	1.00027	1.0005 ± 0.0025	D_{40}	1226.2	1225 ± 13	$D_M(2.33)$	5757.1	5763^{+13}_{-14}
A_{217}^{CIB}	49.0	48 ± 7	D_{220}	5713.4	5720 ± 40	$f\sigma_8(0.15)$	0.4597	0.4543 ± 0.0086
$\xi^{tSZ \times CIB}$	0.28	—	D_{810}	2535.9	2535 ± 14	$\sigma_8(0.15)$	0.7595	$0.748^{+0.014}_{-0.0083}$
A_{143}^{tSZ}	7.02	5.1 ± 2.0	D_{1420}	815.4	815.5 ± 5.1	$f\sigma_8(0.38)$	0.4791	$0.4732^{+0.0084}_{-0.0068}$
A_{100}^{PS}	255.6	262 ± 28	D_{2000}	230.08	230.0 ± 1.8	$\sigma_8(0.38)$	0.6735	$0.663^{+0.012}_{-0.0072}$
A_{143}^{PS}	48.6	48 ± 8	$n_{s,0.002}$	0.96602	0.9668 ± 0.0042	$f\sigma_8(0.51)$	0.4781	$0.4721^{+0.0082}_{-0.0062}$
$A_{143 \times 217}^{PS}$	45.5	43^{+9}_{-10}	Y_P	0.245323	$0.245336^{+0.000083}_{-0.000072}$	$\sigma_8(0.51)$	0.6304	$0.621^{+0.012}_{-0.0067}$
A_{217}^{PS}	118.5	115 ± 10	Y_P^{BBN}	0.246650	$0.246663^{+0.000084}_{-0.000073}$	$f\sigma_8(0.61)$	0.4733	$0.4674^{+0.0080}_{-0.0058}$
A^{kSZ}	0.01	< 4.90	$10^5 D/H$	2.6190	2.612 ± 0.036	$\sigma_8(0.61)$	0.5999	$0.591^{+0.011}_{-0.0063}$
A_{100}^{dustTT}	8.87	9.0 ± 1.8	Age/Gyr	13.7836	$13.798^{+0.030}_{-0.034}$	$f\sigma_8(2.33)$	0.30165	$0.2980^{+0.0048}_{-0.0030}$
A_{143}^{dustTT}	10.81	10.7 ± 1.8	z_*	1090.094	1089.99 ± 0.28	$\sigma_8(2.33)$	0.31162	$0.3073^{+0.0055}_{-0.0032}$
$A_{143 \times 217}^{dustTT}$	19.37	18.3 ± 3.3	r_*	144.700	144.84 ± 0.32	f_{2000}^{143}	30.27	30.8 ± 2.9
A_{217}^{dustTT}	94.5	93.5 ± 7.3	$100\theta_*$	1.041126	1.04122 ± 0.00042	$f_{2000}^{143 \times 217}$	33.13	33.2 ± 2.0
c_{100}	0.99964	0.99962 ± 0.00061	$D_M(z_*)/\text{Gpc}$	13.8985	13.910 ± 0.031	f_{2000}^{217}	107.54	107.8 ± 1.9
c_{217}	0.99825	0.99826 ± 0.00063	z_{drag}	1059.475	1059.53 ± 0.43	χ_{small}^2	395.88	397.0 ± 1.8
H_0	67.90	67.76 ± 0.56	r_{drag}	147.427	147.55 ± 0.35	χ_{lowl}^2	23.21	23.05 ± 0.92
Ω_Λ	0.6927	0.6913 ± 0.0072	k_D	0.140375	0.14027 ± 0.00044	χ_{plik}^2	758.7	772.1 ± 5.5
Ω_m	0.3073	0.3087 ± 0.0072	$100\theta_D$	0.161026	0.16101 ± 0.00025	χ_{JLA}^2	1034.880	1035.03 ± 0.33
$\Omega_m h^2$	0.14171	0.1417 ± 0.0011	z_{eq}	3386.2	3372 ± 29	χ_{6DF}^2	0.0060	0.047 ± 0.065
$\Omega_\nu h^2$	$1.1 \cdot 10^{-5}$	< 0.000736	k_{eq}	0.010335	0.010291 ± 0.000089	χ_{MGS}^2	1.47	1.47 ± 0.53
$\Omega_m h^3$	0.09623	$0.09601^{+0.00055}_{-0.00047}$	$100\theta_{eq}$	0.8157	0.8185 ± 0.0054	$\chi_{DR12BAO}^2$	3.77	4.5 ± 1.4
σ_8	0.8217	$0.809^{+0.015}_{-0.0092}$	$100\theta_{s,eq}$	0.45074	0.4522 ± 0.0028	χ_{prior}^2	1.37	7.4 ± 3.7
S_8	0.8317	0.821 ± 0.017	$H(0.15)$	73.141	73.00 ± 0.49	χ_{BAO}^2	5.25	6.0 ± 1.1
$\sigma_8 \Omega_m^{0.5}$	0.4555	0.4495 ± 0.0091	$D_M(0.15)$	638.75	640.1 ± 4.8	χ_{CMB}^2	1177.8	1192.2 ± 5.5

Best-fit $\chi_{eff}^2 = 2219.29$; $\bar{\chi}_{eff}^2 = 2240.54$; $R - 1 = 0.00739$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.77 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 23.21 plik_rd12_HM_v22.TT: 758.69
SN - JLA Pantheon18: 1034.88

6.41 base_mnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222 \pm 0.00019 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.012}_{-0.0086} \quad (+0.1\sigma)$	$H(0.38)$	$83.01 \pm 0.40 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1190 \pm 0.0013 \quad (+0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.984^{+0.018}_{-0.012} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529 \pm 10 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04100 \pm 0.00042 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.83 \pm 0.98 \quad (+0.1\sigma)$	$H(0.51)$	$89.70 \pm 0.33 \quad (+0.1\sigma)$
τ	$0.0548^{+0.0050}_{-0.0081} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.029 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 12 \quad (-0.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0732	z_{re}	$7.73^{+0.56}_{-0.81} \quad (-0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.29 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.025}_{-0.035} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 13 \quad (-0.1\sigma)$
n_{s}	$0.9666 \pm 0.0042 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.012 \quad (+0.0\sigma)$	$H(2.33)$	$235.75 \pm 0.78 \quad (+0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 13 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765^{+13}_{-15} \quad (-0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5719 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4554 \pm 0.0087 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2535 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.748^{+0.015}_{-0.0077} \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{1420}	$815.4 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4741^{+0.0086}_{-0.0069} \quad (+0.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.0066} \quad (+0.2\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9666 \pm 0.0042 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4729^{+0.0083}_{-0.0062} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	Y_{P}	$0.245333^{+0.000085}_{-0.000073} \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0061} \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246659^{+0.000085}_{-0.000073} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4681^{+0.0081}_{-0.0057} \quad (+0.2\sigma)$
A^{kSZ}	$< 4.83 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614 \pm 0.036 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0058} \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.802^{+0.030}_{-0.035} \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2981^{+0.0050}_{-0.0027} \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.02 \pm 0.29 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3073^{+0.0057}_{-0.0030} \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.81 \pm 0.33 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.8 \pm 2.9 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04120 \pm 0.00042 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (-0.0\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.908 \pm 0.032 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (-0.0\sigma)$
c_{217}	$0.99825 \pm 0.00063 \quad (-0.0\sigma)$	z_{drag}	$1059.52 \pm 0.43 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.9 \quad (-0.1\sigma)$
H_0	$67.67 \pm 0.59 \quad (+0.1\sigma)$	r_{drag}	$147.53 \pm 0.35 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.13 \pm 0.93 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6901^{+0.0081}_{-0.0073} \quad (+0.0\sigma)$	k_{D}	$0.14029 \pm 0.00045 \quad (+0.0\sigma)$	χ_{plik}^2	$771.8 \pm 5.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3099 \pm 0.0077 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00025 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.058 \pm 0.079 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.0\sigma)$	z_{eq}	$3375 \pm 30 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.39 \pm 0.55 \quad (+0.1\sigma)$
$\Omega_{\nu} h^2$	< 0.000787	k_{eq}	$0.010300 \pm 0.000091 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.7 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09599^{+0.00056}_{-0.00047} \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0056 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.810^{+0.016}_{-0.0086} \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0029 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.2 \pm 1.4 \quad (-0.0\sigma)$
S_8	$0.823 \pm 0.017 \quad (+0.1\sigma)$	$H(0.15)$	$72.93 \pm 0.52 \quad (+0.1\sigma)$	χ_{CMB}^2	$1191.9 \pm 5.5 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4507 \pm 0.0093 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.8 \pm 5.1 \quad (-0.1\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 1205.36; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -0.40; R - 1 = 0.00940$					

6.42 base_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02223 ± 0.00019	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.604^{+0.011}_{-0.0083}$	$H(0.38)$	83.06 ± 0.38
$\Omega_{\mathrm{c}} h^2$	0.1188 ± 0.0012	$\sigma_8 / h^{0.5}$	$0.984^{+0.018}_{-0.012}$	$D_{\mathrm{M}}(0.38)$	1527.1 ± 9.7
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00042	$r_{\mathrm{drag}} h$	99.99 ± 0.93	$H(0.51)$	89.75 ± 0.32
τ	$0.0549^{+0.0051}_{-0.0081}$	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.029	$D_{\mathrm{M}}(0.51)$	1979 ± 12
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0694	z_{re}	$7.74^{+0.57}_{-0.80}$	$H(0.61)$	95.34 ± 0.28
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016}$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.025}_{-0.034}$	$D_{\mathrm{M}}(0.61)$	2303 ± 13
n_{s}	0.9669 ± 0.0042	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.877 ± 0.012	$H(2.33)$	235.65 ± 0.75
y_{cal}	1.0005 ± 0.0025	D_{40}	1225 ± 13	$D_{\mathrm{M}}(2.33)$	5763^{+13}_{-15}
A_{217}^{CIB}	48 ± 7	D_{220}	5720 ± 40	$f\sigma_8(0.15)$	$0.4547^{+0.0086}_{-0.0078}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2535 ± 14	$\sigma_8(0.15)$	$0.749^{+0.014}_{-0.0077}$
A_{143}^{tSZ}	5.1 ± 2.0	D_{1420}	815.5 ± 5.1	$f\sigma_8(0.38)$	$0.4736^{+0.0083}_{-0.0066}$
A_{100}^{PS}	262 ± 28	D_{2000}	230.0 ± 1.8	$\sigma_8(0.38)$	$0.664^{+0.012}_{-0.0067}$
A_{143}^{PS}	48 ± 8	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0042	$f\sigma_8(0.51)$	$0.4726^{+0.0081}_{-0.0060}$
$A_{143 \times 217}^{\mathrm{PS}}$	43^{+9}_{-10}	Y_{P}	$0.245337^{+0.000084}_{-0.000072}$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0062}$
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246664^{+0.000084}_{-0.000072}$	$f\sigma_8(0.61)$	$0.4678^{+0.0079}_{-0.0056}$
A^{kSZ}	< 4.84	$10^5 \mathrm{D}/\mathrm{H}$	2.612 ± 0.036	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0059}$
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	$\mathrm{Age}/\mathrm{Gyr}$	$13.798^{+0.030}_{-0.034}$	$f\sigma_8(2.33)$	$0.2983^{+0.0047}_{-0.0028}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_*	1089.99 ± 0.28	$\sigma_8(2.33)$	$0.3076^{+0.0054}_{-0.0030}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.4 ± 3.3	r_*	144.84 ± 0.32	f_{2000}^{143}	30.7 ± 2.9
$A_{217}^{\mathrm{dust}TT}$	93.6 ± 7.3	$100\theta_*$	1.04122 ± 0.00042	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
c_{100}	0.99962 ± 0.00061	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.911 ± 0.031	f_{2000}^{217}	107.8 ± 1.9
c_{217}	0.99826 ± 0.00063	z_{drag}	1059.53 ± 0.43	χ_{simall}^2	396.9 ± 1.9
H_0	67.76 ± 0.56	r_{drag}	147.56 ± 0.35	χ_{lowl}^2	23.06 ± 0.92
Ω_{Λ}	0.6913 ± 0.0072	k_{D}	0.14027 ± 0.00044	χ_{plik}^2	771.9 ± 5.5
Ω_{m}	0.3087 ± 0.0072	$100\theta_{\mathrm{D}}$	0.16101 ± 0.00025	χ_{JLA}^2	1035.03 ± 0.33
$\Omega_{\mathrm{m}} h^2$	0.1417 ± 0.0011	z_{eq}	3371 ± 29	$\chi_{6\mathrm{DF}}^2$	0.046 ± 0.064
$\Omega_{\nu} h^2$	< 0.000746	k_{eq}	0.010289 ± 0.000088	χ_{MGS}^2	1.48 ± 0.53
$\Omega_{\mathrm{m}} h^3$	$0.09601^{+0.00055}_{-0.00047}$	$100\theta_{\mathrm{eq}}$	0.8186 ± 0.0054	$\chi_{\mathrm{DR12BAO}}^2$	4.4 ± 1.4
σ_8	$0.810^{+0.015}_{-0.0086}$	$100\theta_{\mathrm{s,eq}}$	0.4523 ± 0.0028	χ_{prior}^2	7.3 ± 3.7
S_8	$0.821^{+0.017}_{-0.015}$	$H(0.15)$	73.01 ± 0.49	χ_{BAO}^2	6.0 ± 1.1
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4498^{+0.0092}_{-0.0083}$	$D_{\mathrm{M}}(0.15)$	640.0 ± 4.8	χ_{CMB}^2	1191.9 ± 5.5

$$\bar{\chi}_{\mathrm{eff}}^2 = 2240.29; R - 1 = 0.00886$$

6.43 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022420	0.02241 ± 0.00013 (-0.1σ)	$\Omega_m h^3$	0.096697	$0.09648^{+0.00038}_{-0.00031}$ $(+0.5\sigma)$	$H(0.15)$	73.286	$73.04^{+0.45}_{-0.40}$ $(+0.2\sigma)$
$\Omega_c h^2$	0.11968	0.1195 ± 0.0010 $(+0.1\sigma)$	σ_8	0.8236	$0.814^{+0.013}_{-0.0084}$ $(+0.6\sigma)$	$D_M(0.15)$	637.45	$639.9^{+3.9}_{-4.4}$ (-0.2σ)
$100\theta_{MC}$	1.041003	1.04100 ± 0.00029 (-0.0σ)	S_8	0.8331	0.828 ± 0.014 $(+0.2\sigma)$	$H(0.38)$	83.337	$83.13^{+0.34}_{-0.30}$ $(+0.3\sigma)$
τ	0.0546	0.0550 ± 0.0077 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4563	0.4533 ± 0.0074 $(+0.2\sigma)$	$D_M(0.38)$	1521.4	$1526.4^{+7.9}_{-8.9}$ (-0.2σ)
Σm_ν [eV]	0.0008	< 0.0581	$\sigma_8 \Omega_m^{0.25}$	0.6130	$0.6075^{+0.0092}_{-0.0077}$ $(+0.4\sigma)$	$H(0.51)$	90.020	$89.84^{+0.28}_{-0.25}$ $(+0.3\sigma)$
$\ln(10^{10} A_s)$	3.0444	3.045 ± 0.016 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9985	$0.989^{+0.015}_{-0.012}$ $(+0.4\sigma)$	$D_M(0.51)$	1971.5	$1977.6^{+9.3}_{-11}$ (-0.2σ)
n_s	0.96690	0.9666 ± 0.0038 (-0.1σ)	$r_{drag} h$	100.11	99.75 ± 0.83 $(+0.2\sigma)$	$H(0.61)$	95.614	$95.46^{+0.24}_{-0.21}$ $(+0.4\sigma)$
y_{cal}	1.00044	1.0008 ± 0.0025 $(+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4473	2.439 ± 0.026 $(+0.1\sigma)$	$D_M(0.61)$	2294.7	2301^{+10}_{-11} (-0.3σ)
A_{217}^{CIB}	46.5	47 ± 7 $(+0.0\sigma)$	z_{re}	7.69	7.71 ± 0.78 (-0.1σ)	$H(2.33)$	236.08	236.17 ± 0.61 $(+0.0\sigma)$
$\xi^{tSZ \times CIB}$	0.57	—	$10^9 A_s$	2.0998	2.101 ± 0.034 (-0.1σ)	$D_M(2.33)$	5747.2	$5755.3^{+9.7}_{-12}$ (-0.4σ)
A_{143}^{tSZ}	7.12	$5.5^{+2.1}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8826	1.882 ± 0.011 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4605	0.4579 ± 0.0070 $(+0.3\sigma)$
A_{100}^{PS}	248.4	258 ± 28 (-0.0σ)	D_{40}	1227.6	1229 ± 12 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7614	$0.752^{+0.012}_{-0.0076}$ $(+0.6\sigma)$
A_{143}^{PS}	49.1	46 ± 8 $(+0.0\sigma)$	D_{220}	5732.5	5737 ± 38 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4800	$0.4766^{+0.0068}_{-0.0061}$ $(+0.3\sigma)$
$A_{143 \times 217}^{PS}$	50.7	42 ± 9 $(+0.0\sigma)$	D_{810}	2540.2	2540 ± 13 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6752	$0.667^{+0.011}_{-0.0066}$ $(+0.6\sigma)$
A_{217}^{PS}	120.9	115 ± 10 $(+0.0\sigma)$	D_{1420}	818.24	817.9 ± 4.8 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4791	$0.4754^{+0.0066}_{-0.0056}$ $(+0.4\sigma)$
A^{kSZ}	0.00	< 4.07 (-0.0σ)	D_{2000}	231.43	231.2 ± 1.6 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6320	$0.6243^{+0.0099}_{-0.0062}$ $(+0.6\sigma)$
A_{100}^{dustTT}	8.78	8.9 ± 1.8 $(+0.0\sigma)$	$n_{s,0.002}$	0.96690	0.9666 ± 0.0038 (-0.1σ)	$f\sigma_8(0.61)$	0.4743	$0.4705^{+0.0065}_{-0.0053}$ $(+0.4\sigma)$
A_{143}^{dustTT}	11.02	10.9 ± 1.8 (-0.0σ)	Y_P	0.245415	$0.245409^{+0.000054}_{-0.000048}$ (-0.1σ)	$\sigma_8(0.61)$	0.6014	$0.5941^{+0.0094}_{-0.0058}$ $(+0.6\sigma)$
$A_{143 \times 217}^{dustTT}$	19.91	18.6 ± 3.3 $(+0.0\sigma)$	Y_P^{BBN}	0.246742	$0.246736^{+0.000054}_{-0.000048}$ (-0.1σ)	$f\sigma_8(2.33)$	0.30243	$0.2994^{+0.0041}_{-0.0029}$ $(+0.6\sigma)$
A_{217}^{dustTT}	95.1	93.8 ± 7.3 $(+0.0\sigma)$	$10^5 D/H$	2.5763	2.579 ± 0.025 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.31244	$0.3088^{+0.0048}_{-0.0030}$ $(+0.6\sigma)$
A_{100}^{dustTE}	0.1137	0.114 ± 0.038 $(+0.0\sigma)$	Age/Gyr	13.7601	$13.779^{+0.022}_{-0.028}$ (-0.4σ)	f_{2000}^{143}	28.51	29.3 ± 2.7 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1342	0.135 ± 0.029 $(+0.0\sigma)$	z_*	1089.824	1089.82 ± 0.22 $(+0.1\sigma)$	$f_{2000}^{143 \times 217}$	31.83	32.0 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085 $(+0.0\sigma)$	r_*	144.483	144.55 ± 0.24 (-0.1σ)	f_{2000}^{217}	106.42	106.9 ± 1.8 $(+0.0\sigma)$
A_{143}^{dustTE}	0.226	0.225 ± 0.054 (-0.0σ)	$100\theta_*$	1.041157	1.04118 ± 0.00029 (-0.0σ)	χ_{small}^2	396.08	397.1 ± 1.9 (-0.1σ)
$A_{143 \times 217}^{dustTE}$	0.667	0.664 ± 0.079 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8771	13.883 ± 0.023 (-0.1σ)	χ_{lowl}^2	23.21	23.25 ± 0.85 $(+0.1\sigma)$
A_{217}^{dustTE}	2.082	2.08 ± 0.27 (-0.0σ)	z_{drag}	1060.009	1059.99 ± 0.29 (-0.1σ)	χ_{plik}^2	2343.8	2359.3 ± 5.9 (-0.1σ)
c_{100}	0.99970	0.99967 ± 0.00061 $(+0.0\sigma)$	r_{drag}	147.129	147.20 ± 0.24 (-0.1σ)	χ_{6DF}^2	0.0059	0.051 ± 0.070 (-0.1σ)
c_{217}	0.99819	0.99819 ± 0.00062 $(+0.0\sigma)$	k_D	0.140861	0.14078 ± 0.00029 $(+0.0\sigma)$	χ_{MGS}^2	1.473	1.33 ± 0.45 $(+0.2\sigma)$
H_0	68.044	$67.76^{+0.51}_{-0.46}$ $(+0.2\sigma)$	$100\theta_D$	0.160716	0.16074 ± 0.00017 $(+0.1\sigma)$	$\chi_{DR12BAO}^2$	3.82	4.7 ± 1.5 (-0.1σ)
Ω_Λ	0.6931	$0.6899^{+0.0067}_{-0.0060}$ $(+0.1\sigma)$	z_{eq}	3395.8	3390 ± 23 $(+0.1\sigma)$	χ_{prior}^2	1.67	11.6 ± 4.6 (-0.0σ)
Ω_m	0.3069	$0.3101^{+0.0060}_{-0.0067}$ (-0.1σ)	k_{eq}	0.010364	0.010347 ± 0.000070 $(+0.1\sigma)$	χ_{BAO}^2	5.30	6.1 ± 1.2 (-0.1σ)
$\Omega_m h^2$	0.14211	0.14238 ± 0.00096 (-0.0σ)	$100\theta_{eq}$	0.81460	0.8156 ± 0.0043 (-0.1σ)	χ_{CMB}^2	2763.1	2779.7 ± 5.8 (-0.1σ)
$\Omega_\nu h^2$	$0.8 \cdot 10^{-5}$	< 0.000625	$100\theta_{s,eq}$	0.45003	0.4506 ± 0.0022 (-0.1σ)			

Best-fit $\chi_{eff}^2 = 2770.08$; $\Delta\chi_{eff}^2 = -1.83$; $\bar{\chi}_{eff}^2 = 2797.32$; $\Delta\bar{\chi}_{eff}^2 = -0.59$; $R - 1 = 0.00869$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.26) DR12BAO: 3.82 (Δ -0.60) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.08 (Δ -0.12) commander_dx12_v3_2_29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2343.84 (Δ -1.67)

6.44 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022432	0.02242 ± 0.00013	$\Omega_m h^3$	0.096700	$0.09649^{+0.00037}_{-0.00031}$	$H(0.15)$	73.341	73.10 ± 0.41
$\Omega_c h^2$	0.11954	0.11935 ± 0.00097	σ_8	0.8238	$0.814^{+0.012}_{-0.0084}$	$D_M(0.15)$	636.92	639.3 ± 4.1
$100\theta_{MC}$	1.041009	1.04102 ± 0.00029	S_8	0.8321	0.827 ± 0.013	$H(0.38)$	83.376	83.18 ± 0.31
τ	0.0554	0.0551 ± 0.0077	$\sigma_8 \Omega_m^{0.5}$	0.4558	0.4528 ± 0.0072	$D_M(0.38)$	1520.3	1525.2 ± 8.2
Σm_ν [eV]	0.0011	< 0.0554	$\sigma_8 \Omega_m^{0.25}$	0.6128	$0.6072^{+0.0089}_{-0.0076}$	$H(0.51)$	90.050	$89.88^{+0.27}_{-0.24}$
$\ln(10^{10} A_s)$	3.0457	3.045 ± 0.016	$\sigma_8/h^{0.5}$	0.9982	$0.989^{+0.014}_{-0.011}$	$D_M(0.51)$	1970.3	1976.2 ± 9.7
n_s	0.96763	0.9668 ± 0.0037	$r_{\text{drag}} h$	100.22	99.86 ± 0.78	$H(0.61)$	95.638	$95.49^{+0.23}_{-0.20}$
y_{cal}	1.00044	1.0008 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4458	2.438 ± 0.026	$D_M(0.61)$	2293.4	2300 ± 11
A_{217}^{CIB}	45.6	47 ± 7	z_{re}	7.76	7.72 ± 0.78	$H(2.33)$	236.00	236.10 ± 0.58
$\xi^{\text{tSZ} \times \text{CIB}}$	0.66	—	$10^9 A_s$	2.1024	2.101 ± 0.034	$D_M(2.33)$	5746.3	$5754.0^{+9.4}_{-12}$
A_{143}^{tSZ}	7.09	5.5 ± 1.9	$10^9 A_s e^{-2\tau}$	1.8819	1.881 ± 0.011	$f\sigma_8(0.15)$	0.4601	0.4575 ± 0.0068
A_{100}^{PS}	247.2	257 ± 28	D_{40}	1226.1	1228 ± 12	$\sigma_8(0.15)$	0.7616	$0.753^{+0.011}_{-0.0076}$
A_{143}^{PS}	50.1	45 ± 8	D_{220}	5731.1	5737 ± 38	$f\sigma_8(0.38)$	0.4798	0.4764 ± 0.0064
$A_{143 \times 217}^{\text{PS}}$	52.8	42 ± 9	D_{810}	2540.3	2540 ± 14	$\sigma_8(0.38)$	0.6755	$0.667^{+0.010}_{-0.0066}$
A_{217}^{PS}	122.0	115 ± 10	D_{1420}	818.55	817.9 ± 4.8	$f\sigma_8(0.51)$	0.4789	$0.4752^{+0.0064}_{-0.0056}$
A^{kSZ}	0.01	< 4.13	D_{2000}	231.58	231.2 ± 1.6	$\sigma_8(0.51)$	0.6323	$0.6247^{+0.0095}_{-0.0062}$
A_{100}^{dustTT}	8.81	8.9 ± 1.8	$n_{s,0.002}$	0.96763	0.9668 ± 0.0037	$f\sigma_8(0.61)$	0.4743	$0.4704^{+0.0062}_{-0.0053}$
A_{143}^{dustTT}	11.05	10.9 ± 1.8	Y_P	0.245420	$0.245412^{+0.000054}_{-0.000048}$	$\sigma_8(0.61)$	0.6017	$0.5945^{+0.0090}_{-0.0058}$
$A_{143 \times 217}^{\text{dustTT}}$	20.16	18.6 ± 3.3	Y_P^{BBN}	0.246746	$0.246739^{+0.000054}_{-0.000048}$	$f\sigma_8(2.33)$	0.30265	$0.2996^{+0.0040}_{-0.0029}$
A_{217}^{dustTT}	95.5	93.8 ± 7.3	$10^5 D/H$	2.5740	2.577 ± 0.025	$\sigma_8(2.33)$	0.31271	$0.3091^{+0.0045}_{-0.0030}$
A_{100}^{dustTE}	0.1145	0.115 ± 0.038	Age/Gyr	13.7580	$13.776^{+0.021}_{-0.026}$	f_{2000}^{143}	28.28	29.2 ± 2.7
$A_{100 \times 143}^{\text{dustTE}}$	0.1340	0.135 ± 0.029	z_*	1089.795	1089.80 ± 0.22	$f_{2000}^{143 \times 217}$	31.63	32.0 ± 1.8
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.085	r_*	144.510	144.57 ± 0.23	f_{2000}^{217}	106.22	106.8 ± 1.8
A_{143}^{dustTE}	0.224	0.224 ± 0.054	$100\theta_*$	1.041161	1.04119 ± 0.00029	χ_{small}^2	396.22	397.2 ± 1.9
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.664 ± 0.079	$D_M(z_*)/\text{Gpc}$	13.8797	13.885 ± 0.022	χ_{lowl}^2	23.08	23.20 ± 0.84
A_{217}^{dustTE}	2.080	2.08 ± 0.27	z_{drag}	1060.047	1060.00 ± 0.29	χ_{plik}^2	2344.0	2359.3 ± 5.9
c_{100}	0.99973	0.99967 ± 0.00060	r_{drag}	147.151	147.22 ± 0.24	χ_{JLA}^2	1034.839	1035.02 ± 0.29
c_{217}	0.99817	0.99819 ± 0.00062	k_D	0.140845	0.14077 ± 0.00029	$\chi_{6\text{DF}}^2$	0.0030	0.042 ± 0.057
H_0	68.108	67.83 ± 0.47	$100\theta_D$	0.160704	0.16073 ± 0.00017	χ_{MGS}^2	1.540	1.39 ± 0.44
Ω_Λ	0.6939	0.6908 ± 0.0061	z_{eq}	3392.6	3388 ± 22	χ_{DR12BAO}^2	3.71	4.5 ± 1.3
Ω_m	0.3061	0.3092 ± 0.0061	k_{eq}	0.010354	0.010340 ± 0.000068	χ_{prior}^2	1.56	11.5 ± 4.6
$\Omega_m h^2$	0.14198	0.14225 ± 0.00092	$100\theta_{\text{eq}}$	0.81521	0.8161 ± 0.0042	χ_{BAO}^2	5.254	5.93 ± 0.99
$\Omega_\nu h^2$	$1.2 \cdot 10^{-5}$	< 0.000596	$100\theta_{s,\text{eq}}$	0.45033	0.4508 ± 0.0021	χ_{CMB}^2	2763.3	2779.7 ± 5.8

Best-fit $\chi_{\text{eff}}^2 = 3804.95$; $\bar{\chi}_{\text{eff}}^2 = 3832.15$; $R - 1 = 0.01154$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.71 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.22 commander_dx12_v3_2_29: 23.08 plik_rd12_HM_v22b_TTTEEE: 2343.99 SN - JLA Pantheon18: 1034.84

6.45 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02241 \pm 0.00013 \quad (-0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09648^{+0.00038}_{-0.00031} \quad (+0.5\sigma)$	$H(0.15)$	$73.04^{+0.45}_{-0.41} \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1194 \pm 0.0010 \quad (+0.1\sigma)$	σ_8	$0.815^{+0.013}_{-0.0080} \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.8^{+3.9}_{-4.4} \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04101 \pm 0.00029 \quad (-0.0\sigma)$	S_8	$0.828 \pm 0.014 \quad (+0.3\sigma)$	$H(0.38)$	$83.14^{+0.34}_{-0.30} \quad (+0.3\sigma)$
τ	$0.0559^{+0.0054}_{-0.0081} \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4536 \pm 0.0074 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.3^{+8.0}_{-9.0} \quad (-0.2\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0586	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6079^{+0.0092}_{-0.0075} \quad (+0.4\sigma)$	$H(0.51)$	$89.85^{+0.28}_{-0.25} \quad (+0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.016} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.990^{+0.015}_{-0.011} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977.4^{+9.4}_{-11} \quad (-0.2\sigma)$
n_{s}	$0.9667 \pm 0.0038 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.76 \pm 0.83 \quad (+0.2\sigma)$	$H(0.61)$	$95.46^{+0.24}_{-0.21} \quad (+0.4\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.026 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301^{+10}_{-11} \quad (-0.3\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	z_{re}	$7.81^{+0.59}_{-0.80} \quad (-0.1\sigma)$	$H(2.33)$	$236.16 \pm 0.61 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.104^{+0.026}_{-0.035} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755.2^{+9.8}_{-12} \quad (-0.4\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4582 \pm 0.0070 \quad (+0.3\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.753^{+0.012}_{-0.0072} \quad (+0.7\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5737 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4770^{+0.0067}_{-0.0060} \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.668^{+0.010}_{-0.0062} \quad (+0.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$817.9 \pm 4.8 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4757^{+0.0065}_{-0.0055} \quad (+0.4\sigma)$
A^{kSZ}	$< 4.05 \quad (-0.0\sigma)$	D_{2000}	$231.2 \pm 1.6 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6248^{+0.0098}_{-0.0058} \quad (+0.7\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9667 \pm 0.0038 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4708^{+0.0064}_{-0.0051} \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245410^{+0.000054}_{-0.000048} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5945^{+0.0093}_{-0.0055} \quad (+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246737^{+0.000054}_{-0.000048} \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2997^{+0.0040}_{-0.0027} \quad (+0.7\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.578 \pm 0.025 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3091^{+0.0047}_{-0.0028} \quad (+0.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.779^{+0.022}_{-0.028} \quad (-0.4\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	z_*	$1089.82 \pm 0.22 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.480 \pm 0.084 \quad (+0.0\sigma)$	r_*	$144.55 \pm 0.24 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00029 \quad (-0.0\sigma)$	χ_{simall}^2	$397.1 \pm 2.0 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.883 \pm 0.023 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.25 \pm 0.85 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.99 \pm 0.29 \quad (-0.1\sigma)$	χ_{plik}^2	$2359.1 \pm 5.9 \quad (-0.1\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.20 \pm 0.24 \quad (-0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.051 \pm 0.069 \quad (-0.1\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14078 \pm 0.00029 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.34 \pm 0.46 \quad (+0.2\sigma)$
H_0	$67.77 \pm 0.50 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00017 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6900^{+0.0067}_{-0.0060} \quad (+0.1\sigma)$	z_{eq}	$3390 \pm 23 \quad (+0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (-0.0\sigma)$
Ω_{m}	$0.3100^{+0.0060}_{-0.0067} \quad (-0.1\sigma)$	k_{eq}	$0.010345 \pm 0.000070 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14236 \pm 0.00096 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8157 \pm 0.0043 \quad (-0.1\sigma)$	χ_{CMB}^2	$2779.5 \pm 5.8 \quad (-0.1\sigma)$
$\Omega_{\nu}h^2$	< 0.000630	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0022 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2797.12$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.59$; $R - 1 = 0.00800$

6.46 base_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02242 ± 0.00013	$\Omega_{\mathrm{m}}h^3$	$0.09649^{+0.00037}_{-0.00031}$	$H(0.15)$	73.10 ± 0.41
$\Omega_{\mathrm{c}}h^2$	0.11933 ± 0.00097	σ_8	$0.815^{+0.012}_{-0.0080}$	$D_{\mathrm{M}}(0.15)$	639.2 ± 4.1
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00029	S_8	0.827 ± 0.013	$H(0.38)$	83.18 ± 0.31
τ	$0.0561^{+0.0055}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4531 ± 0.0072	$D_{\mathrm{M}}(0.38)$	1525.1 ± 8.2
Σm_{ν} [eV]	< 0.0560	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6077^{+0.0089}_{-0.0074}$	$H(0.51)$	$89.88^{+0.27}_{-0.24}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.990^{+0.014}_{-0.011}$	$D_{\mathrm{M}}(0.51)$	1976.0 ± 9.7
n_{s}	0.9669 ± 0.0037	$r_{\mathrm{drag}}h$	99.88 ± 0.78	$H(0.61)$	$95.49^{+0.23}_{-0.20}$
y_{cal}	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.440 ± 0.025	$D_{\mathrm{M}}(0.61)$	2300 ± 11
A_{217}^{CIB}	47 ± 7	z_{re}	$7.82^{+0.60}_{-0.79}$	$H(2.33)$	236.09 ± 0.58
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.105^{+0.026}_{-0.035}$	$D_{\mathrm{M}}(2.33)$	$5753.9^{+9.5}_{-12}$
A_{143}^{tSZ}	5.5 ± 1.9	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.881 ± 0.011	$f\sigma_8(0.15)$	0.4578 ± 0.0068
A_{100}^{PS}	257 ± 28	D_{40}	1228 ± 12	$\sigma_8(0.15)$	$0.753^{+0.011}_{-0.0072}$
A_{143}^{PS}	45 ± 8	D_{220}	5737 ± 38	$f\sigma_8(0.38)$	$0.4767^{+0.0065}_{-0.0059}$
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{810}	2540 ± 14	$\sigma_8(0.38)$	$0.6680^{+0.0099}_{-0.0062}$
A_{217}^{PS}	115 ± 10	D_{1420}	817.9 ± 4.8	$f\sigma_8(0.51)$	$0.4756^{+0.0063}_{-0.0054}$
A^{kSZ}	< 4.08	D_{2000}	231.2 ± 1.6	$\sigma_8(0.51)$	$0.6252^{+0.0093}_{-0.0058}$
$A_{100}^{\mathrm{dustTT}}$	8.9 ± 1.8	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0037	$f\sigma_8(0.61)$	$0.4708^{+0.0062}_{-0.0051}$
$A_{143}^{\mathrm{dustTT}}$	10.8 ± 1.8	Y_{P}	$0.245413^{+0.000054}_{-0.000047}$	$\sigma_8(0.61)$	$0.5950^{+0.0088}_{-0.0055}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.6 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246740^{+0.000054}_{-0.000048}$	$f\sigma_8(2.33)$	$0.2999^{+0.0038}_{-0.0027}$
$A_{217}^{\mathrm{dustTT}}$	93.8 ± 7.3	$10^5 \mathrm{D}/\mathrm{H}$	2.577 ± 0.024	$\sigma_8(2.33)$	$0.3093^{+0.0044}_{-0.0028}$
$A_{100}^{\mathrm{dustTE}}$	0.115 ± 0.038	$\mathrm{Age}/\mathrm{Gyr}$	$13.776^{+0.021}_{-0.026}$	f_{2000}^{143}	29.2 ± 2.7
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.135 ± 0.029	z_*	1089.80 ± 0.22	$f_{2000}^{143 \times 217}$	31.9 ± 1.8
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.481 ± 0.084	r_*	144.57 ± 0.23	f_{2000}^{217}	106.8 ± 1.8
$A_{143}^{\mathrm{dustTE}}$	0.224 ± 0.054	$100\theta_*$	1.04119 ± 0.00029	χ_{simall}^2	397.1 ± 2.0
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664 ± 0.079	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.885 ± 0.022	χ_{lowl}^2	23.22 ± 0.84
$A_{217}^{\mathrm{dustTE}}$	2.08 ± 0.27	z_{drag}	1060.00 ± 0.29	χ_{plik}^2	2359.1 ± 5.9
c_{100}	0.99967 ± 0.00060	r_{drag}	147.22 ± 0.24	χ_{JLA}^2	1035.02 ± 0.28
c_{217}	0.99818 ± 0.00062	k_{D}	0.14077 ± 0.00029	$\chi_{6\mathrm{DF}}^2$	0.041 ± 0.056
H_0	67.84 ± 0.48	$100\theta_{\mathrm{D}}$	0.16073 ± 0.00017	χ_{MGS}^2	1.40 ± 0.44
Ω_{Λ}	0.6909 ± 0.0061	z_{eq}	3387 ± 22	$\chi_{\mathrm{DR12BAO}}^2$	4.5 ± 1.2
Ω_{m}	0.3091 ± 0.0061	k_{eq}	0.010338 ± 0.000068	χ_{prior}^2	11.5 ± 4.6
$\Omega_{\mathrm{m}}h^2$	0.14224 ± 0.00091	$100\theta_{\mathrm{eq}}$	0.8162 ± 0.0042	χ_{BAO}^2	5.92 ± 0.97
$\Omega_{\nu}h^2$	< 0.000602	$100\theta_{\mathrm{s,eq}}$	0.4509 ± 0.0021	χ_{CMB}^2	2779.5 ± 5.8

$$\bar{\chi}_{\mathrm{eff}}^2 = 3831.97; R - 1 = 0.01168$$

6.47 base_mnu_CamSpecHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022216	0.02222 ± 0.00019 (-0.0σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4545	$0.450^{+0.010}_{-0.0086}$ ($+0.1\sigma$)	$D_{\mathrm{M}}(0.15)$	638.1	640.6 ± 5.0 (-0.1σ)
$\Omega_{\mathrm{c}} h^2$	0.11938	0.1189 ± 0.0013 ($+0.0\sigma$)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6109	$0.603^{+0.013}_{-0.0088}$ ($+0.1\sigma$)	$H(0.38)$	83.233	83.02 ± 0.39 ($+0.1\sigma$)
$100\theta_{\mathrm{MC}}$	1.041014	1.04105 ± 0.00042 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9958	$0.982^{+0.020}_{-0.013}$ ($+0.1\sigma$)	$D_{\mathrm{M}}(0.38)$	1523.1	1528 ± 10 (-0.1σ)
τ	0.0531	0.0536 ± 0.0079 (-0.0σ)	$r_{\mathrm{drag}} h$	100.22	99.88 ± 0.97 ($+0.0\sigma$)	$H(0.51)$	89.903	89.71 ± 0.33 ($+0.1\sigma$)
Σm_{ν} [eV]	0.0034	< 0.0747	$\langle d^2 \rangle^{1/2}$	2.4386	$2.424^{+0.032}_{-0.029}$ ($+0.0\sigma$)	$D_{\mathrm{M}}(0.51)$	1973.8	1980 ± 12 (-0.1σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0387	3.038 ± 0.016 (-0.0σ)	z_{re}	7.57	7.61 ± 0.81 (-0.0σ)	$H(0.61)$	95.485	95.31 ± 0.29 ($+0.1\sigma$)
n_{s}	0.96698	0.9674 ± 0.0044 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.0878	2.088 ± 0.034 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2297.4	2304 ± 13 (-0.1σ)
y_{cal}	1.00052	1.0005 ± 0.0025 (-0.0σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8776	1.875 ± 0.012 (-0.0σ)	$H(2.33)$	235.69	235.71 ± 0.77 ($+0.0\sigma$)
A_{100}^{PS}	234.1	242 ± 25 ($+0.0\sigma$)	D_{40}	1223.0	1222 ± 13 ($+0.0\sigma$)	$D_{\mathrm{M}}(2.33)$	5755.3	5764^{+13}_{-15} (-0.1σ)
A_{143}^{PS}	43.5	40 ± 8 ($+0.0\sigma$)	D_{220}	5706.7	5709 ± 40 (-0.0σ)	$f\sigma_8(0.15)$	0.4588	$0.4543^{+0.0096}_{-0.0080}$ ($+0.1\sigma$)
A_{217}^{PS}	101.9	101 ± 10 (-0.0σ)	D_{810}	2534.3	2533 ± 14 (-0.0σ)	$\sigma_8(0.15)$	0.7590	$0.747^{+0.015}_{-0.0082}$ ($+0.2\sigma$)
A_{217}^{CIB}	44.6	41 ± 7 ($+0.0\sigma$)	D_{1420}	815.3	815.0 ± 5.1 (-0.1σ)	$f\sigma_8(0.38)$	0.4784	$0.4730^{+0.0092}_{-0.0070}$ ($+0.1\sigma$)
A_{143}^{tSZ}	6.47	$3.8^{+1.8}_{-2.6}$ (-0.0σ)	D_{2000}	230.14	229.9 ± 1.8 (-0.0σ)	$\sigma_8(0.38)$	0.6731	$0.662^{+0.014}_{-0.0071}$ ($+0.2\sigma$)
$r_{143 \times 217}^{\mathrm{PS}}$	0.626	0.65 ± 0.13 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.96698	0.9674 ± 0.0044 (-0.0σ)	$f\sigma_8(0.51)$	0.4775	$0.4719^{+0.0089}_{-0.0064}$ ($+0.1\sigma$)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.839	$0.58^{+0.40}_{-0.15}$ (-0.0σ)	Y_{P}	0.245333	$0.245331^{+0.000087}_{-0.000073}$ (-0.0σ)	$\sigma_8(0.51)$	0.6301	$0.620^{+0.013}_{-0.0066}$ ($+0.2\sigma$)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.29	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246659	$0.246657^{+0.000087}_{-0.000073}$ (-0.0σ)	$f\sigma_8(0.61)$	0.4728	$0.4671^{+0.0087}_{-0.0059}$ ($+0.1\sigma$)
A^{kSZ}	0.3	—	$10^5 \mathrm{D}/\mathrm{H}$	2.6148	2.615 ± 0.037 ($+0.0\sigma$)	$\sigma_8(0.61)$	0.5996	$0.590^{+0.012}_{-0.0063}$ ($+0.2\sigma$)
A_{100}^{dust}	1.013	1.01 ± 0.19 ($+0.0\sigma$)	Age/Gyr	13.7795	$13.801^{+0.031}_{-0.036}$ (-0.1σ)	$f\sigma_8(2.33)$	0.30158	$0.2976^{+0.0052}_{-0.0030}$ ($+0.2\sigma$)
A_{143}^{dust}	0.992	0.98 ± 0.17 ($+0.0\sigma$)	z_*	1090.057	1090.02 ± 0.30 ($+0.0\sigma$)	$\sigma_8(2.33)$	0.31158	$0.3068^{+0.0060}_{-0.0032}$ ($+0.2\sigma$)
A_{217}^{dust}	0.969	0.97 ± 0.10 ($+0.0\sigma$)	r_*	144.715	144.83 ± 0.33 ($+0.0\sigma$)	f_{2000}^{143}	30.50	30.5 ± 3.0 ($+0.0\sigma$)
$A_{143 \times 217}^{\mathrm{dust}}$	0.996	1.03 ± 0.16 ($+0.0\sigma$)	$100\theta_*$	1.041179	1.04125 ± 0.00042 ($+0.0\sigma$)	f_{2000}^{217}	107.13	107.4 ± 2.0 ($+0.0\sigma$)
c_{100}	0.99764	0.9975 ± 0.0010 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8991	13.909 ± 0.032 ($+0.0\sigma$)	$f_{2000}^{143 \times 217}$	32.49	32.7 ± 2.1 ($+0.0\sigma$)
c_{217}	1.00136	1.0012 ± 0.0016 ($+0.0\sigma$)	z_{drag}	1059.513	1059.51 ± 0.44 (-0.0σ)	χ_{simall}^2	395.87	397.0 ± 1.8 (-0.0σ)
H_0	67.98	67.69 ± 0.59 ($+0.1\sigma$)	r_{drag}	147.435	147.55 ± 0.36 ($+0.0\sigma$)	χ_{lowl}^2	22.93	22.85 ± 0.93 ($+0.0\sigma$)
Ω_{Λ}	0.6935	0.6904 ± 0.0075 ($+0.0\sigma$)	k_{D}	0.140385	0.14027 ± 0.00045 (-0.0σ)	$\chi_{\mathrm{CamSpec}}^2$	7050.5	7063.9 ± 5.6 (-0.0σ)
Ω_{m}	0.3065	0.3096 ± 0.0075 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.161006	0.16103 ± 0.00026 ($+0.0\sigma$)	$\chi_{6\mathrm{DF}}^2$	0.0029	0.054 ± 0.073 (-0.0σ)
$\Omega_{\mathrm{m}} h^2$	0.14164	0.1418 ± 0.0012 ($+0.0\sigma$)	z_{eq}	3383.8	3373 ± 31 ($+0.0\sigma$)	χ_{MGS}^2	1.54	1.42 ± 0.55 ($+0.1\sigma$)
$\Omega_{\nu} h^2$	0.000037	< 0.000804	k_{eq}	0.010327	0.010295 ± 0.000093 ($+0.0\sigma$)	$\chi_{\mathrm{DR12BAO}}^2$	3.66	4.6 ± 1.5 (-0.0σ)
$\Omega_{\mathrm{m}} h^3$	0.09628	$0.09599^{+0.00057}_{-0.00049}$ ($+0.1\sigma$)	$100\theta_{\mathrm{eq}}$	0.8162	$0.8183^{+0.0053}_{-0.0060}$ (-0.0σ)	χ_{prior}^2	2.06	7.6 ± 3.5 (-0.0σ)
σ_8	0.8210	$0.808^{+0.017}_{-0.0092}$ ($+0.2\sigma$)	$100\theta_{\mathrm{s,eq}}$	0.45101	$0.4521^{+0.0027}_{-0.0031}$ (-0.0σ)	χ_{BAO}^2	5.21	6.1 ± 1.3 (-0.0σ)
S_8	0.8299	$0.821^{+0.019}_{-0.016}$ ($+0.1\sigma$)	$H(0.15)$	73.21	72.95 ± 0.51 ($+0.1\sigma$)	χ_{CMB}^2	7469.3	7483.8 ± 5.6 ($+0.0\sigma$)

Best-fit $\chi_{\mathrm{eff}}^2 = 7476.59$; $\bar{\chi}_{\mathrm{eff}}^2 = 7497.48$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.07$; $R - 1 = 0.00749$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.66 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 22.93 CamSpec like_10.7HM: 7050.52

6.48 base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022200	0.02223 ± 0.00019	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6099	$0.602^{+0.012}_{-0.0086}$	$D_{\mathrm{M}}(0.38)$	1523.3	1526.9 ± 9.7
$\Omega_{\mathrm{c}} h^2$	0.11938	0.1188 ± 0.0013	$\sigma_8/h^{0.5}$	0.9942	$0.982^{+0.019}_{-0.013}$	$H(0.51)$	89.891	89.75 ± 0.32
$100\theta_{\mathrm{MC}}$	1.040996	1.04107 ± 0.00042	$r_{\mathrm{drag}} h$	100.22	100.02 ± 0.92	$D_{\mathrm{M}}(0.51)$	1974.1	1978 ± 12
τ	0.0517	0.0538 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4362	$2.422^{+0.032}_{-0.028}$	$H(0.61)$	95.473	95.35 ± 0.28
Σm_{ν} [eV]	0.0009	< 0.0722	z_{re}	7.43	7.62 ± 0.81	$D_{\mathrm{M}}(0.61)$	2297.7	2303 ± 13
$\ln(10^{10} A_{\mathrm{s}})$	3.0354	3.038 ± 0.017	$10^9 A_{\mathrm{s}}$	2.0809	2.088 ± 0.034	$H(2.33)$	235.66	235.62 ± 0.74
n_{s}	0.96625	0.9677 ± 0.0044	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8765	1.874 ± 0.012	$D_{\mathrm{M}}(2.33)$	5756.0	5763^{+13}_{-15}
y_{cal}	1.00035	1.0005 ± 0.0025	D_{40}	1223.7	1222 ± 13	$f\sigma_8(0.15)$	0.4581	$0.4536^{+0.0093}_{-0.0077}$
A_{100}^{PS}	236.9	243 ± 25	D_{220}	5706.1	5710 ± 40	$\sigma_8(0.15)$	0.7578	$0.747^{+0.015}_{-0.0082}$
A_{143}^{PS}	39.2	40 ± 8	D_{810}	2532.5	2533 ± 14	$f\sigma_8(0.38)$	0.4775	$0.4726^{+0.0089}_{-0.0067}$
A_{217}^{PS}	99.97	101 ± 10	D_{1420}	814.4	815.1 ± 5.1	$\sigma_8(0.38)$	0.6720	$0.663^{+0.013}_{-0.0071}$
A_{217}^{CIB}	46.1	41 ± 7	D_{2000}	229.76	229.9 ± 1.8	$f\sigma_8(0.51)$	0.4766	$0.4716^{+0.0086}_{-0.0062}$
A_{143}^{tSZ}	6.64	$3.8^{+1.8}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.96625	0.9677 ± 0.0044	$\sigma_8(0.51)$	0.6290	$0.620^{+0.012}_{-0.0066}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.559	0.65 ± 0.13	Y_{P}	0.245326	$0.245335^{+0.000086}_{-0.000073}$	$f\sigma_8(0.61)$	0.4720	$0.4669^{+0.0084}_{-0.0058}$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.806	$0.58^{+0.39}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246652	$0.246662^{+0.000086}_{-0.000073}$	$\sigma_8(0.61)$	0.5986	$0.590^{+0.012}_{-0.0063}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.00	—	$10^5 \mathrm{D}/\mathrm{H}$	2.6180	2.613 ± 0.037	$f\sigma_8(2.33)$	0.30105	$0.2977^{+0.0051}_{-0.0030}$
A^{kSZ}	0.2	—	Age/Gyr	13.7811	$13.798^{+0.030}_{-0.035}$	$\sigma_8(2.33)$	0.31103	$0.3070^{+0.0057}_{-0.0032}$
A_{100}^{dust}	1.008	1.01 ± 0.19	z_*	1090.077	1089.99 ± 0.29	f_{2000}^{143}	30.85	30.5 ± 3.0
A_{143}^{dust}	0.988	0.98 ± 0.17	r_*	144.728	144.86 ± 0.33	f_{2000}^{217}	107.38	107.3 ± 2.0
A_{217}^{dust}	0.963	0.97 ± 0.10	$100\theta_*$	1.041170	1.04127 ± 0.00042	$f_{2000}^{143 \times 217}$	32.74	32.7 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	0.996	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9005	13.911 ± 0.032	χ_{simall}^2	395.76	397.0 ± 1.8
c_{100}	0.99759	0.9975 ± 0.0010	z_{drag}	1059.475	1059.52 ± 0.44	χ_{lowl}^2	23.01	22.80 ± 0.91
c_{217}	1.00140	1.0012 ± 0.0016	r_{drag}	147.454	147.57 ± 0.35	$\chi_{\mathrm{CamSpec}}^2$	7050.4	7064.0 ± 5.7
H_0	67.97	67.78 ± 0.56	k_{D}	0.140352	0.14025 ± 0.00045	χ_{JLA}^2	1034.853	1035.02 ± 0.31
Ω_{Λ}	0.6935	0.6915 ± 0.0071	$100\theta_{\mathrm{D}}$	0.161028	0.16102 ± 0.00025	$\chi_{6\mathrm{DF}}^2$	0.0030	0.044 ± 0.061
Ω_{m}	0.3065	0.3085 ± 0.0071	z_{eq}	3383.4	3370 ± 30	χ_{MGS}^2	1.54	1.49 ± 0.53
$\Omega_{\mathrm{m}} h^2$	0.14159	0.1417 ± 0.0011	k_{eq}	0.010326	0.010286 ± 0.000090	$\chi_{\mathrm{DR12BAO}}^2$	3.66	4.4 ± 1.3
$\Omega_{\nu} h^2$	$0.96 \cdot 10^{-5}$	< 0.000776	$100\theta_{\mathrm{eq}}$	0.8162	$0.8188^{+0.0051}_{-0.0058}$	χ_{prior}^2	2.18	7.6 ± 3.4
$\Omega_{\mathrm{m}} h^3$	0.09623	$0.09601^{+0.00056}_{-0.00048}$	$100\theta_{\mathrm{s,eq}}$	0.45103	$0.4524^{+0.0026}_{-0.0030}$	χ_{BAO}^2	5.206	5.9 ± 1.0
σ_8	0.8197	$0.808^{+0.016}_{-0.0090}$	$H(0.15)$	73.195	73.02 ± 0.49	χ_{CMB}^2	7469.2	7483.8 ± 5.6
S_8	0.8285	$0.819^{+0.018}_{-0.015}$	$D_{\mathrm{M}}(0.15)$	638.21	639.9 ± 4.8			
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4538	$0.4488^{+0.0099}_{-0.0082}$	$H(0.38)$	83.222	83.07 ± 0.38			

Best-fit $\chi_{\mathrm{eff}}^2 = 8511.39$; $\bar{\chi}_{\mathrm{eff}}^2 = 8532.36$; $R - 1 = 0.00853$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.66 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.76 commander_dx12_v3.2.29: 23.01 CamSpec like_10.7HM: 7050.38
SN - JLA Pantheon18: 1034.85

6.49 base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222 \pm 0.00019 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.450^{+0.010}_{-0.0086} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.5 \pm 5.0 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0013 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.603^{+0.012}_{-0.0087} \quad (+0.1\sigma)$	$H(0.38)$	$83.03 \pm 0.40 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04105 \pm 0.00042 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.983^{+0.019}_{-0.013} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528 \pm 10 \quad (-0.1\sigma)$
τ	$0.0549^{+0.0051}_{-0.0082} \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.90 \pm 0.97 \quad (+0.1\sigma)$	$H(0.51)$	$89.72 \pm 0.33 \quad (+0.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0752	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.031}_{-0.028} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016} \quad (-0.0\sigma)$	z_{re}	$7.75^{+0.56}_{-0.81} \quad (-0.0\sigma)$	$H(0.61)$	$95.32 \pm 0.29 \quad (+0.1\sigma)$
n_{s}	$0.9675 \pm 0.0044 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.025}_{-0.034} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 13 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.875 \pm 0.012 \quad (-0.0\sigma)$	$H(2.33)$	$235.70 \pm 0.77 \quad (-0.0\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1222 \pm 13 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764^{+13}_{-16} \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5709 \pm 40 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4547^{+0.0096}_{-0.0080} \quad (+0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.748^{+0.015}_{-0.0079} \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$815.0 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4735^{+0.0091}_{-0.0069} \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.0068} \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9675 \pm 0.0044 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4723^{+0.0088}_{-0.0062} \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.39}_{-0.15} \quad (-0.0\sigma)$	Y_{P}	$0.245333^{+0.000087}_{-0.000073} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0064} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246659^{+0.000087}_{-0.000073} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4676^{+0.0086}_{-0.0058} \quad (+0.1\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.614 \pm 0.037 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.0060} \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.801^{+0.031}_{-0.036} \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0051}_{-0.0028} \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1090.01 \pm 0.30 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3072^{+0.0058}_{-0.0031} \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.83 \pm 0.33 \quad (+0.0\sigma)$	f_{2000}^{143}	$30.4 \pm 3.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04126 \pm 0.00042 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.909 \pm 0.032 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.51 \pm 0.44 \quad (-0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
H_0	$67.71 \pm 0.59 \quad (+0.1\sigma)$	r_{drag}	$147.55 \pm 0.36 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.86 \pm 0.93 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6906 \pm 0.0076 \quad (+0.0\sigma)$	k_{D}	$0.14027 \pm 0.00045 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.8 \pm 5.6 \quad (+0.0\sigma)$
Ω_{m}	$0.3094 \pm 0.0076 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00026 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.072 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	z_{eq}	$3372 \pm 31 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.43 \pm 0.55 \quad (+0.1\sigma)$
$\Omega_{\nu} h^2$	< 0.000808	k_{eq}	$0.010293 \pm 0.000093 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09599^{+0.00057}_{-0.00049} \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8184^{+0.0053}_{-0.0059} \quad (-0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (-0.0\sigma)$
σ_8	$0.809^{+0.016}_{-0.0088} \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522^{+0.0028}_{-0.0031} \quad (+0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (-0.0\sigma)$
S_8	$0.821^{+0.019}_{-0.016} \quad (+0.1\sigma)$	$H(0.15)$	$72.96 \pm 0.51 \quad (+0.1\sigma)$	χ_{CMB}^2	$7483.6 \pm 5.5 \quad (+0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7497.29$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = -0.02$; $R - 1 = 0.00759$

6.50 base_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00019	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.603^{+0.012}_{-0.0085}$	$D_{\mathrm{M}}(0.38)$	1526.7 ± 9.7
$\Omega_{\mathrm{c}}h^2$	0.1188 ± 0.0013	$\sigma_8/h^{0.5}$	$0.983^{+0.019}_{-0.012}$	$H(0.51)$	89.76 ± 0.32
$100\theta_{\mathrm{MC}}$	1.04107 ± 0.00042	$r_{\mathrm{drag}}h$	100.04 ± 0.92	$D_{\mathrm{M}}(0.51)$	1978 ± 12
τ	$0.0550^{+0.0051}_{-0.0083}$	$\langle d^2 \rangle^{1/2}$	$2.425^{+0.030}_{-0.028}$	$H(0.61)$	95.35 ± 0.28
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0724	z_{re}	$7.75^{+0.56}_{-0.83}$	$D_{\mathrm{M}}(0.61)$	2302 ± 13
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.025}_{-0.035}$	$H(2.33)$	235.61 ± 0.74
n_{s}	0.9678 ± 0.0044	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.874 ± 0.012	$D_{\mathrm{M}}(2.33)$	5763^{+13}_{-15}
y_{cal}	1.0005 ± 0.0025	D_{40}	1222 ± 13	$f\sigma_8(0.15)$	$0.4540^{+0.0092}_{-0.0077}$
A_{100}^{PS}	242 ± 25	D_{220}	5710 ± 40	$\sigma_8(0.15)$	$0.748^{+0.015}_{-0.0079}$
A_{143}^{PS}	40 ± 8	D_{810}	2533 ± 14	$f\sigma_8(0.38)$	$0.4731^{+0.0088}_{-0.0067}$
A_{217}^{PS}	101 ± 10	D_{1420}	815.1 ± 5.1	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.0068}$
A_{217}^{CIB}	41 ± 7	D_{2000}	230.0 ± 1.8	$f\sigma_8(0.51)$	$0.4720^{+0.0085}_{-0.0061}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.9678 ± 0.0044	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0064}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245337^{+0.000085}_{-0.000073}$	$f\sigma_8(0.61)$	$0.4673^{+0.0082}_{-0.0057}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.39}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246663^{+0.000086}_{-0.000073}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0060}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.612 ± 0.036	$f\sigma_8(2.33)$	$0.2981^{+0.0049}_{-0.0028}$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.797^{+0.030}_{-0.035}$	$\sigma_8(2.33)$	$0.3074^{+0.0056}_{-0.0031}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.98 ± 0.29	f_{2000}^{143}	30.4 ± 3.0
A_{143}^{dust}	0.98 ± 0.17	r_*	144.86 ± 0.33	f_{2000}^{217}	107.3 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04127 ± 0.00042	$f_{2000}^{143 \times 217}$	32.6 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.912 ± 0.032	χ_{simall}^2	397.0 ± 1.8
c_{100}	0.9975 ± 0.0010	z_{drag}	1059.53 ± 0.44	χ_{lowl}^2	22.81 ± 0.91
c_{217}	1.0012 ± 0.0016	r_{drag}	147.57 ± 0.35	$\chi_{\mathrm{CamSpec}}^2$	7063.9 ± 5.7
H_0	67.79 ± 0.56	k_{D}	0.14025 ± 0.00045	χ_{JLA}^2	1035.02 ± 0.31
Ω_{Λ}	0.6917 ± 0.0071	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00025	$\chi_{6\mathrm{DF}}^2$	0.044 ± 0.060
Ω_{m}	0.3083 ± 0.0071	z_{eq}	3369 ± 30	χ_{MGS}^2	1.50 ± 0.53
$\Omega_{\mathrm{m}}h^2$	0.1416 ± 0.0011	k_{eq}	0.010284 ± 0.000090	$\chi_{\mathrm{DR12BAO}}^2$	4.4 ± 1.3
$\Omega_{\nu}h^2$	< 0.000778	$100\theta_{\mathrm{eq}}$	$0.8190^{+0.0051}_{-0.0057}$	χ_{prior}^2	7.6 ± 3.4
$\Omega_{\mathrm{m}}h^3$	$0.09601^{+0.00057}_{-0.00049}$	$100\theta_{\mathrm{s,eq}}$	$0.4524^{+0.0026}_{-0.0030}$	χ_{BAO}^2	5.9 ± 1.0
σ_8	$0.809^{+0.016}_{-0.0088}$	$H(0.15)$	73.03 ± 0.49	χ_{CMB}^2	7483.6 ± 5.6
S_8	$0.820^{+0.018}_{-0.015}$	$D_{\mathrm{M}}(0.15)$	639.8 ± 4.8		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4492^{+0.0098}_{-0.0082}$	$H(0.38)$	83.08 ± 0.38		

$\bar{\chi}_{\mathrm{eff}}^2 = 8532.17$; $R - 1 = 0.00943$

6.51 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022331	0.02234 ± 0.00015 (-0.0σ)	S_8	0.8271	0.820 ± 0.015 $(+0.0\sigma)$	$D_M(0.15)$	637.06	$640.1^{+4.3}_{-5.0}$ (-0.1σ)
$\Omega_c h^2$	0.11924	0.1189 ± 0.0011 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4530	0.4489 ± 0.0081 $(+0.0\sigma)$	$H(0.38)$	83.331	$83.08^{+0.39}_{-0.33}$ $(+0.1\sigma)$
$100\theta_{MC}$	1.040959	1.04095 ± 0.00030 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6094	$0.602^{+0.011}_{-0.0082}$ $(+0.0\sigma)$	$D_M(0.38)$	1520.8	$1527.1^{+8.7}_{-10}$ (-0.1σ)
τ	0.0530	0.0534 ± 0.0079 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9933	$0.981^{+0.017}_{-0.012}$ $(+0.1\sigma)$	$H(0.51)$	89.993	$89.77^{+0.33}_{-0.27}$ $(+0.1\sigma)$
Σm_ν [eV]	0.0046	< 0.0757	$r_{drag} h$	100.34	99.88 ± 0.90 $(+0.1\sigma)$	$D_M(0.51)$	1971.1	1979^{+10}_{-12} (-0.1σ)
$\ln(10^{10} A_s)$	3.0382	3.038 ± 0.016 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4352	2.423 ± 0.027 (-0.1σ)	$H(0.61)$	95.569	$95.38^{+0.29}_{-0.23}$ $(+0.1\sigma)$
n_s	0.96730	0.9675 ± 0.0039 $(+0.0\sigma)$	z_{re}	7.54	7.56 ± 0.80 (-0.1σ)	$D_M(0.61)$	2294.4	2303^{+11}_{-13} (-0.1σ)
y_{cal}	1.00028	1.0005 ± 0.0025 (-0.0σ)	$10^9 A_s$	2.0868	2.087 ± 0.034 (-0.1σ)	$H(2.33)$	235.71	235.83 ± 0.65 (-0.0σ)
A_{100}^{PS}	232.4	239 ± 25 (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8768	1.876 ± 0.011 (-0.0σ)	$D_M(2.33)$	5750.8	5761^{+11}_{-14} (-0.1σ)
A_{143}^{PS}	41.7	39 ± 8 (-0.0σ)	D_{40}	1222.9	1223 ± 12 (-0.0σ)	$f\sigma_8(0.15)$	0.4574	0.4537 ± 0.0076 $(+0.0\sigma)$
A_{217}^{PS}	102.5	103 ± 10 $(+0.0\sigma)$	D_{220}	5715.7	5720 ± 39 (-0.0σ)	$\sigma_8(0.15)$	0.7579	$0.746^{+0.014}_{-0.0083}$ $(+0.1\sigma)$
A_{217}^{CIB}	43.9	39 ± 7 (-0.0σ)	D_{810}	2534.1	2534 ± 14 (-0.0σ)	$f\sigma_8(0.38)$	0.4771	$0.4725^{+0.0077}_{-0.0065}$ $(+0.1\sigma)$
A_{143}^{tSZ}	6.59	$3.9^{+1.9}_{-2.5}$ $(+0.0\sigma)$	D_{1420}	815.88	816.1 ± 4.8 (-0.0σ)	$\sigma_8(0.38)$	0.6723	$0.662^{+0.013}_{-0.0073}$ $(+0.1\sigma)$
$r_{143 \times 217}^{PS}$	0.630	0.66 ± 0.13 $(+0.0\sigma)$	D_{2000}	230.49	230.4 ± 1.6 (-0.0σ)	$f\sigma_8(0.51)$	0.4764	$0.4714^{+0.0077}_{-0.0060}$ $(+0.1\sigma)$
$r_{143 \times 217}^{CIB}$	0.803	$0.56^{+0.40}_{-0.18}$ $(+0.0\sigma)$	$n_{s,0.002}$	0.96730	0.9675 ± 0.0039 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6294	$0.619^{+0.012}_{-0.0068}$ $(+0.1\sigma)$
$\xi^{tSZ \times CIB}$	0.26	—	Y_P	0.245380	$0.245381^{+0.000061}_{-0.000055}$ (-0.0σ)	$f\sigma_8(0.61)$	0.4718	$0.4666^{+0.0076}_{-0.0056}$ $(+0.1\sigma)$
A^{kSZ}	0.01	$4.7^{+2.3}_{-4.0}$ $(+0.0\sigma)$	Y_P^{BBN}	0.246706	$0.246707^{+0.000062}_{-0.000055}$ (-0.0σ)	$\sigma_8(0.61)$	0.5990	$0.589^{+0.012}_{-0.0065}$ $(+0.1\sigma)$
A_{100}^{dust}	1.011	1.01 ± 0.19 $(+0.0\sigma)$	$10^5 D/H$	2.5929	2.592 ± 0.028 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.30133	$0.2974^{+0.0051}_{-0.0031}$ $(+0.2\sigma)$
A_{143}^{dust}	0.975	0.96 ± 0.18 (-0.0σ)	Age/Gyr	13.7692	$13.792^{+0.025}_{-0.033}$ (-0.1σ)	$\sigma_8(2.33)$	0.31136	$0.3066^{+0.0059}_{-0.0033}$ $(+0.1\sigma)$
A_{217}^{dust}	0.973	0.98 ± 0.10 (-0.0σ)	z_*	1089.897	1089.87 ± 0.24 (-0.0σ)	f_{2000}^{143}	29.72	29.5 ± 2.8 (-0.0σ)
$A_{143 \times 217}^{dust}$	1.006	1.03 ± 0.16 (-0.0σ)	r_*	144.664	144.74 ± 0.26 $(+0.0\sigma)$	f_{2000}^{217}	106.53	106.8 ± 1.9 (-0.0σ)
c_{100}	0.99768	0.9975 ± 0.0011 (-0.0σ)	$100\theta_*$	1.041115	1.04114 ± 0.00030 (-0.0σ)	$f_{2000}^{143 \times 217}$	31.88	32.0 ± 2.0 (-0.0σ)
c_{217}	1.00130	1.0011 ± 0.0016 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8951	13.902 ± 0.025 $(+0.0\sigma)$	χ_{simall}^2	395.85	396.9 ± 1.7 (-0.0σ)
c_{TE}	0.99638	0.9968 ± 0.0049 (-0.0σ)	z_{drag}	1059.780	1059.78 ± 0.32 (-0.0σ)	χ_{lowl}^2	22.91	22.85 ± 0.83 (-0.0σ)
c_{EE}	0.99209	0.9923 ± 0.0049 (-0.0σ)	r_{drag}	147.344	147.41 ± 0.27 $(+0.0\sigma)$	$\chi_{CamSpec}^2$	11499.2	11514.8 ± 5.8 $(+0.0\sigma)$
H_0	68.10	$67.75^{+0.58}_{-0.51}$ $(+0.1\sigma)$	k_D	0.140566	0.14050 ± 0.00033 (-0.0σ)	χ_{6DF}^2	0.0009	0.049 ± 0.069 $(+0.1\sigma)$
Ω_Λ	0.6946	$0.6907^{+0.0074}_{-0.0065}$ $(+0.1\sigma)$	$100\theta_D$	0.160845	0.16085 ± 0.00019 $(+0.0\sigma)$	χ_{MGS}^2	1.61	1.41 ± 0.50 $(+0.1\sigma)$
Ω_m	0.3054	$0.3093^{+0.0065}_{-0.0074}$ (-0.1σ)	z_{eq}	3383.1	3376 ± 25 (-0.0σ)	$\chi_{DR12BAO}^2$	3.59	4.6 ± 1.5 $(+0.0\sigma)$
$\Omega_m h^2$	0.14162	0.1419 ± 0.0010 (-0.0σ)	k_{eq}	0.010325	0.010304 ± 0.000075 (-0.0σ)	χ_{prior}^2	2.14	7.8 ± 3.4 (-0.0σ)
$\Omega_\nu h^2$	0.000049	< 0.000813	$100\theta_{eq}$	0.81658	0.8180 ± 0.0046 $(+0.0\sigma)$	χ_{BAO}^2	5.20	6.0 ± 1.2 $(+0.1\sigma)$
$\Omega_m h^3$	0.096442	$0.09616^{+0.00046}_{-0.00036}$ $(+0.2\sigma)$	$100\theta_{s,eq}$	0.45112	0.4518 ± 0.0024 $(+0.0\sigma)$	χ_{CMB}^2	11917.9	11934.6 ± 5.8 $(+0.0\sigma)$
σ_8	0.8197	$0.807^{+0.016}_{-0.0092}$ $(+0.1\sigma)$	$H(0.15)$	73.318	$73.01^{+0.51}_{-0.44}$ $(+0.1\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 11925.28$; $\bar{\chi}_{\text{eff}}^2 = 11948.38$; $\Delta\chi_{\text{eff}}^2 = 0.10$; $R - 1 = 0.01113$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.59 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3_2_29: 22.91 CamSpec like_10.7HM_1400_unified: 11499.17

6.52 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022328	0.02234 ± 0.00015	S_8	0.8278	0.819 ± 0.014	$D_M(0.15)$	637.06	$639.4^{+4.0}_{-4.7}$
$\Omega_c h^2$	0.11927	0.1188 ± 0.0010	$\sigma_8 \Omega_m^{0.5}$	0.4534	0.4485 ± 0.0079	$H(0.38)$	83.332	$83.13^{+0.37}_{-0.32}$
$100\theta_{MC}$	1.040966	1.04096 ± 0.00030	$\sigma_8 \Omega_m^{0.25}$	0.6099	$0.602^{+0.010}_{-0.0082}$	$D_M(0.38)$	1520.8	$1525.7^{+8.2}_{-9.6}$
τ	0.0533	0.0535 ± 0.0079	$\sigma_8/h^{0.5}$	0.9943	$0.981^{+0.017}_{-0.012}$	$H(0.51)$	89.993	$89.81^{+0.31}_{-0.26}$
Σm_ν [eV]	0.0005	< 0.0707	$r_{\text{drag}} h$	100.33	100.00 ± 0.85	$D_M(0.51)$	1971.0	$1977.0^{+9.7}_{-11}$
$\ln(10^{10} A_s)$	3.0390	3.038 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.4366	2.422 ± 0.027	$H(0.61)$	95.569	$95.41^{+0.27}_{-0.22}$
n_s	0.96732	0.9677 ± 0.0039	z_{re}	7.56	7.56 ± 0.80	$D_M(0.61)$	2294.4	2301^{+11}_{-12}
y_{cal}	1.00032	1.0005 ± 0.0025	$10^9 A_s$	2.0885	2.087 ± 0.034	$H(2.33)$	235.71	235.75 ± 0.63
A_{100}^{PS}	231.5	239 ± 25	$10^9 A_s e^{-2\tau}$	1.8775	1.875 ± 0.011	$D_M(2.33)$	5750.8	5759^{+11}_{-14}
A_{143}^{PS}	46.2	39 ± 8	D_{40}	1223.3	1223 ± 12	$f\sigma_8(0.15)$	0.4578	0.4534 ± 0.0075
A_{217}^{PS}	103.8	103 ± 10	D_{220}	5716.8	5721 ± 39	$\sigma_8(0.15)$	0.7587	$0.747^{+0.014}_{-0.0082}$
A_{217}^{CIB}	43.2	39 ± 7	D_{810}	2534.9	2534 ± 14	$f\sigma_8(0.38)$	0.4775	$0.4724^{+0.0074}_{-0.0064}$
A_{143}^{tSZ}	6.53	$3.9^{+1.9}_{-2.5}$	D_{1420}	816.14	816.1 ± 4.8	$\sigma_8(0.38)$	0.6730	$0.662^{+0.012}_{-0.0071}$
$r_{143 \times 217}^{\text{PS}}$	0.679	0.66 ± 0.13	D_{2000}	230.57	230.4 ± 1.6	$f\sigma_8(0.51)$	0.4768	$0.4714^{+0.0074}_{-0.0059}$
$r_{143 \times 217}^{\text{CIB}}$	0.853	$0.55^{+0.40}_{-0.18}$	$n_{s,0.002}$	0.96732	0.9677 ± 0.0039	$\sigma_8(0.51)$	0.6300	$0.620^{+0.012}_{-0.0066}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.52	—	Y_P	0.245379	$0.245383^{+0.000060}_{-0.000054}$	$f\sigma_8(0.61)$	0.4722	$0.4667^{+0.0073}_{-0.0056}$
A^{ksZ}	0.01	$4.7^{+2.3}_{-3.9}$	Y_P^{BBN}	0.246705	$0.246710^{+0.000060}_{-0.000055}$	$\sigma_8(0.61)$	0.5995	$0.590^{+0.011}_{-0.0063}$
A_{100}^{dust}	1.008	1.01 ± 0.19	10^5D/H	2.5933	2.591 ± 0.027	$f\sigma_8(2.33)$	0.30155	$0.2977^{+0.0048}_{-0.0030}$
A_{143}^{dust}	0.983	0.96 ± 0.18	Age/Gyr	13.7690	$13.789^{+0.024}_{-0.031}$	$\sigma_8(2.33)$	0.31161	$0.3070^{+0.0056}_{-0.0032}$
A_{217}^{dust}	0.978	0.98 ± 0.10	z_*	1089.903	1089.85 ± 0.23	f_{2000}^{143}	29.78	29.5 ± 2.8
$A_{143 \times 217}^{\text{dust}}$	1.004	1.03 ± 0.16	r_*	144.659	144.76 ± 0.26	f_{2000}^{217}	106.51	106.7 ± 1.9
c_{100}	0.99774	0.9975 ± 0.0011	$100\theta_*$	1.041116	1.04115 ± 0.00030	$f_{2000}^{143 \times 217}$	31.92	32.0 ± 2.0
c_{217}	1.00133	1.0011 ± 0.0015	$D_M(z_*)/\text{Gpc}$	13.8946	13.903 ± 0.025	χ_{small}^2	395.86	397.0 ± 1.7
c_{TE}	0.99643	0.9968 ± 0.0049	z_{drag}	1059.780	1059.79 ± 0.32	χ_{lowl}^2	22.93	22.82 ± 0.82
c_{EE}	0.99241	0.9924 ± 0.0049	r_{drag}	147.338	147.43 ± 0.27	χ_{CamSpec}^2	11499.3	11514.7 ± 5.8
H_0	68.10	$67.83^{+0.55}_{-0.48}$	k_D	0.140570	0.14049 ± 0.00033	χ_{JLA}^2	1034.819	1035.00 ± 0.29
Ω_Λ	0.6946	$0.6917^{+0.0069}_{-0.0062}$	$100\theta_D$	0.160847	0.16084 ± 0.00019	$\chi_{6\text{DF}}^2$	0.00097	0.040 ± 0.057
Ω_m	0.3054	$0.3083^{+0.0062}_{-0.0069}$	z_{eq}	3383.8	3374 ± 24	χ_{MGS}^2	1.608	1.47 ± 0.49
$\Omega_m h^2$	0.14160	0.14181 ± 0.00098	k_{eq}	0.010327	0.010297 ± 0.000074	χ_{DR12BAO}^2	3.60	4.4 ± 1.2
$\Omega_\nu h^2$	$0.6 \cdot 10^{-5}$	< 0.000760	$100\theta_{\text{eq}}$	0.81646	0.8184 ± 0.0045	χ_{prior}^2	2.03	7.8 ± 3.4
$\Omega_m h^3$	0.096430	$0.09618^{+0.00045}_{-0.00036}$	$100\theta_{s,\text{eq}}$	0.45106	0.4521 ± 0.0023	χ_{BAO}^2	5.208	5.89 ± 0.98
σ_8	0.8205	$0.808^{+0.015}_{-0.0090}$	$H(0.15)$	73.318	$73.07^{+0.48}_{-0.42}$	χ_{CMB}^2	11918.0	11934.5 ± 5.9

Best-fit $\chi_{\text{eff}}^2 = 12960.09$; $\bar{\chi}_{\text{eff}}^2 = 12983.16$; $R - 1 = 0.01385$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.60 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2.29: 22.93 CamSpec like_10.7HM_1400_unified: 11499.25 SN - JLA Pantheon18: 1034.82

6.53 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02234 \pm 0.00015 \quad (-0.0\sigma)$	S_8	$0.820 \pm 0.015 \quad (+0.0\sigma)$	$D_M(0.15)$	$640.0^{+4.3}_{-5.0} \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.1189 \pm 0.0011 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4493 \pm 0.0081 \quad (+0.0\sigma)$	$H(0.38)$	$83.08^{+0.39}_{-0.33} \quad (+0.1\sigma)$
$100\theta_{MC}$	$1.04096 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.603^{+0.011}_{-0.0080} \quad (+0.0\sigma)$	$D_M(0.38)$	$1526.9^{+8.7}_{-10} \quad (-0.1\sigma)$
τ	$0.0548^{+0.0048}_{-0.0084} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.982^{+0.017}_{-0.012} \quad (+0.0\sigma)$	$H(0.51)$	$89.78^{+0.33}_{-0.27} \quad (+0.1\sigma)$
Σm_ν [eV]	< 0.0767	$r_{\text{drag}} h$	$99.89 \pm 0.90 \quad (+0.1\sigma)$	$D_M(0.51)$	$1978^{+10}_{-12} \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.041^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.027 \quad (-0.1\sigma)$	$H(0.61)$	$95.38^{+0.29}_{-0.23} \quad (+0.1\sigma)$
n_s	$0.9677 \pm 0.0039 \quad (+0.0\sigma)$	z_{re}	$7.70^{+0.54}_{-0.83} \quad (-0.1\sigma)$	$D_M(0.61)$	$2302^{+11}_{-13} \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_s$	$2.093^{+0.024}_{-0.035} \quad (-0.1\sigma)$	$H(2.33)$	$235.82 \pm 0.65 \quad (-0.0\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.876 \pm 0.011 \quad (-0.0\sigma)$	$D_M(2.33)$	$5761^{+11}_{-14} \quad (-0.1\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.0\sigma)$	D_{40}	$1223 \pm 12 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4542 \pm 0.0076 \quad (+0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.0079} \quad (+0.1\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4730^{+0.0077}_{-0.0063} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$816.1 \pm 4.8 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.662^{+0.013}_{-0.0069} \quad (+0.1\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4719^{+0.0076}_{-0.0058} \quad (+0.1\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.40}_{-0.18} \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9677 \pm 0.0039 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.0064} \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245382^{+0.000061}_{-0.000055} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4671^{+0.0075}_{-0.0054} \quad (+0.1\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.0} \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246708^{+0.000062}_{-0.000055} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.590^{+0.012}_{-0.0061} \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$10^5 D/H$	$2.592 \pm 0.028 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2977^{+0.0050}_{-0.0029} \quad (+0.2\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	Age/Gyr	$13.792^{+0.025}_{-0.033} \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0058}_{-0.0031} \quad (+0.1\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1089.86 \pm 0.24 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.74 \pm 0.26 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04115 \pm 0.00030 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.902 \pm 0.025 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
c_{TE}	$0.9968 \pm 0.0049 \quad (-0.0\sigma)$	z_{drag}	$1059.79 \pm 0.32 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.86 \pm 0.83 \quad (-0.0\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.42 \pm 0.28 \quad (+0.0\sigma)$	χ_{CamSpec}^2	$11514.6 \pm 5.8 \quad (+0.0\sigma)$
H_0	$67.76^{+0.58}_{-0.51} \quad (+0.1\sigma)$	k_D	$0.14050 \pm 0.00033 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.048 \pm 0.068 \quad (+0.1\sigma)$
Ω_Λ	$0.6908^{+0.0073}_{-0.0066} \quad (+0.0\sigma)$	$100\theta_D$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.42 \pm 0.50 \quad (+0.1\sigma)$
Ω_m	$0.3092^{+0.0066}_{-0.0073} \quad (-0.0\sigma)$	z_{eq}	$3375 \pm 25 \quad (-0.0\sigma)$	χ_{DR12BAO}^2	$4.6 \pm 1.5 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.1419 \pm 0.0010 \quad (+0.0\sigma)$	k_{eq}	$0.010302 \pm 0.000075 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_\nu h^2$	< 0.000825	$100\theta_{\text{eq}}$	$0.8181 \pm 0.0047 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.0 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_m h^3$	$0.09616^{+0.00047}_{-0.00036} \quad (+0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4519 \pm 0.0024 \quad (+0.0\sigma)$	χ_{CMB}^2	$11934.4 \pm 5.8 \quad (+0.0\sigma)$
σ_8	$0.808^{+0.015}_{-0.0087} \quad (+0.1\sigma)$	$H(0.15)$	$73.01^{+0.51}_{-0.44} \quad (+0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11948.19; \Delta\bar{\chi}_{\text{eff}}^2 = 0.20; R - 1 = 0.01072$$

6.54 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02235 ± 0.00015	S_8	0.820 ± 0.014	$D_{\mathrm{M}}(0.15)$	$639.4^{+4.1}_{-4.7}$
$\Omega_{\mathrm{c}}h^2$	0.1188 ± 0.0010	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4490 ± 0.0079	$H(0.38)$	$83.13^{+0.37}_{-0.32}$
$100\theta_{\mathrm{MC}}$	1.04097 ± 0.00030	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.603^{+0.010}_{-0.0079}$	$D_{\mathrm{M}}(0.38)$	$1525.7^{+8.3}_{-9.6}$
τ	$0.0549^{+0.0048}_{-0.0084}$	$\sigma_8/h^{0.5}$	$0.982^{+0.017}_{-0.012}$	$H(0.51)$	$89.82^{+0.31}_{-0.26}$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0717	$r_{\mathrm{drag}}h$	100.01 ± 0.85	$D_{\mathrm{M}}(0.51)$	$1976.9^{+9.8}_{-11}$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.026	$H(0.61)$	$95.41^{+0.27}_{-0.22}$
n_{s}	0.9679 ± 0.0039	z_{re}	$7.71^{+0.54}_{-0.84}$	$D_{\mathrm{M}}(0.61)$	2301^{+11}_{-12}
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.093^{+0.024}_{-0.035}$	$H(2.33)$	235.74 ± 0.62
A_{100}^{PS}	239 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.011	$D_{\mathrm{M}}(2.33)$	5759^{+11}_{-14}
A_{143}^{PS}	39 ± 8	D_{40}	1223 ± 12	$f\sigma_8(0.15)$	0.4538 ± 0.0074
A_{217}^{PS}	103 ± 10	D_{220}	5721 ± 39	$\sigma_8(0.15)$	$0.748^{+0.014}_{-0.0077}$
A_{217}^{CIB}	39 ± 7	D_{810}	2534 ± 14	$f\sigma_8(0.38)$	$0.4729^{+0.0074}_{-0.0062}$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{1420}	816.1 ± 4.8	$\sigma_8(0.38)$	$0.663^{+0.012}_{-0.0067}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.5 ± 1.6	$f\sigma_8(0.51)$	$0.4719^{+0.0073}_{-0.0057}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18}$	$n_{\mathrm{s},0.002}$	0.9679 ± 0.0039	$\sigma_8(0.51)$	$0.621^{+0.011}_{-0.0063}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245384^{+0.000060}_{-0.000054}$	$f\sigma_8(0.61)$	$0.4672^{+0.0072}_{-0.0054}$
A^{kSZ}	$4.7^{+2.3}_{-3.9}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246711^{+0.000060}_{-0.000054}$	$\sigma_8(0.61)$	$0.591^{+0.011}_{-0.0059}$
A_{100}^{dust}	1.01 ± 0.19	$10^5 \mathrm{D}/\mathrm{H}$	2.590 ± 0.027	$f\sigma_8(2.33)$	$0.2980^{+0.0047}_{-0.0028}$
A_{143}^{dust}	0.97 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	$13.789^{+0.024}_{-0.031}$	$\sigma_8(2.33)$	$0.3073^{+0.0055}_{-0.0030}$
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.84 ± 0.23	f_{2000}^{143}	29.4 ± 2.8
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	144.76 ± 0.26	f_{2000}^{217}	106.7 ± 1.9
c_{100}	0.9975 ± 0.0011	$100\theta_*$	1.04116 ± 0.00030	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
c_{217}	1.0011 ± 0.0015	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.904 ± 0.025	χ_{small}^2	396.9 ± 1.8
c_{TE}	0.9968 ± 0.0049	z_{drag}	1059.80 ± 0.32	χ_{lowl}^2	22.83 ± 0.82
c_{EE}	0.9923 ± 0.0049	r_{drag}	147.44 ± 0.27	$\chi_{\mathrm{CamSpec}}^2$	11514.6 ± 5.8
H_0	$67.83^{+0.54}_{-0.49}$	k_{D}	0.14048 ± 0.00033	χ_{JLA}^2	1035.00 ± 0.29
Ω_{Λ}	$0.6918^{+0.0069}_{-0.0062}$	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.040 ± 0.056
Ω_{m}	$0.3082^{+0.0062}_{-0.0069}$	z_{eq}	3373 ± 24	χ_{MGS}^2	1.48 ± 0.49
$\Omega_{\mathrm{m}}h^2$	0.14179 ± 0.00098	k_{eq}	0.010296 ± 0.000074	$\chi_{\mathrm{DR12BAO}}^2$	4.4 ± 1.2
$\Omega_{\nu}h^2$	< 0.000771	$100\theta_{\mathrm{eq}}$	0.8185 ± 0.0045	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	$0.09618^{+0.00045}_{-0.00036}$	$100\theta_{\mathrm{s,eq}}$	0.4521 ± 0.0023	χ_{BAO}^2	5.88 ± 0.97
σ_8	$0.809^{+0.015}_{-0.0085}$	$H(0.15)$	$73.08^{+0.48}_{-0.42}$	χ_{CMB}^2	11934.3 ± 5.8

$$\bar{\chi}_{\mathrm{eff}}^2 = 12982.95; R - 1 = 0.01405$$

6.55 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022232	0.02222 ± 0.00019 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6115	$0.6058^{+0.0083}_{-0.0068}$ (+0.2 σ)	$H(0.38)$	83.236	83.01 ± 0.38 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11936	0.1192 ± 0.0011 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9967	$0.987^{+0.013}_{-0.010}$ (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1523.0	1528.6 ± 9.9 (−0.3 σ)
$100\theta_{\mathrm{MC}}$	1.040955	1.04097 ± 0.00042 (−0.0 σ)	$r_{\mathrm{drag}}h$	100.22	99.81 ± 0.92 (+0.2 σ)	$H(0.51)$	89.905	89.71 ± 0.32 (+0.3 σ)
τ	0.0542	0.0542 ± 0.0074 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4437	2.435 ± 0.022 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1973.7	1980 ± 12 (−0.3 σ)
Σm_{ν} [eV]	0.0037	< 0.0628	z_{re}	7.68	7.67 ± 0.75 (−0.1 σ)	$H(0.61)$	95.487	95.32 ± 0.28 (+0.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0419	3.042 ± 0.015 (−0.1 σ)	10^9A_{s}	2.0944	2.095 ± 0.031 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2297.3	2305 ± 13 (−0.3 σ)
n_{s}	0.96622	0.9659 ± 0.0041 (−0.0 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8794	1.879 ± 0.011 (−0.0 σ)	$H(2.33)$	235.68	235.80 ± 0.70 (−0.0 σ)
y_{cal}	1.00022	1.0006 ± 0.0025 (−0.0 σ)	D_{40}	1226.6	1228 ± 12 (+0.0 σ)	$D_{\mathrm{M}}(2.33)$	5755.2	5764 ± 14 (−0.3 σ)
A_{217}^{CIB}	48.3	48 ± 7 (−0.0 σ)	D_{220}	5718.2	5723 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4593	0.4566 ± 0.0064 (+0.1 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.36	—	D_{810}	2536.1	2536 ± 14 (−0.0 σ)	$\sigma_8(0.15)$	0.7598	$0.750^{+0.011}_{-0.0068}$ (+0.5 σ)
A_{143}^{tSZ}	7.04	5.1 ± 2.0 (−0.0 σ)	D_{1420}	815.6	815.5 ± 5.1 (−0.0 σ)	$f\sigma_8(0.38)$	0.4788	$0.4753^{+0.0061}_{-0.0054}$ (+0.2 σ)
A_{100}^{PS}	252.9	263 ± 28 (−0.0 σ)	D_{2000}	230.22	230.0 ± 1.8 (+0.0 σ)	$\sigma_8(0.38)$	0.6738	$0.6653^{+0.0098}_{-0.0060}$ (+0.5 σ)
A_{143}^{PS}	49.3	48 ± 8 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.96622	0.9659 ± 0.0041 (−0.0 σ)	$f\sigma_8(0.51)$	0.4779	$0.4741^{+0.0059}_{-0.0049}$ (+0.3 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	47.5	43 ± 9 (−0.0 σ)	Y_{P}	0.245339	$0.245330^{+0.000086}_{-0.000074}$ (+0.1 σ)	$\sigma_8(0.51)$	0.6307	$0.6226^{+0.0093}_{-0.0057}$ (+0.5 σ)
A_{217}^{PS}	119.5	115 ± 10 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246666	$0.246656^{+0.000086}_{-0.000074}$ (+0.1 σ)	$f\sigma_8(0.61)$	0.4732	$0.4692^{+0.0057}_{-0.0046}$ (+0.3 σ)
A^{kSZ}	0.00	< 4.76 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6117	2.615 ± 0.037 (−0.1 σ)	$\sigma_8(0.61)$	0.6002	$0.5925^{+0.0089}_{-0.0054}$ (+0.5 σ)
$A_{100}^{\mathrm{dustTT}}$	8.88	8.9 ± 1.8 (−0.0 σ)	Age/Gyr	13.7793	$13.800^{+0.030}_{-0.034}$ (−0.3 σ)	$f\sigma_8(2.33)$	0.30190	$0.2987^{+0.0039}_{-0.0026}$ (+0.5 σ)
$A_{143}^{\mathrm{dustTT}}$	10.78	10.7 ± 1.8 (+0.0 σ)	z_{*}	1090.035	1090.04 ± 0.29 (−0.0 σ)	$\sigma_8(2.33)$	0.31191	$0.3080^{+0.0046}_{-0.0029}$ (+0.5 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.46	18.3 ± 3.3 (−0.0 σ)	r_{*}	144.709	144.77 ± 0.28 (−0.0 σ)	f_{2000}^{143}	30.01	30.8 ± 2.9 (−0.0 σ)
$A_{217}^{\mathrm{dustTT}}$	94.7	93.4 ± 7.3 (+0.0 σ)	$100\theta_{*}$	1.041127	1.04116 ± 0.00041 (−0.0 σ)	$f_{2000}^{143 \times 217}$	32.96	33.2 ± 2.0 (−0.1 σ)
c_{100}	0.99967	0.99961 ± 0.00061 (−0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8993	13.905 ± 0.028 (−0.0 σ)	f_{2000}^{217}	107.38	107.9 ± 1.9 (−0.0 σ)
c_{217}	0.99825	0.99826 ± 0.00062 (−0.0 σ)	z_{drag}	1059.551	1059.52 ± 0.44 (+0.1 σ)	$\chi_{\mathrm{lensing}}^2$	8.963	9.41 ± 0.79 (+0.2 σ)
H_0	67.98	67.67 ± 0.57 (+0.3 σ)	r_{drag}	147.424	147.49 ± 0.31 (−0.0 σ)	χ_{small}^2	396.04	397.0 ± 1.7 (−0.1 σ)
Ω_{Λ}	0.6935	0.6900 ± 0.0072 (+0.2 σ)	k_{D}	0.140409	0.14033 ± 0.00042 (+0.0 σ)	χ_{lowl}^2	23.24	23.28 ± 0.87 (+0.0 σ)
Ω_{m}	0.3065	0.3100 ± 0.0072 (−0.2 σ)	$100\theta_{\mathrm{D}}$	0.160977	0.16101 ± 0.00026 (−0.0 σ)	χ_{plik}^2	758.7	771.4 ± 5.3 (−0.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14163	0.1419 ± 0.0011 (−0.1 σ)	z_{eq}	3383.6	3379 ± 25 (+0.0 σ)	$\chi_{6\mathrm{DF}}^2$	0.0030	0.055 ± 0.073 (−0.1 σ)
$\Omega_{\nu}h^2$	0.000040	< 0.000675	k_{eq}	0.010327	0.010312 ± 0.000077 (+0.0 σ)	χ_{MGS}^2	1.54	1.37 ± 0.51 (+0.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.096281	0.09604 ± 0.00049 (+0.3 σ)	$100\theta_{\mathrm{eq}}$	0.81623	0.8172 ± 0.0047 (−0.0 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.67	4.7 ± 1.6 (−0.1 σ)
σ_8	0.8218	$0.812^{+0.012}_{-0.0074}$ (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.45102	0.4515 ± 0.0024 (−0.0 σ)	χ_{prior}^2	1.30	7.3 ± 3.7 (−0.0 σ)
S_8	0.8306	0.825 ± 0.013 (+0.1 σ)	$H(0.15)$	73.209	72.93 ± 0.50 (+0.3 σ)	χ_{CMB}^2	1186.9	1201.0 ± 5.5 (−0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4550	0.4520 ± 0.0069 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	638.09	640.8 ± 4.9 (−0.3 σ)	χ_{BAO}^2	5.21	6.1 ± 1.3 (−0.1 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 1193.44$; $\Delta\chi_{\mathrm{eff}}^2 = -1.25$; $\bar{\chi}_{\mathrm{eff}}^2 = 1214.40$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.33$; $R - 1 = 0.00805$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.54 (Δ 0.32) DR12BAO: 3.67 (Δ -0.70) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.96 (Δ 0.09) simall_100x143_offlike5_EE_Aplanck
396.04 (Δ -0.05) commander_dx12_v3.2_29: 23.24 (Δ 0.28) plik_rd12_HM_v22.TT: 758.68 (Δ -1.12)

6.56 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022235	0.02223 ± 0.00019 (+0.0 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6103	$0.6055^{+0.0082}_{-0.0067}$ (+0.3 σ)	$H(0.38)$	83.272	83.07 ± 0.36 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11922	0.1190 ± 0.0011 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9952	$0.987^{+0.013}_{-0.0098}$ (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1522.0	1527.2 ± 9.4 (−0.3 σ)
$100\theta_{\mathrm{MC}}$	1.040966	1.04098 ± 0.00042 (−0.0 σ)	$r_{\mathrm{drag}}h$	100.33	99.95 ± 0.87 (+0.2 σ)	$H(0.51)$	89.931	89.75 ± 0.31 (+0.4 σ)
τ	0.0531	0.0544 ± 0.0074 (−0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4387	2.434 ± 0.022 (+0.0 σ)	$D_{\mathrm{M}}(0.51)$	1972.5	1979 ± 11 (−0.3 σ)
Σm_{ν} [eV]	0.0002	< 0.0592	z_{re}	7.57	7.69 ± 0.74 (−0.2 σ)	$H(0.61)$	95.506	95.35 ± 0.27 (+0.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0397	3.042 ± 0.015 (−0.2 σ)	$10^9 A_{\mathrm{s}}$	2.0899	2.095 ± 0.031 (−0.2 σ)	$D_{\mathrm{M}}(0.61)$	2296.1	2303 ± 12 (−0.3 σ)
n_{s}	0.96676	0.9662 ± 0.0040 (−0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8792	1.879 ± 0.011 (+0.0 σ)	$H(2.33)$	235.59	235.71 ± 0.68 (−0.0 σ)
y_{cal}	1.00041	1.0007 ± 0.0025 (−0.0 σ)	D_{40}	1225.3	1228 ± 12 (+0.0 σ)	$D_{\mathrm{M}}(2.33)$	5754.5	5762 ± 14 (−0.4 σ)
A_{217}^{CIB}	48.7	48 ± 7 (−0.0 σ)	D_{220}	5718.4	5724 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4581	0.4561 ± 0.0063 (+0.1 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.29	—	D_{810}	2536.8	2537 ± 14 (−0.0 σ)	$\sigma_8(0.15)$	0.7590	$0.751^{+0.011}_{-0.0067}$ (+0.6 σ)
A_{143}^{tSZ}	7.04	5.1 ± 2.0 (−0.0 σ)	D_{1420}	816.0	815.6 ± 5.1 (−0.0 σ)	$f\sigma_8(0.38)$	0.4778	$0.4750^{+0.0060}_{-0.0053}$ (+0.2 σ)
A_{100}^{PS}	254.1	262 ± 28 (−0.0 σ)	D_{2000}	230.33	230.1 ± 1.8 (+0.0 σ)	$\sigma_8(0.38)$	0.6732	$0.6658^{+0.0095}_{-0.0059}$ (+0.6 σ)
A_{143}^{PS}	48.2	48 ± 8 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.96676	0.9662 ± 0.0040 (−0.0 σ)	$f\sigma_8(0.51)$	0.4770	$0.4739^{+0.0058}_{-0.0048}$ (+0.3 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	45.7	43 ± 9 (−0.0 σ)	Y_{P}	0.245340	$0.245334^{+0.000085}_{-0.000074}$ (+0.0 σ)	$\sigma_8(0.51)$	0.6302	$0.6232^{+0.0089}_{-0.0056}$ (+0.6 σ)
A_{217}^{PS}	118.8	115 ± 10 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246667	$0.246660^{+0.000086}_{-0.000074}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4724	$0.4692^{+0.0056}_{-0.0045}$ (+0.4 σ)
A^{kSZ}	0.01	< 4.79 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6113	2.613 ± 0.037 (−0.0 σ)	$\sigma_8(0.61)$	0.5997	$0.5930^{+0.0085}_{-0.0053}$ (+0.6 σ)
$A_{100}^{\mathrm{dustTT}}$	8.91	8.9 ± 1.8 (+0.0 σ)	Age/Gyr	13.7778	13.796 ± 0.031 (−0.4 σ)	$f\sigma_8(2.33)$	0.30165	$0.2990^{+0.0037}_{-0.0026}$ (+0.6 σ)
$A_{143}^{\mathrm{dustTT}}$	10.76	10.7 ± 1.8 (+0.0 σ)	z_{*}	1090.019	1090.02 ± 0.28 (−0.0 σ)	$\sigma_8(2.33)$	0.31171	$0.3084^{+0.0044}_{-0.0029}$ (+0.6 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.24	18.2 ± 3.3 (−0.0 σ)	r_{*}	144.743	144.80 ± 0.28 (−0.1 σ)	$\chi_{\mathrm{lensing}}^2$	8.911	9.40 ± 0.78 (+0.2 σ)
$A_{217}^{\mathrm{dustTT}}$	94.4	93.4 ± 7.3 (+0.0 σ)	$100\theta_{*}$	1.041135	1.04118 ± 0.00041 (−0.0 σ)	χ_{simall}^2	395.89	397.0 ± 1.7 (−0.1 σ)
c_{100}	0.99966	0.99961 ± 0.00061 (−0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9024	13.907 ± 0.027 (−0.1 σ)	χ_{lowl}^2	23.08	23.23 ± 0.85 (+0.1 σ)
c_{217}	0.99824	0.99826 ± 0.00063 (−0.0 σ)	z_{drag}	1059.551	1059.53 ± 0.44 (+0.0 σ)	χ_{plik}^2	758.9	771.4 ± 5.3 (−0.0 σ)
H_0	68.04	67.75 ± 0.54 (+0.3 σ)	r_{drag}	147.457	147.51 ± 0.31 (−0.1 σ)	χ_{JLA}^2	1034.824	1035.03 ± 0.31 (−0.2 σ)
Ω_{Λ}	0.6945	0.6911 ± 0.0068 (+0.2 σ)	k_{D}	0.140375	0.14031 ± 0.00042 (+0.1 σ)	$\chi_{6\mathrm{DF}}^2$	0.00096	0.044 ± 0.060 (−0.1 σ)
Ω_{m}	0.3055	0.3089 ± 0.0068 (−0.2 σ)	$100\theta_{\mathrm{D}}$	0.160979	0.16100 ± 0.00026 (−0.0 σ)	χ_{MGS}^2	1.608	1.45 ± 0.50 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14146	0.1418 ± 0.0010 (−0.1 σ)	z_{eq}	3380.3	3376 ± 25 (+0.1 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.58	4.4 ± 1.3 (−0.1 σ)
$\Omega_{\nu}h^2$	$0.2 \cdot 10^{-5}$	< 0.000636	k_{eq}	0.010317	0.010303 ± 0.000075 (+0.1 σ)	χ_{prior}^2	1.37	7.3 ± 3.7 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.096251	0.09606 ± 0.00049 (+0.3 σ)	$100\theta_{\mathrm{eq}}$	0.81683	0.8177 ± 0.0046 (−0.1 σ)	χ_{CMB}^2	1186.8	1201.1 ± 5.5 (−0.1 σ)
σ_8	0.8209	$0.812^{+0.011}_{-0.0073}$ (+0.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.45133	0.4518 ± 0.0024 (−0.1 σ)	χ_{BAO}^2	5.188	5.9 ± 1.0 (−0.1 σ)
S_8	0.8284	0.824 ± 0.012 (+0.1 σ)	$H(0.15)$	73.262	73.00 ± 0.47 (+0.3 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4538	0.4514 ± 0.0067 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	637.56	640.1 ± 4.6 (−0.3 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2228.19$; $\Delta\chi_{\mathrm{eff}}^2 = -1.52$; $\bar{\chi}_{\mathrm{eff}}^2 = 2249.31$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.46$; $R - 1 = 0.00867$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.61 (Δ 0.27) DR12BAO: 3.58 (Δ -0.45) CMB - smicadx12.Dec5.ftl.mv2.ndclpp.p.teb.consext8: 8.91 (Δ 0.03) simall_100x143_offlike5.EE.Aplanck
395.89 (Δ -0.48) commander_dx12_v3.2.29: 23.08 (Δ 0.27) plik_rd12_HM_v22.TT: 758.94 (Δ -0.85) SN - JLA Pantheon18: 1034.82 (Δ -0.13)

6.57 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02222 \pm 0.00019 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6060^{+0.0083}_{-0.0067} \quad (+0.2\sigma)$	$H(0.38)$	$83.02 \pm 0.38 \quad (+0.3\sigma)$
$\Omega_{\text{c}}h^2$	$0.1191 \pm 0.0011 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.013}_{-0.0097} \quad (+0.3\sigma)$	$D_{\text{M}}(0.38)$	$1528.4^{+9.3}_{-10} \quad (-0.3\sigma)$
$100\theta_{\text{MC}}$	$1.04097 \pm 0.00042 \quad (-0.0\sigma)$	$r_{\text{drag}}h$	$99.83 \pm 0.92 \quad (+0.2\sigma)$	$H(0.51)$	$89.72^{+0.34}_{-0.30} \quad (+0.3\sigma)$
τ	$0.0551^{+0.0055}_{-0.0076} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.022 \quad (-0.0\sigma)$	$D_{\text{M}}(0.51)$	$1980^{+11}_{-12} \quad (-0.3\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.0636	z_{re}	$7.77^{+0.59}_{-0.74} \quad (-0.1\sigma)$	$H(0.61)$	$95.32^{+0.29}_{-0.26} \quad (+0.3\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.043^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.098^{+0.024}_{-0.031} \quad (-0.1\sigma)$	$D_{\text{M}}(0.61)$	$2304^{+12}_{-13} \quad (-0.3\sigma)$
n_{s}	$0.9660 \pm 0.0040 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (-0.0\sigma)$	$H(2.33)$	$235.78 \pm 0.70 \quad (-0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1228 \pm 12 \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5764^{+13}_{-15} \quad (-0.3\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5723 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4568 \pm 0.0064 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.751^{+0.011}_{-0.0065} \quad (+0.5\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{1420}	$815.4 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4755^{+0.0061}_{-0.0053} \quad (+0.2\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6657^{+0.0098}_{-0.0058} \quad (+0.5\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9660 \pm 0.0040 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4743^{+0.0058}_{-0.0048} \quad (+0.3\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	Y_{P}	$0.245331^{+0.000085}_{-0.000074} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6230^{+0.0093}_{-0.0054} \quad (+0.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246657^{+0.000086}_{-0.000075} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4695^{+0.0057}_{-0.0045} \quad (+0.3\sigma)$
A^{kSZ}	$< 4.76 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.614 \pm 0.037 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5928^{+0.0088}_{-0.0052} \quad (+0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.800^{+0.030}_{-0.034} \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2989^{+0.0038}_{-0.0025} \quad (+0.5\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.03 \pm 0.29 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3082^{+0.0045}_{-0.0028} \quad (+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	r_*	$144.78 \pm 0.28 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.8 \pm 2.9 \quad (-0.0\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04117 \pm 0.00041 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (-0.1\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.905 \pm 0.028 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (-0.0\sigma)$
c_{217}	$0.99826 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.52 \pm 0.44 \quad (+0.1\sigma)$	χ_{lensing}^2	$9.38 \pm 0.76 \quad (+0.2\sigma)$
H_0	$67.68 \pm 0.57 \quad (+0.3\sigma)$	r_{drag}	$147.50 \pm 0.31 \quad (-0.0\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6901^{+0.0076}_{-0.0068} \quad (+0.2\sigma)$	k_{D}	$0.14032 \pm 0.00042 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.27 \pm 0.87 \quad (+0.0\sigma)$
Ω_{m}	$0.3099^{+0.0068}_{-0.0076} \quad (-0.2\sigma)$	$100\theta_{\text{D}}$	$0.16101 \pm 0.00026 \quad (-0.1\sigma)$	χ_{plik}^2	$771.3 \pm 5.3 \quad (-0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1419 \pm 0.0011 \quad (-0.1\sigma)$	z_{eq}	$3378 \pm 25 \quad (+0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.054 \pm 0.073 \quad (-0.1\sigma)$
$\Omega_{\nu}h^2$	< 0.000684	k_{eq}	$0.010309 \pm 0.000077 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.39 \pm 0.52 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.09604 \pm 0.00049 \quad (+0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8173 \pm 0.0047 \quad (-0.0\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.6 \quad (-0.1\sigma)$
σ_8	$0.812^{+0.012}_{-0.0072} \quad (+0.5\sigma)$	$100\theta_{\text{s,eq}}$	$0.4516 \pm 0.0024 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.825 \pm 0.013 \quad (+0.1\sigma)$	$H(0.15)$	$72.94 \pm 0.50 \quad (+0.3\sigma)$	χ_{CMB}^2	$1200.9 \pm 5.5 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4521 \pm 0.0069 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$640.7^{+4.5}_{-5.1} \quad (-0.3\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (-0.1\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 1214.24$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.34$; $R - 1 = 0.00889$

6.58 base_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02223 \pm 0.00019 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.013}_{-0.0096} \quad (+0.4\sigma)$	$H(0.51)$	$89.76 \pm 0.31 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1190 \pm 0.0011 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.97 \pm 0.88 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04099 \pm 0.00042 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.022 \quad (+0.0\sigma)$	$H(0.61)$	$95.35 \pm 0.27 \quad (+0.4\sigma)$
τ	$0.0553^{+0.0056}_{-0.0075} \quad (-0.1\sigma)$	z_{re}	$7.78^{+0.60}_{-0.74} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 12 \quad (-0.3\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0600	$10^9 A_{\mathrm{s}}$	$2.098^{+0.024}_{-0.031} \quad (-0.1\sigma)$	$H(2.33)$	$235.70 \pm 0.68 \quad (-0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 14 \quad (-0.4\sigma)$
n_{s}	$0.9663 \pm 0.0040 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0063 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5724 \pm 40 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.751^{+0.010}_{-0.0064} \quad (+0.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4752^{+0.0060}_{-0.0052} \quad (+0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.6 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6661^{+0.0094}_{-0.0056} \quad (+0.6\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 1.8 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4741^{+0.0057}_{-0.0048} \quad (+0.3\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9663 \pm 0.0040 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6235^{+0.0089}_{-0.0053} \quad (+0.6\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.0\sigma)$	Y_{P}	$0.245335^{+0.000086}_{-0.000074} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4694^{+0.0056}_{-0.0044} \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246661^{+0.000086}_{-0.000074} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5934^{+0.0085}_{-0.0051} \quad (+0.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.613 \pm 0.037 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2991^{+0.0037}_{-0.0025} \quad (+0.6\sigma)$
A^{kSZ}	$< 4.79 \quad (-0.0\sigma)$	Age/Gyr	$13.796 \pm 0.032 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3086^{+0.0043}_{-0.0027} \quad (+0.6\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.01 \pm 0.28 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.7 \pm 2.9 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.80 \pm 0.28 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00041 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.907 \pm 0.027 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.37 \pm 0.75 \quad (+0.2\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.53 \pm 0.44 \quad (+0.1\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$0.99826 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.52 \pm 0.31 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.22 \pm 0.86 \quad (+0.1\sigma)$
H_0	$67.77 \pm 0.54 \quad (+0.3\sigma)$	k_{D}	$0.14031 \pm 0.00042 \quad (+0.1\sigma)$	χ_{plik}^2	$771.4 \pm 5.3 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6912 \pm 0.0068 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00026 \quad (-0.0\sigma)$	χ_{JLA}^2	$1035.02 \pm 0.31 \quad (-0.1\sigma)$
Ω_{m}	$0.3088 \pm 0.0068 \quad (-0.2\sigma)$	z_{eq}	$3375 \pm 25 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.043 \pm 0.060 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0010 \quad (-0.1\sigma)$	k_{eq}	$0.010301 \pm 0.000075 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.46 \pm 0.50 \quad (+0.3\sigma)$
$\Omega_{\nu}h^2$	< 0.000645	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0045 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00049 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0023 \quad (-0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.813^{+0.011}_{-0.0070} \quad (+0.6\sigma)$	$H(0.15)$	$73.01 \pm 0.47 \quad (+0.3\sigma)$	χ_{CMB}^2	$1200.9 \pm 5.5 \quad (-0.1\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.0 \pm 4.6 \quad (-0.3\sigma)$	χ_{BAO}^2	$5.9 \pm 1.0 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4515 \pm 0.0068 \quad (+0.1\sigma)$	$H(0.38)$	$83.07 \pm 0.37 \quad (+0.3\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6057^{+0.0082}_{-0.0066} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.0 \pm 9.4 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2249.16; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.47; R - 1 = 0.00928$$

6.59 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022417	0.02242 ± 0.00013 (-0.0σ)	$\Omega_{\mathrm{m}}h^3$	0.096661	$0.09649^{+0.00037}_{-0.00031}$ $(+0.5\sigma)$	$H(0.15)$	73.330	$73.09^{+0.46}_{-0.40}$ $(+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11952	0.11934 ± 0.00093 $(+0.0\sigma)$	σ_8	0.8220	$0.814^{+0.010}_{-0.0070}$ $(+0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	637.01	$639.4^{+3.9}_{-4.6}$ (-0.4σ)
$100\theta_{\mathrm{MC}}$	1.040999	1.04100 ± 0.00029 (-0.0σ)	S_8	0.8303	0.826 ± 0.011 $(+0.1\sigma)$	$H(0.38)$	83.364	$83.17^{+0.35}_{-0.30}$ $(+0.4\sigma)$
τ	0.0533	0.0553 ± 0.0073 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4548	0.4527 ± 0.0060 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1520.5	$1525.4^{+7.9}_{-9.3}$ (-0.4σ)
Σm_{ν} [eV]	0.0009	< 0.0578	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6114	$0.6070^{+0.0070}_{-0.0062}$ $(+0.3\sigma)$	$H(0.51)$	90.038	$89.87^{+0.29}_{-0.25}$ $(+0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0415	3.045 ± 0.014 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9961	$0.988^{+0.011}_{-0.0093}$ $(+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	1970.6	$1976.4^{+9.3}_{-11}$ (-0.4σ)
n_{s}	0.96721	0.9666 ± 0.0037 $(+0.0\sigma)$	$r_{\mathrm{drag}}h$	100.22	99.85 ± 0.83 $(+0.3\sigma)$	$H(0.61)$	95.625	$95.48^{+0.25}_{-0.21}$ $(+0.5\sigma)$
y_{cal}	1.00055	1.0006 ± 0.0024 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4415	2.438 ± 0.020 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	2293.7	2300^{+10}_{-12} (-0.4σ)
A_{217}^{CIB}	46.5	47 ± 7 (-0.0σ)	z_{re}	7.55	7.75 ± 0.73 (-0.1σ)	$H(2.33)$	235.97	236.10 ± 0.59 (-0.1σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.50	—	$10^9 A_{\mathrm{s}}$	2.0937	2.101 ± 0.030 (-0.1σ)	$D_{\mathrm{M}}(2.33)$	5747.0	$5754.3^{+9.9}_{-12}$ (-0.5σ)
A_{143}^{tSZ}	7.23	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8820	1.881 ± 0.010 (-0.0σ)	$f\sigma_8(0.15)$	0.4591	0.4573 ± 0.0056 $(+0.2\sigma)$
A_{100}^{PS}	248.9	258 ± 28 (-0.0σ)	D_{40}	1226.5	1229 ± 11 (-0.0σ)	$\sigma_8(0.15)$	0.7599	$0.7524^{+0.0098}_{-0.0064}$ $(+0.7\sigma)$
A_{143}^{PS}	48.1	45 ± 8 (-0.0σ)	D_{220}	5732.7	5738 ± 38 (-0.1σ)	$f\sigma_8(0.38)$	0.4787	0.4762 ± 0.0051 $(+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	49.2	42 ± 9 (-0.0σ)	D_{810}	2540.3	2539 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6740	$0.6672^{+0.0089}_{-0.0057}$ $(+0.7\sigma)$
A_{217}^{PS}	120.4	115 ± 10 $(+0.0\sigma)$	D_{1420}	818.33	817.6 ± 4.7 (-0.1σ)	$f\sigma_8(0.51)$	0.47786	$0.4751^{+0.0050}_{-0.0044}$ $(+0.4\sigma)$
A^{kSZ}	0.00	< 4.13 (-0.0σ)	D_{2000}	231.42	231.1 ± 1.5 (-0.0σ)	$\sigma_8(0.51)$	0.6309	$0.6244^{+0.0084}_{-0.0053}$ $(+0.7\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.86	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.96721	0.9666 ± 0.0037 $(+0.0\sigma)$	$f\sigma_8(0.61)$	0.47320	$0.4702^{+0.0049}_{-0.0042}$ $(+0.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	11.04	10.9 ± 1.8 $(+0.0\sigma)$	Y_{P}	0.245414	$0.245414^{+0.000054}_{-0.000048}$ (-0.0σ)	$\sigma_8(0.61)$	0.6004	$0.5942^{+0.0080}_{-0.0051}$ $(+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.04	18.6 ± 3.3 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246741	$0.246740^{+0.000054}_{-0.000048}$ (-0.0σ)	$f\sigma_8(2.33)$	0.30197	$0.2995^{+0.0035}_{-0.0025}$ $(+0.7\sigma)$
$A_{217}^{\mathrm{dustTT}}$	95.5	93.7 ± 7.4 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.5767	2.576 ± 0.025 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.31200	$0.3090^{+0.0042}_{-0.0027}$ $(+0.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	0.1140	0.114 ± 0.038 $(+0.0\sigma)$	Age/Gyr	13.7599	$13.777^{+0.023}_{-0.028}$ (-0.5σ)	f_{2000}^{143}	28.58	29.3 ± 2.7 (-0.0σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1347	0.135 ± 0.030 (-0.0σ)	z_*	1089.812	1089.79 ± 0.22 (-0.0σ)	$f_{2000}^{143 \times 217}$	31.85	32.0 ± 1.9 (-0.1σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.481	0.481 ± 0.085 (-0.0σ)	r_*	144.527	144.57 ± 0.22 $(+0.0\sigma)$	f_{2000}^{217}	106.44	106.8 ± 1.8 (-0.0σ)
$A_{143}^{\mathrm{dustTE}}$	0.225	0.225 ± 0.053 (-0.0σ)	$100\theta_*$	1.041148	1.04117 ± 0.00029 (-0.0σ)	$\chi_{\mathrm{lensing}}^2$	8.966	9.24 ± 0.63 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.664 ± 0.080 (-0.1σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8815	13.885 ± 0.021 $(+0.0\sigma)$	χ_{small}^2	395.88	397.1 ± 1.8 (-0.1σ)
$A_{217}^{\mathrm{dustTE}}$	2.079	2.08 ± 0.27 (-0.0σ)	z_{drag}	1060.009	1060.00 ± 0.29 (-0.0σ)	χ_{lowl}^2	23.09	23.25 ± 0.79 (-0.0σ)
c_{100}	0.99973	0.99967 ± 0.00062 (-0.0σ)	r_{drag}	147.173	147.22 ± 0.23 $(+0.0\sigma)$	χ_{plik}^2	2344.2	2359.3 ± 5.8 (-0.1σ)
c_{217}	0.99818	0.99818 ± 0.00062 (-0.0σ)	k_{D}	0.140811	0.14077 ± 0.00028 (-0.0σ)	$\chi_{6\mathrm{DF}}^2$	0.0030	0.046 ± 0.065 (-0.1σ)
H_0	68.098	$67.83^{+0.53}_{-0.46}$ $(+0.4\sigma)$	$100\theta_{\mathrm{D}}$	0.160723	0.16073 ± 0.00017 $(+0.0\sigma)$	χ_{MGS}^2	1.540	1.39 ± 0.46 $(+0.4\sigma)$
Ω_{Λ}	0.6939	$0.6907^{+0.0068}_{-0.0059}$ $(+0.3\sigma)$	z_{eq}	3391.8	3388 ± 21 $(+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.71	4.6 ± 1.4 (-0.2σ)
Ω_{m}	0.3061	$0.3093^{+0.0059}_{-0.0068}$ (-0.3σ)	k_{eq}	0.010352	0.010339 ± 0.000065 $(+0.0\sigma)$	χ_{prior}^2	1.71	11.6 ± 4.5 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14194	0.14226 ± 0.00094 (-0.2σ)	$100\theta_{\mathrm{eq}}$	0.81530	0.8161 ± 0.0040 (-0.0σ)	χ_{CMB}^2	2772.2	2788.9 ± 5.9 (-0.1σ)
$\Omega_{\nu}h^2$	$0.97 \cdot 10^{-5}$	< 0.000622	$100\theta_{\mathrm{s,eq}}$	0.45039	0.4508 ± 0.0020 (-0.0σ)	χ_{BAO}^2	5.252	6.0 ± 1.1 (-0.1σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 2779.13$; $\Delta\chi_{\mathrm{eff}}^2 = -1.56$; $\bar{\chi}_{\mathrm{eff}}^2 = 2806.44$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.40$; $R - 1 = 0.01008$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.54 (Δ 0.32) DR12BAO: 3.71 (Δ -0.71) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.97 (Δ 0.24) simall_100x143_offlike5_EE_Aplanck 395.88 (Δ -0.64) commander_dx12_v3.2_29: 23.09 (Δ 0.19) plik_rd12_HM_v22b.TTTEEE: 2344.24 (Δ -1.08)

6.60 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022419	0.02243 ± 0.00013 (-0.0σ)	σ_8	0.8217	$0.8145^{+0.0098}_{-0.0069}$ $(+0.7\sigma)$	$H(0.38)$	83.364	$83.22^{+0.33}_{-0.29}$ $(+0.5\sigma)$
$\Omega_c h^2$	0.11950	0.11925 ± 0.00091 $(+0.0\sigma)$	S_8	0.8300	0.826 ± 0.011 $(+0.2\sigma)$	$D_M(0.38)$	1520.5	$1524.2^{+7.6}_{-8.6}$ (-0.5σ)
$100\theta_{MC}$	1.040996	1.04101 ± 0.00029 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4546	0.4523 ± 0.0058 $(+0.2\sigma)$	$H(0.51)$	90.038	$89.91^{+0.27}_{-0.24}$ $(+0.5\sigma)$
τ	0.0533	0.0555 ± 0.0073 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6112	$0.6069^{+0.0069}_{-0.0061}$ $(+0.4\sigma)$	$D_M(0.51)$	1970.6	$1975.0^{+9.0}_{-10}$ (-0.5σ)
Σm_ν [eV]	0.0035	< 0.0537	$\sigma_8/h^{0.5}$	0.9957	$0.988^{+0.011}_{-0.0091}$ $(+0.5\sigma)$	$H(0.61)$	95.624	$95.51^{+0.23}_{-0.20}$ $(+0.6\sigma)$
$\ln(10^{10} A_s)$	3.0414	3.045 ± 0.014 (-0.1σ)	$r_{\text{drag}} h$	100.22	99.96 ± 0.78 $(+0.4\sigma)$	$D_M(0.61)$	2293.7	$2298.6^{+9.8}_{-11}$ (-0.5σ)
n_s	0.96738	0.9668 ± 0.0036 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4408	2.438 ± 0.020 $(+0.0\sigma)$	$H(2.33)$	235.96	236.03 ± 0.56 (-0.1σ)
y_{cal}	1.00052	1.0007 ± 0.0025 (-0.0σ)	z_{re}	7.55	7.76 ± 0.73 (-0.1σ)	$D_M(2.33)$	5747.1	$5752.9^{+9.7}_{-11}$ (-0.6σ)
A_{217}^{CIB}	46.4	47 ± 7 (-0.0σ)	$10^9 A_s$	2.0935	2.101 ± 0.030 (-0.1σ)	$f\sigma_8(0.15)$	0.4590	0.4570 ± 0.0055 $(+0.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8820	1.880 ± 0.010 (-0.0σ)	$\sigma_8(0.15)$	0.7597	$0.7529^{+0.0092}_{-0.0063}$ $(+0.8\sigma)$
A_{143}^{tSZ}	7.12	$5.5^{+2.1}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1226.1	1228 ± 11 (-0.0σ)	$f\sigma_8(0.38)$	0.47860	0.4761 ± 0.0050 $(+0.3\sigma)$
A_{100}^{PS}	248.2	258 ± 28 (-0.0σ)	D_{220}	5732.2	5738 ± 38 (-0.1σ)	$\sigma_8(0.38)$	0.6738	$0.6677^{+0.0084}_{-0.0056}$ $(+0.8\sigma)$
A_{143}^{PS}	48.8	45 ± 8 (-0.0σ)	D_{810}	2540.4	2539 ± 13 (-0.1σ)	$f\sigma_8(0.51)$	0.47774	0.4750 ± 0.0048 $(+0.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	50.3	42 ± 9 (-0.0σ)	D_{1420}	818.44	817.7 ± 4.7 (-0.1σ)	$\sigma_8(0.51)$	0.6307	$0.6250^{+0.0079}_{-0.0053}$ $(+0.8\sigma)$
A_{217}^{PS}	120.8	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.46	231.1 ± 1.5 (-0.0σ)	$f\sigma_8(0.61)$	0.47309	$0.4703^{+0.0048}_{-0.0042}$ $(+0.5\sigma)$
A^{kSZ}	0.00	< 4.06 (-0.0σ)	$n_{s,0.002}$	0.96738	0.9668 ± 0.0036 $(+0.0\sigma)$	$\sigma_8(0.61)$	0.6002	$0.5947^{+0.0076}_{-0.0050}$ $(+0.9\sigma)$
A_{100}^{dustTT}	8.91	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245415	$0.245417^{+0.000053}_{-0.000048}$ (-0.0σ)	$f\sigma_8(2.33)$	0.30191	$0.2998^{+0.0033}_{-0.0025}$ $(+0.8\sigma)$
A_{143}^{dustTT}	11.04	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246741	$0.246743^{+0.000053}_{-0.000048}$ (-0.0σ)	$\sigma_8(2.33)$	0.31194	$0.3093^{+0.0039}_{-0.0027}$ $(+0.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.00	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5765	2.575 ± 0.024 $(+0.0\sigma)$	f_{2000}^{143}	28.49	29.2 ± 2.7 (-0.0σ)
A_{217}^{dustTT}	95.4	93.7 ± 7.5 $(+0.0\sigma)$	Age/Gyr	13.7600	$13.774^{+0.022}_{-0.026}$ (-0.6σ)	$f_{2000}^{143 \times 217}$	31.79	31.9 ± 1.9 (-0.1σ)
A_{100}^{dustTE}	0.1141	0.115 ± 0.039 $(+0.0\sigma)$	z_*	1089.809	1089.78 ± 0.21 $(+0.0\sigma)$	f_{2000}^{217}	106.39	106.8 ± 1.8 (-0.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1352	0.135 ± 0.029 (-0.0σ)	r_*	144.531	144.59 ± 0.22 (-0.0σ)	χ_{lensing}^2	8.960	9.22 ± 0.62 $(+0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.483 ± 0.086 $(+0.0\sigma)$	$100\theta_*$	1.041147	1.04118 ± 0.00029 (-0.1σ)	χ_{simall}^2	395.88	397.1 ± 1.9 (-0.1σ)
A_{143}^{dustTE}	0.226	0.223 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8819	13.887 ± 0.021 $(+0.0\sigma)$	χ_{lowl}^2	23.05	23.22 ± 0.77 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.663 ± 0.081 (-0.1σ)	z_{drag}	1060.009	1060.02 ± 0.29 (-0.0σ)	χ_{plik}^2	2344.3	2359.2 ± 5.8 (-0.1σ)
A_{217}^{dustTE}	2.083	2.08 ± 0.27 (-0.0σ)	r_{drag}	147.177	147.23 ± 0.23 (-0.0σ)	χ_{JLA}^2	1034.840	1034.99 ± 0.27 (-0.2σ)
c_{100}	0.99971	0.99966 ± 0.00062 (-0.0σ)	k_D	0.140808	0.14076 ± 0.00028 (-0.0σ)	$\chi_{6\text{DF}}^2$	0.0030	0.037 ± 0.053 (-0.2σ)
c_{217}	0.99818	0.99818 ± 0.00061 (-0.0σ)	$100\theta_D$	0.160721	0.16072 ± 0.00017 $(+0.0\sigma)$	χ_{MGS}^2	1.540	1.45 ± 0.44 $(+0.4\sigma)$
H_0	68.098	$67.89^{+0.49}_{-0.45}$ $(+0.4\sigma)$	z_{eq}	3391.4	3386 ± 21 $(+0.0\sigma)$	χ_{DR12BAO}^2	3.71	4.4 ± 1.2 (-0.2σ)
Ω_Λ	0.6939	$0.6916^{+0.0064}_{-0.0057}$ $(+0.4\sigma)$	k_{eq}	0.010351	0.010333 ± 0.000063 $(+0.0\sigma)$	χ_{prior}^2	1.68	11.6 ± 4.6 $(+0.0\sigma)$
Ω_m	0.3061	$0.3084^{+0.0057}_{-0.0064}$ (-0.4σ)	$100\theta_{\text{eq}}$	0.81538	0.8165 ± 0.0039 (-0.0σ)	χ_{CMB}^2	2772.2	2788.7 ± 5.9 (-0.1σ)
$\Omega_m h^2$	0.14196	0.14215 ± 0.00089 (-0.2σ)	$100\theta_{s,\text{eq}}$	0.45043	0.4510 ± 0.0020 (-0.0σ)	χ_{BAO}^2	5.249	5.86 ± 0.92 (-0.2σ)
$\Omega_\nu h^2$	$3.8 \cdot 10^{-5}$	< 0.000578	$H(0.15)$	73.329	$73.15^{+0.43}_{-0.39}$ $(+0.5\sigma)$			
$\Omega_m h^3$	0.096668	$0.09650^{+0.00036}_{-0.00030}$ $(+0.5\sigma)$	$D_M(0.15)$	637.02	$638.8^{+3.8}_{-4.3}$ (-0.4σ)			

Best-fit $\chi_{\text{eff}}^2 = 3813.97$; $\Delta\chi_{\text{eff}}^2 = -1.70$; $\bar{\chi}_{\text{eff}}^2 = 3841.20$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.65$; $R - 1 = 0.01317$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.54 (Δ 0.26) DR12BAO: 3.71 (Δ -0.54) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.96 (Δ 0.24) simall_100x143_offlike5_EE_Aplanck 395.88 (Δ -0.64) commander_dx12_v3.2.29: 23.05 (Δ 0.17) plik_rd12_HM_v22b.TTTEEE: 2344.32 (Δ -0.95) SN - JLA Pantheon18: 1034.84 (Δ -0.13)

6.61 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02242 \pm 0.00013 \quad (+0.0\sigma)$	$\Omega_m h^3$	$0.09648^{+0.00037}_{-0.00031} \quad (+0.5\sigma)$	$H(0.15)$	$73.09^{+0.46}_{-0.40} \quad (+0.4\sigma)$
$\Omega_c h^2$	$0.11931 \pm 0.00092 \quad (-0.0\sigma)$	σ_8	$0.814^{+0.010}_{-0.0067} \quad (+0.7\sigma)$	$D_M(0.15)$	$639.3^{+3.9}_{-4.6} \quad (-0.4\sigma)$
$100\theta_{MC}$	$1.04100 \pm 0.00029 \quad (-0.0\sigma)$	S_8	$0.827 \pm 0.011 \quad (+0.1\sigma)$	$H(0.38)$	$83.18^{+0.35}_{-0.30} \quad (+0.4\sigma)$
τ	$0.0561^{+0.0056}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4528 \pm 0.0059 \quad (+0.1\sigma)$	$D_M(0.38)$	$1525.3^{+7.9}_{-9.3} \quad (-0.4\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0584	$\sigma_8 \Omega_m^{0.25}$	$0.6072^{+0.0070}_{-0.0061} \quad (+0.4\sigma)$	$H(0.51)$	$89.88^{+0.29}_{-0.25} \quad (+0.5\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.989^{+0.011}_{-0.0091} \quad (+0.4\sigma)$	$D_M(0.51)$	$1976.2^{+9.3}_{-11} \quad (-0.4\sigma)$
n_s	$0.9667 \pm 0.0037 \quad (+0.0\sigma)$	$r_{\text{drag}} h$	$99.87 \pm 0.83 \quad (+0.3\sigma)$	$H(0.61)$	$95.48^{+0.25}_{-0.21} \quad (+0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.020 \quad (+0.0\sigma)$	$D_M(0.61)$	$2300^{+10}_{-12} \quad (-0.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.82^{+0.60}_{-0.74} \quad (-0.1\sigma)$	$H(2.33)$	$236.09 \pm 0.58 \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s$	$2.104^{+0.024}_{-0.031} \quad (-0.1\sigma)$	$D_M(2.33)$	$5754^{+10}_{-12} \quad (-0.5\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.881 \pm 0.010 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4575 \pm 0.0055 \quad (+0.2\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{40}	$1229 \pm 11 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7527^{+0.0097}_{-0.0061} \quad (+0.7\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{220}	$5737 \pm 38 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4764 \pm 0.0050 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6675^{+0.0088}_{-0.0054} \quad (+0.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$817.6 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4753^{+0.0049}_{-0.0044} \quad (+0.4\sigma)$
A^{kSZ}	$< 4.12 \quad (-0.0\sigma)$	D_{2000}	$231.1 \pm 1.5 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6247^{+0.0083}_{-0.0051} \quad (+0.8\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9667 \pm 0.0037 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4704^{+0.0048}_{-0.0041} \quad (+0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245414^{+0.000054}_{-0.000048} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5945^{+0.0080}_{-0.0049} \quad (+0.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246741^{+0.000054}_{-0.000048} \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2997^{+0.0035}_{-0.0024} \quad (+0.7\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.4 \quad (+0.0\sigma)$	$10^5 D/H$	$2.576 \pm 0.025 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3091^{+0.0041}_{-0.0026} \quad (+0.8\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	Age/Gyr	$13.777^{+0.023}_{-0.028} \quad (-0.5\sigma)$	f_{2000}^{143}	$29.3 \pm 2.7 \quad (-0.0\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.79 \pm 0.21 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	r_*	$144.57 \pm 0.22 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00029 \quad (-0.1\sigma)$	χ_{lensing}^2	$9.22 \pm 0.62 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.886 \pm 0.021 \quad (+0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1060.01 \pm 0.29 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.25 \pm 0.79 \quad (-0.0\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.22 \pm 0.23 \quad (+0.0\sigma)$	χ_{plik}^2	$2359.1 \pm 5.8 \quad (-0.1\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	k_D	$0.14077 \pm 0.00028 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.045 \pm 0.063 \quad (-0.1\sigma)$
H_0	$67.83^{+0.53}_{-0.46} \quad (+0.4\sigma)$	$100\theta_D$	$0.16072 \pm 0.00017 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.39 \pm 0.46 \quad (+0.4\sigma)$
Ω_Λ	$0.6908^{+0.0068}_{-0.0059} \quad (+0.3\sigma)$	z_{eq}	$3387 \pm 21 \quad (-0.0\sigma)$	χ_{DR12BAO}^2	$4.5 \pm 1.4 \quad (-0.2\sigma)$
Ω_m	$0.3092^{+0.0059}_{-0.0068} \quad (-0.3\sigma)$	k_{eq}	$0.010337 \pm 0.000064 \quad (-0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.14224 \pm 0.00093 \quad (-0.2\sigma)$	$100\theta_{\text{eq}}$	$0.8162 \pm 0.0039 \quad (-0.0\sigma)$	χ_{CMB}^2	$2788.7 \pm 5.9 \quad (-0.1\sigma)$
$\Omega_\nu h^2$	< 0.000628	$100\theta_{s,\text{eq}}$	$0.4509 \pm 0.0020 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (-0.1\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 2806.28; \Delta\bar{\chi}_{\text{eff}}^2 = -0.44; R - 1 = 0.01177$$

6.62 base_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243 \pm 0.00013 \quad (-0.0\sigma)$	σ_8	$0.8148^{+0.0098}_{-0.0066} \quad (+0.8\sigma)$	$H(0.38)$	$83.22^{+0.33}_{-0.29} \quad (+0.5\sigma)$
$\Omega_c h^2$	$0.11922 \pm 0.00090 \quad (+0.0\sigma)$	S_8	$0.826 \pm 0.011 \quad (+0.2\sigma)$	$D_M(0.38)$	$1524.1^{+7.6}_{-8.6} \quad (-0.5\sigma)$
$100\theta_{MC}$	$1.04102 \pm 0.00029 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4524 \pm 0.0058 \quad (+0.2\sigma)$	$H(0.51)$	$89.91^{+0.27}_{-0.24} \quad (+0.5\sigma)$
τ	$0.0562^{+0.0057}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6072^{+0.0068}_{-0.0060} \quad (+0.4\sigma)$	$D_M(0.51)$	$1974.9^{+9.0}_{-10} \quad (-0.5\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0544	$\sigma_8/h^{0.5}$	$0.989^{+0.011}_{-0.0090} \quad (+0.5\sigma)$	$H(0.61)$	$95.51^{+0.23}_{-0.20} \quad (+0.6\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$99.97 \pm 0.78 \quad (+0.4\sigma)$	$D_M(0.61)$	$2298.4^{+9.8}_{-11} \quad (-0.5\sigma)$
n_s	$0.9669 \pm 0.0036 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.020 \quad (+0.1\sigma)$	$H(2.33)$	$236.02 \pm 0.56 \quad (-0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.83^{+0.61}_{-0.75} \quad (-0.1\sigma)$	$D_M(2.33)$	$5752.9^{+9.7}_{-11} \quad (-0.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.104^{+0.025}_{-0.031} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4571 \pm 0.0054 \quad (+0.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.010 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7532^{+0.0092}_{-0.0060} \quad (+0.8\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1228 \pm 11 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4762 \pm 0.0049 \quad (+0.4\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5738 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6680^{+0.0083}_{-0.0053} \quad (+0.9\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4752 \pm 0.0047 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.7 \pm 4.7 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6253^{+0.0079}_{-0.0050} \quad (+0.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.1 \pm 1.5 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4704^{+0.0047}_{-0.0041} \quad (+0.5\sigma)$
A^{kSZ}	$< 4.05 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9669 \pm 0.0036 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5950^{+0.0075}_{-0.0048} \quad (+0.9\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245417^{+0.000053}_{-0.000048} \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2999^{+0.0033}_{-0.0023} \quad (+0.8\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246744^{+0.000053}_{-0.000048} \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3094^{+0.0039}_{-0.0026} \quad (+0.9\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 D/H$	$2.575 \pm 0.024 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (-0.0\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.5 \quad (+0.0\sigma)$	Age/Gyr	$13.774^{+0.022}_{-0.026} \quad (-0.6\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.9 \quad (-0.1\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.039 \quad (+0.0\sigma)$	z_*	$1089.77 \pm 0.21 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.59 \pm 0.21 \quad (+0.0\sigma)$	χ_{lensing}^2	$9.20 \pm 0.60 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.483 \pm 0.086 \quad (+0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00029 \quad (-0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.054 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.887 \pm 0.021 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.22 \pm 0.77 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.663 \pm 0.081 \quad (-0.1\sigma)$	z_{drag}	$1060.02 \pm 0.29 \quad (-0.0\sigma)$	χ_{plik}^2	$2359.0 \pm 5.8 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$147.24 \pm 0.23 \quad (+0.0\sigma)$	χ_{JLA}^2	$1034.99 \pm 0.27 \quad (-0.2\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (-0.0\sigma)$	k_D	$0.14076 \pm 0.00028 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.037 \pm 0.052 \quad (-0.2\sigma)$
c_{217}	$0.99818 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_D$	$0.16072 \pm 0.00017 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.45 \pm 0.44 \quad (+0.4\sigma)$
H_0	$67.90^{+0.49}_{-0.45} \quad (+0.4\sigma)$	z_{eq}	$3385 \pm 20 \quad (+0.0\sigma)$	χ_{DR12BAO}^2	$4.4 \pm 1.2 \quad (-0.2\sigma)$
Ω_Λ	$0.6917^{+0.0063}_{-0.0057} \quad (+0.4\sigma)$	k_{eq}	$0.010331 \pm 0.000062 \quad (+0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
Ω_m	$0.3083^{+0.0057}_{-0.0063} \quad (-0.4\sigma)$	$100\theta_{\text{eq}}$	$0.8166 \pm 0.0038 \quad (-0.0\sigma)$	χ_{CMB}^2	$2788.6 \pm 5.9 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.14213 \pm 0.00089 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4511 \pm 0.0020 \quad (-0.0\sigma)$	χ_{BAO}^2	$5.84 \pm 0.91 \quad (-0.2\sigma)$
$\Omega_\nu h^2$	< 0.000585	$H(0.15)$	$73.15^{+0.43}_{-0.39} \quad (+0.5\sigma)$		
$\Omega_m h^3$	$0.09650^{+0.00036}_{-0.00030} \quad (+0.5\sigma)$	$D_M(0.15)$	$638.7^{+3.7}_{-4.2} \quad (-0.4\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 3841.03; \Delta\bar{\chi}_{\text{eff}}^2 = -0.71; R - 1 = 0.01560$$

6.63 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022335	0.02233 ± 0.00015 (-0.0σ)	S_8	0.8275	0.824 ± 0.011 $(+0.1\sigma)$	$D_M(0.15)$	637.07	$639.9^{+3.9}_{-4.9}$ (-0.2σ)
$\Omega_c h^2$	0.11925	0.11911 ± 0.00093 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4532	0.4511 ± 0.0060 $(+0.1\sigma)$	$H(0.38)$	83.331	$83.10^{+0.38}_{-0.30}$ $(+0.3\sigma)$
$100\theta_{MC}$	1.040934	1.04094 ± 0.00030 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6097	$0.6049^{+0.0076}_{-0.0063}$ $(+0.3\sigma)$	$D_M(0.38)$	1520.8	$1526.7^{+7.8}_{-9.9}$ (-0.3σ)
τ	0.0533	0.0545 ± 0.0073 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9938	$0.985^{+0.012}_{-0.0094}$ $(+0.3\sigma)$	$H(0.51)$	89.993	$89.80^{+0.32}_{-0.25}$ $(+0.3\sigma)$
Σm_ν [eV]	0.0037	< 0.0637	$r_{\text{drag}} h$	100.33	$99.88^{+0.89}_{-0.77}$ $(+0.2\sigma)$	$D_M(0.51)$	1971.1	$1978.0^{+9.3}_{-12}$ (-0.3σ)
$\ln(10^{10} A_s)$	3.0391	3.041 ± 0.014 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4368	2.431 ± 0.021 $(+0.0\sigma)$	$H(0.61)$	95.569	$95.40^{+0.28}_{-0.21}$ $(+0.3\sigma)$
n_s	0.96708	0.9670 ± 0.0038 (-0.0σ)	z_{re}	7.56	7.67 ± 0.74 (-0.1σ)	$D_M(0.61)$	2294.4	2302^{+10}_{-13} (-0.3σ)
y_{cal}	1.00049	1.0006 ± 0.0025 (-0.0σ)	$10^9 A_s$	2.0887	2.094 ± 0.030 (-0.1σ)	$H(2.33)$	235.71	235.88 ± 0.59 (-0.1σ)
A_{100}^{PS}	234.6	239 ± 25 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8776	1.877 ± 0.010 $(+0.0\sigma)$	$D_M(2.33)$	5750.8	5759^{+10}_{-14} (-0.4σ)
A_{143}^{PS}	41.4	39 ± 8 $(+0.0\sigma)$	D_{40}	1224.1	1225 ± 11 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4576	0.4558 ± 0.0056 $(+0.2\sigma)$
A_{217}^{PS}	103.7	103 ± 10 $(+0.0\sigma)$	D_{220}	5719.8	5724 ± 38 (-0.0σ)	$\sigma_8(0.15)$	0.7583	$0.750^{+0.011}_{-0.0066}$ $(+0.5\sigma)$
A_{217}^{CIB}	42.1	39 ± 7 (-0.0σ)	D_{810}	2535.1	2535 ± 13 (-0.0σ)	$f\sigma_8(0.38)$	0.4774	$0.4746^{+0.0055}_{-0.0049}$ $(+0.3\sigma)$
A_{143}^{tSZ}	5.60	$3.9^{+1.9}_{-2.5}$ (-0.0σ)	D_{1420}	816.11	816.2 ± 4.8 (-0.0σ)	$\sigma_8(0.38)$	0.6727	$0.6649^{+0.0098}_{-0.0058}$ $(+0.5\sigma)$
$r_{143 \times 217}^{\text{PS}}$	0.641	0.66 ± 0.13 (-0.0σ)	D_{2000}	230.55	230.5 ± 1.6 (-0.0σ)	$f\sigma_8(0.51)$	0.47660	$0.4735^{+0.0054}_{-0.0045}$ $(+0.3\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	0.743	$0.56^{+0.40}_{-0.17}$ $(+0.0\sigma)$	$n_{s,0.002}$	0.96708	0.9670 ± 0.0038 (-0.0σ)	$\sigma_8(0.51)$	0.6297	$0.6223^{+0.0093}_{-0.0055}$ $(+0.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.33	—	Y_P	0.245382	$0.245379^{+0.000061}_{-0.000055}$ (-0.0σ)	$f\sigma_8(0.61)$	0.47202	$0.4687^{+0.0054}_{-0.0043}$ $(+0.3\sigma)$
A^{kSZ}	1.47	$4.7^{+2.1}_{-4.0}$ $(+0.0\sigma)$	Y_P^{BBN}	0.246708	$0.246705^{+0.000061}_{-0.000056}$ (-0.0σ)	$\sigma_8(0.61)$	0.5993	$0.5922^{+0.0089}_{-0.0053}$ $(+0.6\sigma)$
A_{100}^{dust}	1.010	1.01 ± 0.19 $(+0.0\sigma)$	$10^5 D/H$	2.5920	2.593 ± 0.027 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.30146	$0.2986^{+0.0039}_{-0.0025}$ $(+0.5\sigma)$
A_{143}^{dust}	0.987	0.96 ± 0.17 $(+0.0\sigma)$	Age/Gyr	13.7691	$13.789^{+0.024}_{-0.031}$ (-0.3σ)	$\sigma_8(2.33)$	0.31150	$0.3080^{+0.0046}_{-0.0028}$ $(+0.5\sigma)$
A_{217}^{dust}	0.968	0.98 ± 0.10 $(+0.0\sigma)$	z_*	1089.892	1089.89 ± 0.22 $(+0.0\sigma)$	f_{2000}^{143}	29.64	29.5 ± 2.8 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	0.995	1.03 ± 0.16 $(+0.0\sigma)$	r_*	144.659	144.70 ± 0.23 (-0.0σ)	f_{2000}^{217}	106.61	106.7 ± 1.9 (-0.0σ)
c_{100}	0.99756	0.9976 ± 0.0011 (-0.0σ)	$100\theta_*$	1.041097	1.04112 ± 0.00030 (-0.1σ)	$f_{2000}^{143 \times 217}$	31.88	31.9 ± 2.0 (-0.0σ)
c_{217}	1.00108	1.0011 ± 0.0016 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8949	13.898 ± 0.022 (-0.0σ)	χ_{lensing}^2	8.890	9.39 ± 0.79 $(+0.1\sigma)$
c_{TE}	0.99650	0.9966 ± 0.0049 (-0.0σ)	z_{drag}	1059.780	1059.78 ± 0.32 (-0.0σ)	χ_{simall}^2	395.87	397.0 ± 1.6 (-0.1σ)
c_{EE}	0.99208	0.9924 ± 0.0049 $(+0.0\sigma)$	r_{drag}	147.338	147.37 ± 0.24 (-0.0σ)	χ_{lowl}^2	22.96	23.02 ± 0.79 $(+0.1\sigma)$
H_0	68.10	$67.77^{+0.56}_{-0.46}$ $(+0.2\sigma)$	k_D	0.140577	0.14054 ± 0.00031 (-0.0σ)	χ_{CamSpec}^2	11499.2	11514.0 ± 5.5 (-0.0σ)
Ω_Λ	0.6946	$0.6907^{+0.0071}_{-0.0058}$ $(+0.2\sigma)$	$100\theta_D$	0.160835	0.16085 ± 0.00019 $(+0.0\sigma)$	$\chi_{6\text{DF}}^2$	0.0010	0.045 ± 0.065 (-0.0σ)
Ω_m	0.3054	$0.3093^{+0.0058}_{-0.0071}$ (-0.2σ)	z_{eq}	3383.4	3380 ± 21 $(+0.0\sigma)$	χ_{MGS}^2	1.608	1.40 ± 0.47 $(+0.2\sigma)$
$\Omega_m h^2$	0.14162	0.14200 ± 0.00094 (-0.1σ)	k_{eq}	0.010326	0.010316 ± 0.000065 $(+0.0\sigma)$	χ_{DR12BAO}^2	3.60	4.5 ± 1.4 (-0.1σ)
$\Omega_\nu h^2$	0.000040	< 0.000685	$100\theta_{\text{eq}}$	0.81653	0.8172 ± 0.0040 (-0.0σ)	χ_{prior}^2	2.14	7.7 ± 3.4 (-0.0σ)
$\Omega_m h^3$	0.096442	$0.09623^{+0.00040}_{-0.00035}$ $(+0.4\sigma)$	$100\theta_{s,\text{eq}}$	0.45110	0.4514 ± 0.0020 (-0.0σ)	χ_{CMB}^2	11926.9	11943.4 ± 5.8 (-0.0σ)
σ_8	0.8201	$0.811^{+0.011}_{-0.0071}$ $(+0.5\sigma)$	$H(0.15)$	73.318	$73.03^{+0.49}_{-0.40}$ $(+0.3\sigma)$	χ_{BAO}^2	5.209	6.0 ± 1.1 (-0.0σ)

Best-fit $\chi_{\text{eff}}^2 = 11934.26$; $\bar{\chi}_{\text{eff}}^2 = 11957.14$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.26$; $R - 1 = 0.00745$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.60 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.89 simall_100x143_offlike5_EE_Aplanck_B: 395.87 coman-
der_dx12_v3_2_29: 22.96 CamSpec like_10.7HM_1400_unified: 11499.19

6.64 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022346	0.02234 ± 0.00014 (-0.0σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4525	0.4507 ± 0.0059 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	1519.6	$1525.5^{+7.6}_{-9.2}$ (-0.3σ)
$\Omega_{\mathrm{c}} h^2$	0.11912	0.11902 ± 0.00091 $(+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6091	$0.6049^{+0.0074}_{-0.0062}$ $(+0.4\sigma)$	$H(0.51)$	90.027	$89.83^{+0.30}_{-0.24}$ $(+0.4\sigma)$
$100\theta_{\mathrm{MC}}$	1.040966	1.04095 ± 0.00030 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9932	$0.986^{+0.012}_{-0.0092}$ $(+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	1969.7	$1976.6^{+8.9}_{-11}$ (-0.3σ)
τ	0.0533	0.0546 ± 0.0073 (-0.1σ)	$r_{\mathrm{drag}} h$	100.45	$99.99^{+0.83}_{-0.74}$ $(+0.2\sigma)$	$H(0.61)$	95.597	$95.43^{+0.26}_{-0.21}$ $(+0.4\sigma)$
Σm_{ν} [eV]	0.0008	< 0.0593	$\langle d^2 \rangle^{1/2}$	2.4348	2.430 ± 0.021 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	2292.9	$2300.5^{+9.7}_{-12}$ (-0.3σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0391	3.042 ± 0.014 (-0.1σ)	z_{re}	7.56	7.68 ± 0.74 (-0.1σ)	$H(2.33)$	235.63	235.81 ± 0.57 (-0.1σ)
n_{s}	0.96751	0.9672 ± 0.0037 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.0886	2.094 ± 0.030 (-0.1σ)	$D_{\mathrm{M}}(2.33)$	5749.6	5758^{+10}_{-13} (-0.4σ)
y_{cal}	1.00045	1.0006 ± 0.0025 (-0.0σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8774	1.877 ± 0.010 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4569	0.4555 ± 0.0055 $(+0.2\sigma)$
A_{100}^{PS}	231.8	239 ± 25 $(+0.0\sigma)$	D_{40}	1223.3	1225 ± 11 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7583	$0.750^{+0.010}_{-0.0064}$ $(+0.6\sigma)$
A_{143}^{PS}	44.3	39 ± 8 $(+0.0\sigma)$	D_{220}	5720.5	5724 ± 39 (-0.0σ)	$f\sigma_8(0.38)$	0.4769	$0.4745^{+0.0054}_{-0.0048}$ $(+0.3\sigma)$
A_{217}^{PS}	103.3	103 ± 10 $(+0.0\sigma)$	D_{810}	2535.5	2536 ± 13 (-0.0σ)	$\sigma_8(0.38)$	0.6728	$0.6655^{+0.0093}_{-0.0057}$ $(+0.7\sigma)$
A_{217}^{CIB}	43.3	39 ± 7 (-0.0σ)	D_{1420}	816.39	816.3 ± 4.8 (-0.0σ)	$f\sigma_8(0.51)$	0.47622	$0.4735^{+0.0053}_{-0.0045}$ $(+0.4\sigma)$
A_{143}^{tSZ}	6.49	$3.9^{+1.8}_{-2.6}$ (-0.0σ)	D_{2000}	230.66	230.5 ± 1.6 (-0.0σ)	$\sigma_8(0.51)$	0.6298	$0.6229^{+0.0088}_{-0.0054}$ $(+0.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	0.662	0.66 ± 0.13 (-0.1σ)	$n_{\mathrm{s},0.002}$	0.96751	0.9672 ± 0.0037 (-0.0σ)	$f\sigma_8(0.61)$	0.47171	$0.4687^{+0.0052}_{-0.0042}$ $(+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.826	$0.56^{+0.41}_{-0.16}$ $(+0.0\sigma)$	Y_{P}	0.245386	$0.245382^{+0.000061}_{-0.000054}$ (-0.0σ)	$\sigma_8(0.61)$	0.5994	$0.5928^{+0.0084}_{-0.0051}$ $(+0.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.42	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246712	$0.246708^{+0.000062}_{-0.000054}$ (-0.0σ)	$f\sigma_8(2.33)$	0.30153	$0.2989^{+0.0037}_{-0.0025}$ $(+0.6\sigma)$
A^{kSZ}	0.08	$4.6^{+1.9}_{-4.1}$ (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5901	2.592 ± 0.027 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.31163	$0.3083^{+0.0044}_{-0.0027}$ $(+0.6\sigma)$
A_{100}^{dust}	1.014	1.01 ± 0.19 $(+0.0\sigma)$	Age/Gyr	13.7663	$13.786^{+0.023}_{-0.029}$ (-0.4σ)	f_{2000}^{143}	29.65	29.5 ± 2.8 $(+0.0\sigma)$
A_{143}^{dust}	0.977	0.96 ± 0.17 $(+0.0\sigma)$	z_*	1089.868	1089.87 ± 0.22 $(+0.0\sigma)$	f_{2000}^{217}	106.43	106.7 ± 1.9 (-0.0σ)
A_{217}^{dust}	0.975	0.98 ± 0.10 $(+0.0\sigma)$	r_*	144.683	144.71 ± 0.22 (-0.0σ)	$f_{2000}^{143 \times 217}$	31.82	31.9 ± 2.0 (-0.0σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.004	1.03 ± 0.16 $(+0.0\sigma)$	$100\theta_*$	1.041122	1.04113 ± 0.00030 (-0.1σ)	$\chi_{\mathrm{lensing}}^2$	8.882	9.38 ± 0.78 $(+0.1\sigma)$
c_{100}	0.99773	0.9976 ± 0.0011 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8969	13.899 ± 0.022 (-0.0σ)	χ_{small}^2	395.86	397.0 ± 1.7 (-0.1σ)
c_{217}	1.00128	1.0011 ± 0.0016 $(+0.0\sigma)$	z_{drag}	1059.818	1059.79 ± 0.32 (-0.0σ)	χ_{lowl}^2	22.90	22.99 ± 0.78 $(+0.1\sigma)$
c_{TE}	0.99641	0.9965 ± 0.0049 (-0.0σ)	r_{drag}	147.357	147.39 ± 0.24 (-0.0σ)	$\chi_{\mathrm{CamSpec}}^2$	11499.3	11514.0 ± 5.5 (-0.0σ)
c_{EE}	0.99220	0.9925 ± 0.0049 $(+0.0\sigma)$	k_{D}	0.140562	0.14053 ± 0.00031 $(+0.0\sigma)$	χ_{JLA}^2	1034.797	1034.99 ± 0.28 (-0.1σ)
H_0	68.167	$67.84^{+0.52}_{-0.44}$ $(+0.3\sigma)$	$100\theta_{\mathrm{D}}$	0.160829	0.16084 ± 0.00019 $(+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0001	0.037 ± 0.054 (-0.1σ)
Ω_{Λ}	0.6955	$0.6916^{+0.0066}_{-0.0056}$ $(+0.2\sigma)$	z_{eq}	3380.7	3378 ± 21 $(+0.1\sigma)$	χ_{MGS}^2	1.677	1.46 ± 0.45 $(+0.3\sigma)$
Ω_{m}	0.3045	$0.3084^{+0.0056}_{-0.0066}$ (-0.2σ)	k_{eq}	0.010318	0.010310 ± 0.000063 $(+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.52	4.3 ± 1.2 (-0.1σ)
$\Omega_{\mathrm{m}} h^2$	0.14148	0.14188 ± 0.00090 (-0.1σ)	$100\theta_{\mathrm{eq}}$	0.81707	0.8176 ± 0.0039 (-0.1σ)	χ_{prior}^2	2.05	7.7 ± 3.4 (-0.0σ)
$\Omega_{\nu} h^2$	$0.9 \cdot 10^{-5}$	< 0.000637	$100\theta_{\mathrm{s,eq}}$	0.45137	0.4516 ± 0.0020 (-0.1σ)	χ_{CMB}^2	11926.9	11943.4 ± 5.7 (-0.1σ)
$\Omega_{\mathrm{m}} h^3$	0.096442	$0.09625^{+0.00040}_{-0.00034}$ $(+0.4\sigma)$	$H(0.15)$	73.378	$73.09^{+0.46}_{-0.39}$ $(+0.3\sigma)$	χ_{BAO}^2	5.200	5.84 ± 0.93 (-0.1σ)
σ_8	0.8200	$0.812^{+0.011}_{-0.0070}$ $(+0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	636.48	$639.3^{+3.7}_{-4.5}$ (-0.3σ)			
S_8	0.8261	0.823 ± 0.011 $(+0.2\sigma)$	$H(0.38)$	83.375	$83.15^{+0.35}_{-0.29}$ $(+0.3\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 12968.97$; $\Delta\chi_{\mathrm{eff}}^2 = -1.51$; $\bar{\chi}_{\mathrm{eff}}^2 = 12991.94$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.45$; $R - 1 = 0.00817$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.68 (Δ 0.40) DR12BAO: 3.52 (Δ -0.71) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consect8: 8.88 (Δ -0.08) small_100x143_offlike5_EE_Aplanc
395.86 (Δ -0.19) commander_dx12_v3.2_29: 22.90 (Δ 0.13) CamSpec like_10.7HM_1400_unified: 11499.28 (Δ -0.89) SN - JLA Pantheon18: 1034.80 (Δ -0.18)

6.65 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02234 \pm 0.00014 \quad (-0.0\sigma)$	S_8	$0.824 \pm 0.011 \quad (+0.1\sigma)$	$D_M(0.15)$	$639.8^{+3.8}_{-4.9} \quad (-0.2\sigma)$
$\Omega_c h^2$	$0.11908 \pm 0.00092 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4512 \pm 0.0060 \quad (+0.1\sigma)$	$H(0.38)$	$83.11^{+0.38}_{-0.30} \quad (+0.3\sigma)$
$100\theta_{MC}$	$1.04094 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6052^{+0.0075}_{-0.0062} \quad (+0.3\sigma)$	$D_M(0.38)$	$1526.5^{+7.8}_{-9.9} \quad (-0.3\sigma)$
τ	$0.0554^{+0.0053}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.986^{+0.012}_{-0.0092} \quad (+0.3\sigma)$	$H(0.51)$	$89.80^{+0.32}_{-0.25} \quad (+0.3\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0644	$r_{\text{drag}} h$	$99.89^{+0.88}_{-0.76} \quad (+0.2\sigma)$	$D_M(0.51)$	$1977.9^{+9.2}_{-12} \quad (-0.3\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.014} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.020 \quad (+0.0\sigma)$	$H(0.61)$	$95.40^{+0.28}_{-0.21} \quad (+0.3\sigma)$
n_s	$0.9671 \pm 0.0037 \quad (-0.0\sigma)$	z_{re}	$7.77^{+0.58}_{-0.75} \quad (-0.1\sigma)$	$D_M(0.61)$	$2302^{+10}_{-13} \quad (-0.3\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_s$	$2.097^{+0.023}_{-0.031} \quad (-0.1\sigma)$	$H(2.33)$	$235.87 \pm 0.59 \quad (-0.1\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.877 \pm 0.010 \quad (-0.0\sigma)$	$D_M(2.33)$	$5759^{+10}_{-14} \quad (-0.3\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 11 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4560 \pm 0.0056 \quad (+0.2\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5723 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.750^{+0.011}_{-0.0064} \quad (+0.5\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4749^{+0.0053}_{-0.0048} \quad (+0.3\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 4.8 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6653^{+0.0097}_{-0.0056} \quad (+0.6\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$230.5 \pm 1.6 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4737^{+0.0053}_{-0.0045} \quad (+0.3\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.40}_{-0.17} \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9671 \pm 0.0037 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6227^{+0.0092}_{-0.0053} \quad (+0.6\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245380^{+0.000061}_{-0.000055} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4689^{+0.0053}_{-0.0042} \quad (+0.4\sigma)$
A^{kSZ}	$4.6^{+2.1}_{-4.1} \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246707^{+0.000061}_{-0.000055} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5926^{+0.0088}_{-0.0051} \quad (+0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	10^5D/H	$2.592 \pm 0.027 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2988^{+0.0038}_{-0.0024} \quad (+0.6\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	Age/Gyr	$13.789^{+0.024}_{-0.031} \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3082^{+0.0046}_{-0.0027} \quad (+0.6\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.88 \pm 0.22 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.70 \pm 0.23 \quad (-0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (-0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00030 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.0 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.898 \pm 0.022 \quad (-0.0\sigma)$	χ_{lensing}^2	$9.34 \pm 0.72 \quad (+0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	z_{drag}	$1059.79 \pm 0.32 \quad (-0.0\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
c_{EE}	$0.9924 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.38 \pm 0.24 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.02 \pm 0.78 \quad (+0.1\sigma)$
H_0	$67.78^{+0.56}_{-0.46} \quad (+0.2\sigma)$	k_D	$0.14053 \pm 0.00031 \quad (-0.0\sigma)$	χ_{CamSpec}^2	$11513.9 \pm 5.5 \quad (-0.0\sigma)$
Ω_Λ	$0.6909^{+0.0071}_{-0.0058} \quad (+0.2\sigma)$	$100\theta_D$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.044 \pm 0.064 \quad (-0.0\sigma)$
Ω_m	$0.3091^{+0.0058}_{-0.0071} \quad (-0.2\sigma)$	z_{eq}	$3379 \pm 21 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.41 \pm 0.47 \quad (+0.2\sigma)$
$\Omega_m h^2$	$0.14198 \pm 0.00094 \quad (-0.1\sigma)$	k_{eq}	$0.010314 \pm 0.000064 \quad (+0.0\sigma)$	χ_{DR12BAO}^2	$4.5 \pm 1.4 \quad (-0.1\sigma)$
$\Omega_\nu h^2$	< 0.000692	$100\theta_{\text{eq}}$	$0.8173 \pm 0.0039 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^3$	$0.09623^{+0.00041}_{-0.00035} \quad (+0.4\sigma)$	$100\theta_{s,\text{eq}}$	$0.4515 \pm 0.0020 \quad (-0.0\sigma)$	χ_{CMB}^2	$11943.2 \pm 5.7 \quad (-0.0\sigma)$
σ_8	$0.812^{+0.011}_{-0.0069} \quad (+0.5\sigma)$	$H(0.15)$	$73.03^{+0.49}_{-0.40} \quad (+0.3\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (-0.0\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11956.94; \Delta\bar{\chi}_{\text{eff}}^2 = -0.31; R - 1 = 0.00819$$

6.66 base_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02234 \pm 0.00014 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4509 \pm 0.0059 \quad (+0.2\sigma)$	$D_M(0.38)$	$1525.3^{+7.6}_{-9.2} \quad (-0.3\sigma)$
$\Omega_c h^2$	$0.11899 \pm 0.00090 \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6051^{+0.0073}_{-0.0061} \quad (+0.4\sigma)$	$H(0.51)$	$89.84^{+0.30}_{-0.24} \quad (+0.4\sigma)$
$100\theta_{MC}$	$1.04095 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.986^{+0.012}_{-0.0091} \quad (+0.4\sigma)$	$D_M(0.51)$	$1976.5^{+8.9}_{-11} \quad (-0.3\sigma)$
τ	$0.0555^{+0.0053}_{-0.0077} \quad (-0.1\sigma)$	$r_{drag} h$	$100.00^{+0.82}_{-0.74} \quad (+0.2\sigma)$	$H(0.61)$	$95.43^{+0.26}_{-0.21} \quad (+0.4\sigma)$
Σm_ν [eV]	< 0.0600	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.020 \quad (+0.1\sigma)$	$D_M(0.61)$	$2300.3^{+9.7}_{-12} \quad (-0.3\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.015} \quad (-0.1\sigma)$	z_{re}	$7.78^{+0.57}_{-0.76} \quad (-0.1\sigma)$	$H(2.33)$	$235.80 \pm 0.57 \quad (-0.1\sigma)$
n_s	$0.9673 \pm 0.0037 \quad (-0.0\sigma)$	$10^9 A_s$	$2.097^{+0.023}_{-0.031} \quad (-0.1\sigma)$	$D_M(2.33)$	$5758^{+10}_{-13} \quad (-0.4\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.877 \pm 0.010 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4556 \pm 0.0055 \quad (+0.2\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 11 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.751^{+0.010}_{-0.0062} \quad (+0.7\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4747 \pm 0.0051 \quad (+0.3\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6659^{+0.0092}_{-0.0055} \quad (+0.7\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$816.2 \pm 4.8 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4737^{+0.0051}_{-0.0044} \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.5 \pm 1.6 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6233^{+0.0087}_{-0.0052} \quad (+0.7\sigma)$
$r_{143 \times 217}^{PS}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9673 \pm 0.0037 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4690^{+0.0051}_{-0.0041} \quad (+0.4\sigma)$
$r_{143 \times 217}^{CIB}$	$0.56^{+0.41}_{-0.16} \quad (+0.0\sigma)$	Y_P	$0.245383^{+0.000061}_{-0.000054} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5931^{+0.0083}_{-0.0049} \quad (+0.7\sigma)$
$\xi^{tSZ \times CIB}$	—	Y_P^{BBN}	$0.246709^{+0.000061}_{-0.000054} \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2991^{+0.0036}_{-0.0024} \quad (+0.7\sigma)$
A^{kSZ}	$4.6^{+1.9}_{-4.2} \quad (-0.0\sigma)$	$10^5 D/H$	$2.591 \pm 0.027 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3085^{+0.0043}_{-0.0026} \quad (+0.7\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	Age/Gyr	$13.786^{+0.023}_{-0.029} \quad (-0.4\sigma)$	f_{2000}^{143}	$29.4 \pm 2.8 \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.86 \pm 0.22 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (-0.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.72 \pm 0.22 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.0 \quad (-0.0\sigma)$
$A_{143 \times 217}^{dust}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00030 \quad (-0.1\sigma)$	$\chi^2_{lensing}$	$9.33 \pm 0.71 \quad (+0.1\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	$D_M(z_*)/Gpc$	$13.900 \pm 0.022 \quad (-0.0\sigma)$	χ^2_{small}	$396.9 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.80 \pm 0.32 \quad (-0.0\sigma)$	χ^2_{lowl}	$22.99 \pm 0.78 \quad (+0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.39 \pm 0.24 \quad (-0.0\sigma)$	$\chi^2_{CamSpec}$	$11514.0 \pm 5.5 \quad (-0.1\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	k_D	$0.14052 \pm 0.00031 \quad (+0.0\sigma)$	χ^2_{JLA}	$1034.99 \pm 0.28 \quad (-0.1\sigma)$
H_0	$67.85^{+0.52}_{-0.44} \quad (+0.3\sigma)$	$100\theta_D$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	χ^2_{6DF}	$0.036 \pm 0.054 \quad (-0.0\sigma)$
Ω_Λ	$0.6917^{+0.0066}_{-0.0056} \quad (+0.2\sigma)$	z_{eq}	$3378 \pm 21 \quad (+0.1\sigma)$	χ^2_{MGS}	$1.47 \pm 0.46 \quad (+0.3\sigma)$
Ω_m	$0.3083^{+0.0056}_{-0.0066} \quad (-0.2\sigma)$	k_{eq}	$0.010308 \pm 0.000063 \quad (+0.1\sigma)$	$\chi^2_{DR12BAO}$	$4.3 \pm 1.2 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.14186 \pm 0.00090 \quad (-0.1\sigma)$	$100\theta_{eq}$	$0.8177 \pm 0.0039 \quad (-0.1\sigma)$	χ^2_{prior}	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_\nu h^2$	< 0.000645	$100\theta_{s,eq}$	$0.4517 \pm 0.0020 \quad (-0.1\sigma)$	χ^2_{CMB}	$11943.2 \pm 5.7 \quad (-0.1\sigma)$
$\Omega_m h^3$	$0.09625^{+0.00040}_{-0.00034} \quad (+0.4\sigma)$	$H(0.15)$	$73.09^{+0.46}_{-0.39} \quad (+0.3\sigma)$	χ^2_{BAO}	$5.83 \pm 0.92 \quad (-0.0\sigma)$
σ_8	$0.812^{+0.011}_{-0.0067} \quad (+0.6\sigma)$	$D_M(0.15)$	$639.2^{+3.7}_{-4.5} \quad (-0.3\sigma)$		
S_8	$0.823 \pm 0.011 \quad (+0.2\sigma)$	$H(0.38)$	$83.15^{+0.35}_{-0.29} \quad (+0.3\sigma)$		

$$\bar{\chi}^2_{eff} = 12991.75; \Delta\bar{\chi}^2_{eff} = -0.50; R - 1 = 0.00951$$

6.67 base_mnu_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022129	$0.02203^{+0.00026}_{-0.00023} \quad (-0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6140	$0.598^{+0.024}_{-0.012} \quad (-1.0\sigma)$	$H(0.15)$	72.88	$71.2^{+2.1}_{-0.89} \quad (-1.4\sigma)$
$\Omega_{\mathrm{c}} h^2$	0.12011	$0.1209 \pm 0.0022 \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	0.9998	$0.969^{+0.041}_{-0.017} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.15)$	641.3	$658.5^{+8.3}_{-22} \quad (+1.4\sigma)$
$100\theta_{\mathrm{MC}}$	1.04085	$1.04065 \pm 0.00052 \quad (-0.3\sigma)$	$r_{\mathrm{drag}} h$	99.60	$96.8^{+3.8}_{-1.8} \quad (-1.2\sigma)$	$H(0.38)$	82.99	$81.7^{+1.6}_{-0.66} \quad (-1.5\sigma)$
τ	0.0518	$0.0513 \pm 0.0079 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4528	$2.444 \pm 0.038 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1529.6	$1564^{+17}_{-45} \quad (+1.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	0.000	< 0.198	z_{re}	7.47	$7.45 \pm 0.83 \quad (-0.0\sigma)$	$H(0.51)$	89.70	$88.7^{+1.3}_{-0.53} \quad (-1.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	3.0372	$3.037 \pm 0.016 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	2.0847	$2.085 \pm 0.034 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	1981.5	$2022^{+20}_{-52} \quad (+1.5\sigma)$
n_{s}	0.9630	$0.9607^{+0.0067}_{-0.0058} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8794	$1.881 \pm 0.014 \quad (+0.1\sigma)$	$H(0.61)$	95.32	$94.5^{+1.1}_{-0.44} \quad (-1.6\sigma)$
y_{cal}	1.00036	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	1231.1	$1233 \pm 15 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	2305.7	$2350^{+22}_{-57} \quad (+1.5\sigma)$
A_{100}^{PS}	254.7	$258 \pm 27 \quad (+0.1\sigma)$	D_{220}	5708.2	$5706 \pm 42 \quad (+0.0\sigma)$	$H(2.33)$	236.05	$237.5^{+1.3}_{-2.1} \quad (+0.7\sigma)$
A_{143}^{tSZ}	4.81	$3.6^{+1.6}_{-2.7} \quad (-0.0\sigma)$	D_{810}	2531.2	$2532 \pm 14 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	5762.7	$5807^{+19}_{-56} \quad (+1.8\sigma)$
A^{kSZ}	2.71	$> 3.99 \quad (+0.0\sigma)$	D_{1420}	812.6	$812.3 \pm 5.3 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	0.4625	$0.458 \pm 0.013 \quad (-0.3\sigma)$
A_{100}^{dust}	0.995	$1.00 \pm 0.20 \quad (-0.0\sigma)$	D_{2000}	229.07	$228.5 \pm 2.0 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	0.7594	$0.724^{+0.040}_{-0.010} \quad (-3.1\sigma)$
A_{143}^{power}	11.42	$10.9^{+2.2}_{-2.6} \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	0.9630	$0.9607^{+0.0067}_{-0.0058} \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	0.4809	$0.471^{+0.016}_{-0.0097} \quad (-0.7\sigma)$
A_{217}^{power}	9.65	$8.5^{+1.8}_{-3.2} \quad (+0.1\sigma)$	Y_{P}	0.245296	$0.24525^{+0.00013}_{-0.000091} \quad (-0.3\sigma)$	$\sigma_8(0.38)$	0.6730	$0.640^{+0.037}_{-0.0087} \quad (-3.6\sigma)$
$A_{143 \times 217}^{\mathrm{power}}$	5.97	$4.7^{+1.8}_{-3.0} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246622	$0.24657^{+0.00013}_{-0.000092} \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	0.4795	$0.467^{+0.018}_{-0.0082} \quad (-1.1\sigma)$
$\gamma_{143}^{\mathrm{power}}$	1.288	$1.33^{+0.39}_{-0.53} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.6316	$2.650^{+0.043}_{-0.050} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	0.6297	$0.598^{+0.036}_{-0.0081} \quad (-3.8\sigma)$
$\gamma_{217}^{\mathrm{power}}$	1.41	$1.34 \pm 0.61 \quad (-0.0\sigma)$	Age/Gyr	13.796	$13.899^{+0.042}_{-0.13} \quad (+1.9\sigma)$	$f\sigma_8(0.61)$	0.4744	$0.461^{+0.019}_{-0.0072} \quad (-1.3\sigma)$
$\gamma_{143 \times 217}^{\mathrm{power}}$	1.32	$1.30^{+0.59}_{-0.68} \quad (-0.1\sigma)$	z_{*}	1090.231	$1090.45^{+0.41}_{-0.52} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	0.5991	$0.569^{+0.034}_{-0.0077} \quad (-3.9\sigma)$
c_{100}	0.99792	$0.9978 \pm 0.0011 \quad (-0.0\sigma)$	r_{*}	144.60	$144.44 \pm 0.50 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	0.3011	$0.287^{+0.016}_{-0.0033} \quad (-3.6\sigma)$
c_{217}	0.99896	$0.9994^{+0.0013}_{-0.0017} \quad (+0.0\sigma)$	$100\theta_{*}$	1.041024	$1.04092 \pm 0.00049 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	0.3109	$0.295^{+0.018}_{-0.0040} \quad (-4.1\sigma)$
H_0	67.60	$65.7^{+2.4}_{-1.0} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8897	$13.876 \pm 0.046 \quad (-0.2\sigma)$	f_{2000}^{143}	23.28	$24^{+3}_{-3} \quad (+0.2\sigma)$
Ω_{Λ}	0.6887	$0.663^{+0.034}_{-0.012} \quad (-1.3\sigma)$	z_{drag}	1059.361	$1059.23 \pm 0.48 \quad (-0.2\sigma)$	f_{2000}^{217}	16.97	$17.4 \pm 2.1 \quad (+0.2\sigma)$
Ω_{m}	0.3113	$0.337^{+0.012}_{-0.034} \quad (+1.3\sigma)$	r_{drag}	147.342	$147.21 \pm 0.49 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	11.23	$11.7^{+2.2}_{-2.5} \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	0.14223	$0.1448^{+0.0021}_{-0.0036} \quad (+0.8\sigma)$	k_{D}	0.14041	$0.14050 \pm 0.00052 \quad (+0.1\sigma)$	χ_{small}^2	395.81	$396.9 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\nu} h^2$	0.00000	< 0.00212	$100\theta_{\mathrm{D}}$	0.161083	$0.16115 \pm 0.00027 \quad (+0.2\sigma)$	χ_{lowl}^2	23.69	$23.9 \pm 1.3 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	0.09615	$0.0951^{+0.0014}_{-0.00046} \quad (-1.6\sigma)$	z_{eq}	3399.0	$3415 \pm 50 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	6703.6	$6717.4 \pm 5.4 \quad (+0.2\sigma)$
σ_8	0.8220	$0.786^{+0.042}_{-0.011} \quad (-2.7\sigma)$	k_{eq}	0.010374	$0.01042 \pm 0.00015 \quad (+0.2\sigma)$	χ_{prior}^2	1.47	$5.3 \pm 2.9 \quad (+0.0\sigma)$
S_8	0.8373	$0.831 \pm 0.025 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	0.8131	$0.8103 \pm 0.0092 \quad (-0.2\sigma)$	χ_{CMB}^2	7123.1	$7138.2 \pm 5.5 \quad (+0.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4586	$0.455 \pm 0.014 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44945	$0.4480 \pm 0.0047 \quad (-0.2\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 7124.58$; $\Delta\chi_{\mathrm{eff}}^2 = -0.53$; $\bar{\chi}_{\mathrm{eff}}^2 = 7143.49$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.29$; $R - 1 = 0.00791$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.81 (Δ 0.03) commander_dx12_v3.2.29: 23.69 (Δ -0.02) CamSpec like_10.7cleaned: 6703.61 (Δ -0.82)

6.68 base_mnu_lensing_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02221	0.02220 ± 0.00050 (+0.0 σ)	D_{40}	1540	1082^{+200}_{-300} (−1.4 σ)	$H(0.15)$	92.1	77 ± 20 (+0.2 σ)
$\Omega_c h^2$	0.1272	$0.168^{+0.036}_{-0.042}$ (+4.8 σ)	D_{220}	6680	4588^{+900}_{-2000} (−1.9 σ)	$D_M(0.15)$	501	655^{+80}_{-200} (−0.1 σ)
$100\theta_{MC}$	1.118	$1.111^{+0.074}_{-0.063}$ (+1.4 σ)	D_{810}	2684	1908^{+500}_{-700} (−1.6 σ)	$H(0.38)$	101.0	91^{+10}_{-20} (+0.5 σ)
Σm_ν [eV]	0.55	< 2.80	D_{1420}	733	564^{+200}_{-300} (−1.8 σ)	$D_M(0.38)$	1217	1509^{+200}_{-400} (−0.2 σ)
$\ln(10^{10} A_s)$	3.238	2.96 ± 0.19 (−1.3 σ)	D_{2000}	210	167^{+40}_{-80} (−1.7 σ)	$H(0.51)$	107.1	100 ± 10 (+0.7 σ)
n_s	0.9607	0.960 ± 0.020 (−0.0 σ)	$n_{s,0.002}$	0.9607	0.960 ± 0.020 (−0.0 σ)	$D_M(0.51)$	1592	1927^{+200}_{-500} (−0.3 σ)
H_0	87.6	—	Y_P	0.245330	$0.24531^{+0.00023}_{-0.00020}$ (−0.0 σ)	$H(0.61)$	112.3	108 ± 10 (+0.9 σ)
Ω_Λ	0.798	$0.45^{+0.37}_{-0.11}$ (−1.2 σ)	Y_P^{BBN}	0.246656	$0.24664^{+0.00023}_{-0.00020}$ (−0.0 σ)	$D_M(0.61)$	1866	2221^{+300}_{-600} (−0.3 σ)
Ω_m	0.202	$0.55^{+0.11}_{-0.37}$ (+1.2 σ)	$10^5 D/H$	2.616	$2.621^{+0.089}_{-0.10}$ (+0.0 σ)	$H(2.33)$	251.9	284^{+40}_{-30} (+4.4 σ)
$\Omega_m h^2$	0.155	$0.213^{+0.045}_{-0.064}$ (+6.7 σ)	Age/Gyr	11.97	$12.5^{+1.2}_{-2.1}$ (−0.9 σ)	$D_M(2.33)$	4976	5207^{+510}_{-850} (−0.9 σ)
$\Omega_\nu h^2$	0.0059	< 0.0301	z_*	1090.86	1094.9 ± 3.5 (+4.7 σ)	$f\sigma_8(0.15)$	0.4056	$0.457^{+0.044}_{-0.025}$ (+0.4 σ)
$\Omega_m h^3$	0.136	$0.147^{+0.035}_{-0.067}$ (+2.0 σ)	r_*	142.6	$133.0^{+7.4}_{-11}$ (−4.4 σ)	$\sigma_8(0.15)$	0.816	$0.63^{+0.11}_{-0.13}$ (−1.0 σ)
σ_8	0.868	$0.70^{+0.11}_{-0.12}$ (−1.1 σ)	$100\theta_*$	1.118	$1.112^{+0.074}_{-0.063}$ (+1.4 σ)	$f\sigma_8(0.38)$	0.4510	$0.440^{+0.031}_{-0.019}$ (−0.7 σ)
S_8	0.713	$0.87^{+0.11}_{-0.14}$ (+0.6 σ)	$D_M(z_*)/\text{Gpc}$	12.75	$12.0^{+1.0}_{-1.7}$ (−2.2 σ)	$\sigma_8(0.38)$	0.739	$0.55^{+0.11}_{-0.14}$ (−1.0 σ)
$\sigma_8 \Omega_m^{0.5}$	0.390	$0.474^{+0.058}_{-0.078}$ (+0.6 σ)	z_{drag}	1060.16	1063.4 ± 3.1 (+3.1 σ)	$f\sigma_8(0.51)$	0.4647	$0.427^{+0.047}_{-0.023}$ (−1.2 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5820	0.569 ± 0.023 (−1.0 σ)	r_{drag}	145.3	$135.5^{+7.6}_{-11}$ (−4.3 σ)	$\sigma_8(0.51)$	0.699	$0.51^{+0.10}_{-0.14}$ (−1.0 σ)
$\sigma_8/h^{0.5}$	0.927	$0.846^{+0.055}_{-0.091}$ (−5.9 σ)	k_D	0.1428	0.155 ± 0.011 (+4.9 σ)	$f\sigma_8(0.61)$	0.4703	$0.416^{+0.059}_{-0.029}$ (−1.2 σ)
$r_{\text{drag}} h$	127.2	93^{+20}_{-30} (−0.4 σ)	$100\theta_D$	0.1726	$0.170^{+0.011}_{-0.0094}$ (+1.1 σ)	$\sigma_8(0.61)$	0.670	$0.488^{+0.098}_{-0.13}$ (−0.9 σ)
$\langle d^2 \rangle^{1/2}$	2.516	2.495 ± 0.059 (−0.2 σ)	z_{eq}	3569	4534^{+900}_{-1000} (+4.8 σ)	$f\sigma_8(2.33)$	0.351	$0.250^{+0.052}_{-0.077}$ (−0.8 σ)
z_{re}	8.12	$8.87^{+0.87}_{-0.75}$ (+4.2 σ)	k_{eq}	0.01090	$0.0139^{+0.0026}_{-0.0032}$ (+4.9 σ)	$\sigma_8(2.33)$	0.366	$0.252^{+0.051}_{-0.086}$ (−0.9 σ)
$10^9 A_s$	2.548	$1.96^{+0.29}_{-0.44}$ (−1.1 σ)	$100\theta_{\text{eq}}$	0.843	$0.724^{+0.058}_{-0.095}$ (−2.6 σ)	χ^2_{lensing}	7.40	10.3 ± 2.2 (+0.4 σ)
$10^9 A_s e^{-2\tau}$	2.282	$1.76^{+0.26}_{-0.40}$ (−1.1 σ)	$100\theta_{s,\text{eq}}$	0.4670	$0.403^{+0.031}_{-0.049}$ (−2.5 σ)	χ^2_{prior}	0.00	2.0 ± 2.0 (+0.0 σ)

Best-fit $\chi^2_{\text{eff}} = 7.40$; $\Delta\chi^2_{\text{eff}} = -0.09$; $\bar{\chi}^2_{\text{eff}} = 12.38$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.81$; $R - 1 = 0.00245$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.40 (Δ -0.09)

6.69 base_mnu_lensing_lenspriors_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02225	0.02221 ± 0.00051 (-0.0σ)	D_{220}	6603	4854^{+800}_{-2000} (-1.9σ)	$H(0.38)$	84.0	102^{+20}_{-9} ($+4.9\sigma$)
$\Omega_c h^2$	0.1162	$0.168^{+0.041}_{-0.035}$ ($+5.0\sigma$)	D_{810}	2872	1826^{+700}_{-1000} (-3.4σ)	$D_M(0.38)$	1506	1255^{+80}_{-200} (-3.5σ)
$100\theta_{MC}$	1.048	$1.155^{+0.088}_{-0.038}$ ($+5.4\sigma$)	D_{1420}	916	527^{+400}_{-300} (-3.9σ)	$H(0.51)$	90.6	110^{+20}_{-10} ($+5.0\sigma$)
Σm_ν [eV]	0.31	$2.03^{+0.65}_{-2.0}$	D_{2000}	258	152^{+100}_{-80} (-2.7σ)	$D_M(0.51)$	1952	1627^{+100}_{-260} (-3.6σ)
$\ln(10^{10} A_s)$	3.166	$3.05^{+0.12}_{-0.13}$ (-0.9σ)	$n_{s,0.002}$	0.9593	0.960 ± 0.020 ($+0.1\sigma$)	$H(0.61)$	96.2	117^{+20}_{-10} ($+5.2\sigma$)
n_s	0.9593	0.960 ± 0.020 ($+0.1\sigma$)	Y_P	0.245348	$0.24532^{+0.00023}_{-0.00020}$ (-0.0σ)	$D_M(0.61)$	2274	1895^{+120}_{-300} (-3.6σ)
H_0	68.9	84^{+10}_{-7} ($+4.2\sigma$)	Y_P^{BBN}	0.246675	$0.24664^{+0.00023}_{-0.00020}$ (-0.0σ)	$H(2.33)$	236.0	287^{+40}_{-30} ($+5.8\sigma$)
Ω_Λ	0.7016	0.700 ± 0.022 (-0.1σ)	$10^5 D/H$	2.607	$2.619^{+0.089}_{-0.099}$ ($+0.0\sigma$)	$D_M(2.33)$	5719	4765^{+310}_{-760} (-4.1σ)
Ω_m	0.2984	0.300 ± 0.022 ($+0.1\sigma$)	Age/Gyr	13.69	$11.41^{+0.74}_{-1.8}$ (-4.1σ)	$f\sigma_8(0.15)$	0.4427	0.433 ± 0.019 (-0.6σ)
$\Omega_m h^2$	0.142	0.212 ± 0.047 ($+6.8\sigma$)	z_*	1089.76	$1094.9^{+3.9}_{-3.4}$ ($+4.7\sigma$)	$\sigma_8(0.15)$	0.7362	0.717 ± 0.034 (-1.0σ)
$\Omega_\nu h^2$	0.0033	$0.0218^{+0.0068}_{-0.021}$	r_*	145.5	$132.9^{+6.2}_{-11}$ (-4.5σ)	$f\sigma_8(0.38)$	0.4643	$0.455^{+0.020}_{-0.018}$ (-0.7σ)
$\Omega_m h^3$	0.098	$0.182^{+0.051}_{-0.079}$ ($+7.4\sigma$)	$100\theta_*$	1.049	$1.156^{+0.088}_{-0.038}$ ($+5.4\sigma$)	$\sigma_8(0.38)$	0.6547	0.638 ± 0.032 (-0.9σ)
σ_8	0.7948	0.774 ± 0.036 (-1.0σ)	$D_M(z_*)/\text{Gpc}$	13.87	$11.57^{+0.79}_{-1.8}$ (-4.4σ)	$f\sigma_8(0.51)$	0.4647	$0.456^{+0.020}_{-0.018}$ (-0.6σ)
S_8	0.7926	0.772 ± 0.035 (-0.9σ)	z_{drag}	1059.44	$1063.4^{+3.3}_{-2.8}$ ($+3.1\sigma$)	$\sigma_8(0.51)$	0.6137	0.598 ± 0.030 (-0.8σ)
$\sigma_8 \Omega_m^{0.5}$	0.4341	0.423 ± 0.019 (-0.9σ)	r_{drag}	148.2	$135.3^{+6.3}_{-11}$ (-4.4σ)	$f\sigma_8(0.61)$	0.4611	$0.452^{+0.020}_{-0.018}$ (-0.6σ)
$\sigma_8 \Omega_m^{0.25}$	0.5874	0.572 ± 0.024 (-1.1σ)	k_D	0.1397	$0.155^{+0.013}_{-0.0094}$ ($+4.9\sigma$)	$\sigma_8(0.61)$	0.5846	0.570 ± 0.029 (-0.8σ)
$\sigma_8/h^{0.5}$	0.957	$0.850^{+0.065}_{-0.082}$ (-6.8σ)	$100\theta_D$	0.1622	$0.177^{+0.012}_{-0.0056}$ ($+5.2\sigma$)	$f\sigma_8(2.33)$	0.2992	0.296 ± 0.015 (-0.2σ)
$r_{\text{drag}} h$	102.1	$112.7^{+8.6}_{-5.9}$ ($+2.7\sigma$)	z_{eq}	3307	4555^{+1000}_{-800} ($+4.9\sigma$)	$\sigma_8(2.33)$	0.3069	0.301 ± 0.016 (-0.5σ)
$\langle d^2 \rangle^{1/2}$	2.517	$2.488^{+0.053}_{-0.060}$ (-0.3σ)	k_{eq}	0.01010	$0.0140^{+0.0030}_{-0.0026}$ ($+5.0\sigma$)	χ^2_{lensing}	7.49	10.2 ± 2.1 ($+0.3\sigma$)
z_{re}	7.77	$8.94^{+0.94}_{-0.65}$ ($+5.2\sigma$)	$100\theta_{\text{eq}}$	0.837	$0.747^{+0.044}_{-0.073}$ (-2.7σ)	χ^2_{JLA}	1034.73	1035.7 ± 1.4 (-0.0σ)
$10^9 A_s$	2.370	$2.12^{+0.21}_{-0.30}$ (-0.8σ)	$100\theta_{s,\text{eq}}$	0.4618	$0.416^{+0.023}_{-0.037}$ (-2.7σ)	χ^2_{prior}	0.01	2.0 ± 2.1 ($+0.0\sigma$)
$10^9 A_s e^{-2\tau}$	2.123	$1.90^{+0.19}_{-0.27}$ (-0.8σ)	$H(0.15)$	74.1	90^{+10}_{-8} ($+4.5\sigma$)			
D_{40}	1421	1182^{+100}_{-200} (-1.5σ)	$D_M(0.15)$	630	525^{+33}_{-85} (-3.3σ)			

Best-fit $\chi^2_{\text{eff}} = 1042.24$; $\Delta\chi^2_{\text{eff}} = -0.09$; $\bar{\chi}^2_{\text{eff}} = 1047.91$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.62$; $R - 1 = 0.00847$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.49 (Δ -0.10) SN - JLA Pantheon18: 1034.73 (Δ 0.00)

6.70 base_mnu_lensing_lenspriors_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1101^{+200}_{-400} \quad (-1.7\sigma)$	$H(0.15)$	$77^{+10}_{-20} \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.166 \pm 0.037 \quad (+5.8\sigma)$	D_{220}	$4687^{+900}_{-2000} \quad (-2.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$653^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.112^{+0.073}_{-0.062} \quad (+1.4\sigma)$	D_{810}	$1939^{+500}_{-800} \quad (-1.7\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.96	D_{1420}	$572^{+200}_{-300} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1505^{+200}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.97 \pm 0.19 \quad (-1.5\sigma)$	D_{2000}	$169^{+40}_{-90} \quad (-1.8\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1921^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.46^{+0.38}_{-0.10} \quad (-1.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2215^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.54^{+0.10}_{-0.38} \quad (+1.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.621^{+0.089}_{-0.10} \quad (-0.0\sigma)$	$H(2.33)$	$283^{+40}_{-30} \quad (+4.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.212^{+0.048}_{-0.064} \quad (+8.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.2}_{-2.0} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5203^{+500}_{-830} \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	< 0.0318	z_{*}	$1094.8 \pm 3.6 \quad (+5.4\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.044}_{-0.022} \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.146^{+0.035}_{-0.066} \quad (+2.1\sigma)$	r_{*}	$133.3^{+7.0}_{-11} \quad (-5.2\sigma)$	$\sigma_8(0.15)$	$0.62 \pm 0.11 \quad (-1.1\sigma)$
σ_8	$0.69 \pm 0.10 \quad (-1.2\sigma)$	$100\theta_{*}$	$1.113^{+0.073}_{-0.062} \quad (+1.4\sigma)$	$f\sigma_8(0.38)$	$0.433^{+0.028}_{-0.014} \quad (-0.7\sigma)$
S_8	$0.85^{+0.10}_{-0.14} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.0^{+1.0}_{-1.7} \quad (-2.3\sigma)$	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.13} \quad (-1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.465^{+0.056}_{-0.079} \quad (+0.7\sigma)$	z_{drag}	$1063.3^{+3.5}_{-3.1} \quad (+3.4\sigma)$	$f\sigma_8(0.51)$	$0.420^{+0.044}_{-0.018} \quad (-1.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.559 \pm 0.018 \quad (-1.2\sigma)$	r_{drag}	$135.7^{+7.1}_{-12} \quad (-5.1\sigma)$	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13} \quad (-1.1\sigma)$
$\sigma_8/h^{0.5}$	$0.832^{+0.042}_{-0.086} \quad (-6.6\sigma)$	k_{D}	$0.155^{+0.013}_{-0.011} \quad (+5.7\sigma)$	$f\sigma_8(0.61)$	$0.410^{+0.056}_{-0.025} \quad (-1.3\sigma)$
$r_{\mathrm{drag}}h$	$93^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.1702 \pm 0.0094 \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.482^{+0.097}_{-0.13} \quad (-1.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.498 \pm 0.059 \quad (-0.2\sigma)$	z_{eq}	$4494 \pm 900 \quad (+5.8\sigma)$	$f\sigma_8(2.33)$	$0.247^{+0.052}_{-0.076} \quad (-0.9\sigma)$
z_{re}	$8.86^{+0.92}_{-0.71} \quad (+4.7\sigma)$	k_{eq}	$0.0138 \pm 0.0027 \quad (+5.9\sigma)$	$\sigma_8(2.33)$	$0.249^{+0.051}_{-0.085} \quad (-0.9\sigma)$
10^9A_{s}	$1.99^{+0.30}_{-0.47} \quad (-1.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.730^{+0.057}_{-0.10} \quad (-3.1\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.6 \pm 2.1 \quad (+0.3\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.78^{+0.27}_{-0.42} \quad (-1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.407^{+0.031}_{-0.053} \quad (-3.0\sigma)$	χ^2_{prior}	$2.1 \pm 2.1 \quad (+0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 14.65; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.76; R - 1 = 0.00247$$

6.71 base_mnu_lensing_lenspriors_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1089^{+200}_{-400} \quad (-1.3\sigma)$	$H(0.15)$	$77 \pm 20 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.168^{+0.035}_{-0.048} \quad (+4.3\sigma)$	D_{220}	$4631^{+1000}_{-2000} \quad (-1.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$655^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.111^{+0.076}_{-0.064} \quad (+1.3\sigma)$	D_{810}	$1919^{+500}_{-800} \quad (-1.5\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.82	D_{1420}	$568^{+200}_{-300} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509^{+200}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.96 \pm 0.21 \quad (-1.2\sigma)$	D_{2000}	$169^{+40}_{-90} \quad (-1.5\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1926^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.45^{+0.38}_{-0.11} \quad (-1.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2220^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.55^{+0.11}_{-0.38} \quad (+1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.621^{+0.089}_{-0.099} \quad (-0.0\sigma)$	$H(2.33)$	$284 \pm 30 \quad (+4.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.213^{+0.045}_{-0.069} \quad (+6.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.3}_{-2.1} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5208^{+520}_{-870} \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	< 0.0303	z_{*}	$1094.9^{+3.7}_{-4.4} \quad (+4.3\sigma)$	$f\sigma_8(0.15)$	$0.457^{+0.045}_{-0.025} \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.147^{+0.035}_{-0.069} \quad (+1.9\sigma)$	r_{*}	$133.0^{+8.4}_{-11} \quad (-3.9\sigma)$	$\sigma_8(0.15)$	$0.63 \pm 0.11 \quad (-1.0\sigma)$
σ_8	$0.70 \pm 0.11 \quad (-1.1\sigma)$	$100\theta_{*}$	$1.112^{+0.076}_{-0.064} \quad (+1.3\sigma)$	$f\sigma_8(0.38)$	$0.440^{+0.031}_{-0.020} \quad (-0.6\sigma)$
S_8	$0.87^{+0.11}_{-0.14} \quad (+0.6\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.0^{+1.1}_{-1.7} \quad (-2.1\sigma)$	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.474^{+0.060}_{-0.077} \quad (+0.6\sigma)$	z_{drag}	$1063.4 \pm 3.2 \quad (+2.9\sigma)$	$f\sigma_8(0.51)$	$0.427^{+0.047}_{-0.023} \quad (-1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.569 \pm 0.024 \quad (-0.9\sigma)$	r_{drag}	$135.5^{+8.6}_{-11} \quad (-3.8\sigma)$	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8/h^{0.5}$	$0.846^{+0.055}_{-0.090} \quad (-5.8\sigma)$	k_{D}	$0.155 \pm 0.011 \quad (+4.3\sigma)$	$f\sigma_8(0.61)$	$0.416^{+0.058}_{-0.030} \quad (-1.1\sigma)$
$r_{\mathrm{drag}}h$	$93^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0094} \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.488^{+0.099}_{-0.13} \quad (-1.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.496 \pm 0.073 \quad (-0.2\sigma)$	z_{eq}	$4547^{+800}_{-1000} \quad (+4.3\sigma)$	$f\sigma_8(2.33)$	$0.250^{+0.053}_{-0.076} \quad (-0.8\sigma)$
z_{re}	$8.87 \pm 0.78 \quad (+3.9\sigma)$	k_{eq}	$0.0140^{+0.0026}_{-0.0036} \quad (+4.4\sigma)$	$\sigma_8(2.33)$	$0.252^{+0.052}_{-0.085} \quad (-0.9\sigma)$
10^9A_{s}	$1.97^{+0.32}_{-0.49} \quad (-1.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.724^{+0.066}_{-0.10} \quad (-2.4\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.3 \pm 2.1 \quad (+0.4\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.77^{+0.28}_{-0.44} \quad (-1.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.404^{+0.035}_{-0.052} \quad (-2.3\sigma)$	χ^2_{prior}	$2.0 \pm 2.1 \quad (+0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.33; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.78; R - 1 = 0.00626$$

6.72 base_mnu_lensing_lenspriors_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050 (+0.0 σ)	D_{40}	1090^{+200}_{-300} (−1.3 σ)	$H(0.15)$	76^{+10}_{-20} (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	$0.166^{+0.031}_{-0.045}$ (+4.5 σ)	D_{220}	4639^{+1000}_{-2000} (−1.7 σ)	$D_{\mathrm{M}}(0.15)$	658^{+80}_{-200} (−0.1 σ)
$100\theta_{\mathrm{MC}}$	$1.107^{+0.072}_{-0.064}$ (+1.3 σ)	D_{810}	1937^{+500}_{-700} (−1.5 σ)	$H(0.38)$	90^{+10}_{-20} (+0.5 σ)
Σm_{ν} [eV]	< 2.55	D_{1420}	573^{+200}_{-300} (−1.7 σ)	$D_{\mathrm{M}}(0.38)$	1517^{+200}_{-400} (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	2.96 ± 0.19 (−1.2 σ)	D_{2000}	170^{+40}_{-80} (−1.6 σ)	$H(0.51)$	100 ± 10 (+0.7 σ)
n_{s}	0.959 ± 0.020 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1937^{+200}_{-500} (−0.3 σ)
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	107 ± 10 (+0.8 σ)
Ω_{Λ}	$0.46^{+0.37}_{-0.11}$ (−1.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2233^{+300}_{-600} (−0.3 σ)
Ω_{m}	$0.54^{+0.11}_{-0.37}$ (+1.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.089}_{-0.10}$ (−0.0 σ)	$H(2.33)$	281^{+30}_{-40} (+4.1 σ)
$\Omega_{\mathrm{m}}h^2$	$0.209^{+0.039}_{-0.065}$ (+6.2 σ)	Age/Gyr	$12.6^{+1.3}_{-2.0}$ (−0.9 σ)	$D_{\mathrm{M}}(2.33)$	5241^{+530}_{-850} (−0.9 σ)
$\Omega_{\nu}h^2$	< 0.0274	z_{*}	$1094.6^{+3.2}_{-4.3}$ (+4.3 σ)	$f\sigma_8(0.15)$	$0.460^{+0.045}_{-0.025}$ (+0.4 σ)
$\Omega_{\mathrm{m}}h^3$	$0.143^{+0.033}_{-0.065}$ (+1.8 σ)	r_{*}	133.6 ± 8.2 (−4.1 σ)	$\sigma_8(0.15)$	0.64 ± 0.11 (−1.0 σ)
σ_8	0.70 ± 0.11 (−1.0 σ)	$100\theta_{*}$	$1.108^{+0.072}_{-0.064}$ (+1.3 σ)	$f\sigma_8(0.38)$	$0.443^{+0.031}_{-0.018}$ (−0.6 σ)
S_8	$0.87^{+0.11}_{-0.14}$ (+0.6 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.1^{+1.1}_{-1.6}$ (−2.1 σ)	$\sigma_8(0.38)$	$0.56^{+0.11}_{-0.14}$ (−0.9 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.476^{+0.059}_{-0.078}$ (+0.6 σ)	z_{drag}	1063.2 ± 3.0 (+2.8 σ)	$f\sigma_8(0.51)$	$0.431^{+0.047}_{-0.022}$ (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.573 ± 0.023 (−1.0 σ)	r_{drag}	136.0 ± 8.4 (−4.0 σ)	$\sigma_8(0.51)$	$0.52^{+0.10}_{-0.14}$ (−0.9 σ)
$\sigma_8/h^{0.5}$	$0.855^{+0.064}_{-0.081}$ (−5.7 σ)	k_{D}	$0.1543^{+0.0099}_{-0.013}$ (+4.5 σ)	$f\sigma_8(0.61)$	$0.420^{+0.059}_{-0.029}$ (−1.1 σ)
$r_{\mathrm{drag}}h$	93^{+20}_{-30} (−0.4 σ)	$100\theta_{\mathrm{D}}$	0.1696 ± 0.0095 (+1.1 σ)	$\sigma_8(0.61)$	$0.49^{+0.10}_{-0.13}$ (−0.9 σ)
$\langle d^2 \rangle^{1/2}$	2.495 ± 0.059 (−0.1 σ)	z_{eq}	4487^{+700}_{-1000} (+4.5 σ)	$f\sigma_8(2.33)$	$0.252^{+0.054}_{-0.077}$ (−0.8 σ)
z_{re}	8.82 ± 0.74 (+3.9 σ)	k_{eq}	$0.0138^{+0.0023}_{-0.0034}$ (+4.6 σ)	$\sigma_8(2.33)$	$0.255^{+0.053}_{-0.087}$ (−0.8 σ)
10^9A_{s}	$1.97^{+0.31}_{-0.43}$ (−1.0 σ)	$100\theta_{\mathrm{eq}}$	$0.726^{+0.063}_{-0.092}$ (−2.4 σ)	$\chi^2_{\mathrm{lensing}}$	8.2 ± 2.3 (+0.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.77^{+0.27}_{-0.39}$ (−1.0 σ)	$100\theta_{\mathrm{s,eq}}$	$0.404^{+0.034}_{-0.048}$ (−2.4 σ)	χ^2_{prior}	2.0 ± 2.1 (+0.0 σ)

$$\bar{\chi}^2_{\mathrm{eff}} = 10.23; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.76; R - 1 = 0.00322$$

6.73 base_mnu_lensing_lenspriors_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00049 (+0.0 σ)	D_{40}	1245^{+200}_{-400} (−1.6 σ)	$H(0.15)$	76 ± 20 (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.153 ± 0.035 (+4.8 σ)	D_{220}	5459^{+1000}_{-2000} (−1.9 σ)	$D_{\mathrm{M}}(0.15)$	660^{+100}_{-200} (−0.1 σ)
$100\theta_{\mathrm{MC}}$	$1.102^{+0.080}_{-0.064}$ (+1.4 σ)	D_{810}	2219^{+600}_{-800} (−1.5 σ)	$H(0.38)$	90 ± 10 (+0.5 σ)
Σm_{ν} [eV]	< 2.81	D_{1420}	659^{+200}_{-300} (−2.0 σ)	$D_{\mathrm{M}}(0.38)$	1528^{+200}_{-400} (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.08 ± 0.20 (−1.4 σ)	D_{2000}	200^{+50}_{-100} (−1.6 σ)	$H(0.51)$	98 ± 10 (+0.7 σ)
n_{s}	0.959 ± 0.020 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1954^{+300}_{-500} (−0.3 σ)
H_0	—	Y_{P}	0.24531 ± 0.00021 (+0.0 σ)	$H(0.61)$	105 ± 10 (+0.9 σ)
Ω_{Λ}	$0.49^{+0.35}_{-0.11}$ (−1.3 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24664 ± 0.00021 (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2255^{+300}_{-600} (−0.3 σ)
Ω_{m}	$0.51^{+0.11}_{-0.35}$ (+1.3 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.622 ± 0.093 (−0.0 σ)	$H(2.33)$	274^{+40}_{-30} (+4.3 σ)
$\Omega_{\mathrm{m}}h^2$	$0.198^{+0.047}_{-0.055}$ (+6.7 σ)	Age/Gyr	$12.8^{+1.3}_{-2.2}$ (−1.0 σ)	$D_{\mathrm{M}}(2.33)$	5336^{+550}_{-910} (−0.9 σ)
$\Omega_{\nu}h^2$	< 0.0302	z_{*}	1093.8 ± 3.5 (+4.6 σ)	$f\sigma_8(0.15)$	$0.441^{+0.046}_{-0.030}$ (+0.5 σ)
$\Omega_{\mathrm{m}}h^3$	$0.137^{+0.039}_{-0.061}$ (+2.1 σ)	r_{*}	$135.9^{+8.0}_{-10}$ (−4.3 σ)	$\sigma_8(0.15)$	0.63 ± 0.11 (−1.1 σ)
σ_8	0.69 ± 0.10 (−1.1 σ)	$100\theta_{*}$	$1.102^{+0.080}_{-0.064}$ (+1.5 σ)	$f\sigma_8(0.38)$	$0.429^{+0.027}_{-0.020}$ (−0.5 σ)
S_8	$0.83^{+0.11}_{-0.14}$ (+0.6 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.4^{+1.1}_{-1.8}$ (−2.2 σ)	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.12}$ (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.454^{+0.059}_{-0.074}$ (+0.6 σ)	z_{drag}	1062.5 ± 3.1 (+2.9 σ)	$f\sigma_8(0.51)$	$0.419^{+0.041}_{-0.022}$ (−1.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.553 ± 0.023 (−0.9 σ)	r_{drag}	$138.5^{+8.2}_{-11}$ (−4.2 σ)	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.12}$ (−1.0 σ)
$\sigma_8/h^{0.5}$	$0.838^{+0.056}_{-0.089}$ (−5.0 σ)	k_{D}	0.152 ± 0.011 (+4.8 σ)	$f\sigma_8(0.61)$	$0.409^{+0.052}_{-0.028}$ (−1.3 σ)
$r_{\mathrm{drag}}h$	95^{+20}_{-30} (−0.4 σ)	$100\theta_{\mathrm{D}}$	$0.169^{+0.011}_{-0.0095}$ (+1.2 σ)	$\sigma_8(0.61)$	$0.49^{+0.10}_{-0.12}$ (−1.0 σ)
$\langle d^2 \rangle^{1/2}$	2.570 ± 0.071 (−0.2 σ)	z_{eq}	4185 ± 800 (+4.7 σ)	$f\sigma_8(2.33)$	$0.250^{+0.056}_{-0.069}$ (−0.9 σ)
z_{re}	$8.65^{+0.85}_{-0.74}$ (+4.1 σ)	k_{eq}	0.0129 ± 0.0026 (+4.8 σ)	$\sigma_8(2.33)$	$0.253^{+0.056}_{-0.078}$ (−0.9 σ)
10^9A_{s}	$2.22^{+0.35}_{-0.52}$ (−1.2 σ)	$100\theta_{\mathrm{eq}}$	$0.761^{+0.064}_{-0.10}$ (−2.7 σ)	$\chi^2_{\mathrm{lensing}}$	11.5 ± 2.0 (+0.2 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.99^{+0.31}_{-0.47}$ (−1.2 σ)	$100\theta_{\mathrm{s,eq}}$	$0.423^{+0.034}_{-0.051}$ (−2.6 σ)	χ^2_{prior}	2.0 ± 2.0 (−0.0 σ)
$\bar{\chi}^2_{\mathrm{eff}} = 13.44$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.40$; $R - 1 = 0.08205$					

6.74 base_mnu_lensing_lenspriors_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1055^{+200}_{-300} \quad (-1.4\sigma)$	$H(0.15)$	$77 \pm 20 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.169^{+0.035}_{-0.044} \quad (+4.7\sigma)$	D_{220}	$4463^{+900}_{-2000} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$654^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.112^{+0.074}_{-0.062} \quad (+1.3\sigma)$	D_{810}	$1859^{+500}_{-700} \quad (-1.6\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.78	D_{1420}	$549^{+200}_{-300} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1507^{+200}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.94 \pm 0.19 \quad (-1.3\sigma)$	D_{2000}	$163^{+40}_{-80} \quad (-1.6\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1924^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.45^{+0.37}_{-0.11} \quad (-1.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2218^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.55^{+0.11}_{-0.37} \quad (+1.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.621^{+0.089}_{-0.10} \quad (-0.0\sigma)$	$H(2.33)$	$284 \pm 30 \quad (+4.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.213^{+0.044}_{-0.065} \quad (+6.5\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.2}_{-2.0} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5199^{+510}_{-850} \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	< 0.0299	z_{*}	$1094.9 \pm 3.5 \quad (+4.5\sigma)$	$f\sigma_8(0.15)$	$0.455^{+0.044}_{-0.025} \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.147^{+0.035}_{-0.067} \quad (+1.9\sigma)$	r_{*}	$132.9^{+7.8}_{-10} \quad (-4.3\sigma)$	$\sigma_8(0.15)$	$0.63 \pm 0.11 \quad (-1.0\sigma)$
σ_8	$0.69 \pm 0.11 \quad (-1.1\sigma)$	$100\theta_{*}$	$1.112^{+0.074}_{-0.062} \quad (+1.3\sigma)$	$f\sigma_8(0.38)$	$0.438^{+0.031}_{-0.019} \quad (-0.7\sigma)$
S_8	$0.86^{+0.10}_{-0.14} \quad (+0.6\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.0^{+1.1}_{-1.7} \quad (-2.2\sigma)$	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.472^{+0.057}_{-0.077} \quad (+0.6\sigma)$	z_{drag}	$1063.5 \pm 3.1 \quad (+3.0\sigma)$	$f\sigma_8(0.51)$	$0.425^{+0.047}_{-0.023} \quad (-1.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.566 \pm 0.023 \quad (-1.0\sigma)$	r_{drag}	$135.3^{+7.9}_{-11} \quad (-4.2\sigma)$	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8/h^{0.5}$	$0.841^{+0.055}_{-0.090} \quad (-6.0\sigma)$	k_{D}	$0.155 \pm 0.011 \quad (+4.7\sigma)$	$f\sigma_8(0.61)$	$0.414^{+0.059}_{-0.029} \quad (-1.2\sigma)$
$r_{\mathrm{drag}}h$	$93^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0093} \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.485^{+0.099}_{-0.13} \quad (-0.9\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.470 \pm 0.056 \quad (-0.2\sigma)$	z_{eq}	$4559^{+800}_{-1000} \quad (+4.7\sigma)$	$f\sigma_8(2.33)$	$0.248^{+0.053}_{-0.075} \quad (-0.8\sigma)$
z_{re}	$8.88^{+0.85}_{-0.77} \quad (+4.1\sigma)$	k_{eq}	$0.0140^{+0.0026}_{-0.0033} \quad (+4.8\sigma)$	$\sigma_8(2.33)$	$0.251^{+0.052}_{-0.084} \quad (-0.9\sigma)$
10^9A_{s}	$1.92^{+0.29}_{-0.42} \quad (-1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.721^{+0.061}_{-0.094} \quad (-2.5\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.5 \pm 2.2 \quad (+0.4\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.72^{+0.26}_{-0.38} \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.402^{+0.033}_{-0.049} \quad (-2.5\sigma)$	χ^2_{prior}	$2.1 \pm 2.1 \quad (+0.1\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.60; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.84; R - 1 = 0.00308$$

6.75 base_mnu_lensing_lenspriors_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050 (+0.0 σ)	D_{40}	1077^{+200}_{-300} (−1.7 σ)	$H(0.15)$	77 ± 20 (+0.1 σ)
$\Omega_{\mathrm{c}}h^2$	$0.166^{+0.036}_{-0.044}$ (+5.6 σ)	D_{220}	4579^{+900}_{-2000} (−2.2 σ)	$D_{\mathrm{M}}(0.15)$	652^{+80}_{-200} (−0.1 σ)
$100\theta_{\mathrm{MC}}$	$1.112^{+0.075}_{-0.061}$ (+1.4 σ)	D_{810}	1896^{+500}_{-700} (−1.7 σ)	$H(0.38)$	91^{+10}_{-20} (+0.5 σ)
Σm_{ν} [eV]	< 2.89	D_{1420}	559^{+200}_{-300} (−2.1 σ)	$D_{\mathrm{M}}(0.38)$	1505^{+200}_{-400} (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	2.95 ± 0.19 (−1.5 σ)	D_{2000}	166^{+40}_{-80} (−1.8 σ)	$H(0.51)$	100 ± 10 (+0.7 σ)
n_{s}	0.959 ± 0.020 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (+0.0 σ)	$D_{\mathrm{M}}(0.51)$	1921^{+200}_{-500} (−0.3 σ)
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00019}$ (+0.0 σ)	$H(0.61)$	108 ± 10 (+0.9 σ)
Ω_{Λ}	$0.46^{+0.37}_{-0.10}$ (−1.3 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2215^{+300}_{-600} (−0.3 σ)
Ω_{m}	$0.54^{+0.10}_{-0.37}$ (+1.3 σ)	$10^5\mathrm{D}/\mathrm{H}$	$2.621^{+0.088}_{-0.10}$ (−0.0 σ)	$H(2.33)$	283^{+40}_{-30} (+4.8 σ)
$\Omega_{\mathrm{m}}h^2$	$0.212^{+0.045}_{-0.067}$ (+7.8 σ)	Age/Gyr	$12.5^{+1.2}_{-2.0}$ (−0.9 σ)	$D_{\mathrm{M}}(2.33)$	5205^{+500}_{-840} (−0.9 σ)
$\Omega_{\nu}h^2$	< 0.0311	z_{*}	1094.8 ± 3.6 (+5.2 σ)	$f\sigma_8(0.15)$	$0.447^{+0.043}_{-0.022}$ (+0.5 σ)
$\Omega_{\mathrm{m}}h^3$	$0.146^{+0.035}_{-0.066}$ (+2.0 σ)	r_{*}	$133.3^{+7.5}_{-11}$ (−5.0 σ)	$\sigma_8(0.15)$	0.62 ± 0.11 (−1.1 σ)
σ_8	0.68 ± 0.10 (−1.1 σ)	$100\theta_{*}$	$1.112^{+0.075}_{-0.061}$ (+1.4 σ)	$f\sigma_8(0.38)$	$0.431^{+0.027}_{-0.014}$ (−0.7 σ)
S_8	$0.85^{+0.10}_{-0.14}$ (+0.7 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.1^{+1.1}_{-1.7}$ (−2.3 σ)	$\sigma_8(0.38)$	$0.54^{+0.11}_{-0.13}$ (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.463^{+0.055}_{-0.077}$ (+0.7 σ)	z_{drag}	1063.3 ± 3.1 (+3.3 σ)	$f\sigma_8(0.51)$	$0.419^{+0.044}_{-0.018}$ (−1.3 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.557 ± 0.018 (−1.1 σ)	r_{drag}	$135.7^{+7.7}_{-11}$ (−5.0 σ)	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13}$ (−1.0 σ)
$\sigma_8/h^{0.5}$	$0.829^{+0.044}_{-0.085}$ (−6.6 σ)	k_{D}	0.155 ± 0.011 (+5.6 σ)	$f\sigma_8(0.61)$	$0.408^{+0.056}_{-0.025}$ (−1.3 σ)
$r_{\mathrm{drag}}h$	93^{+20}_{-30} (−0.4 σ)	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0091}$ (+1.2 σ)	$\sigma_8(0.61)$	$0.480^{+0.098}_{-0.13}$ (−1.0 σ)
$\langle d^2 \rangle^{1/2}$	2.472 ± 0.057 (−0.2 σ)	z_{eq}	4504^{+900}_{-1000} (+5.6 σ)	$f\sigma_8(2.33)$	$0.246^{+0.053}_{-0.074}$ (−0.9 σ)
z_{re}	$8.86^{+0.89}_{-0.76}$ (+4.5 σ)	k_{eq}	$0.0138^{+0.0027}_{-0.0034}$ (+5.7 σ)	$\sigma_8(2.33)$	$0.249^{+0.051}_{-0.084}$ (−0.9 σ)
10^9A_{s}	$1.95^{+0.31}_{-0.45}$ (−1.3 σ)	$100\theta_{\mathrm{eq}}$	$0.729^{+0.061}_{-0.10}$ (−3.0 σ)	$\chi^2_{\mathrm{lensing}}$	12.8 ± 2.1 (+0.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.74^{+0.27}_{-0.41}$ (−1.3 σ)	$100\theta_{\mathrm{s,eq}}$	$0.406^{+0.033}_{-0.052}$ (−2.9 σ)	χ^2_{prior}	2.1 ± 2.1 (+0.1 σ)

$$\bar{\chi}^2_{\mathrm{eff}} = 14.86; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.79; R - 1 = 0.00267$$

6.76 base_mnu_lensing_lenspriors_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00050 \quad (-0.0\sigma)$	D_{40}	$1050^{+200}_{-300} \quad (-1.4\sigma)$	$H(0.15)$	$77 \pm 20 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.172^{+0.037}_{-0.043} \quad (+4.8\sigma)$	D_{220}	$4412^{+900}_{-2000} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$657^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.113^{+0.072}_{-0.063} \quad (+1.3\sigma)$	D_{810}	$1847^{+500}_{-700} \quad (-1.6\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.79	D_{1420}	$545^{+200}_{-300} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1510^{+300}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.94 \pm 0.19 \quad (-1.3\sigma)$	D_{2000}	$161^{+40}_{-80} \quad (-1.7\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1926^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (-0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.43^{+0.39}_{-0.11} \quad (-1.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2219^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.57^{+0.11}_{-0.39} \quad (+1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.088}_{-0.10} \quad (+0.0\sigma)$	$H(2.33)$	$286^{+40}_{-30} \quad (+4.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.217^{+0.047}_{-0.064} \quad (+6.6\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.4^{+1.2}_{-2.0} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5182^{+510}_{-830} \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	< 0.0300	z_{*}	$1095.2 \pm 3.6 \quad (+4.6\sigma)$	$f\sigma_8(0.15)$	$0.466^{+0.045}_{-0.026} \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.149^{+0.035}_{-0.067} \quad (+1.9\sigma)$	r_{*}	$132.1^{+7.4}_{-10} \quad (-4.3\sigma)$	$\sigma_8(0.15)$	$0.64^{+0.11}_{-0.13} \quad (-1.0\sigma)$
σ_8	$0.70^{+0.11}_{-0.12} \quad (-1.1\sigma)$	$100\theta_{*}$	$1.114^{+0.072}_{-0.063} \quad (+1.3\sigma)$	$f\sigma_8(0.38)$	$0.447^{+0.032}_{-0.020} \quad (-0.7\sigma)$
S_8	$0.89^{+0.11}_{-0.15} \quad (+0.6\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$11.9^{+1.0}_{-1.6} \quad (-2.2\sigma)$	$\sigma_8(0.38)$	$0.56^{+0.11}_{-0.14} \quad (-1.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.486^{+0.062}_{-0.080} \quad (+0.6\sigma)$	z_{drag}	$1063.7 \pm 3.1 \quad (+3.0\sigma)$	$f\sigma_8(0.51)$	$0.432^{+0.049}_{-0.025} \quad (-1.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.578 \pm 0.024 \quad (-1.0\sigma)$	r_{drag}	$134.6^{+7.6}_{-11} \quad (-4.2\sigma)$	$\sigma_8(0.51)$	$0.52^{+0.10}_{-0.14} \quad (-1.0\sigma)$
$\sigma_8/h^{0.5}$	$0.855^{+0.059}_{-0.089} \quad (-5.7\sigma)$	k_{D}	$0.156 \pm 0.011 \quad (+4.8\sigma)$	$f\sigma_8(0.61)$	$0.420^{+0.061}_{-0.031} \quad (-1.2\sigma)$
$r_{\mathrm{drag}}h$	$92^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.1703 \pm 0.0094 \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.490^{+0.098}_{-0.14} \quad (-0.9\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.487 \pm 0.059 \quad (-0.2\sigma)$	z_{eq}	$4647^{+900}_{-1000} \quad (+4.7\sigma)$	$f\sigma_8(2.33)$	$0.250^{+0.052}_{-0.077} \quad (-0.8\sigma)$
z_{re}	$8.94^{+0.87}_{-0.75} \quad (+4.2\sigma)$	k_{eq}	$0.0143^{+0.0027}_{-0.0033} \quad (+4.8\sigma)$	$\sigma_8(2.33)$	$0.253^{+0.051}_{-0.086} \quad (-0.9\sigma)$
10^9A_{s}	$1.92^{+0.29}_{-0.43} \quad (-1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.712^{+0.059}_{-0.093} \quad (-2.5\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.8 \pm 2.2 \quad (+0.4\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.72^{+0.26}_{-0.38} \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.397^{+0.032}_{-0.048} \quad (-2.4\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (+0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.85; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.82; R - 1 = 0.00368$$

6.77 base_mnu_lensing_lenspriors_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1084^{+200}_{-300} \quad (-1.4\sigma)$	$H(0.15)$	$77 \pm 20 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.167^{+0.036}_{-0.042} \quad (+4.8\sigma)$	D_{220}	$4594^{+900}_{-2000} \quad (-1.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$655^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.111^{+0.074}_{-0.063} \quad (+1.4\sigma)$	D_{810}	$1913^{+500}_{-700} \quad (-1.6\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.78	D_{1420}	$565^{+200}_{-300} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509^{+200}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$2.96 \pm 0.19 \quad (-1.3\sigma)$	D_{2000}	$168^{+40}_{-80} \quad (-1.6\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1927^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.45^{+0.37}_{-0.11} \quad (-1.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2221^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.55^{+0.11}_{-0.37} \quad (+1.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.621^{+0.089}_{-0.10} \quad (-0.0\sigma)$	$H(2.33)$	$283^{+40}_{-30} \quad (+4.4\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.212^{+0.045}_{-0.063} \quad (+6.6\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.3}_{-2.0} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5209^{+520}_{-850} \quad (-0.9\sigma)$
$\Omega_{\nu} h^2$	< 0.0299	z_{*}	$1094.8 \pm 3.5 \quad (+4.6\sigma)$	$f\sigma_8(0.15)$	$0.457^{+0.044}_{-0.025} \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.146^{+0.035}_{-0.067} \quad (+1.9\sigma)$	r_{*}	$133.1^{+7.5}_{-10} \quad (-4.3\sigma)$	$\sigma_8(0.15)$	$0.63 \pm 0.11 \quad (-1.0\sigma)$
σ_8	$0.70 \pm 0.11 \quad (-1.0\sigma)$	$100\theta_{*}$	$1.112^{+0.074}_{-0.063} \quad (+1.4\sigma)$	$f\sigma_8(0.38)$	$0.440^{+0.030}_{-0.018} \quad (-0.7\sigma)$
S_8	$0.86^{+0.10}_{-0.14} \quad (+0.6\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.0^{+1.0}_{-1.7} \quad (-2.2\sigma)$	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.474^{+0.057}_{-0.077} \quad (+0.6\sigma)$	z_{drag}	$1063.4 \pm 3.0 \quad (+3.0\sigma)$	$f\sigma_8(0.51)$	$0.427^{+0.047}_{-0.022} \quad (-1.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.568 \pm 0.022 \quad (-1.0\sigma)$	r_{drag}	$135.5^{+7.7}_{-11} \quad (-4.3\sigma)$	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13} \quad (-0.9\sigma)$
$\sigma_8/h^{0.5}$	$0.845^{+0.056}_{-0.089} \quad (-6.0\sigma)$	k_{D}	$0.155 \pm 0.011 \quad (+4.8\sigma)$	$f\sigma_8(0.61)$	$0.416^{+0.059}_{-0.029} \quad (-1.1\sigma)$
$r_{\mathrm{drag}} h$	$93^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0094} \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.488^{+0.099}_{-0.13} \quad (-0.9\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.496 \pm 0.059 \quad (-0.2\sigma)$	z_{eq}	$4526^{+800}_{-1000} \quad (+4.8\sigma)$	$f\sigma_8(2.33)$	$0.250^{+0.053}_{-0.075} \quad (-0.8\sigma)$
z_{re}	$8.86^{+0.86}_{-0.75} \quad (+4.2\sigma)$	k_{eq}	$0.0139^{+0.0026}_{-0.0032} \quad (+4.9\sigma)$	$\sigma_8(2.33)$	$0.252^{+0.052}_{-0.084} \quad (-0.8\sigma)$
$10^9 A_{\mathrm{s}}$	$1.97^{+0.29}_{-0.44} \quad (-1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.724^{+0.058}_{-0.094} \quad (-2.6\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.3 \pm 2.2 \quad (+0.3\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.76^{+0.26}_{-0.39} \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.404^{+0.031}_{-0.049} \quad (-2.5\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (+0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.32; \Delta \bar{\chi}^2_{\mathrm{eff}} = 0.74; R - 1 = 0.00185$$

6.78 base_mnu_lensing_lenspriors_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1101^{+200}_{-400} \quad (-1.7\sigma)$	$H(0.15)$	$77^{+10}_{-20} \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.166 \pm 0.036 \quad (+5.9\sigma)$	D_{220}	$4682^{+900}_{-2000} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$652^{+80}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.113^{+0.073}_{-0.062} \quad (+1.4\sigma)$	D_{810}	$1938^{+500}_{-800} \quad (-1.8\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.98	D_{1420}	$570^{+200}_{-300} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504^{+200}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.97 \pm 0.19 \quad (-1.6\sigma)$	D_{2000}	$169^{+40}_{-80} \quad (-1.8\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.8\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1920^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$108 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.46^{+0.38}_{-0.11} \quad (-1.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2214^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.54^{+0.11}_{-0.38} \quad (+1.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.620^{+0.089}_{-0.10} \quad (-0.0\sigma)$	$H(2.33)$	$283^{+40}_{-30} \quad (+4.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.212 \pm 0.050 \quad (+8.2\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.2}_{-2.0} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5199^{+510}_{-830} \quad (-1.0\sigma)$
$\Omega_{\nu}h^2$	$0.0242^{+0.0079}_{-0.024}$	z_{*}	$1094.8^{+4.2}_{-3.6} \quad (+5.4\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.044}_{-0.022} \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.147^{+0.036}_{-0.066} \quad (+2.1\sigma)$	r_{*}	$133.2^{+6.9}_{-11} \quad (-5.2\sigma)$	$\sigma_8(0.15)$	$0.62 \pm 0.11 \quad (-1.1\sigma)$
σ_8	$0.68 \pm 0.10 \quad (-1.2\sigma)$	$100\theta_{*}$	$1.113^{+0.073}_{-0.062} \quad (+1.4\sigma)$	$f\sigma_8(0.38)$	$0.432^{+0.027}_{-0.014} \quad (-0.7\sigma)$
S_8	$0.85^{+0.10}_{-0.14} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.0^{+1.0}_{-1.7} \quad (-2.4\sigma)$	$\sigma_8(0.38)$	$0.54^{+0.11}_{-0.13} \quad (-1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.464^{+0.056}_{-0.078} \quad (+0.7\sigma)$	z_{drag}	$1063.4^{+3.5}_{-3.0} \quad (+3.4\sigma)$	$f\sigma_8(0.51)$	$0.419^{+0.044}_{-0.018} \quad (-1.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.558 \pm 0.017 \quad (-1.2\sigma)$	r_{drag}	$135.7^{+7.0}_{-12} \quad (-5.1\sigma)$	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13} \quad (-1.0\sigma)$
$\sigma_8/h^{0.5}$	$0.830^{+0.041}_{-0.085} \quad (-6.7\sigma)$	k_{D}	$0.155^{+0.013}_{-0.010} \quad (+5.8\sigma)$	$f\sigma_8(0.61)$	$0.409^{+0.056}_{-0.025} \quad (-1.3\sigma)$
$r_{\mathrm{drag}}h$	$94^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.170^{+0.010}_{-0.0092} \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.481^{+0.097}_{-0.13} \quad (-1.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.499 \pm 0.059 \quad (-0.2\sigma)$	z_{eq}	$4496 \pm 900 \quad (+5.8\sigma)$	$f\sigma_8(2.33)$	$0.246^{+0.053}_{-0.075} \quad (-0.9\sigma)$
z_{re}	$8.87^{+0.93}_{-0.69} \quad (+4.7\sigma)$	k_{eq}	$0.0138 \pm 0.0027 \quad (+6.0\sigma)$	$\sigma_8(2.33)$	$0.249^{+0.051}_{-0.084} \quad (-0.9\sigma)$
10^9A_{s}	$1.99^{+0.30}_{-0.47} \quad (-1.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.730^{+0.056}_{-0.10} \quad (-3.1\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.6 \pm 2.1 \quad (+0.3\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.78^{+0.27}_{-0.42} \quad (-1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.407^{+0.031}_{-0.053} \quad (-3.0\sigma)$	χ^2_{prior}	$2.1 \pm 2.1 \quad (+0.0\sigma)$

$\bar{\chi}^2_{\mathrm{eff}} = 14.67$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.70$; $R - 1 = 0.00159$

6.79 base_mnu_lensing_lenspriors_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050 (+0.0 σ)	D_{40}	1095^{+200}_{-300} (−1.4 σ)	$H(0.15)$	77 ± 20 (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.164 ± 0.034 (+4.6 σ)	D_{220}	4668^{+900}_{-2000} (−1.8 σ)	$D_{\mathrm{M}}(0.15)$	655^{+80}_{-200} (−0.1 σ)
$100\theta_{\mathrm{MC}}$	$1.110^{+0.074}_{-0.063}$ (+1.4 σ)	D_{810}	1939^{+500}_{-700} (−1.6 σ)	$H(0.38)$	91^{+10}_{-20} (+0.5 σ)
Σm_{ν} [eV]	< 2.83	D_{1420}	572^{+200}_{-300} (−1.8 σ)	$D_{\mathrm{M}}(0.38)$	1510^{+300}_{-400} (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	2.97 ± 0.18 (−1.3 σ)	D_{2000}	170^{+40}_{-80} (−1.7 σ)	$H(0.51)$	100 ± 10 (+0.7 σ)
n_{s}	0.959 ± 0.020 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1929^{+300}_{-500} (−0.3 σ)
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	107 ± 10 (+0.9 σ)
Ω_{Λ}	$0.46^{+0.36}_{-0.11}$ (−1.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2225^{+300}_{-600} (−0.3 σ)
Ω_{m}	$0.54^{+0.11}_{-0.36}$ (+1.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.621 ± 0.096 (−0.0 σ)	$H(2.33)$	281^{+40}_{-30} (+4.3 σ)
$\Omega_{\mathrm{m}}h^2$	$0.209^{+0.045}_{-0.059}$ (+6.6 σ)	Age/Gyr	$12.5^{+1.3}_{-2.0}$ (−0.9 σ)	$D_{\mathrm{M}}(2.33)$	5228^{+510}_{-850} (−0.9 σ)
$\Omega_{\nu}h^2$	< 0.0304	z_{*}	1094.6 ± 3.4 (+4.6 σ)	$f\sigma_8(0.15)$	$0.449^{+0.043}_{-0.028}$ (+0.3 σ)
$\Omega_{\mathrm{m}}h^3$	$0.144^{+0.034}_{-0.065}$ (+1.9 σ)	r_{*}	$133.6^{+7.2}_{-10}$ (−4.3 σ)	$\sigma_8(0.15)$	$0.63^{+0.11}_{-0.13}$ (−1.1 σ)
σ_8	$0.69^{+0.10}_{-0.12}$ (−1.1 σ)	$100\theta_{*}$	$1.111^{+0.074}_{-0.063}$ (+1.4 σ)	$f\sigma_8(0.38)$	$0.434^{+0.032}_{-0.021}$ (−0.9 σ)
S_8	$0.85^{+0.10}_{-0.14}$ (+0.4 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.1^{+1.0}_{-1.6}$ (−2.2 σ)	$\sigma_8(0.38)$	$0.55^{+0.11}_{-0.13}$ (−1.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.465^{+0.056}_{-0.075}$ (+0.4 σ)	z_{drag}	1063.2 ± 2.9 (+3.0 σ)	$f\sigma_8(0.51)$	$0.422^{+0.047}_{-0.024}$ (−1.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.560 ± 0.025 (−1.3 σ)	r_{drag}	$136.1^{+7.3}_{-10}$ (−4.2 σ)	$\sigma_8(0.51)$	$0.51^{+0.10}_{-0.13}$ (−1.0 σ)
$\sigma_8/h^{0.5}$	$0.836^{+0.060}_{-0.096}$ (−5.9 σ)	k_{D}	0.154 ± 0.010 (+4.7 σ)	$f\sigma_8(0.61)$	$0.411^{+0.059}_{-0.030}$ (−1.3 σ)
$r_{\mathrm{drag}}h$	93^{+20}_{-30} (−0.4 σ)	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0093}$ (+1.1 σ)	$\sigma_8(0.61)$	$0.484^{+0.097}_{-0.13}$ (−1.0 σ)
$\langle d^2 \rangle^{1/2}$	2.498 ± 0.058 (−0.1 σ)	z_{eq}	4448 ± 800 (+4.6 σ)	$f\sigma_8(2.33)$	$0.248^{+0.052}_{-0.075}$ (−0.9 σ)
z_{re}	$8.82^{+0.84}_{-0.71}$ (+4.1 σ)	k_{eq}	$0.0137^{+0.0026}_{-0.0029}$ (+4.7 σ)	$\sigma_8(2.33)$	$0.250^{+0.051}_{-0.084}$ (−0.9 σ)
10^9A_{s}	$1.98^{+0.29}_{-0.44}$ (−1.1 σ)	$100\theta_{\mathrm{eq}}$	$0.732^{+0.054}_{-0.091}$ (−2.4 σ)	$\chi^2_{\mathrm{lensing}}$	10.1 ± 2.1 (+0.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.77^{+0.26}_{-0.39}$ (−1.1 σ)	$100\theta_{\mathrm{s,eq}}$	$0.408^{+0.029}_{-0.047}$ (−2.4 σ)	χ^2_{prior}	2.1 ± 2.1 (+0.0 σ)

$$\bar{\chi}^2_{\mathrm{eff}} = 12.19; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.67; R - 1 = 0.00405$$

6.80 base_mnu_lensing_lenspriors_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1124^{+200}_{-400} \quad (-1.7\sigma)$	$H(0.15)$	$77 \pm 20 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.161 \pm 0.034 \quad (+5.6\sigma)$	D_{220}	$4816^{+900}_{-2000} \quad (-2.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$649^{+90}_{-200} \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.112^{+0.074}_{-0.061} \quad (+1.4\sigma)$	D_{810}	$1982^{+500}_{-800} \quad (-1.7\sigma)$	$H(0.38)$	$91^{+10}_{-20} \quad (+0.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 2.99	D_{1420}	$583^{+200}_{-300} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1499^{+300}_{-400} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.99 \pm 0.19 \quad (-1.5\sigma)$	D_{2000}	$173^{+40}_{-90} \quad (-1.8\sigma)$	$H(0.51)$	$100 \pm 10 \quad (+0.7\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1917^{+200}_{-500} \quad (-0.3\sigma)$
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$107 \pm 10 \quad (+0.9\sigma)$
Ω_{Λ}	$0.48^{+0.35}_{-0.10} \quad (-1.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2211^{+300}_{-600} \quad (-0.3\sigma)$
Ω_{m}	$0.52^{+0.10}_{-0.35} \quad (+1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.622 \pm 0.096 \quad (-0.0\sigma)$	$H(2.33)$	$281^{+40}_{-30} \quad (+4.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.207 \pm 0.048 \quad (+7.9\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.5^{+1.2}_{-2.0} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5219^{+500}_{-830} \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	< 0.0321	z_{*}	$1094.5^{+4.0}_{-3.5} \quad (+5.3\sigma)$	$f\sigma_8(0.15)$	$0.438^{+0.042}_{-0.025} \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.145^{+0.036}_{-0.064} \quad (+2.1\sigma)$	r_{*}	$134.1^{+6.8}_{-11} \quad (-5.1\sigma)$	$\sigma_8(0.15)$	$0.62^{+0.11}_{-0.12} \quad (-1.2\sigma)$
σ_8	$0.68^{+0.10}_{-0.12} \quad (-1.2\sigma)$	$100\theta_{*}$	$1.112^{+0.074}_{-0.061} \quad (+1.4\sigma)$	$f\sigma_8(0.38)$	$0.425^{+0.028}_{-0.016} \quad (-0.9\sigma)$
S_8	$0.825^{+0.095}_{-0.14} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.1^{+1.0}_{-1.6} \quad (-2.3\sigma)$	$\sigma_8(0.38)$	$0.54^{+0.11}_{-0.13} \quad (-1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452^{+0.052}_{-0.074} \quad (+0.5\sigma)$	z_{drag}	$1063.1^{+3.4}_{-2.9} \quad (+3.3\sigma)$	$f\sigma_8(0.51)$	$0.414^{+0.044}_{-0.019} \quad (-1.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.548 \pm 0.020 \quad (-1.6\sigma)$	r_{drag}	$136.6^{+6.9}_{-11} \quad (-5.0\sigma)$	$\sigma_8(0.51)$	$0.50^{+0.10}_{-0.13} \quad (-1.1\sigma)$
$\sigma_8/h^{0.5}$	$0.820^{+0.049}_{-0.092} \quad (-6.5\sigma)$	k_{D}	$0.154^{+0.012}_{-0.010} \quad (+5.6\sigma)$	$f\sigma_8(0.61)$	$0.404^{+0.055}_{-0.026} \quad (-1.5\sigma)$
$r_{\mathrm{drag}}h$	$95^{+20}_{-30} \quad (-0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.170^{+0.011}_{-0.0090} \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.479^{+0.097}_{-0.13} \quad (-1.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.502 \pm 0.058 \quad (-0.2\sigma)$	z_{eq}	$4381 \pm 800 \quad (+5.6\sigma)$	$f\sigma_8(2.33)$	$0.246^{+0.052}_{-0.073} \quad (-0.9\sigma)$
z_{re}	$8.80^{+0.89}_{-0.68} \quad (+4.6\sigma)$	k_{eq}	$0.0135 \pm 0.0026 \quad (+5.7\sigma)$	$\sigma_8(2.33)$	$0.249^{+0.051}_{-0.083} \quad (-1.0\sigma)$
10^9A_{s}	$2.02^{+0.30}_{-0.47} \quad (-1.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.742^{+0.052}_{-0.097} \quad (-2.9\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.5 \pm 2.0 \quad (+0.3\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.81^{+0.27}_{-0.42} \quad (-1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.413^{+0.028}_{-0.050} \quad (-2.8\sigma)$	χ^2_{prior}	$2.1 \pm 2.1 \quad (+0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 14.57; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.65; R - 1 = 0.00607$$

6.81 base_mnu_lensing_lenspriors_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00050 (+0.0 σ)	D_{40}	1076^{+200}_{-300} (−1.3 σ)	$H(0.15)$	76^{+10}_{-20} (+0.2 σ)
$\Omega_{\mathrm{c}}h^2$	$0.167^{+0.032}_{-0.045}$ (+4.5 σ)	D_{220}	4571^{+1000}_{-2000} (−1.8 σ)	$D_{\mathrm{M}}(0.15)$	658^{+80}_{-200} (−0.1 σ)
$100\theta_{\mathrm{MC}}$	$1.108^{+0.072}_{-0.064}$ (+1.3 σ)	D_{810}	1910^{+500}_{-700} (−1.5 σ)	$H(0.38)$	91^{+10}_{-20} (+0.5 σ)
Σm_{ν} [eV]	< 2.58	D_{1420}	565^{+200}_{-300} (−1.7 σ)	$D_{\mathrm{M}}(0.38)$	1516^{+200}_{-400} (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	2.95 ± 0.19 (−1.2 σ)	D_{2000}	168^{+40}_{-80} (−1.6 σ)	$H(0.51)$	100 ± 10 (+0.7 σ)
n_{s}	0.959 ± 0.020 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1935^{+200}_{-500} (−0.3 σ)
H_0	—	Y_{P}	$0.24531^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	107 ± 10 (+0.9 σ)
Ω_{Λ}	$0.45^{+0.37}_{-0.11}$ (−1.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2231^{+300}_{-600} (−0.3 σ)
Ω_{m}	$0.55^{+0.11}_{-0.37}$ (+1.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	$2.622^{+0.089}_{-0.10}$ (−0.0 σ)	$H(2.33)$	282 ± 30 (+4.1 σ)
$\Omega_{\mathrm{m}}h^2$	$0.210^{+0.039}_{-0.066}$ (+6.2 σ)	Age/Gyr	$12.6^{+1.3}_{-2.0}$ (−0.9 σ)	$D_{\mathrm{M}}(2.33)$	5233^{+520}_{-850} (−0.9 σ)
$\Omega_{\nu}h^2$	< 0.0277	z_{*}	$1094.7^{+3.2}_{-4.3}$ (+4.3 σ)	$f\sigma_8(0.15)$	$0.460^{+0.044}_{-0.025}$ (+0.4 σ)
$\Omega_{\mathrm{m}}h^3$	$0.144^{+0.033}_{-0.066}$ (+1.8 σ)	r_{*}	133.3 ± 8.2 (−4.1 σ)	$\sigma_8(0.15)$	0.64 ± 0.11 (−1.0 σ)
σ_8	0.70 ± 0.11 (−1.0 σ)	$100\theta_{*}$	$1.109^{+0.072}_{-0.064}$ (+1.3 σ)	$f\sigma_8(0.38)$	$0.443^{+0.031}_{-0.018}$ (−0.6 σ)
S_8	$0.87^{+0.11}_{-0.14}$ (+0.6 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$12.1^{+1.1}_{-1.6}$ (−2.1 σ)	$\sigma_8(0.38)$	$0.56^{+0.11}_{-0.13}$ (−0.9 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.477^{+0.058}_{-0.078}$ (+0.6 σ)	z_{drag}	1063.3 ± 3.0 (+2.9 σ)	$f\sigma_8(0.51)$	$0.430^{+0.048}_{-0.023}$ (−1.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.572 ± 0.023 (−1.0 σ)	r_{drag}	135.8 ± 8.4 (−4.0 σ)	$\sigma_8(0.51)$	$0.52^{+0.10}_{-0.14}$ (−0.9 σ)
$\sigma_8/h^{0.5}$	$0.853^{+0.064}_{-0.082}$ (−5.7 σ)	k_{D}	$0.155^{+0.010}_{-0.013}$ (+4.5 σ)	$f\sigma_8(0.61)$	$0.419^{+0.059}_{-0.029}$ (−1.1 σ)
$r_{\mathrm{drag}}h$	93^{+20}_{-30} (−0.4 σ)	$100\theta_{\mathrm{D}}$	0.1697 ± 0.0095 (+1.1 σ)	$\sigma_8(0.61)$	$0.49^{+0.10}_{-0.13}$ (−0.9 σ)
$\langle d^2 \rangle^{1/2}$	2.486 ± 0.058 (−0.1 σ)	z_{eq}	4512^{+800}_{-1000} (+4.5 σ)	$f\sigma_8(2.33)$	$0.252^{+0.054}_{-0.077}$ (−0.8 σ)
z_{re}	8.83 ± 0.74 (+3.9 σ)	k_{eq}	$0.0139^{+0.0023}_{-0.0034}$ (+4.6 σ)	$\sigma_8(2.33)$	$0.254^{+0.052}_{-0.086}$ (−0.8 σ)
10^9A_{s}	$1.95^{+0.30}_{-0.42}$ (−1.0 σ)	$100\theta_{\mathrm{eq}}$	$0.723^{+0.063}_{-0.092}$ (−2.4 σ)	$\chi^2_{\mathrm{lensing}}$	9.2 ± 2.3 (+0.4 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.75^{+0.27}_{-0.38}$ (−1.0 σ)	$100\theta_{\mathrm{s,eq}}$	$0.403^{+0.034}_{-0.048}$ (−2.4 σ)	χ^2_{prior}	2.0 ± 2.1 (+0.0 σ)

$$\bar{\chi}^2_{\mathrm{eff}} = 11.22; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.82; R - 1 = 0.00322$$

6.82 base_mnu_lensing_lenspriors_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02221	0.02221 ± 0.00050 (+0.0 σ)	D_{40}	1365	1107^{+100}_{-300} (−1.6 σ)	$H(0.15)$	69.8	$61.9^{+3.3}_{-9.1}$ (−4.2 σ)
$\Omega_c h^2$	0.1191	$0.142^{+0.025}_{-0.021}$ (+3.1 σ)	D_{220}	6388	5103^{+700}_{-2000} (−1.5 σ)	$D_M(0.15)$	673	798^{+200}_{-70} (+5.9 σ)
$100\theta_{MC}$	1.04089	1.04089 ± 0.00060 (−0.0 σ)	D_{810}	2807	2374^{+300}_{-600} (−1.2 σ)	$H(0.38)$	80.54	$76.4^{+1.3}_{-4.3}$ (−3.8 σ)
Σm_ν [eV]	0.46	$1.27^{+0.57}_{-1.1}$	D_{1420}	900	775^{+100}_{-200} (−1.1 σ)	$D_M(0.38)$	1595	1807^{+300}_{-100} (+5.4 σ)
$\ln(10^{10} A_s)$	3.145	$2.98^{+0.15}_{-0.19}$ (−1.3 σ)	D_{2000}	253.6	220^{+30}_{-50} (−1.0 σ)	$H(0.51)$	87.63	$85.43^{+0.40}_{-2.5}$ (−3.4 σ)
n_s	0.9603	0.961 ± 0.020 (+0.0 σ)	$n_{s,0.002}$	0.9603	0.961 ± 0.020 (+0.0 σ)	$D_M(0.51)$	2059	2291^{+300}_{-100} (+5.2 σ)
H_0	64.1	< 57.9 (−4.5 σ)	Y_P	0.245331	$0.24532^{+0.00022}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	93.53	$92.75^{+0.69}_{-1.6}$ (−2.9 σ)
Ω_Λ	0.644	$0.29^{+0.46}_{-0.20}$ (−8.6 σ)	Y_P^{BBN}	0.246658	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_M(0.61)$	2390	2628^{+290}_{-120} (+5.1 σ)
Ω_m	0.356	$0.71^{+0.20}_{-0.46}$ (+8.6 σ)	$10^5 D/H$	2.615	2.619 ± 0.095 (−0.0 σ)	$H(2.33)$	238.1	258^{+24}_{-16} (+4.1 σ)
$\Omega_m h^2$	0.1462	$0.178^{+0.037}_{-0.026}$ (+4.4 σ)	Age/Gyr	14.010	$14.25^{+0.30}_{-0.14}$ (+6.7 σ)	$D_M(2.33)$	5855	5940^{+110}_{-44} (+5.2 σ)
$\Omega_\nu h^2$	0.0049	$0.0136^{+0.0061}_{-0.012}$	z_*	1090.12	$1092.5^{+2.5}_{-2.1}$ (+3.0 σ)	$f\sigma_8(0.15)$	0.4567	$0.477^{+0.030}_{-0.015}$ (+1.4 σ)
$\Omega_m h^3$	0.09369	0.0928 ± 0.0021 (−0.8 σ)	r_*	144.7	$138.7^{+4.3}_{-7.2}$ (−3.0 σ)	$\sigma_8(0.15)$	0.696	$0.579^{+0.066}_{-0.14}$ (−7.8 σ)
σ_8	0.757	$0.646^{+0.065}_{-0.14}$ (−8.3 σ)	$100\theta_*$	1.04127	1.04136 ± 0.00061 (+0.4 σ)	$f\sigma_8(0.38)$	0.4653	$0.435^{+0.039}_{-0.023}$ (−1.4 σ)
S_8	0.825	$0.934^{+0.13}_{-0.089}$ (+2.6 σ)	$D_M(z_*)/\text{Gpc}$	13.89	$13.31^{+0.42}_{-0.69}$ (−3.0 σ)	$\sigma_8(0.38)$	0.614	$0.497^{+0.062}_{-0.14}$ (−7.1 σ)
$\sigma_8 \Omega_m^{0.5}$	0.452	$0.512^{+0.070}_{-0.049}$ (+2.6 σ)	z_{drag}	1059.59	1061.5 ± 2.1 (+1.8 σ)	$f\sigma_8(0.51)$	0.460	0.413 ± 0.041 (−3.7 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5849	0.570 ± 0.022 (−1.1 σ)	r_{drag}	147.4	$141.2^{+4.5}_{-7.4}$ (−2.9 σ)	$\sigma_8(0.51)$	0.573	$0.460^{+0.058}_{-0.14}$ (−6.7 σ)
$\sigma_8/h^{0.5}$	0.946	$0.882^{+0.055}_{-0.072}$ (−4.5 σ)	k_D	0.1405	$0.1477^{+0.0080}_{-0.0062}$ (+3.1 σ)	$f\sigma_8(0.61)$	0.452	0.397 ± 0.047 (−6.0 σ)
$r_{\text{drag}} h$	94.4	76^{+8}_{-20} (−3.9 σ)	$100\theta_D$	0.16092	0.1600 ± 0.0011 (−1.6 σ)	$\sigma_8(0.61)$	0.545	$0.435^{+0.056}_{-0.13}$ (−6.5 σ)
$\langle d^2 \rangle^{1/2}$	2.529	2.525 ± 0.051 (+0.5 σ)	z_{eq}	3376	3935^{+600}_{-500} (+3.1 σ)	$f\sigma_8(2.33)$	0.278	$0.219^{+0.030}_{-0.071}$ (−5.7 σ)
z_{re}	7.829	$8.30^{+0.52}_{-0.41}$ (+3.4 σ)	k_{eq}	0.01031	$0.0120^{+0.0018}_{-0.0016}$ (+3.1 σ)	$\sigma_8(2.33)$	0.282	$0.220^{+0.030}_{-0.075}$ (−5.4 σ)
$10^9 A_s$	2.322	$1.99^{+0.23}_{-0.42}$ (−1.2 σ)	$100\theta_{\text{eq}}$	0.818	$0.742^{+0.048}_{-0.093}$ (−2.4 σ)	χ^2_{lensing}	7.47	9.8 ± 2.0 (+0.1 σ)
$10^9 A_s e^{-2\tau}$	2.080	$1.79^{+0.21}_{-0.38}$ (−1.2 σ)	$100\theta_{s,\text{eq}}$	0.4521	$0.412^{+0.025}_{-0.049}$ (−2.4 σ)	χ^2_{prior}	0.00	3.0 ± 2.4 (−0.0 σ)

Best-fit $\chi^2_{\text{eff}} = 7.48$; $\Delta\chi^2_{\text{eff}} = -0.10$; $\bar{\chi}^2_{\text{eff}} = 12.80$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.19$; $R - 1 = 0.00091$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.47 (Δ -0.10)

6.83 base_mnu_lensing_lenspriors_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022204	0.02220 ± 0.00049 (-0.0σ)	D_{220}	6761	6806^{+560}_{-750} $(+1.5\sigma)$	$H(0.38)$	82.84	82.7 ± 1.0 (-1.0σ)
$\Omega_c h^2$	0.11300	0.1130 ± 0.0043 (-0.7σ)	D_{810}	2916	2940^{+230}_{-310} $(+1.6\sigma)$	$D_M(0.38)$	1527.2	1530 ± 27 $(+0.8\sigma)$
$100\theta_{MC}$	1.04090	1.04087 ± 0.00061 (-0.0σ)	D_{1420}	930	939^{+76}_{-100} $(+1.6\sigma)$	$H(0.51)$	89.37	89.30 ± 0.87 (-1.2σ)
Σm_ν [eV]	0.261	$0.28^{+0.10}_{-0.25}$	D_{2000}	261.4	264^{+22}_{-30} $(+1.5\sigma)$	$D_M(0.51)$	1980.3	1984 ± 32 $(+0.8\sigma)$
$\ln(10^{10} A_s)$	3.178	$3.181^{+0.081}_{-0.093}$ $(+1.5\sigma)$	$n_{s,0.002}$	0.9609	0.963 ± 0.019 $(+0.4\sigma)$	$H(0.61)$	94.85	$94.78^{+0.82}_{-0.73}$ (-1.5σ)
n_s	0.9609	0.963 ± 0.019 $(+0.4\sigma)$	Y_P	0.245327	0.24531 ± 0.00021 (-0.0σ)	$D_M(0.61)$	2306.0	2310 ± 35 $(+0.9\sigma)$
H_0	67.93	67.8 ± 1.6 (-0.6σ)	Y_P^{BBN}	0.246654	0.24664 ± 0.00021 (-0.0σ)	$H(2.33)$	232.87	233.0 ± 2.7 (-0.3σ)
Ω_Λ	0.7009	0.699 ± 0.021 (-0.3σ)	$10^5 D/H$	2.617	2.620 ± 0.093 $(+0.0\sigma)$	$D_M(2.33)$	5798.1	5802^{+37}_{-45} $(+1.8\sigma)$
Ω_m	0.2991	0.301 ± 0.021 $(+0.3\sigma)$	Age/Gyr	13.885	$13.895^{+0.086}_{-0.10}$ $(+1.9\sigma)$	$f\sigma_8(0.15)$	0.4418	0.441 ± 0.015 (-0.5σ)
$\Omega_m h^2$	0.13801	0.1382 ± 0.0039 (-0.1σ)	z_*	1089.54	1089.56 ± 0.67 (-0.3σ)	$\sigma_8(0.15)$	0.7346	$0.731^{+0.028}_{-0.023}$ (-1.5σ)
$\Omega_\nu h^2$	0.00281	$0.0030^{+0.0011}_{-0.0027}$	r_*	146.37	146.4 ± 1.2 $(+0.6\sigma)$	$f\sigma_8(0.38)$	0.4631	$0.461^{+0.014}_{-0.012}$ (-0.8σ)
$\Omega_m h^3$	0.09375	0.0936 ± 0.0018 (-1.3σ)	$100\theta_*$	1.04123	1.04119 ± 0.00062 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6531	$0.650^{+0.025}_{-0.022}$ (-1.4σ)
σ_8	0.7932	$0.790^{+0.029}_{-0.024}$ (-1.6σ)	$D_M(z_*)/\text{Gpc}$	14.057	14.06 ± 0.12 $(+0.6\sigma)$	$f\sigma_8(0.51)$	0.4634	$0.462^{+0.014}_{-0.012}$ (-1.0σ)
S_8	0.7919	0.791 ± 0.029 (-0.6σ)	z_{drag}	1059.06	1059.1 ± 1.2 (-0.2σ)	$\sigma_8(0.51)$	0.6121	$0.609^{+0.024}_{-0.021}$ (-1.3σ)
$\sigma_8 \Omega_m^{0.5}$	0.4337	0.433 ± 0.016 (-0.6σ)	r_{drag}	149.13	149.1 ± 1.4 $(+0.6\sigma)$	$f\sigma_8(0.61)$	0.4597	$0.458^{+0.013}_{-0.011}$ (-1.1σ)
$\sigma_8 \Omega_m^{0.25}$	0.5865	$0.585^{+0.020}_{-0.017}$ (-1.2σ)	k_D	0.13863	0.1386 ± 0.0016 (-0.5σ)	$\sigma_8(0.61)$	0.5830	$0.580^{+0.023}_{-0.020}$ (-1.3σ)
$\sigma_8/h^{0.5}$	0.9623	$0.959^{+0.031}_{-0.026}$ (-1.3σ)	$100\theta_D$	0.16120	0.16120 ± 0.00073 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.2978	0.296 ± 0.010 (-0.8σ)
$r_{\text{drag}} h$	101.31	101.1 ± 2.8 (-0.3σ)	z_{eq}	3231	3230 ± 110 (-0.7σ)	$\sigma_8(2.33)$	0.3057	0.304 ± 0.012 (-1.0σ)
$\langle d^2 \rangle^{1/2}$	2.522	$2.523^{+0.047}_{-0.054}$ $(+0.9\sigma)$	k_{eq}	0.009863	0.00986 ± 0.00032 (-0.7σ)	χ^2_{lensing}	7.50	9.2 ± 1.7 $(+0.0\sigma)$
z_{re}	7.704	7.71 ± 0.12 (-0.1σ)	$100\theta_{\text{eq}}$	0.8451	0.846 ± 0.021 $(+0.8\sigma)$	χ^2_{JLA}	1034.73	1035.6 ± 1.3 (-0.0σ)
$10^9 A_s$	2.399	$2.42^{+0.18}_{-0.24}$ $(+1.6\sigma)$	$100\theta_{s,\text{eq}}$	0.4661	0.467 ± 0.011 $(+0.7\sigma)$	χ^2_{prior}	0.00	3.0 ± 2.4 $(+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	2.149	$2.16^{+0.16}_{-0.21}$ $(+1.6\sigma)$	$H(0.15)$	73.04	72.9 ± 1.4 (-0.7σ)			
D_{40}	1440	1441^{+110}_{-130} $(+1.2\sigma)$	$D_M(0.15)$	639.1	641 ± 13 $(+0.7\sigma)$			

Best-fit $\chi^2_{\text{eff}} = 1042.24$; $\Delta\chi^2_{\text{eff}} = -0.47$; $\bar{\chi}^2_{\text{eff}} = 1047.78$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.00$; $R - 1 = 0.00923$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.50 (Δ -0.38) SN - JLA Pantheon18: 1034.73 (Δ -0.06)

6.84 base_mnu_lensing_lenspriors_theta_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02221 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1140^{+200}_{-300} \quad (-2.0\sigma)$	$H(0.15)$	$62.1^{+3.5}_{-9.4} \quad (-5.2\sigma)$
$\Omega_c h^2$	$0.140^{+0.026}_{-0.021} \quad (+3.9\sigma)$	D_{220}	$5286^{+800}_{-2000} \quad (-1.8\sigma)$	$D_M(0.15)$	$796^{+200}_{-100} \quad (+7.5\sigma)$
$100\theta_{MC}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2438^{+300}_{-600} \quad (-1.5\sigma)$	$H(0.38)$	$76.4^{+1.6}_{-4.5} \quad (-4.6\sigma)$
Σm_ν [eV]	$1.36^{+0.77}_{-1.0}$	D_{1420}	$795^{+100}_{-200} \quad (-1.3\sigma)$	$D_M(0.38)$	$1805^{+300}_{-100} \quad (+6.8\sigma)$
$\ln(10^{10} A_s)$	$3.00^{+0.16}_{-0.20} \quad (-1.6\sigma)$	D_{2000}	$225^{+30}_{-50} \quad (-1.2\sigma)$	$H(0.51)$	$85.40^{+0.34}_{-2.6} \quad (-4.1\sigma)$
n_s	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$D_M(0.51)$	$2288^{+300}_{-100} \quad (+6.5\sigma)$
H_0	$< 58.5 \quad (-5.6\sigma)$	Y_P	$0.24532^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$92.66^{+0.61}_{-1.8} \quad (-3.5\sigma)$
Ω_Λ	$0.29^{+0.48}_{-0.21} \quad (-11.3\sigma)$	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00021} \quad (+0.0\sigma)$	$D_M(0.61)$	$2625^{+300}_{-100} \quad (+6.3\sigma)$
Ω_m	$0.71^{+0.21}_{-0.48} \quad (+11.3\sigma)$	$10^5 D/H$	$2.620 \pm 0.096 \quad (-0.0\sigma)$	$H(2.33)$	$257^{+26}_{-19} \quad (+5.2\sigma)$
$\Omega_m h^2$	$0.176^{+0.041}_{-0.027} \quad (+5.5\sigma)$	Age/Gyr	$14.28^{+0.31}_{-0.13} \quad (+7.5\sigma)$	$D_M(2.33)$	$5949^{+110}_{-37} \quad (+5.9\sigma)$
$\Omega_\nu h^2$	$0.0146^{+0.0083}_{-0.011}$	z_*	$1092.3^{+2.7}_{-2.2} \quad (+3.5\sigma)$	$f\sigma_8(0.15)$	$0.466^{+0.030}_{-0.011} \quad (+1.9\sigma)$
$\Omega_m h^3$	$0.0920 \pm 0.0019 \quad (-0.9\sigma)$	r_*	$139.2^{+4.4}_{-7.7} \quad (-3.7\sigma)$	$\sigma_8(0.15)$	$0.571^{+0.065}_{-0.14} \quad (-8.9\sigma)$
σ_8	$0.637^{+0.062}_{-0.14} \quad (-9.3\sigma)$	$100\theta_*$	$1.04139 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.427^{+0.037}_{-0.021} \quad (-1.5\sigma)$
S_8	$0.912^{+0.14}_{-0.087} \quad (+3.4\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.37^{+0.43}_{-0.74} \quad (-3.7\sigma)$	$\sigma_8(0.38)$	$0.492^{+0.061}_{-0.14} \quad (-8.2\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.500^{+0.076}_{-0.048} \quad (+3.4\sigma)$	z_{drag}	$1061.3 \pm 2.2 \quad (+2.0\sigma)$	$f\sigma_8(0.51)$	$0.406 \pm 0.040 \quad (-4.1\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.559^{+0.016}_{-0.020} \quad (-1.3\sigma)$	r_{drag}	$141.8^{+4.6}_{-7.8} \quad (-3.6\sigma)$	$\sigma_8(0.51)$	$0.455^{+0.059}_{-0.14} \quad (-7.8\sigma)$
$\sigma_8/h^{0.5}$	$0.867^{+0.047}_{-0.074} \quad (-5.3\sigma)$	k_D	$0.1471^{+0.0085}_{-0.0065} \quad (+3.8\sigma)$	$f\sigma_8(0.61)$	$0.390 \pm 0.047 \quad (-6.7\sigma)$
$r_{\text{drag}} h$	$77^{+9}_{-20} \quad (-4.8\sigma)$	$100\theta_D$	$0.1600 \pm 0.0012 \quad (-1.8\sigma)$	$\sigma_8(0.61)$	$0.430^{+0.056}_{-0.13} \quad (-7.6\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.531 \pm 0.049 \quad (+0.5\sigma)$	z_{eq}	$3867^{+600}_{-500} \quad (+3.9\sigma)$	$f\sigma_8(2.33)$	$0.217^{+0.031}_{-0.072} \quad (-6.7\sigma)$
z_{re}	$8.27^{+0.56}_{-0.42} \quad (+4.1\sigma)$	k_{eq}	$0.0118^{+0.0020}_{-0.0016} \quad (+3.9\sigma)$	$\sigma_8(2.33)$	$0.218^{+0.030}_{-0.075} \quad (-6.3\sigma)$
$10^9 A_s$	$2.04^{+0.25}_{-0.45} \quad (-1.4\sigma)$	$100\theta_{\text{eq}}$	$0.753^{+0.048}_{-0.099} \quad (-2.9\sigma)$	χ^2_{lensing}	$12.1 \pm 2.0 \quad (+0.1\sigma)$
$10^9 A_s e^{-2\tau}$	$1.83^{+0.22}_{-0.40} \quad (-1.4\sigma)$	$100\theta_{s,\text{eq}}$	$0.418^{+0.026}_{-0.052} \quad (-2.9\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$\bar{\chi}^2_{\text{eff}} = 15.15$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.28$; $R - 1 = 0.00151$

6.85 base_mnu_lensing_lenspriors_theta_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00050 (+0.0 σ)	D_{40}	1131^{+200}_{-300} (−1.3 σ)	$H(0.15)$	$62.1^{+3.4}_{-9.3}$ (−3.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.141 ± 0.022 (+2.6 σ)	D_{220}	5233^{+800}_{-2000} (−1.2 σ)	$D_{\mathrm{M}}(0.15)$	794^{+200}_{-80} (+5.1 σ)
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00060 (−0.0 σ)	D_{810}	2421^{+300}_{-600} (−1.0 σ)	$H(0.38)$	$76.5^{+1.3}_{-4.4}$ (−3.3 σ)
Σm_{ν} [eV]	$1.27^{+0.56}_{-1.1}$	D_{1420}	790^{+100}_{-200} (−0.9 σ)	$D_{\mathrm{M}}(0.38)$	1801^{+300}_{-100} (+4.7 σ)
$\ln(10^{10}A_{\mathrm{s}})$	$3.00^{+0.16}_{-0.20}$ (−1.1 σ)	D_{2000}	224^{+30}_{-50} (−0.8 σ)	$H(0.51)$	$85.46^{+0.46}_{-2.6}$ (−3.0 σ)
n_{s}	0.961 ± 0.020 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.961 ± 0.020 (+0.0 σ)	$D_{\mathrm{M}}(0.51)$	2284^{+300}_{-100} (+4.5 σ)
H_0	< 58.3 (−3.9 σ)	Y_{P}	$0.24532^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	$92.73^{+0.73}_{-1.7}$ (−2.6 σ)
Ω_{Λ}	$0.30^{+0.46}_{-0.20}$ (−7.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2621^{+290}_{-120} (+4.4 σ)
Ω_{m}	$0.70^{+0.20}_{-0.46}$ (+7.2 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.620 ± 0.094 (−0.0 σ)	$H(2.33)$	257^{+23}_{-17} (+3.5 σ)
$\Omega_{\mathrm{m}}h^2$	$0.177^{+0.035}_{-0.029}$ (+3.7 σ)	Age/Gyr	$14.25^{+0.30}_{-0.15}$ (+6.2 σ)	$D_{\mathrm{M}}(2.33)$	5940^{+110}_{-48} (+4.8 σ)
$\Omega_{\nu}h^2$	$0.0136^{+0.0060}_{-0.011}$	z_{*}	$1092.4^{+2.5}_{-2.2}$ (+2.6 σ)	$f\sigma_8(0.15)$	$0.474^{+0.033}_{-0.016}$ (+1.2 σ)
$\Omega_{\mathrm{m}}h^3$	$0.0926^{+0.0021}_{-0.0023}$ (−0.8 σ)	r_{*}	$139.0^{+4.7}_{-7.2}$ (−2.5 σ)	$\sigma_8(0.15)$	$0.580^{+0.068}_{-0.14}$ (−7.0 σ)
σ_8	$0.647^{+0.067}_{-0.14}$ (−7.6 σ)	$100\theta_{*}$	1.04137 ± 0.00061 (+0.4 σ)	$f\sigma_8(0.38)$	$0.435^{+0.038}_{-0.023}$ (−1.3 σ)
S_8	$0.927^{+0.13}_{-0.094}$ (+2.2 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.34^{+0.45}_{-0.69}$ (−2.5 σ)	$\sigma_8(0.38)$	$0.499^{+0.064}_{-0.14}$ (−6.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.508^{+0.071}_{-0.052}$ (+2.2 σ)	z_{drag}	1061.4 ± 2.1 (+1.7 σ)	$f\sigma_8(0.51)$	$0.413^{+0.055}_{-0.032}$ (−3.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.569^{+0.021}_{-0.024}$ (−1.0 σ)	r_{drag}	$141.5^{+4.9}_{-7.3}$ (−2.5 σ)	$\sigma_8(0.51)$	$0.462^{+0.060}_{-0.14}$ (−5.9 σ)
$\sigma_8/h^{0.5}$	$0.881^{+0.056}_{-0.069}$ (−4.4 σ)	k_{D}	$0.1474^{+0.0079}_{-0.0065}$ (+2.7 σ)	$f\sigma_8(0.61)$	0.397 ± 0.047 (−5.6 σ)
$r_{\mathrm{drag}}h$	77^{+9}_{-20} (−3.4 σ)	$100\theta_{\mathrm{D}}$	0.1600 ± 0.0011 (−1.5 σ)	$\sigma_8(0.61)$	$0.437^{+0.058}_{-0.13}$ (−5.7 σ)
$\langle d^2 \rangle^{1/2}$	2.534 ± 0.061 (+0.5 σ)	z_{eq}	3903 ± 500 (+2.6 σ)	$f\sigma_8(2.33)$	$0.221^{+0.031}_{-0.071}$ (−5.0 σ)
z_{re}	$8.28^{+0.52}_{-0.42}$ (+3.0 σ)	k_{eq}	0.0120 ± 0.0016 (+2.6 σ)	$\sigma_8(2.33)$	$0.221^{+0.031}_{-0.075}$ (−4.7 σ)
10^9A_{s}	$2.03^{+0.25}_{-0.45}$ (−1.0 σ)	$100\theta_{\mathrm{eq}}$	$0.747^{+0.052}_{-0.095}$ (−2.0 σ)	$\chi^2_{\mathrm{lensing}}$	9.7 ± 1.9 (+0.1 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.82^{+0.23}_{-0.40}$ (−1.0 σ)	$100\theta_{\mathrm{s,eq}}$	$0.415^{+0.028}_{-0.050}$ (−2.0 σ)	χ^2_{prior}	3.0 ± 2.4 (−0.0 σ)

$$\bar{\chi}^2_{\mathrm{eff}} = 12.69; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.12; R - 1 = 0.00184$$

6.86 base_mnu_lensing_lenspriors_theta_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1098^{+100}_{-300} \quad (-1.6\sigma)$	$H(0.15)$	$61.8^{+3.3}_{-9.0} \quad (-4.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.143 \pm 0.021 \quad (+3.0\sigma)$	D_{220}	$5051^{+800}_{-2000} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$798^{+200}_{-80} \quad (+5.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2353^{+300}_{-500} \quad (-1.2\sigma)$	$H(0.38)$	$76.4^{+1.3}_{-4.2} \quad (-3.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.24^{+0.58}_{-0.99}$	D_{1420}	$769^{+100}_{-200} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1808^{+300}_{-100} \quad (+5.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.97^{+0.15}_{-0.19} \quad (-1.3\sigma)$	D_{2000}	$218^{+30}_{-40} \quad (-1.0\sigma)$	$H(0.51)$	$85.42^{+0.43}_{-2.4} \quad (-3.3\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2291^{+300}_{-100} \quad (+5.0\sigma)$
H_0	$< 57.8 \quad (-4.4\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$92.76^{+0.70}_{-1.6} \quad (-2.8\sigma)$
Ω_{Λ}	$0.29^{+0.45}_{-0.20} \quad (-8.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2628^{+280}_{-120} \quad (+4.9\sigma)$
Ω_{m}	$0.71^{+0.20}_{-0.45} \quad (+8.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.620 \pm 0.094 \quad (-0.0\sigma)$	$H(2.33)$	$259^{+22}_{-17} \quad (+4.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.179 \pm 0.028 \quad (+4.2\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.25^{+0.28}_{-0.14} \quad (+6.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5937^{+100}_{-44} \quad (+5.1\sigma)$
$\Omega_{\nu}h^2$	$0.0133^{+0.0063}_{-0.011}$	z_{*}	$1092.5^{+2.4}_{-2.2} \quad (+2.9\sigma)$	$f\sigma_8(0.15)$	$0.479^{+0.030}_{-0.015} \quad (+1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0930 \pm 0.0021 \quad (-0.8\sigma)$	r_{*}	$138.5^{+4.5}_{-6.9} \quad (-2.9\sigma)$	$\sigma_8(0.15)$	$0.580^{+0.067}_{-0.14} \quad (-7.5\sigma)$
σ_8	$0.648^{+0.066}_{-0.13} \quad (-8.0\sigma)$	$100\theta_{*}$	$1.04136 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.438^{+0.039}_{-0.022} \quad (-1.4\sigma)$
S_8	$0.939^{+0.12}_{-0.091} \quad (+2.5\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.30^{+0.43}_{-0.66} \quad (-2.9\sigma)$	$\sigma_8(0.38)$	$0.499^{+0.062}_{-0.14} \quad (-6.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.514^{+0.068}_{-0.050} \quad (+2.5\sigma)$	z_{drag}	$1061.5 \pm 2.1 \quad (+1.7\sigma)$	$f\sigma_8(0.51)$	$0.415^{+0.055}_{-0.031} \quad (-3.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.573 \pm 0.021 \quad (-1.1\sigma)$	r_{drag}	$141.1^{+4.7}_{-7.0} \quad (-2.8\sigma)$	$\sigma_8(0.51)$	$0.461^{+0.059}_{-0.13} \quad (-6.4\sigma)$
$\sigma_8/h^{0.5}$	$0.885^{+0.056}_{-0.068} \quad (-4.5\sigma)$	k_{D}	$0.1478^{+0.0076}_{-0.0064} \quad (+3.0\sigma)$	$f\sigma_8(0.61)$	$0.399 \pm 0.047 \quad (-6.0\sigma)$
$r_{\mathrm{drag}}h$	$76^{+9}_{-20} \quad (-3.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0011 \quad (-1.5\sigma)$	$\sigma_8(0.61)$	$0.436^{+0.057}_{-0.13} \quad (-6.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.522 \pm 0.051 \quad (+0.5\sigma)$	z_{eq}	$3952 \pm 500 \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.220^{+0.031}_{-0.070} \quad (-5.5\sigma)$
z_{re}	$8.31^{+0.50}_{-0.42} \quad (+3.3\sigma)$	k_{eq}	$0.0121 \pm 0.0016 \quad (+3.0\sigma)$	$\sigma_8(2.33)$	$0.220^{+0.030}_{-0.073} \quad (-5.2\sigma)$
10^9A_{s}	$1.98^{+0.24}_{-0.41} \quad (-1.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.739^{+0.049}_{-0.090} \quad (-2.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$7.6 \pm 2.0 \quad (+0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.77^{+0.21}_{-0.37} \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.411^{+0.026}_{-0.047} \quad (-2.3\sigma)$	χ_{prior}^2	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 10.54$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.01$; $R - 1 = 0.00109$

6.87 base_mnu_lensing_lenspriors_theta_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02220 \pm 0.00048 \quad (+0.0\sigma)$	D_{40}	$1264^{+200}_{-400} \quad (-1.8\sigma)$	$H(0.15)$	$62.9^{+3.9}_{-10} \quad (-4.7\sigma)$
$\Omega_c h^2$	$0.134^{+0.024}_{-0.022} \quad (+3.5\sigma)$	D_{220}	$5943^{+1000}_{-2000} \quad (-1.7\sigma)$	$D_M(0.15)$	$784^{+200}_{-100} \quad (+6.9\sigma)$
$100\theta_{MC}$	$1.04088 \pm 0.00059 \quad (-0.0\sigma)$	D_{810}	$2695^{+400}_{-700} \quad (-1.4\sigma)$	$H(0.38)$	$76.8^{+1.4}_{-5.2} \quad (-4.2\sigma)$
Σm_ν [eV]	$1.43^{+0.51}_{-1.3}$	D_{1420}	$875^{+100}_{-200} \quad (-1.2\sigma)$	$D_M(0.38)$	$1786^{+300}_{-100} \quad (+6.2\sigma)$
$\ln(10^{10} A_s)$	$3.09^{+0.17}_{-0.22} \quad (-1.5\sigma)$	D_{2000}	$248^{+30}_{-60} \quad (-1.1\sigma)$	$H(0.51)$	$85.46^{+0.35}_{-3.1} \quad (-3.8\sigma)$
n_s	$0.961 \pm 0.020 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.961 \pm 0.020 \quad (+0.0\sigma)$	$D_M(0.51)$	$2268^{+300}_{-100} \quad (+6.0\sigma)$
H_0	$< 59.2 \quad (-5.1\sigma)$	Y_P	$0.24531 \pm 0.00021 \quad (+0.0\sigma)$	$H(0.61)$	$92.53^{+0.54}_{-2.1} \quad (-3.4\sigma)$
Ω_Λ	$0.33^{+0.46}_{-0.21} \quad (-10.5\sigma)$	Y_P^{BBN}	$0.24664 \pm 0.00021 \quad (+0.0\sigma)$	$D_M(0.61)$	$2605^{+300}_{-100} \quad (+5.8\sigma)$
Ω_m	$0.67^{+0.21}_{-0.46} \quad (+10.5\sigma)$	$10^5 D/H$	$2.620 \pm 0.092 \quad (-0.0\sigma)$	$H(2.33)$	$254^{+23}_{-18} \quad (+4.8\sigma)$
$\Omega_m h^2$	$0.171^{+0.035}_{-0.030} \quad (+5.1\sigma)$	Age/Gyr	$14.30^{+0.35}_{-0.15} \quad (+7.3\sigma)$	$D_M(2.33)$	$5958^{+130}_{-44} \quad (+5.6\sigma)$
$\Omega_\nu h^2$	$0.0154^{+0.0055}_{-0.014}$	z_*	$1091.9^{+2.7}_{-2.3} \quad (+3.4\sigma)$	$f\sigma_8(0.15)$	$0.459^{+0.037}_{-0.020} \quad (+1.8\sigma)$
$\Omega_m h^3$	$0.0911 \pm 0.0021 \quad (-0.7\sigma)$	r_*	$140.5^{+5.1}_{-7.4} \quad (-3.4\sigma)$	$\sigma_8(0.15)$	$0.580^{+0.078}_{-0.14} \quad (-8.6\sigma)$
σ_8	$0.644^{+0.075}_{-0.14} \quad (-8.8\sigma)$	$100\theta_*$	$1.04140 \pm 0.00060 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.426^{+0.034}_{-0.023} \quad (-0.8\sigma)$
S_8	$0.89^{+0.13}_{-0.11} \quad (+2.9\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.49^{+0.49}_{-0.71} \quad (-3.4\sigma)$	$\sigma_8(0.38)$	$0.501^{+0.073}_{-0.14} \quad (-8.0\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.488^{+0.071}_{-0.058} \quad (+2.9\sigma)$	z_{drag}	$1061.0 \pm 2.2 \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.407^{+0.051}_{-0.039} \quad (-2.7\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.555 \pm 0.022 \quad (-0.9\sigma)$	r_{drag}	$143.1^{+5.3}_{-7.6} \quad (-3.3\sigma)$	$\sigma_8(0.51)$	$0.464^{+0.069}_{-0.14} \quad (-7.6\sigma)$
$\sigma_8/h^{0.5}$	$0.868 \pm 0.060 \quad (-4.0\sigma)$	k_D	$0.1457^{+0.0082}_{-0.0069} \quad (+3.5\sigma)$	$f\sigma_8(0.61)$	$0.392^{+0.061}_{-0.050} \quad (-4.4\sigma)$
$r_{\text{drag}} h$	$79^{+10}_{-20} \quad (-4.4\sigma)$	$100\theta_D$	$0.1601 \pm 0.0012 \quad (-1.9\sigma)$	$\sigma_8(0.61)$	$0.439^{+0.066}_{-0.14} \quad (-7.4\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.596^{+0.063}_{-0.056} \quad (+0.4\sigma)$	z_{eq}	$3727^{+600}_{-500} \quad (+3.5\sigma)$	$f\sigma_8(2.33)$	$0.223^{+0.036}_{-0.075} \quad (-6.5\sigma)$
z_{re}	$8.20^{+0.54}_{-0.44} \quad (+4.0\sigma)$	k_{eq}	$0.0114^{+0.0018}_{-0.0016} \quad (+3.5\sigma)$	$\sigma_8(2.33)$	$0.224^{+0.035}_{-0.080} \quad (-6.0\sigma)$
$10^9 A_s$	$2.24^{+0.29}_{-0.54} \quad (-1.3\sigma)$	$100\theta_{\text{eq}}$	$0.775^{+0.057}_{-0.10} \quad (-2.6\sigma)$	χ^2_{lensing}	$11.1 \pm 1.9 \quad (+0.2\sigma)$
$10^9 A_s e^{-2\tau}$	$2.01^{+0.26}_{-0.48} \quad (-1.3\sigma)$	$100\theta_{s,\text{eq}}$	$0.429^{+0.031}_{-0.053} \quad (-2.6\sigma)$	χ^2_{prior}	$2.9 \pm 2.4 \quad (-0.1\sigma)$

$$\bar{\chi}^2_{\text{eff}} = 13.98; \Delta\bar{\chi}^2_{\text{eff}} = 0.12; R - 1 = 0.03431$$

6.88 base_mnu_lensing_lenspriors_theta_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02221 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1078^{+100}_{-300} \quad (-1.6\sigma)$	$H(0.15)$	$61.8^{+3.5}_{-9.0} \quad (-4.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.143 \pm 0.021 \quad (+3.0\sigma)$	D_{220}	$4963^{+800}_{-2000} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$798^{+200}_{-90} \quad (+5.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2314^{+300}_{-500} \quad (-1.2\sigma)$	$H(0.38)$	$76.4^{+1.3}_{-4.2} \quad (-3.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.25^{+0.58}_{-1.0}$	D_{1420}	$756^{+100}_{-200} \quad (-1.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1808^{+300}_{-100} \quad (+5.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.95^{+0.15}_{-0.19} \quad (-1.3\sigma)$	D_{2000}	$215^{+30}_{-40} \quad (-1.0\sigma)$	$H(0.51)$	$85.43^{+0.45}_{-2.4} \quad (-3.3\sigma)$
n_{s}	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2292^{+300}_{-100} \quad (+5.0\sigma)$
H_0	$< 57.9 \quad (-4.3\sigma)$	Y_{P}	$0.24532 \pm 0.00022 \quad (+0.0\sigma)$	$H(0.61)$	$92.77^{+0.72}_{-1.6} \quad (-2.8\sigma)$
Ω_{Λ}	$0.28^{+0.46}_{-0.20} \quad (-8.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664 \pm 0.00022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2629^{+280}_{-120} \quad (+4.9\sigma)$
Ω_{m}	$0.72^{+0.20}_{-0.46} \quad (+8.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.619 \pm 0.095 \quad (-0.0\sigma)$	$H(2.33)$	$259^{+23}_{-16} \quad (+4.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.179^{+0.035}_{-0.028} \quad (+4.2\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.25^{+0.29}_{-0.14} \quad (+6.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5938^{+100}_{-46} \quad (+5.1\sigma)$
$\Omega_{\nu}h^2$	$0.0134^{+0.0062}_{-0.011}$	z_{*}	$1092.5^{+2.4}_{-2.2} \quad (+2.8\sigma)$	$f\sigma_8(0.15)$	$0.475^{+0.029}_{-0.015} \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0929 \pm 0.0021 \quad (-0.8\sigma)$	r_{*}	$138.5^{+4.5}_{-7.0} \quad (-2.9\sigma)$	$\sigma_8(0.15)$	$0.574^{+0.068}_{-0.14} \quad (-7.8\sigma)$
σ_8	$0.641^{+0.066}_{-0.13} \quad (-8.3\sigma)$	$100\theta_{*}$	$1.04136 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.433^{+0.039}_{-0.023} \quad (-1.4\sigma)$
S_8	$0.930^{+0.12}_{-0.090} \quad (+2.4\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.30^{+0.43}_{-0.67} \quad (-2.9\sigma)$	$\sigma_8(0.38)$	$0.493^{+0.063}_{-0.14} \quad (-6.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.510^{+0.068}_{-0.049} \quad (+2.4\sigma)$	z_{drag}	$1061.5 \pm 2.1 \quad (+1.8\sigma)$	$f\sigma_8(0.51)$	$0.411 \pm 0.041 \quad (-3.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.567^{+0.020}_{-0.023} \quad (-1.1\sigma)$	r_{drag}	$141.1^{+4.7}_{-7.1} \quad (-2.8\sigma)$	$\sigma_8(0.51)$	$0.456^{+0.060}_{-0.13} \quad (-6.6\sigma)$
$\sigma_8/h^{0.5}$	$0.877^{+0.055}_{-0.069} \quad (-4.5\sigma)$	k_{D}	$0.1479^{+0.0077}_{-0.0064} \quad (+3.0\sigma)$	$f\sigma_8(0.61)$	$0.394 \pm 0.047 \quad (-6.0\sigma)$
$r_{\mathrm{drag}}h$	$76^{+9}_{-20} \quad (-3.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0011 \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.431^{+0.058}_{-0.13} \quad (-6.4\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.499 \pm 0.048 \quad (+0.5\sigma)$	z_{eq}	$3952 \pm 500 \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.217^{+0.031}_{-0.069} \quad (-5.6\sigma)$
z_{re}	$8.31^{+0.50}_{-0.42} \quad (+3.3\sigma)$	k_{eq}	$0.0121 \pm 0.0016 \quad (+3.0\sigma)$	$\sigma_8(2.33)$	$0.218^{+0.031}_{-0.073} \quad (-5.2\sigma)$
$10^9 A_{\mathrm{s}}$	$1.94^{+0.24}_{-0.40} \quad (-1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.739^{+0.049}_{-0.090} \quad (-2.3\sigma)$	$\chi^2_{\mathrm{lensing}}$	$9.96 \pm 1.9 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.74^{+0.21}_{-0.36} \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.411^{+0.026}_{-0.048} \quad (-2.3\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.95; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.10; R - 1 = 0.00197$$

6.89 base_mnu_lensing_lenspriors_theta_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1111^{+200}_{-300} \quad (-1.9\sigma)$	$H(0.15)$	$62.1^{+3.6}_{-9.4} \quad (-5.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.140^{+0.025}_{-0.022} \quad (+3.7\sigma)$	D_{220}	$5147^{+800}_{-2000} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$795^{+200}_{-100} \quad (+7.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2378^{+300}_{-600} \quad (-1.4\sigma)$	$H(0.38)$	$76.4^{+1.7}_{-4.4} \quad (-4.4\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.33^{+0.69}_{-1.0}$	D_{1420}	$775^{+100}_{-200} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1804^{+300}_{-100} \quad (+6.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.98^{+0.16}_{-0.19} \quad (-1.6\sigma)$	D_{2000}	$220^{+30}_{-50} \quad (-1.1\sigma)$	$H(0.51)$	$85.41^{+0.41}_{-2.6} \quad (-3.9\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$2287^{+300}_{-100} \quad (+6.2\sigma)$
H_0	$< 58.6 \quad (-5.3\sigma)$	Y_{P}	$0.24532 \pm 0.00022 \quad (+0.0\sigma)$	$H(0.61)$	$92.67^{+0.65}_{-1.7} \quad (-3.3\sigma)$
Ω_{Λ}	$0.29^{+0.47}_{-0.21} \quad (-10.7\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664 \pm 0.00022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2624^{+300}_{-100} \quad (+6.1\sigma)$
Ω_{m}	$0.71^{+0.21}_{-0.47} \quad (+10.7\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.620 \pm 0.096 \quad (-0.0\sigma)$	$H(2.33)$	$257^{+25}_{-21} \quad (+5.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.177^{+0.039}_{-0.034} \quad (+5.3\sigma)$	Age/Gyr	$14.27^{+0.30}_{-0.13} \quad (+7.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5946^{+110}_{-40} \quad (+5.7\sigma)$
$\Omega_{\nu}h^2$	$0.0143^{+0.0074}_{-0.011}$	z_{*}	$1092.3 \pm 2.2 \quad (+3.4\sigma)$	$f\sigma_8(0.15)$	$0.464^{+0.029}_{-0.012} \quad (+1.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0922 \pm 0.0019 \quad (-0.9\sigma)$	r_{*}	$139.1^{+4.6}_{-7.5} \quad (-3.5\sigma)$	$\sigma_8(0.15)$	$0.569^{+0.067}_{-0.14} \quad (-8.8\sigma)$
σ_8	$0.634^{+0.064}_{-0.13} \quad (-9.2\sigma)$	$100\theta_{*}$	$1.04138 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.425^{+0.037}_{-0.020} \quad (-1.5\sigma)$
S_8	$0.908^{+0.13}_{-0.089} \quad (+3.2\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.36^{+0.44}_{-0.72} \quad (-3.6\sigma)$	$\sigma_8(0.38)$	$0.489^{+0.064}_{-0.14} \quad (-8.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.497^{+0.073}_{-0.049} \quad (+3.2\sigma)$	z_{drag}	$1061.4 \pm 2.2 \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.404 \pm 0.040 \quad (-4.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.557^{+0.016}_{-0.020} \quad (-1.3\sigma)$	r_{drag}	$141.7^{+4.8}_{-7.6} \quad (-3.5\sigma)$	$\sigma_8(0.51)$	$0.453^{+0.061}_{-0.13} \quad (-7.7\sigma)$
$\sigma_8/h^{0.5}$	$0.863^{+0.049}_{-0.071} \quad (-5.3\sigma)$	k_{D}	$0.1472^{+0.0081}_{-0.0067} \quad (+3.7\sigma)$	$f\sigma_8(0.61)$	$0.389 \pm 0.046 \quad (-6.7\sigma)$
$r_{\mathrm{drag}}h$	$77^{+9}_{-20} \quad (-4.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0011 \quad (-1.8\sigma)$	$\sigma_8(0.61)$	$0.428^{+0.059}_{-0.13} \quad (-7.4\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.505 \pm 0.046 \quad (+0.5\sigma)$	z_{eq}	$3880^{+600}_{-500} \quad (+3.7\sigma)$	$f\sigma_8(2.33)$	$0.216^{+0.034}_{-0.071} \quad (-6.6\sigma)$
z_{re}	$8.28^{+0.52}_{-0.44} \quad (+3.9\sigma)$	k_{eq}	$0.0119^{+0.0019}_{-0.0017} \quad (+3.8\sigma)$	$\sigma_8(2.33)$	$0.217^{+0.032}_{-0.074} \quad (-6.1\sigma)$
10^9A_{s}	$1.99^{+0.25}_{-0.43} \quad (-1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.750^{+0.050}_{-0.097} \quad (-2.8\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.3 \pm 1.9 \quad (+0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.78^{+0.23}_{-0.38} \quad (-1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.416^{+0.027}_{-0.051} \quad (-2.8\sigma)$	χ^2_{prior}	$3.0 \pm 2.3 \quad (-0.0\sigma)$

$\bar{\chi}^2_{\mathrm{eff}} = 15.30$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.18$; $R - 1 = 0.00207$

6.90 base_mnu_lensing_lenspriors_theta_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02220 \pm 0.00049 \quad (-0.0\sigma)$	D_{40}	$1075^{+100}_{-300} \quad (-1.5\sigma)$	$H(0.15)$	$61.4^{+3.1}_{-8.6} \quad (-3.9\sigma)$
$\Omega_c h^2$	$0.146^{+0.025}_{-0.021} \quad (+2.9\sigma)$	D_{220}	$4920^{+700}_{-2000} \quad (-1.4\sigma)$	$D_M(0.15)$	$805^{+200}_{-80} \quad (+5.5\sigma)$
$100\theta_{MC}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2311^{+300}_{-500} \quad (-1.2\sigma)$	$H(0.38)$	$76.2^{+1.2}_{-4.0} \quad (-3.5\sigma)$
Σm_ν [eV]	$1.23^{+0.58}_{-0.99}$	D_{1420}	$756^{+90}_{-200} \quad (-1.0\sigma)$	$D_M(0.38)$	$1819^{+300}_{-100} \quad (+5.0\sigma)$
$\ln(10^{10} A_s)$	$2.96^{+0.14}_{-0.19} \quad (-1.2\sigma)$	D_{2000}	$215^{+30}_{-40} \quad (-0.9\sigma)$	$H(0.51)$	$85.42^{+0.38}_{-2.3} \quad (-3.1\sigma)$
n_s	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$D_M(0.51)$	$2302^{+300}_{-100} \quad (+4.8\sigma)$
H_0	$< 57.0 \quad (-4.2\sigma)$	Y_P	$0.24531^{+0.00023}_{-0.00020} \quad (-0.0\sigma)$	$H(0.61)$	$92.86^{+0.76}_{-1.5} \quad (-2.6\sigma)$
Ω_Λ	$0.26^{+0.47}_{-0.21} \quad (-7.8\sigma)$	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00020} \quad (-0.0\sigma)$	$D_M(0.61)$	$2639^{+270}_{-110} \quad (+4.7\sigma)$
Ω_m	$0.74^{+0.21}_{-0.47} \quad (+7.8\sigma)$	$10^5 D/H$	$2.620 \pm 0.094 \quad (+0.0\sigma)$	$H(2.33)$	$260^{+24}_{-15} \quad (+3.8\sigma)$
$\Omega_m h^2$	$0.181^{+0.038}_{-0.024} \quad (+4.0\sigma)$	Age/Gyr	$14.24^{+0.28}_{-0.13} \quad (+6.4\sigma)$	$D_M(2.33)$	$5934^{+99}_{-43} \quad (+4.9\sigma)$
$\Omega_\nu h^2$	$0.0132^{+0.0062}_{-0.011}$	z_*	$1092.7^{+2.5}_{-2.1} \quad (+2.8\sigma)$	$f\sigma_8(0.15)$	$0.487^{+0.030}_{-0.016} \quad (+1.3\sigma)$
$\Omega_m h^3$	$0.0933 \pm 0.0022 \quad (-0.8\sigma)$	r_*	$137.9^{+4.2}_{-7.0} \quad (-2.8\sigma)$	$\sigma_8(0.15)$	$0.580^{+0.066}_{-0.14} \quad (-7.4\sigma)$
σ_8	$0.649^{+0.065}_{-0.13} \quad (-7.9\sigma)$	$100\theta_*$	$1.04135 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.441^{+0.040}_{-0.024} \quad (-1.5\sigma)$
S_8	$0.959^{+0.13}_{-0.089} \quad (+2.4\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.25^{+0.40}_{-0.68} \quad (-2.8\sigma)$	$\sigma_8(0.38)$	$0.498^{+0.061}_{-0.14} \quad (-6.6\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.525^{+0.070}_{-0.049} \quad (+2.4\sigma)$	z_{drag}	$1061.7^{+2.3}_{-2.0} \quad (+1.7\sigma)$	$f\sigma_8(0.51)$	$0.417 \pm 0.041 \quad (-3.8\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.580 \pm 0.022 \quad (-1.0\sigma)$	r_{drag}	$140.5^{+4.3}_{-7.2} \quad (-2.7\sigma)$	$\sigma_8(0.51)$	$0.460^{+0.058}_{-0.13} \quad (-6.3\sigma)$
$\sigma_8/h^{0.5}$	$0.892^{+0.056}_{-0.068} \quad (-4.3\sigma)$	k_D	$0.1485^{+0.0080}_{-0.0059} \quad (+2.9\sigma)$	$f\sigma_8(0.61)$	$0.400 \pm 0.047 \quad (-6.0\sigma)$
$r_{\text{drag}} h$	$75^{+8}_{-20} \quad (-3.6\sigma)$	$100\theta_D$	$0.1600^{+0.0010}_{-0.0011} \quad (-1.5\sigma)$	$\sigma_8(0.61)$	$0.434^{+0.055}_{-0.13} \quad (-6.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.518 \pm 0.051 \quad (+0.5\sigma)$	z_{eq}	$4017^{+600}_{-500} \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.219^{+0.030}_{-0.068} \quad (-5.4\sigma)$
z_{re}	$8.35^{+0.52}_{-0.40} \quad (+3.2\sigma)$	k_{eq}	$0.0123^{+0.0019}_{-0.0015} \quad (+2.9\sigma)$	$\sigma_8(2.33)$	$0.219^{+0.029}_{-0.071} \quad (-5.0\sigma)$
$10^9 A_s$	$1.95^{+0.22}_{-0.40} \quad (-1.1\sigma)$	$100\theta_{\text{eq}}$	$0.730^{+0.047}_{-0.089} \quad (-2.2\sigma)$	χ^2_{lensing}	$10.2 \pm 1.9 \quad (+0.1\sigma)$
$10^9 A_s e^{-2\tau}$	$1.75^{+0.20}_{-0.36} \quad (-1.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.406^{+0.025}_{-0.047} \quad (-2.2\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$\bar{\chi}^2_{\text{eff}} = 13.20$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.11$; $R - 1 = 0.00228$

6.91 base_mnu_lensing_lenspriors_theta_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1110^{+200}_{-300} \quad (-1.6\sigma)$	$H(0.15)$	$61.9^{+3.4}_{-9.1} \quad (-4.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.142^{+0.024}_{-0.022} \quad (+3.1\sigma)$	D_{220}	$5116^{+800}_{-2000} \quad (-1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$797^{+200}_{-90} \quad (+5.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00060 \quad (-0.1\sigma)$	D_{810}	$2381^{+300}_{-600} \quad (-1.2\sigma)$	$H(0.38)$	$76.4^{+1.3}_{-4.3} \quad (-3.8\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.27^{+0.58}_{-1.1}$	D_{1420}	$777^{+100}_{-200} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1806^{+300}_{-100} \quad (+5.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.98^{+0.15}_{-0.19} \quad (-1.3\sigma)$	D_{2000}	$221^{+30}_{-50} \quad (-1.0\sigma)$	$H(0.51)$	$85.42^{+0.44}_{-2.5} \quad (-3.4\sigma)$
n_{s}	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.961 \pm 0.020 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2289^{+300}_{-100} \quad (+5.2\sigma)$
H_0	$< 58.0 \quad (-4.5\sigma)$	Y_{P}	$0.24532^{+0.00022}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$92.74^{+0.71}_{-1.6} \quad (-2.9\sigma)$
Ω_{Λ}	$0.29^{+0.46}_{-0.20} \quad (-8.5\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2626^{+280}_{-120} \quad (+5.1\sigma)$
Ω_{m}	$0.71^{+0.20}_{-0.46} \quad (+8.5\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.617 \pm 0.094 \quad (-0.0\sigma)$	$H(2.33)$	$258^{+23}_{-16} \quad (+4.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.178^{+0.036}_{-0.027} \quad (+4.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.25^{+0.29}_{-0.14} \quad (+6.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5940^{+110}_{-45} \quad (+5.2\sigma)$
$\Omega_{\nu}h^2$	$0.0136^{+0.0062}_{-0.011}$	z_{*}	$1092.5^{+2.5}_{-2.2} \quad (+2.9\sigma)$	$f\sigma_8(0.15)$	$0.476^{+0.030}_{-0.015} \quad (+1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0927 \pm 0.0021 \quad (-0.8\sigma)$	r_{*}	$138.7^{+4.5}_{-7.1} \quad (-3.0\sigma)$	$\sigma_8(0.15)$	$0.579^{+0.068}_{-0.14} \quad (-7.8\sigma)$
σ_8	$0.646^{+0.067}_{-0.13} \quad (-8.3\sigma)$	$100\theta_{*}$	$1.04135 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.435^{+0.038}_{-0.023} \quad (-1.4\sigma)$
S_8	$0.932^{+0.13}_{-0.092} \quad (+2.6\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.32^{+0.43}_{-0.68} \quad (-3.0\sigma)$	$\sigma_8(0.38)$	$0.497^{+0.064}_{-0.14} \quad (-7.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.511^{+0.069}_{-0.050} \quad (+2.6\sigma)$	z_{drag}	$1061.5 \pm 2.1 \quad (+1.8\sigma)$	$f\sigma_8(0.51)$	$0.413^{+0.055}_{-0.032} \quad (-3.7\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.570 \pm 0.021 \quad (-1.1\sigma)$	r_{drag}	$141.3^{+4.7}_{-7.2} \quad (-2.9\sigma)$	$\sigma_8(0.51)$	$0.460^{+0.061}_{-0.14} \quad (-6.7\sigma)$
$\sigma_8/h^{0.5}$	$0.881^{+0.056}_{-0.070} \quad (-4.5\sigma)$	k_{D}	$0.1477^{+0.0078}_{-0.0063} \quad (+3.1\sigma)$	$f\sigma_8(0.61)$	$0.397 \pm 0.047 \quad (-5.9\sigma)$
$r_{\mathrm{drag}}h$	$76^{+9}_{-20} \quad (-3.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0011 \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.435^{+0.058}_{-0.13} \quad (-6.5\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.526 \pm 0.051 \quad (+0.5\sigma)$	z_{eq}	$3928^{+600}_{-500} \quad (+3.1\sigma)$	$f\sigma_8(2.33)$	$0.219^{+0.032}_{-0.070} \quad (-5.7\sigma)$
z_{re}	$8.30^{+0.52}_{-0.41} \quad (+3.4\sigma)$	k_{eq}	$0.0120^{+0.0018}_{-0.0016} \quad (+3.1\sigma)$	$\sigma_8(2.33)$	$0.220^{+0.031}_{-0.074} \quad (-5.3\sigma)$
10^9A_{s}	$2.00^{+0.24}_{-0.41} \quad (-1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.743^{+0.050}_{-0.091} \quad (-2.4\sigma)$	$\chi^2_{\mathrm{lensing}}$	$9.8 \pm 2.0 \quad (+0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.79^{+0.22}_{-0.37} \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.412^{+0.027}_{-0.048} \quad (-2.4\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$\bar{\chi}^2_{\mathrm{eff}} = 12.75$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.16$; $R - 1 = 0.00245$

6.92 base_mnu_lensing_lenspriors_theta_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1149^{+200}_{-300} \quad (-2.0\sigma)$	$H(0.15)$	$62.2^{+3.6}_{-9.6} \quad (-5.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.139^{+0.026}_{-0.021} \quad (+3.9\sigma)$	D_{220}	$5334^{+800}_{-2000} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$793^{+200}_{-80} \quad (+7.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2458^{+300}_{-600} \quad (-1.4\sigma)$	$H(0.38)$	$76.5^{+1.3}_{-4.6} \quad (-4.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.36^{+0.70}_{-1.1}$	D_{1420}	$801^{+100}_{-200} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1800^{+300}_{-100} \quad (+6.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.01^{+0.16}_{-0.20} \quad (-1.6\sigma)$	D_{2000}	$227^{+30}_{-50} \quad (-1.2\sigma)$	$H(0.51)$	$85.41^{+0.37}_{-2.7} \quad (-4.1\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2283^{+300}_{-100} \quad (+6.5\sigma)$
H_0	$< 58.6 \quad (-5.6\sigma)$	Y_{P}	$0.24532^{+0.00022}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$92.64^{+0.63}_{-1.8} \quad (-3.5\sigma)$
Ω_{Λ}	$0.30^{+0.47}_{-0.21} \quad (-11.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00022}_{-0.00020} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2621^{+300}_{-100} \quad (+6.3\sigma)$
Ω_{m}	$0.70^{+0.21}_{-0.47} \quad (+11.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.617 \pm 0.094 \quad (-0.0\sigma)$	$H(2.33)$	$256^{+25}_{-20} \quad (+5.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.176^{+0.039}_{-0.030} \quad (+5.6\sigma)$	Age/Gyr	$14.28^{+0.32}_{-0.13} \quad (+7.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5949^{+120}_{-38} \quad (+5.9\sigma)$
$\Omega_{\nu}h^2$	$0.0146^{+0.0075}_{-0.011}$	z_{*}	$1092.2^{+2.6}_{-2.2} \quad (+3.5\sigma)$	$f\sigma_8(0.15)$	$0.464^{+0.030}_{-0.012} \quad (+1.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0920 \pm 0.0019 \quad (-0.9\sigma)$	r_{*}	$139.4^{+4.6}_{-7.6} \quad (-3.7\sigma)$	$\sigma_8(0.15)$	$0.572^{+0.066}_{-0.14} \quad (-8.9\sigma)$
σ_8	$0.637^{+0.063}_{-0.14} \quad (-9.3\sigma)$	$100\theta_{*}$	$1.04138 \pm 0.00062 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.426^{+0.037}_{-0.020} \quad (-1.4\sigma)$
S_8	$0.907^{+0.13}_{-0.090} \quad (+3.4\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.39^{+0.44}_{-0.73} \quad (-3.7\sigma)$	$\sigma_8(0.38)$	$0.493^{+0.063}_{-0.14} \quad (-8.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.497^{+0.073}_{-0.049} \quad (+3.4\sigma)$	z_{drag}	$1061.3 \pm 2.1 \quad (+2.0\sigma)$	$f\sigma_8(0.51)$	$0.406 \pm 0.040 \quad (-4.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.558^{+0.016}_{-0.019} \quad (-1.3\sigma)$	r_{drag}	$142.0^{+4.8}_{-7.7} \quad (-3.6\sigma)$	$\sigma_8(0.51)$	$0.456^{+0.060}_{-0.14} \quad (-7.9\sigma)$
$\sigma_8/h^{0.5}$	$0.866^{+0.048}_{-0.073} \quad (-5.3\sigma)$	k_{D}	$0.1470^{+0.0082}_{-0.0066} \quad (+3.9\sigma)$	$f\sigma_8(0.61)$	$0.390 \pm 0.047 \quad (-6.6\sigma)$
$r_{\mathrm{drag}}h$	$77^{+9}_{-20} \quad (-4.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0012 \quad (-1.9\sigma)$	$\sigma_8(0.61)$	$0.431^{+0.057}_{-0.13} \quad (-7.6\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.533 \pm 0.049 \quad (+0.5\sigma)$	z_{eq}	$3847^{+600}_{-500} \quad (+3.9\sigma)$	$f\sigma_8(2.33)$	$0.218^{+0.031}_{-0.072} \quad (-6.8\sigma)$
z_{re}	$8.26^{+0.54}_{-0.42} \quad (+4.1\sigma)$	k_{eq}	$0.0118^{+0.0019}_{-0.0016} \quad (+3.9\sigma)$	$\sigma_8(2.33)$	$0.219^{+0.031}_{-0.076} \quad (-6.3\sigma)$
10^9A_{s}	$2.06^{+0.25}_{-0.45} \quad (-1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.755^{+0.049}_{-0.098} \quad (-2.9\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.2 \pm 2.0 \quad (+0.2\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.84^{+0.23}_{-0.40} \quad (-1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.419^{+0.026}_{-0.052} \quad (-2.9\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 15.21; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.29; R - 1 = 0.00402$$

6.93 base_mnu_lensing_lenspriors_theta_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02221 \pm 0.00050 \quad (+0.0\sigma)$	D_{40}	$1113^{+100}_{-300} \quad (-1.6\sigma)$	$H(0.15)$	$61.9^{+3.4}_{-9.1} \quad (-4.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.141^{+0.024}_{-0.021} \quad (+3.0\sigma)$	D_{220}	$5145^{+800}_{-2000} \quad (-1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$797^{+200}_{-80} \quad (+6.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2387^{+300}_{-600} \quad (-1.2\sigma)$	$H(0.38)$	$76.3^{+1.3}_{-4.4} \quad (-3.8\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.31^{+0.56}_{-1.1}$	D_{1420}	$779^{+100}_{-200} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1808^{+300}_{-100} \quad (+5.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$2.98^{+0.15}_{-0.19} \quad (-1.4\sigma)$	D_{2000}	$221^{+30}_{-50} \quad (-1.0\sigma)$	$H(0.51)$	$85.35^{+0.43}_{-2.5} \quad (-3.4\sigma)$
n_{s}	$0.961 \pm 0.020 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.961 \pm 0.020 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$2291^{+300}_{-100} \quad (+5.3\sigma)$
H_0	$< 57.9 \quad (-4.5\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00020} \quad (+0.0\sigma)$	$H(0.61)$	$92.66^{+0.67}_{-1.7} \quad (-3.0\sigma)$
Ω_{Λ}	$0.29^{+0.46}_{-0.20} \quad (-8.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00023}_{-0.00021} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2629^{+290}_{-120} \quad (+5.1\sigma)$
Ω_{m}	$0.71^{+0.20}_{-0.46} \quad (+8.6\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.619 \pm 0.095 \quad (-0.0\sigma)$	$H(2.33)$	$258^{+23}_{-16} \quad (+4.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.178^{+0.036}_{-0.026} \quad (+4.4\sigma)$	Age/Gyr	$14.27^{+0.30}_{-0.15} \quad (+6.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5945^{+110}_{-46} \quad (+5.3\sigma)$
$\Omega_{\nu}h^2$	$0.0141^{+0.0060}_{-0.012}$	z_{*}	$1092.4^{+2.5}_{-2.1} \quad (+3.0\sigma)$	$f\sigma_8(0.15)$	$0.472^{+0.029}_{-0.016} \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0925 \pm 0.0022 \quad (-0.9\sigma)$	r_{*}	$138.9^{+4.4}_{-7.0} \quad (-3.0\sigma)$	$\sigma_8(0.15)$	$0.574^{+0.069}_{-0.14} \quad (-8.1\sigma)$
σ_8	$0.641^{+0.068}_{-0.14} \quad (-8.6\sigma)$	$100\theta_{*}$	$1.04137 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.432^{+0.041}_{-0.024} \quad (-1.4\sigma)$
S_8	$0.924^{+0.12}_{-0.085} \quad (+2.4\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.33^{+0.42}_{-0.67} \quad (-3.0\sigma)$	$\sigma_8(0.38)$	$0.494^{+0.064}_{-0.14} \quad (-7.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.506^{+0.067}_{-0.046} \quad (+2.4\sigma)$	z_{drag}	$1061.4 \pm 2.1 \quad (+1.8\sigma)$	$f\sigma_8(0.51)$	$0.410 \pm 0.042 \quad (-3.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.565 \pm 0.024 \quad (-1.2\sigma)$	r_{drag}	$141.4^{+4.6}_{-7.1} \quad (-2.9\sigma)$	$\sigma_8(0.51)$	$0.457^{+0.061}_{-0.14} \quad (-7.0\sigma)$
$\sigma_8/h^{0.5}$	$0.875^{+0.061}_{-0.073} \quad (-4.5\sigma)$	k_{D}	$0.1475^{+0.0078}_{-0.0062} \quad (+3.1\sigma)$	$f\sigma_8(0.61)$	$0.394 \pm 0.048 \quad (-5.7\sigma)$
$r_{\mathrm{drag}}h$	$76^{+9}_{-20} \quad (-3.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.1600 \pm 0.0011 \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.432^{+0.058}_{-0.13} \quad (-6.7\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.527 \pm 0.051 \quad (+0.5\sigma)$	z_{eq}	$3907^{+600}_{-500} \quad (+3.0\sigma)$	$f\sigma_8(2.33)$	$0.218^{+0.032}_{-0.071} \quad (-5.9\sigma)$
z_{re}	$8.29^{+0.51}_{-0.41} \quad (+3.4\sigma)$	k_{eq}	$0.0120^{+0.0018}_{-0.0015} \quad (+3.1\sigma)$	$\sigma_8(2.33)$	$0.218^{+0.031}_{-0.075} \quad (-5.5\sigma)$
10^9A_{s}	$2.00^{+0.24}_{-0.42} \quad (-1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.746^{+0.047}_{-0.090} \quad (-2.3\sigma)$	$\chi^2_{\mathrm{lensing}}$	$9.7 \pm 2.0 \quad (+0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.79^{+0.22}_{-0.38} \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.414^{+0.025}_{-0.047} \quad (-2.3\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 12.69; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.14; R - 1 = 0.00149$$

6.94 base_mnu_lensing_lenspriors_theta_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (+0.0\sigma)$	D_{40}	$1160^{+200}_{-300} \quad (-2.0\sigma)$	$H(0.15)$	$62.4^{+3.8}_{-9.8} \quad (-5.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.137^{+0.024}_{-0.021} \quad (+3.8\sigma)$	D_{220}	$5400^{+900}_{-2000} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$791^{+200}_{-90} \quad (+7.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00060 \quad (-0.0\sigma)$	D_{810}	$2476^{+300}_{-600} \quad (-1.4\sigma)$	$H(0.38)$	$76.5^{+1.7}_{-4.7} \quad (-4.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.38^{+0.48}_{-1.3}$	D_{1420}	$806^{+100}_{-200} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1797^{+300}_{-100} \quad (+6.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.01^{+0.16}_{-0.20} \quad (-1.6\sigma)$	D_{2000}	$228^{+30}_{-50} \quad (-1.2\sigma)$	$H(0.51)$	$85.39^{+0.47}_{-2.8} \quad (-4.1\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$2280^{+300}_{-100} \quad (+6.5\sigma)$
H_0	$< 59.1 \quad (-5.5\sigma)$	Y_{P}	$0.24531 \pm 0.00022 \quad (+0.0\sigma)$	$H(0.61)$	$92.57^{+0.57}_{-1.9} \quad (-3.6\sigma)$
Ω_{Λ}	$0.31^{+0.47}_{-0.20} \quad (-11.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664 \pm 0.00022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2617^{+300}_{-100} \quad (+6.3\sigma)$
Ω_{m}	$0.69^{+0.20}_{-0.47} \quad (+11.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.620 \pm 0.096 \quad (-0.0\sigma)$	$H(2.33)$	$256^{+24}_{-19} \quad (+5.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.174^{+0.037}_{-0.030} \quad (+5.5\sigma)$	Age/Gyr	$14.28^{+0.33}_{-0.14} \quad (+7.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5953^{+120}_{-42} \quad (+6.0\sigma)$
$\Omega_{\nu}h^2$	$0.0149^{+0.0052}_{-0.014}$	z_{*}	$1092.1^{+2.5}_{-2.3} \quad (+3.5\sigma)$	$f\sigma_8(0.15)$	$0.459^{+0.029}_{-0.012} \quad (+1.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0917 \pm 0.0020 \quad (-0.9\sigma)$	r_{*}	$139.7^{+4.7}_{-7.4} \quad (-3.6\sigma)$	$\sigma_8(0.15)$	$0.570^{+0.070}_{-0.15} \quad (-9.2\sigma)$
σ_8	$0.634^{+0.068}_{-0.14} \quad (-9.5\sigma)$	$100\theta_{*}$	$1.04139 \pm 0.00061 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.423^{+0.039}_{-0.021} \quad (-1.4\sigma)$
S_8	$0.894^{+0.13}_{-0.087} \quad (+3.1\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.42^{+0.45}_{-0.71} \quad (-3.7\sigma)$	$\sigma_8(0.38)$	$0.491^{+0.066}_{-0.15} \quad (-8.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.490^{+0.069}_{-0.048} \quad (+3.1\sigma)$	z_{drag}	$1061.2 \pm 2.2 \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.403 \pm 0.041 \quad (-3.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.553^{+0.019}_{-0.022} \quad (-1.4\sigma)$	r_{drag}	$142.3^{+4.9}_{-7.5} \quad (-3.6\sigma)$	$\sigma_8(0.51)$	$0.455^{+0.063}_{-0.14} \quad (-8.1\sigma)$
$\sigma_8/h^{0.5}$	$0.860^{+0.056}_{-0.074} \quad (-5.2\sigma)$	k_{D}	$0.1466^{+0.0081}_{-0.0067} \quad (+3.8\sigma)$	$f\sigma_8(0.61)$	$0.388 \pm 0.048 \quad (-6.2\sigma)$
$r_{\mathrm{drag}}h$	$78^{+10}_{-20} \quad (-4.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.1601 \pm 0.0012 \quad (-1.8\sigma)$	$\sigma_8(0.61)$	$0.430^{+0.060}_{-0.14} \quad (-7.8\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.534 \pm 0.049 \quad (+0.5\sigma)$	z_{eq}	$3809^{+600}_{-500} \quad (+3.7\sigma)$	$f\sigma_8(2.33)$	$0.218^{+0.033}_{-0.074} \quad (-6.9\sigma)$
z_{re}	$8.24^{+0.52}_{-0.44} \quad (+4.1\sigma)$	k_{eq}	$0.0117^{+0.0018}_{-0.0016} \quad (+3.8\sigma)$	$\sigma_8(2.33)$	$0.218^{+0.033}_{-0.078} \quad (-6.4\sigma)$
10^9A_{s}	$2.07^{+0.26}_{-0.45} \quad (-1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.761^{+0.050}_{-0.096} \quad (-2.8\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.2 \pm 2.0 \quad (+0.2\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.85^{+0.24}_{-0.40} \quad (-1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.422^{+0.027}_{-0.050} \quad (-2.9\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$

$$\bar{\chi}^2_{\mathrm{eff}} = 15.21; \Delta\bar{\chi}^2_{\mathrm{eff}} = 0.33; R - 1 = 0.00352$$

6.95 base_mnu_lensing_lenspriors_theta_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02221 ± 0.00050 (+0.0 σ)	D_{40}	1087^{+100}_{-300} (−1.5 σ)	$H(0.15)$	$61.8^{+3.3}_{-8.9}$ (−4.1 σ)
$\Omega_c h^2$	0.144 ± 0.021 (+2.9 σ)	D_{220}	4995^{+800}_{-2000} (−1.4 σ)	$D_M(0.15)$	798^{+200}_{-80} (+5.7 σ)
$100\theta_{MC}$	1.04089 ± 0.00060 (−0.0 σ)	D_{810}	2331^{+300}_{-500} (−1.2 σ)	$H(0.38)$	$76.4^{+1.3}_{-4.1}$ (−3.6 σ)
Σm_ν [eV]	$1.23^{+0.57}_{-1.0}$	D_{1420}	761^{+100}_{-200} (−1.0 σ)	$D_M(0.38)$	1808^{+300}_{-100} (+5.2 σ)
$\ln(10^{10} A_s)$	$2.96^{+0.15}_{-0.19}$ (−1.3 σ)	D_{2000}	216^{+30}_{-40} (−1.0 σ)	$H(0.51)$	$85.43^{+0.44}_{-2.3}$ (−3.3 σ)
n_s	0.961 ± 0.020 (+0.1 σ)	$n_{s,0.002}$	0.961 ± 0.020 (+0.1 σ)	$D_M(0.51)$	2291^{+300}_{-100} (+5.0 σ)
H_0	< 57.8 (−4.3 σ)	Y_P	$0.24532^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	$92.78^{+0.71}_{-1.6}$ (−2.8 σ)
Ω_Λ	$0.29^{+0.45}_{-0.20}$ (−8.0 σ)	Y_P^{BBN}	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_M(0.61)$	2628^{+280}_{-120} (+4.9 σ)
Ω_m	$0.71^{+0.20}_{-0.45}$ (+8.0 σ)	$10^5 D/H$	2.619 ± 0.095 (−0.0 σ)	$H(2.33)$	259^{+22}_{-17} (+3.9 σ)
$\Omega_m h^2$	0.179 ± 0.028 (+4.1 σ)	Age/Gyr	$14.24^{+0.28}_{-0.14}$ (+6.5 σ)	$D_M(2.33)$	5936^{+100}_{-45} (+5.1 σ)
$\Omega_\nu h^2$	$0.0132^{+0.0061}_{-0.011}$	z_*	$1092.6^{+2.4}_{-2.2}$ (+2.8 σ)	$f\sigma_8(0.15)$	$0.479^{+0.029}_{-0.015}$ (+1.3 σ)
$\Omega_m h^3$	0.0931 ± 0.0021 (−0.8 σ)	r_*	$138.4^{+4.5}_{-6.9}$ (−2.8 σ)	$\sigma_8(0.15)$	$0.579^{+0.067}_{-0.14}$ (−7.5 σ)
σ_8	$0.647^{+0.066}_{-0.13}$ (−7.9 σ)	$100\theta_*$	1.04136 ± 0.00061 (+0.4 σ)	$f\sigma_8(0.38)$	$0.437^{+0.039}_{-0.022}$ (−1.5 σ)
S_8	$0.939^{+0.12}_{-0.090}$ (+2.4 σ)	$D_M(z_*)/\text{Gpc}$	$13.29^{+0.43}_{-0.66}$ (−2.8 σ)	$\sigma_8(0.38)$	$0.498^{+0.063}_{-0.14}$ (−6.7 σ)
$\sigma_8 \Omega_m^{0.5}$	$0.515^{+0.068}_{-0.050}$ (+2.4 σ)	z_{drag}	1061.5 ± 2.1 (+1.7 σ)	$f\sigma_8(0.51)$	$0.415^{+0.055}_{-0.031}$ (−3.8 σ)
$\sigma_8 \Omega_m^{0.25}$	0.573 ± 0.021 (−1.1 σ)	r_{drag}	$141.0^{+4.7}_{-7.0}$ (−2.8 σ)	$\sigma_8(0.51)$	$0.460^{+0.059}_{-0.13}$ (−6.4 σ)
$\sigma_8/h^{0.5}$	$0.885^{+0.056}_{-0.068}$ (−4.5 σ)	k_D	$0.1479^{+0.0076}_{-0.0064}$ (+3.0 σ)	$f\sigma_8(0.61)$	0.398 ± 0.047 (−6.1 σ)
$r_{\text{drag}} h$	76^{+9}_{-20} (−3.7 σ)	$100\theta_D$	0.1600 ± 0.0011 (−1.5 σ)	$\sigma_8(0.61)$	$0.435^{+0.057}_{-0.13}$ (−6.2 σ)
$\langle d^2 \rangle^{1/2}$	2.514 ± 0.050 (+0.5 σ)	z_{eq}	3961 ± 500 (+2.9 σ)	$f\sigma_8(2.33)$	$0.219^{+0.031}_{-0.069}$ (−5.5 σ)
z_{re}	$8.31^{+0.50}_{-0.42}$ (+3.3 σ)	k_{eq}	0.0121 ± 0.0016 (+3.0 σ)	$\sigma_8(2.33)$	$0.219^{+0.030}_{-0.073}$ (−5.1 σ)
$10^9 A_s$	$1.96^{+0.23}_{-0.40}$ (−1.1 σ)	$100\theta_{\text{eq}}$	$0.738^{+0.049}_{-0.089}$ (−2.3 σ)	χ^2_{lensing}	8.5 ± 2.0 (+0.0 σ)
$10^9 A_s e^{-2\tau}$	$1.76^{+0.21}_{-0.36}$ (−1.1 σ)	$100\theta_{s,\text{eq}}$	$0.410^{+0.026}_{-0.047}$ (−2.3 σ)	χ^2_{prior}	3.0 ± 2.4 (−0.0 σ)

$$\bar{\chi}^2_{\text{eff}} = 11.51; \Delta\bar{\chi}^2_{\text{eff}} = 0.04; R - 1 = 0.00127$$

6.96 base_mnu_lensing_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02216	0.02222 ± 0.00050 (+0.1 σ)	D_{810}	2656	2165 ± 500 (−1.6 σ)	$H(0.51)$	93.4	$98.8^{+5.0}_{-6.4}$ (+3.8 σ)
$\Omega_c h^2$	0.1328	$0.157^{+0.022}_{-0.029}$ (+3.4 σ)	D_{1420}	829	629^{+200}_{-200} (−2.2 σ)	$D_M(0.51)$	1926	1850 ± 79 (−3.0 σ)
$100\theta_{MC}$	1.0763	$1.109^{+0.038}_{-0.034}$ (+4.6 σ)	D_{2000}	240	182^{+50}_{-70} (−1.9 σ)	$H(0.61)$	99.6	$105.8^{+5.7}_{-7.3}$ (+4.0 σ)
Σm_ν [eV]	0.83	$1.64^{+0.59}_{-1.2}$	$n_{s,0.002}$	0.9616	0.960 ± 0.020 (+0.2 σ)	$D_M(0.61)$	2237	2144 ± 96 (−3.0 σ)
$\ln(10^{10} A_s)$	3.127	3.03 ± 0.12 (−0.5 σ)	Y_P	0.245310	$0.24532^{+0.00023}_{-0.00019}$ (+0.1 σ)	$H(2.33)$	252.3	274^{+21}_{-26} (+4.4 σ)
n_s	0.9616	0.960 ± 0.020 (+0.2 σ)	Y_P^{BBN}	0.246637	$0.24665^{+0.00023}_{-0.00019}$ (+0.1 σ)	$D_M(2.33)$	5501	5193 ± 320 (−3.5 σ)
H_0	68.70	$70.6^{+1.8}_{-2.4}$ (+2.1 σ)	$10^5 D/H$	2.625	$2.617^{+0.087}_{-0.10}$ (−0.1 σ)	$f\sigma_8(0.15)$	0.4545	0.457 ± 0.018 (+0.3 σ)
Ω_Λ	0.6527	$0.609^{+0.053}_{-0.045}$ (−5.1 σ)	Age/Gyr	13.16	12.43 ± 0.77 (−3.5 σ)	$\sigma_8(0.15)$	0.6990	0.669 ± 0.040 (−4.9 σ)
Ω_m	0.3473	$0.391^{+0.045}_{-0.053}$ (+5.1 σ)	z_*	1091.53	$1093.8^{+2.2}_{-2.8}$ (+3.4 σ)	$f\sigma_8(0.38)$	0.4653	0.459 ± 0.018 (−0.8 σ)
$\Omega_m h^2$	0.1639	$0.196^{+0.028}_{-0.040}$ (+4.9 σ)	r_*	141.1	135.4 ± 6.0 (−3.3 σ)	$\sigma_8(0.38)$	0.6173	0.587 ± 0.038 (−5.5 σ)
$\Omega_\nu h^2$	0.0089	$0.0176^{+0.0064}_{-0.012}$	$100\theta_*$	1.0768	$1.110^{+0.038}_{-0.034}$ (+4.6 σ)	$f\sigma_8(0.51)$	0.4607	$0.450^{+0.020}_{-0.017}$ (−1.5 σ)
$\Omega_m h^3$	0.1126	$0.139^{+0.021}_{-0.034}$ (+4.8 σ)	$D_M(z_*)/\text{Gpc}$	13.10	$12.22^{+0.88}_{-1.0}$ (−3.6 σ)	$\sigma_8(0.51)$	0.5769	0.548 ± 0.037 (−5.8 σ)
σ_8	0.7590	0.730 ± 0.041 (−4.3 σ)	z_{drag}	1060.54	1062.6 ± 2.3 (+2.2 σ)	$f\sigma_8(0.61)$	0.4538	$0.441^{+0.022}_{-0.018}$ (−2.0 σ)
S_8	0.8167	0.830 ± 0.036 (+0.4 σ)	r_{drag}	143.7	137.9 ± 6.1 (−3.3 σ)	$\sigma_8(0.61)$	0.5485	0.520 ± 0.036 (−5.9 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4473	0.454 ± 0.020 (+0.4 σ)	k_D	0.1446	$0.1518^{+0.0068}_{-0.0086}$ (+3.6 σ)	$f\sigma_8(2.33)$	0.2828	$0.267^{+0.020}_{-0.017}$ (−5.2 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5827	0.576 ± 0.023 (−1.4 σ)	$100\theta_D$	0.16590	0.1701 ± 0.0045 (+4.4 σ)	$\sigma_8(2.33)$	0.2859	0.269 ± 0.020 (−6.3 σ)
$\sigma_8/h^{0.5}$	0.916	0.869 ± 0.056 (−5.9 σ)	z_{eq}	3703	4271^{+500}_{-700} (+3.4 σ)	χ^2_{lensing}	7.50	9.96 ± 2.1 (+0.0 σ)
$r_{\text{drag}} h$	98.72	97.2 ± 2.0 (−2.7 σ)	k_{eq}	0.01132	$0.0131^{+0.0016}_{-0.0022}$ (+3.5 σ)	$\chi^2_{6\text{DF}}$	0.086	0.40 ± 0.40 (+4.0 σ)
$\langle d^2 \rangle^{1/2}$	2.526	2.505 ± 0.054 (+0.4 σ)	$100\theta_{\text{eq}}$	0.791	$0.745^{+0.047}_{-0.057}$ (−2.1 σ)	χ^2_{MGS}	0.982	0.71 ± 0.63 (−1.6 σ)
z_{re}	8.17	$8.66^{+0.50}_{-0.59}$ (+3.9 σ)	$100\theta_{s,\text{eq}}$	0.4386	$0.415^{+0.025}_{-0.029}$ (−2.1 σ)	χ^2_{DR12BAO}	2.28	3.7 ± 1.6 (−0.5 σ)
$10^9 A_s$	2.281	$2.08^{+0.22}_{-0.27}$ (−0.5 σ)	$H(0.15)$	74.66	$77.5^{+2.6}_{-3.4}$ (+2.9 σ)	χ^2_{prior}	0.01	2.0 ± 2.0 (−0.0 σ)
$10^9 A_s e^{-2\tau}$	2.043	$1.87^{+0.20}_{-0.24}$ (−0.5 σ)	$D_M(0.15)$	628.6	609^{+22}_{-20} (−2.4 σ)	χ^2_{BAO}	3.35	4.9 ± 1.8 (−0.9 σ)
D_{40}	1310	1160^{+200}_{-200} (−1.1 σ)	$H(0.38)$	85.96	$90.4^{+4.0}_{-5.3}$ (+3.6 σ)			
D_{220}	5922	5016^{+900}_{-1000} (−1.3 σ)	$D_M(0.38)$	1491	1436^{+62}_{-56} (−2.8 σ)			

Best-fit $\chi^2_{\text{eff}} = 10.86$; $\Delta\chi^2_{\text{eff}} = -2.45$; $\bar{\chi}^2_{\text{eff}} = 16.83$; $\Delta\bar{\chi}^2_{\text{eff}} = -1.56$; $R - 1 = 0.00375$

χ^2_{eff} : BAO - 6DF: 0.09 (Δ 0.09) MGS: 0.98 (Δ -0.77) DR12BAO: 2.28 (Δ -1.35) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.50 (Δ -0.38)

6.97 base_mnu_lensing_lenspriors_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022299	0.02223 ± 0.00049 (+0.1 σ)	D_{810}	2802	2828 ± 280 (+0.7 σ)	$H(0.51)$	90.28	$90.9^{+2.1}_{-2.6}$ (+0.7 σ)
$\Omega_c h^2$	0.1184	$0.1205^{+0.0089}_{-0.011}$ (+0.5 σ)	D_{1420}	895	896 ± 97 (+0.7 σ)	$D_M(0.51)$	1969.3	1962^{+45}_{-39} (−0.5 σ)
$100\theta_{MC}$	1.0485	1.054 ± 0.017 (+1.3 σ)	D_{2000}	252.7	255 ± 27 (+0.7 σ)	$H(0.61)$	95.93	$96.6^{+2.4}_{-2.9}$ (+0.7 σ)
Σm_ν [eV]	0.334	$0.48^{+0.18}_{-0.41}$	$n_{s,0.002}$	0.9585	0.961 ± 0.019 (+0.2 σ)	$D_M(0.61)$	2291	2282^{+54}_{-47} (−0.5 σ)
$\ln(10^{10} A_s)$	3.143	$3.158^{+0.093}_{-0.082}$ (+0.8 σ)	Y_P	0.245367	$0.24532^{+0.00023}_{-0.00019}$ (+0.1 σ)	$H(2.33)$	237.6	$240.3^{+8.3}_{-9.9}$ (+0.9 σ)
n_s	0.9585	0.961 ± 0.019 (+0.2 σ)	Y_P^{BBN}	0.246693	$0.24665^{+0.00023}_{-0.00019}$ (+0.1 σ)	$D_M(2.33)$	5726	5688 ± 160 (−0.7 σ)
H_0	68.01	$68.1^{+1.1}_{-1.3}$ (+0.2 σ)	$10^5 D/H$	2.599	$2.616^{+0.088}_{-0.098}$ (−0.1 σ)	$f\sigma_8(0.15)$	0.4480	0.446 ± 0.016 (−0.3 σ)
Ω_Λ	0.6881	$0.682^{+0.020}_{-0.017}$ (−1.3 σ)	Age/Gyr	13.708	13.62 ± 0.39 (−0.7 σ)	$\sigma_8(0.15)$	0.7290	$0.718^{+0.029}_{-0.025}$ (−2.0 σ)
Ω_m	0.3119	$0.318^{+0.017}_{-0.020}$ (+1.3 σ)	z_*	1089.91	1090.3 ± 1.1 (+0.5 σ)	$f\sigma_8(0.38)$	0.4665	0.463 ± 0.015 (−0.6 σ)
$\Omega_m h^2$	0.1442	$0.148^{+0.010}_{-0.013}$ (+1.0 σ)	r_*	144.85	$144.3^{+2.9}_{-2.5}$ (−0.5 σ)	$\sigma_8(0.38)$	0.6469	$0.636^{+0.026}_{-0.022}$ (−2.1 σ)
$\Omega_\nu h^2$	0.00359	$0.0052^{+0.0019}_{-0.0044}$	$100\theta_*$	1.0488	1.055 ± 0.017 (+1.3 σ)	$f\sigma_8(0.51)$	0.4654	0.461 ± 0.015 (−0.8 σ)
$\Omega_m h^3$	0.0981	$0.1009^{+0.0080}_{-0.011}$ (+0.9 σ)	$D_M(z_*)/\text{Gpc}$	13.811	13.69 ± 0.47 (−0.8 σ)	$\sigma_8(0.51)$	0.6057	$0.596^{+0.025}_{-0.021}$ (−2.1 σ)
σ_8	0.7884	$0.777^{+0.031}_{-0.027}$ (−1.8 σ)	z_{drag}	1059.70	1059.7 ± 1.4 (+0.4 σ)	$f\sigma_8(0.61)$	0.4607	0.456 ± 0.014 (−0.9 σ)
S_8	0.8038	0.799 ± 0.031 (−0.4 σ)	r_{drag}	147.54	$147.0^{+3.0}_{-2.6}$ (−0.5 σ)	$\sigma_8(0.61)$	0.5766	$0.567^{+0.024}_{-0.020}$ (−2.1 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4403	0.438 ± 0.017 (−0.4 σ)	k_D	0.14038	$0.1410^{+0.0028}_{-0.0035}$ (+0.6 σ)	$f\sigma_8(2.33)$	0.2948	$0.291^{+0.011}_{-0.0082}$ (−1.5 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5892	0.583 ± 0.020 (−1.0 σ)	$100\theta_D$	0.16205	0.1629 ± 0.0024 (+1.2 σ)	$\sigma_8(2.33)$	0.3017	$0.297^{+0.013}_{-0.010}$ (−2.0 σ)
$\sigma_8/h^{0.5}$	0.9560	$0.941^{+0.038}_{-0.032}$ (−2.2 σ)	z_{eq}	3361	3411^{+210}_{-260} (+0.5 σ)	χ^2_{lensing}	7.54	9.4 ± 2.0 (−0.1 σ)
$r_{\text{drag}} h$	100.34	100.2 ± 1.1 (−0.5 σ)	k_{eq}	0.01026	$0.01042^{+0.00065}_{-0.00081}$ (+0.5 σ)	χ^2_{JLA}	1035.08	1036.1 ± 1.8 (+1.9 σ)
$\langle d^2 \rangle^{1/2}$	2.511	2.525 ± 0.055 (+0.8 σ)	$100\theta_{\text{eq}}$	0.8269	0.825 ± 0.031 (−0.2 σ)	$\chi^2_{6\text{DF}}$	0.0002	0.052 ± 0.071 (+0.0 σ)
z_{re}	7.793	7.88 ± 0.24 (+0.8 σ)	$100\theta_{s,\text{eq}}$	0.4567	0.456 ± 0.016 (−0.2 σ)	χ^2_{MGS}	1.68	1.69 ± 0.65 (−0.3 σ)
$10^9 A_s$	2.318	2.36 ± 0.20 (+0.8 σ)	$H(0.15)$	73.32	$73.6^{+1.3}_{-1.6}$ (+0.4 σ)	χ^2_{DR12BAO}	3.01	3.8 ± 1.4 (−0.4 σ)
$10^9 A_s e^{-2\tau}$	2.077	2.12 ± 0.18 (+0.8 σ)	$D_M(0.15)$	637.5	636^{+13}_{-11} (−0.3 σ)	χ^2_{prior}	0.04	1.9 ± 1.9 (−0.0 σ)
D_{40}	1384	1394 ± 130 (+0.5 σ)	$H(0.38)$	83.51	$84.0^{+1.8}_{-2.2}$ (+0.6 σ)	χ^2_{BAO}	4.69	5.5 ± 1.6 (−0.6 σ)
D_{220}	6407	6477 ± 700 (+0.4 σ)	$D_M(0.38)$	1520.2	1515 ± 31 (−0.4 σ)			

Best-fit $\chi^2_{\text{eff}} = 1047.35$; $\Delta\chi^2_{\text{eff}} = -0.69$; $\bar{\chi}^2_{\text{eff}} = 1053.01$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.09$; $R - 1 = 0.03389$
 χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.68 (Δ -0.14) DR12BAO: 3.01 (Δ -0.67) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.54 (Δ -0.24) SN
- JLA Pantheon18: 1035.08 (Δ 0.34)

6.98 base_mnu_lensing_lenspriors_BAO_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2193 \pm 500 \quad (-2.0\sigma)$	$H(0.51)$	$98.7^{+5.3}_{-6.5} \quad (+5.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.155^{+0.023}_{-0.029} \quad (+4.7\sigma)$	D_{1420}	$636^{+200}_{-200} \quad (-2.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1852 \pm 82 \quad (-3.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110^{+0.040}_{-0.033} \quad (+5.9\sigma)$	D_{2000}	$184^{+50}_{-70} \quad (-2.2\sigma)$	$H(0.61)$	$105.7^{+6.0}_{-7.4} \quad (+5.2\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.77^{+0.68}_{-1.1}$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2147 \pm 100 \quad (-3.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.04 \pm 0.12 \quad (-0.8\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+22}_{-26} \quad (+5.8\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5199^{+320}_{-360} \quad (-4.5\sigma)$
H_0	$70.5^{+1.9}_{-2.4} \quad (+2.7\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.618^{+0.087}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.448 \pm 0.015 \quad (+0.6\sigma)$
Ω_{Λ}	$0.608 \pm 0.049 \quad (-6.6\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.44^{+0.76}_{-0.87} \quad (-4.5\sigma)$	$\sigma_8(0.15)$	$0.655^{+0.031}_{-0.039} \quad (-5.9\sigma)$
Ω_{m}	$0.392 \pm 0.049 \quad (+6.6\sigma)$	z_*	$1093.7^{+2.3}_{-2.9} \quad (+4.3\sigma)$	$f\sigma_8(0.38)$	$0.450 \pm 0.014 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.196^{+0.030}_{-0.041} \quad (+6.6\sigma)$	r_*	$135.6 \pm 6.2 \quad (-4.4\sigma)$	$\sigma_8(0.38)$	$0.575^{+0.030}_{-0.038} \quad (-6.5\sigma)$
$\Omega_{\nu}h^2$	$0.0190^{+0.0073}_{-0.012}$	$100\theta_*$	$1.111^{+0.040}_{-0.033} \quad (+6.0\sigma)$	$f\sigma_8(0.51)$	$0.441 \pm 0.015 \quad (-1.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.139^{+0.023}_{-0.034} \quad (+6.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.24^{+0.87}_{-1.1} \quad (-4.7\sigma)$	$\sigma_8(0.51)$	$0.536^{+0.029}_{-0.037} \quad (-6.8\sigma)$
σ_8	$0.715^{+0.031}_{-0.038} \quad (-5.2\sigma)$	z_{drag}	$1062.5 \pm 2.4 \quad (+2.6\sigma)$	$f\sigma_8(0.61)$	$0.432 \pm 0.016 \quad (-2.4\sigma)$
S_8	$0.813 \pm 0.031 \quad (+0.8\sigma)$	r_{drag}	$138.1 \pm 6.3 \quad (-4.3\sigma)$	$\sigma_8(0.61)$	$0.509^{+0.028}_{-0.036} \quad (-6.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.445 \pm 0.017 \quad (+0.8\sigma)$	k_{D}	$0.1516^{+0.0072}_{-0.0087} \quad (+4.7\sigma)$	$f\sigma_8(2.33)$	$0.262 \pm 0.017 \quad (-6.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.564 \pm 0.017 \quad (-1.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.1701^{+0.0051}_{-0.0043} \quad (+5.6\sigma)$	$\sigma_8(2.33)$	$0.263^{+0.017}_{-0.021} \quad (-7.1\sigma)$
$\sigma_8/h^{0.5}$	$0.852^{+0.046}_{-0.056} \quad (-7.0\sigma)$	z_{eq}	$4237^{+500}_{-700} \quad (+4.6\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.3 \pm 2.1 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$97.2 \pm 2.0 \quad (-3.2\sigma)$	k_{eq}	$0.0130^{+0.0017}_{-0.0022} \quad (+4.7\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.41 \pm 0.41 \quad (+4.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.509 \pm 0.054 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.751^{+0.048}_{-0.059} \quad (-2.8\sigma)$	χ^2_{MGS}	$0.71 \pm 0.65 \quad (-1.8\sigma)$
z_{re}	$8.66 \pm 0.55 \quad (+5.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.418^{+0.025}_{-0.030} \quad (-2.8\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.8 \pm 1.6 \quad (-0.7\sigma)$
10^9A_{s}	$2.11^{+0.24}_{-0.27} \quad (-0.7\sigma)$	$H(0.15)$	$77.4^{+2.7}_{-3.5} \quad (+3.7\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.89^{+0.21}_{-0.24} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$610^{+23}_{-21} \quad (-3.0\sigma)$	χ^2_{BAO}	$4.9 \pm 1.8 \quad (-1.2\sigma)$
D_{40}	$1177^{+200}_{-200} \quad (-1.5\sigma)$	$H(0.38)$	$90.3^{+4.3}_{-5.3} \quad (+4.7\sigma)$		
D_{220}	$5112^{+1000}_{-1000} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1438 \pm 59 \quad (-3.5\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 19.21; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.94; R - 1 = 0.00433$					

6.99 base_mnu_lensing_lenspriors_BAO_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00050 (+0.0 σ)	D_{810}	2202 ± 500 (−1.1 σ)	$H(0.51)$	$98.6^{+4.8}_{-6.6}$ (+3.1 σ)
$\Omega_{\mathrm{c}}h^2$	$0.155^{+0.021}_{-0.031}$ (+2.7 σ)	D_{1420}	642^{+200}_{-200} (−1.6 σ)	$D_{\mathrm{M}}(0.51)$	1853^{+89}_{-77} (−2.4 σ)
$100\theta_{\mathrm{MC}}$	1.108 ± 0.035 (+3.8 σ)	D_{2000}	186^{+60}_{-70} (−1.4 σ)	$H(0.61)$	$105.5^{+5.5}_{-7.5}$ (+3.2 σ)
Σm_{ν} [eV]	$1.62^{+0.59}_{-1.1}$	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2148^{+110}_{-94} (−2.5 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.04 ± 0.13 (−0.2 σ)	Y_{P}	$0.24532^{+0.00023}_{-0.00019}$ (+0.0 σ)	$H(2.33)$	273^{+20}_{-26} (+3.5 σ)
n_{s}	0.959 ± 0.020 (+0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(2.33)$	5206 ± 330 (−2.8 σ)
H_0	$70.5^{+1.8}_{-2.5}$ (+1.7 σ)	$10^5\mathrm{D}/\mathrm{H}$	$2.618^{+0.088}_{-0.10}$ (−0.0 σ)	$f\sigma_8(0.15)$	0.456 ± 0.020 (+0.1 σ)
Ω_{Λ}	$0.611^{+0.054}_{-0.043}$ (−4.2 σ)	Age/Gyr	12.46 ± 0.78 (−2.8 σ)	$\sigma_8(0.15)$	0.668 ± 0.040 (−4.8 σ)
Ω_{m}	$0.389^{+0.043}_{-0.054}$ (+4.2 σ)	z_*	$1093.7^{+2.1}_{-2.9}$ (+2.8 σ)	$f\sigma_8(0.38)$	0.458 ± 0.019 (−0.9 σ)
$\Omega_{\mathrm{m}}h^2$	$0.195^{+0.027}_{-0.041}$ (+3.9 σ)	r_*	$135.6^{+6.7}_{-5.7}$ (−2.6 σ)	$\sigma_8(0.38)$	0.587 ± 0.038 (−5.5 σ)
$\Omega_{\nu}h^2$	$0.0175^{+0.0064}_{-0.012}$	$100\theta_*$	1.109 ± 0.035 (+3.8 σ)	$f\sigma_8(0.51)$	0.450 ± 0.020 (−1.5 σ)
$\Omega_{\mathrm{m}}h^3$	$0.138^{+0.020}_{-0.035}$ (+3.7 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	12.26 ± 0.93 (−2.9 σ)	$\sigma_8(0.51)$	0.547 ± 0.037 (−5.8 σ)
σ_8	0.729 ± 0.041 (−4.3 σ)	z_{drag}	$1062.5^{+2.2}_{-2.6}$ (+1.9 σ)	$f\sigma_8(0.61)$	$0.441^{+0.022}_{-0.020}$ (−2.0 σ)
S_8	0.827 ± 0.040 (+0.2 σ)	r_{drag}	$138.1^{+6.9}_{-5.9}$ (−2.6 σ)	$\sigma_8(0.61)$	0.520 ± 0.035 (−5.9 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.453 ± 0.022 (+0.2 σ)	k_{D}	$0.1515^{+0.0066}_{-0.0089}$ (+2.8 σ)	$f\sigma_8(2.33)$	$0.267^{+0.020}_{-0.017}$ (−5.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.574 ± 0.025 (−1.4 σ)	$100\theta_{\mathrm{D}}$	0.1699 ± 0.0046 (+3.7 σ)	$\sigma_8(2.33)$	0.269 ± 0.020 (−6.3 σ)
$\sigma_8/h^{0.5}$	0.869 ± 0.056 (−5.9 σ)	z_{eq}	4245^{+500}_{-700} (+2.6 σ)	$\chi^2_{\mathrm{lensing}}$	9.96 ± 2.2 (−0.0 σ)
$r_{\mathrm{drag}}h$	97.3 ± 2.0 (−2.5 σ)	k_{eq}	$0.0130^{+0.0016}_{-0.0023}$ (+2.7 σ)	$\chi^2_{6\mathrm{DF}}$	0.39 ± 0.40 (+3.8 σ)
$\langle d^2 \rangle^{1/2}$	2.511 ± 0.068 (+0.6 σ)	$100\theta_{\mathrm{eq}}$	$0.748^{+0.051}_{-0.059}$ (−1.7 σ)	χ^2_{MGS}	0.73 ± 0.64 (−1.5 σ)
z_{re}	$8.64^{+0.48}_{-0.60}$ (+3.2 σ)	$100\theta_{\mathrm{s,eq}}$	0.417 ± 0.028 (−1.6 σ)	$\chi^2_{\mathrm{DR12BAO}}$	3.7 ± 1.6 (−0.4 σ)
10^9A_{s}	$2.10^{+0.25}_{-0.31}$ (−0.2 σ)	$H(0.15)$	$77.4^{+2.6}_{-3.6}$ (+2.4 σ)	χ^2_{prior}	2.0 ± 2.0 (−0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.89^{+0.22}_{-0.28}$ (−0.2 σ)	$D_{\mathrm{M}}(0.15)$	610^{+23}_{-20} (−2.0 σ)	χ^2_{BAO}	4.9 ± 1.8 (−0.8 σ)
D_{40}	1176^{+200}_{-200} (−0.7 σ)	$H(0.38)$	$90.2^{+3.9}_{-5.5}$ (+2.9 σ)		
D_{220}	5103^{+1000}_{-1000} (−0.9 σ)	$D_{\mathrm{M}}(0.38)$	1439^{+64}_{-55} (−2.3 σ)		
$\bar{\chi}^2_{\mathrm{eff}} = 16.84$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = -1.51$; $R - 1 = 0.00475$					

6.100 base_mnu_lensing_lenspriors_BAO_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02221 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2177 \pm 500 \quad (-1.4\sigma)$	$H(0.51)$	$98.5^{+4.7}_{-6.2} \quad (+3.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.156^{+0.021}_{-0.028} \quad (+3.2\sigma)$	D_{1420}	$635^{+200}_{-200} \quad (-2.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1853^{+83}_{-75} \quad (-2.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.107 \pm 0.034 \quad (+4.3\sigma)$	D_{2000}	$184^{+50}_{-60} \quad (-1.7\sigma)$	$H(0.61)$	$105.4^{+5.4}_{-7.0} \quad (+3.7\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.54^{+0.56}_{-1.1}$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2149 \pm 94 \quad (-2.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.03 \pm 0.12 \quad (-0.4\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$273^{+20}_{-25} \quad (+4.1\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5209 \pm 310 \quad (-3.2\sigma)$
H_0	$70.6^{+1.8}_{-2.3} \quad (+2.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.618^{+0.087}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.459 \pm 0.018 \quad (+0.3\sigma)$
Ω_{Λ}	$0.612^{+0.051}_{-0.043} \quad (-4.7\sigma)$	Age/Gyr	$12.46 \pm 0.75 \quad (-3.2\sigma)$	$\sigma_8(0.15)$	$0.675 \pm 0.039 \quad (-4.6\sigma)$
Ω_{m}	$0.388^{+0.043}_{-0.051} \quad (+4.7\sigma)$	z_*	$1093.7^{+2.1}_{-2.7} \quad (+3.1\sigma)$	$f\sigma_8(0.38)$	$0.462 \pm 0.017 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.194^{+0.026}_{-0.039} \quad (+4.5\sigma)$	r_*	$135.6^{+6.2}_{-5.6} \quad (-3.1\sigma)$	$\sigma_8(0.38)$	$0.592 \pm 0.037 \quad (-5.3\sigma)$
$\Omega_{\nu}h^2$	$0.0165^{+0.0060}_{-0.012}$	$100\theta_*$	$1.108 \pm 0.034 \quad (+4.4\sigma)$	$f\sigma_8(0.51)$	$0.454^{+0.020}_{-0.017} \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.138^{+0.020}_{-0.032} \quad (+4.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.27 \pm 0.90 \quad (-3.4\sigma)$	$\sigma_8(0.51)$	$0.552 \pm 0.035 \quad (-5.5\sigma)$
σ_8	$0.736 \pm 0.039 \quad (-4.1\sigma)$	z_{drag}	$1062.5^{+2.2}_{-2.4} \quad (+2.1\sigma)$	$f\sigma_8(0.61)$	$0.444^{+0.021}_{-0.017} \quad (-1.9\sigma)$
S_8	$0.833 \pm 0.036 \quad (+0.4\sigma)$	r_{drag}	$138.1^{+6.4}_{-5.8} \quad (-3.0\sigma)$	$\sigma_8(0.61)$	$0.525 \pm 0.034 \quad (-5.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.457 \pm 0.020 \quad (+0.4\sigma)$	k_{D}	$0.1514^{+0.0065}_{-0.0083} \quad (+3.3\sigma)$	$f\sigma_8(2.33)$	$0.269^{+0.020}_{-0.016} \quad (-4.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.579 \pm 0.022 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1698 \pm 0.0044 \quad (+4.2\sigma)$	$\sigma_8(2.33)$	$0.271 \pm 0.020 \quad (-5.9\sigma)$
$\sigma_8/h^{0.5}$	$0.877 \pm 0.054 \quad (-5.6\sigma)$	z_{eq}	$4251^{+500}_{-700} \quad (+3.2\sigma)$	$\chi^2_{\mathrm{lensing}}$	$7.7 \pm 2.1 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$97.3 \pm 2.0 \quad (-2.5\sigma)$	k_{eq}	$0.0130^{+0.0015}_{-0.0021} \quad (+3.2\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.38 \pm 0.39 \quad (+3.9\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.503 \pm 0.055 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.746^{+0.047}_{-0.055} \quad (-2.0\sigma)$	χ^2_{MGS}	$0.74 \pm 0.63 \quad (-1.5\sigma)$
z_{re}	$8.63^{+0.47}_{-0.57} \quad (+3.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.415^{+0.025}_{-0.028} \quad (-2.0\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.7 \pm 1.6 \quad (-0.4\sigma)$
10^9A_{s}	$2.08^{+0.22}_{-0.26} \quad (-0.4\sigma)$	$H(0.15)$	$77.4^{+2.5}_{-3.3} \quad (+2.7\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.86^{+0.20}_{-0.24} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$610^{+22}_{-19} \quad (-2.2\sigma)$	χ^2_{BAO}	$4.8 \pm 1.8 \quad (-0.9\sigma)$
D_{40}	$1162^{+200}_{-200} \quad (-1.0\sigma)$	$H(0.38)$	$90.2^{+3.9}_{-5.1} \quad (+3.3\sigma)$		
D_{220}	$5028^{+900}_{-1000} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1438^{+60}_{-53} \quad (-2.6\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 14.55; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.60; R - 1 = 0.00373$					

6.101 base_mnu_lensing_lenspriors_BAO_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2111 \pm 500 \quad (-1.5\sigma)$	$H(0.51)$	$98.9^{+5.0}_{-6.4} \quad (+3.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.157^{+0.022}_{-0.029} \quad (+3.3\sigma)$	D_{1420}	$614^{+200}_{-200} \quad (-2.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1848 \pm 80 \quad (-2.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110^{+0.038}_{-0.034} \quad (+4.5\sigma)$	D_{2000}	$178^{+50}_{-60} \quad (-1.9\sigma)$	$H(0.61)$	$105.8^{+5.7}_{-7.3} \quad (+3.8\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.62^{+0.58}_{-1.2}$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2142 \pm 97 \quad (-3.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.01 \pm 0.12 \quad (-0.5\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+21}_{-26} \quad (+4.2\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5189 \pm 320 \quad (-3.4\sigma)$
H_0	$70.7^{+1.8}_{-2.4} \quad (+2.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.617^{+0.088}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.455 \pm 0.018 \quad (+0.3\sigma)$
Ω_{Λ}	$0.609^{+0.053}_{-0.045} \quad (-5.0\sigma)$	Age/Gyr	$12.41 \pm 0.77 \quad (-3.4\sigma)$	$\sigma_8(0.15)$	$0.666 \pm 0.040 \quad (-4.8\sigma)$
Ω_{m}	$0.391^{+0.045}_{-0.053} \quad (+5.0\sigma)$	z_*	$1093.8^{+2.2}_{-2.8} \quad (+3.3\sigma)$	$f\sigma_8(0.38)$	$0.457 \pm 0.018 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.197^{+0.028}_{-0.040} \quad (+4.7\sigma)$	r_*	$135.3 \pm 6.0 \quad (-3.2\sigma)$	$\sigma_8(0.38)$	$0.584 \pm 0.038 \quad (-5.5\sigma)$
$\Omega_{\nu}h^2$	$0.0174^{+0.0063}_{-0.012}$	$100\theta_*$	$1.110^{+0.038}_{-0.034} \quad (+4.5\sigma)$	$f\sigma_8(0.51)$	$0.448^{+0.020}_{-0.018} \quad (-1.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.140^{+0.022}_{-0.034} \quad (+4.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.21^{+0.89}_{-1.0} \quad (-3.5\sigma)$	$\sigma_8(0.51)$	$0.545 \pm 0.037 \quad (-5.7\sigma)$
σ_8	$0.726 \pm 0.041 \quad (-4.3\sigma)$	z_{drag}	$1062.6 \pm 2.3 \quad (+2.2\sigma)$	$f\sigma_8(0.61)$	$0.439^{+0.022}_{-0.018} \quad (-2.0\sigma)$
S_8	$0.826 \pm 0.036 \quad (+0.4\sigma)$	r_{drag}	$137.7 \pm 6.1 \quad (-3.2\sigma)$	$\sigma_8(0.61)$	$0.517 \pm 0.035 \quad (-5.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.452 \pm 0.020 \quad (+0.4\sigma)$	k_{D}	$0.1519^{+0.0068}_{-0.0086} \quad (+3.5\sigma)$	$f\sigma_8(2.33)$	$0.266^{+0.020}_{-0.017} \quad (-5.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.573 \pm 0.023 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1701 \pm 0.0046 \quad (+4.3\sigma)$	$\sigma_8(2.33)$	$0.267 \pm 0.020 \quad (-6.3\sigma)$
$\sigma_8/h^{0.5}$	$0.865 \pm 0.056 \quad (-5.9\sigma)$	z_{eq}	$4287^{+500}_{-700} \quad (+3.3\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.2 \pm 2.1 \quad (+0.0\sigma)$
$r_{\mathrm{drag}}h$	$97.2 \pm 2.0 \quad (-2.7\sigma)$	k_{eq}	$0.0131^{+0.0016}_{-0.0022} \quad (+3.4\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.40 \pm 0.40 \quad (+4.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.479 \pm 0.051 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.743^{+0.047}_{-0.057} \quad (-2.1\sigma)$	χ^2_{MGS}	$0.71 \pm 0.64 \quad (-1.5\sigma)$
z_{re}	$8.67^{+0.50}_{-0.59} \quad (+3.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.414^{+0.025}_{-0.029} \quad (-2.1\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.7 \pm 1.6 \quad (-0.4\sigma)$
10^9A_{s}	$2.03^{+0.22}_{-0.26} \quad (-0.5\sigma)$	$H(0.15)$	$77.6^{+2.6}_{-3.4} \quad (+2.8\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (+0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.82^{+0.19}_{-0.23} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$609^{+22}_{-20} \quad (-2.3\sigma)$	χ^2_{BAO}	$4.9 \pm 1.8 \quad (-0.8\sigma)$
D_{40}	$1132^{+100}_{-200} \quad (-1.1\sigma)$	$H(0.38)$	$90.5^{+4.1}_{-5.3} \quad (+3.5\sigma)$		
D_{220}	$4887^{+900}_{-1000} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1435^{+62}_{-56} \quad (-2.7\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 17.06; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.35; R - 1 = 0.00602$					

6.102 base_mnu_lensing_lenspriors_BAO_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2142 \pm 500 \quad (-2.0\sigma)$	$H(0.51)$	$98.7^{+5.3}_{-6.5} \quad (+4.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.156^{+0.023}_{-0.030} \quad (+4.5\sigma)$	D_{1420}	$622^{+200}_{-200} \quad (-2.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1852 \pm 83 \quad (-3.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110^{+0.040}_{-0.033} \quad (+5.8\sigma)$	D_{2000}	$180^{+50}_{-70} \quad (-2.2\sigma)$	$H(0.61)$	$105.7^{+6.0}_{-7.5} \quad (+5.1\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.73^{+0.67}_{-1.1}$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2146 \pm 100 \quad (-3.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.02^{+0.13}_{-0.11} \quad (-0.8\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+22}_{-26} \quad (+5.6\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5198 \pm 330 \quad (-4.4\sigma)$
H_0	$70.6^{+1.9}_{-2.5} \quad (+2.6\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.617^{+0.087}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.446 \pm 0.015 \quad (+0.6\sigma)$
Ω_{Λ}	$0.608^{+0.053}_{-0.048} \quad (-6.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.44^{+0.78}_{-0.86} \quad (-4.4\sigma)$	$\sigma_8(0.15)$	$0.652^{+0.032}_{-0.039} \quad (-5.7\sigma)$
Ω_{m}	$0.392^{+0.048}_{-0.053} \quad (+6.4\sigma)$	z_*	$1093.7^{+2.3}_{-2.9} \quad (+4.2\sigma)$	$f\sigma_8(0.38)$	$0.448 \pm 0.014 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.196^{+0.030}_{-0.041} \quad (+6.4\sigma)$	r_*	$135.5 \pm 6.2 \quad (-4.2\sigma)$	$\sigma_8(0.38)$	$0.573^{+0.031}_{-0.038} \quad (-6.4\sigma)$
$\Omega_{\nu}h^2$	$0.0186^{+0.0072}_{-0.012}$	$100\theta_*$	$1.110^{+0.040}_{-0.034} \quad (+5.8\sigma)$	$f\sigma_8(0.51)$	$0.440 \pm 0.015 \quad (-1.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.139^{+0.023}_{-0.035} \quad (+6.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.23^{+0.89}_{-1.1} \quad (-4.5\sigma)$	$\sigma_8(0.51)$	$0.534^{+0.030}_{-0.037} \quad (-6.7\sigma)$
σ_8	$0.712^{+0.032}_{-0.038} \quad (-5.1\sigma)$	z_{drag}	$1062.6 \pm 2.4 \quad (+2.6\sigma)$	$f\sigma_8(0.61)$	$0.431 \pm 0.016 \quad (-2.3\sigma)$
S_8	$0.810 \pm 0.031 \quad (+0.8\sigma)$	r_{drag}	$138.0 \pm 6.4 \quad (-4.2\sigma)$	$\sigma_8(0.61)$	$0.507^{+0.029}_{-0.036} \quad (-6.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.444 \pm 0.017 \quad (+0.8\sigma)$	k_{D}	$0.1517^{+0.0072}_{-0.0088} \quad (+4.5\sigma)$	$f\sigma_8(2.33)$	$0.261 \pm 0.017 \quad (-6.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.562 \pm 0.017 \quad (-1.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.1701^{+0.0051}_{-0.0044} \quad (+5.4\sigma)$	$\sigma_8(2.33)$	$0.262^{+0.017}_{-0.021} \quad (-7.1\sigma)$
$\sigma_8/h^{0.5}$	$0.848^{+0.047}_{-0.055} \quad (-6.9\sigma)$	z_{eq}	$4248^{+500}_{-700} \quad (+4.5\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.5 \pm 2.0 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$97.2 \pm 2.1 \quad (-3.1\sigma)$	k_{eq}	$0.0130^{+0.0017}_{-0.0022} \quad (+4.6\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.41 \pm 0.41 \quad (+4.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.483 \pm 0.051 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.749^{+0.049}_{-0.059} \quad (-2.8\sigma)$	χ^2_{MGS}	$0.72 \pm 0.66 \quad (-1.8\sigma)$
z_{re}	$8.66^{+0.53}_{-0.59} \quad (+4.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.417^{+0.026}_{-0.030} \quad (-2.7\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.8 \pm 1.6 \quad (-0.6\sigma)$
10^9A_{s}	$2.06^{+0.23}_{-0.26} \quad (-0.7\sigma)$	$H(0.15)$	$77.4^{+2.7}_{-3.5} \quad (+3.6\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.84^{+0.21}_{-0.24} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$610^{+23}_{-21} \quad (-3.0\sigma)$	χ^2_{BAO}	$4.9 \pm 1.8 \quad (-1.1\sigma)$
D_{40}	$1149^{+200}_{-200} \quad (-1.5\sigma)$	$H(0.38)$	$90.3^{+4.3}_{-5.4} \quad (+4.6\sigma)$		
D_{220}	$4987^{+900}_{-1000} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1438 \pm 60 \quad (-3.5\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 19.44; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.76; R - 1 = 0.00654$					

6.103 base_mnu_lensing_lenspriors_BAO_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2122 \pm 500 \quad (-1.4\sigma)$	$H(0.51)$	$99.1^{+4.9}_{-6.3} \quad (+3.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.159^{+0.022}_{-0.029} \quad (+3.0\sigma)$	D_{1420}	$616^{+200}_{-200} \quad (-2.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1845 \pm 79 \quad (-2.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110 \pm 0.034 \quad (+4.1\sigma)$	D_{2000}	$178^{+50}_{-60} \quad (-1.8\sigma)$	$H(0.61)$	$106.1^{+5.6}_{-7.2} \quad (+3.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.56^{+0.57}_{-1.1}$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2138 \pm 95 \quad (-2.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.01 \pm 0.12 \quad (-0.4\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$275^{+21}_{-25} \quad (+3.8\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5176 \pm 320 \quad (-3.1\sigma)$
H_0	$70.8^{+1.8}_{-2.4} \quad (+1.9\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.617^{+0.088}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.465 \pm 0.019 \quad (+0.2\sigma)$
Ω_{Λ}	$0.608^{+0.052}_{-0.044} \quad (-4.5\sigma)$	Age/Gyr	$12.38 \pm 0.76 \quad (-3.1\sigma)$	$\sigma_8(0.15)$	$0.680 \pm 0.041 \quad (-4.5\sigma)$
Ω_{m}	$0.392^{+0.044}_{-0.052} \quad (+4.5\sigma)$	z_*	$1093.9^{+2.2}_{-2.8} \quad (+3.0\sigma)$	$f\sigma_8(0.38)$	$0.467 \pm 0.019 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.198^{+0.028}_{-0.040} \quad (+4.3\sigma)$	r_*	$135.0 \pm 5.9 \quad (-2.9\sigma)$	$\sigma_8(0.38)$	$0.597 \pm 0.039 \quad (-5.1\sigma)$
$\Omega_{\nu}h^2$	$0.0167^{+0.0061}_{-0.012}$	$100\theta_*$	$1.111 \pm 0.034 \quad (+4.1\sigma)$	$f\sigma_8(0.51)$	$0.458^{+0.021}_{-0.018} \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.141^{+0.021}_{-0.034} \quad (+4.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.18^{+0.87}_{-0.98} \quad (-3.2\sigma)$	$\sigma_8(0.51)$	$0.556 \pm 0.037 \quad (-5.3\sigma)$
σ_8	$0.742 \pm 0.042 \quad (-4.0\sigma)$	z_{drag}	$1062.7 \pm 2.3 \quad (+2.0\sigma)$	$f\sigma_8(0.61)$	$0.448^{+0.022}_{-0.019} \quad (-1.8\sigma)$
S_8	$0.845 \pm 0.038 \quad (+0.3\sigma)$	r_{drag}	$137.5 \pm 6.0 \quad (-2.9\sigma)$	$\sigma_8(0.61)$	$0.528 \pm 0.036 \quad (-5.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.463 \pm 0.021 \quad (+0.3\sigma)$	k_{D}	$0.1522^{+0.0067}_{-0.0085} \quad (+3.1\sigma)$	$f\sigma_8(2.33)$	$0.271^{+0.021}_{-0.017} \quad (-4.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.586 \pm 0.024 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1702 \pm 0.0045 \quad (+4.0\sigma)$	$\sigma_8(2.33)$	$0.273 \pm 0.020 \quad (-5.8\sigma)$
$\sigma_8/h^{0.5}$	$0.882 \pm 0.057 \quad (-5.5\sigma)$	z_{eq}	$4327^{+500}_{-700} \quad (+3.0\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.4 \pm 2.1 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$97.2 \pm 2.0 \quad (-2.5\sigma)$	k_{eq}	$0.0133^{+0.0016}_{-0.0022} \quad (+3.0\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.41 \pm 0.41 \quad (+4.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.497 \pm 0.054 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.738^{+0.046}_{-0.056} \quad (-1.9\sigma)$	χ^2_{MGS}	$0.70 \pm 0.62 \quad (-1.4\sigma)$
z_{re}	$8.68^{+0.49}_{-0.58} \quad (+3.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.411^{+0.024}_{-0.029} \quad (-1.9\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.8 \pm 1.7 \quad (-0.3\sigma)$
10^9A_{s}	$2.05^{+0.21}_{-0.26} \quad (-0.4\sigma)$	$H(0.15)$	$77.7^{+2.6}_{-3.4} \quad (+2.6\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.84^{+0.19}_{-0.24} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$608^{+22}_{-20} \quad (-2.1\sigma)$	χ^2_{BAO}	$4.9 \pm 1.8 \quad (-0.7\sigma)$
D_{40}	$1141^{+100}_{-200} \quad (-0.9\sigma)$	$H(0.38)$	$90.7^{+4.0}_{-5.2} \quad (+3.2\sigma)$		
D_{220}	$4903^{+800}_{-1000} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1432^{+61}_{-55} \quad (-2.5\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 17.26; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.28; R - 1 = 0.00388$					

6.104 base_mnu_lensing_lenspriors_BAO_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2171 \pm 500 \quad (-1.6\sigma)$	$H(0.51)$	$98.7^{+5.0}_{-6.3} \quad (+3.8\sigma)$
$\Omega_c h^2$	$0.156^{+0.022}_{-0.028} \quad (+3.4\sigma)$	D_{1420}	$631^{+200}_{-200} \quad (-2.2\sigma)$	$D_M(0.51)$	$1851 \pm 80 \quad (-2.9\sigma)$
$100\theta_{MC}$	$1.109^{+0.038}_{-0.033} \quad (+4.6\sigma)$	D_{2000}	$183^{+50}_{-60} \quad (-1.9\sigma)$	$H(0.61)$	$105.7^{+5.8}_{-7.1} \quad (+4.0\sigma)$
Σm_ν [eV]	$1.63^{+0.61}_{-1.1}$	$n_{s,0.002}$	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$D_M(0.61)$	$2146 \pm 97 \quad (-3.0\sigma)$
$\ln(10^{10} A_s)$	$3.03 \pm 0.12 \quad (-0.5\sigma)$	Y_P	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+21}_{-25} \quad (+4.4\sigma)$
n_s	$0.960 \pm 0.020 \quad (+0.2\sigma)$	Y_P^{BBN}	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_M(2.33)$	$5198 \pm 320 \quad (-3.5\sigma)$
H_0	$70.6^{+1.9}_{-2.3} \quad (+2.1\sigma)$	$10^5 D/H$	$2.617^{+0.087}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.456 \pm 0.018 \quad (+0.3\sigma)$
Ω_Λ	$0.610^{+0.052}_{-0.045} \quad (-5.1\sigma)$	Age/Gyr	$12.44 \pm 0.77 \quad (-3.5\sigma)$	$\sigma_8(0.15)$	$0.668 \pm 0.040 \quad (-4.9\sigma)$
Ω_m	$0.390^{+0.045}_{-0.052} \quad (+5.1\sigma)$	z_*	$1093.7^{+2.2}_{-2.8} \quad (+3.4\sigma)$	$f\sigma_8(0.38)$	$0.458 \pm 0.018 \quad (-0.9\sigma)$
$\Omega_m h^2$	$0.196^{+0.028}_{-0.040} \quad (+4.9\sigma)$	r_*	$135.5 \pm 6.0 \quad (-3.3\sigma)$	$\sigma_8(0.38)$	$0.587 \pm 0.038 \quad (-5.5\sigma)$
$\Omega_\nu h^2$	$0.0176^{+0.0066}_{-0.012}$	$100\theta_*$	$1.109^{+0.038}_{-0.033} \quad (+4.6\sigma)$	$f\sigma_8(0.51)$	$0.450^{+0.020}_{-0.018} \quad (-1.5\sigma)$
$\Omega_m h^3$	$0.139^{+0.022}_{-0.033} \quad (+4.7\sigma)$	$D_M(z_*)/\text{Gpc}$	$12.24^{+0.87}_{-1.0} \quad (-3.6\sigma)$	$\sigma_8(0.51)$	$0.547 \pm 0.037 \quad (-5.8\sigma)$
σ_8	$0.729 \pm 0.041 \quad (-4.3\sigma)$	z_{drag}	$1062.6 \pm 2.3 \quad (+2.2\sigma)$	$f\sigma_8(0.61)$	$0.441^{+0.022}_{-0.018} \quad (-2.0\sigma)$
S_8	$0.828 \pm 0.036 \quad (+0.4\sigma)$	r_{drag}	$137.9 \pm 6.1 \quad (-3.3\sigma)$	$\sigma_8(0.61)$	$0.519 \pm 0.036 \quad (-5.9\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.454 \pm 0.020 \quad (+0.4\sigma)$	k_D	$0.1517^{+0.0069}_{-0.0084} \quad (+3.6\sigma)$	$f\sigma_8(2.33)$	$0.267^{+0.020}_{-0.018} \quad (-5.3\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.575 \pm 0.023 \quad (-1.4\sigma)$	$100\theta_D$	$0.1700^{+0.0049}_{-0.0043} \quad (+4.4\sigma)$	$\sigma_8(2.33)$	$0.268 \pm 0.020 \quad (-6.3\sigma)$
$\sigma_8/h^{0.5}$	$0.869 \pm 0.056 \quad (-5.9\sigma)$	z_{eq}	$4261^{+500}_{-700} \quad (+3.4\sigma)$	χ^2_{lensing}	$9.9 \pm 2.1 \quad (+0.0\sigma)$
$r_{\text{drag}} h$	$97.3 \pm 2.0 \quad (-2.7\sigma)$	k_{eq}	$0.0131^{+0.0016}_{-0.0021} \quad (+3.5\sigma)$	$\chi^2_{6\text{DF}}$	$0.40 \pm 0.40 \quad (+4.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.506 \pm 0.054 \quad (+0.4\sigma)$	$100\theta_{\text{eq}}$	$0.746^{+0.046}_{-0.057} \quad (-2.1\sigma)$	χ^2_{MGS}	$0.72 \pm 0.64 \quad (-1.6\sigma)$
z_{re}	$8.65^{+0.50}_{-0.57} \quad (+3.9\sigma)$	$100\theta_{s,\text{eq}}$	$0.416^{+0.024}_{-0.029} \quad (-2.1\sigma)$	χ^2_{DR12BAO}	$3.7 \pm 1.6 \quad (-0.5\sigma)$
$10^9 A_s$	$2.08^{+0.22}_{-0.27} \quad (-0.5\sigma)$	$H(0.15)$	$77.5^{+2.7}_{-3.4} \quad (+2.9\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$1.87^{+0.20}_{-0.24} \quad (-0.5\sigma)$	$D_M(0.15)$	$610^{+22}_{-20} \quad (-2.4\sigma)$	χ^2_{BAO}	$4.9 \pm 1.8 \quad (-0.9\sigma)$
D_{40}	$1163^{+200}_{-200} \quad (-1.1\sigma)$	$H(0.38)$	$90.3^{+4.1}_{-5.2} \quad (+3.6\sigma)$		
D_{220}	$5028^{+900}_{-1000} \quad (-1.3\sigma)$	$D_M(0.38)$	$1437 \pm 57 \quad (-2.8\sigma)$		
$\bar{\chi}^2_{\text{eff}} = 16.78; \Delta\bar{\chi}^2_{\text{eff}} = -1.57; R - 1 = 0.00542$					

6.105 base_mnu_lensing_lenspriors_BAO_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00050 (+0.1 σ)	D_{810}	2198 ± 500 (−2.0 σ)	$H(0.51)$	$98.7^{+5.4}_{-6.4}$ (+5.1 σ)
$\Omega_{\mathrm{c}}h^2$	$0.155^{+0.023}_{-0.029}$ (+4.7 σ)	D_{1420}	637^{+200}_{-200} (−2.8 σ)	$D_{\mathrm{M}}(0.51)$	1853 ± 83 (−3.8 σ)
$100\theta_{\mathrm{MC}}$	$1.110^{+0.041}_{-0.032}$ (+6.0 σ)	D_{2000}	184^{+50}_{-70} (−2.2 σ)	$H(0.61)$	$105.6^{+6.2}_{-7.3}$ (+5.3 σ)
Σm_{ν} [eV]	$1.79^{+0.71}_{-1.1}$	$n_{\mathrm{s},0.002}$	0.959 ± 0.020 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2148 ± 100 (−3.9 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.04 ± 0.12 (−0.8 σ)	Y_{P}	$0.24532^{+0.00023}_{-0.00019}$ (+0.1 σ)	$H(2.33)$	274 ± 24 (+5.9 σ)
n_{s}	0.959 ± 0.020 (+0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019}$ (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5201^{+320}_{-370} (−4.6 σ)
H_0	$70.5^{+1.9}_{-2.4}$ (+2.7 σ)	$10^5\mathrm{D}/\mathrm{H}$	$2.617^{+0.086}_{-0.10}$ (−0.1 σ)	$f\sigma_8(0.15)$	0.447 ± 0.014 (+0.6 σ)
Ω_{Λ}	0.608 ± 0.049 (−6.7 σ)	Age/Gyr	$12.44^{+0.76}_{-0.88}$ (−4.6 σ)	$\sigma_8(0.15)$	$0.653^{+0.031}_{-0.040}$ (−6.0 σ)
Ω_{m}	0.392 ± 0.049 (+6.7 σ)	z_*	$1093.7^{+2.4}_{-2.8}$ (+4.4 σ)	$f\sigma_8(0.38)$	0.448 ± 0.013 (−0.9 σ)
$\Omega_{\mathrm{m}}h^2$	$0.196^{+0.030}_{-0.040}$ (+6.7 σ)	r_*	135.6 ± 6.2 (−4.4 σ)	$\sigma_8(0.38)$	$0.573^{+0.030}_{-0.039}$ (−6.6 σ)
$\Omega_{\nu}h^2$	$0.0192^{+0.0076}_{-0.012}$	$100\theta_*$	$1.111^{+0.041}_{-0.032}$ (+6.0 σ)	$f\sigma_8(0.51)$	0.440 ± 0.015 (−1.8 σ)
$\Omega_{\mathrm{m}}h^3$	$0.139^{+0.023}_{-0.034}$ (+6.5 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.24^{+0.87}_{-1.1}$ (−4.7 σ)	$\sigma_8(0.51)$	$0.534^{+0.029}_{-0.038}$ (−6.9 σ)
σ_8	$0.712^{+0.031}_{-0.039}$ (−5.3 σ)	z_{drag}	1062.5 ± 2.4 (+2.7 σ)	$f\sigma_8(0.61)$	0.431 ± 0.016 (−2.4 σ)
S_8	0.811 ± 0.031 (+0.8 σ)	r_{drag}	138.1 ± 6.4 (−4.4 σ)	$\sigma_8(0.61)$	$0.507^{+0.028}_{-0.037}$ (−7.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.444 ± 0.017 (+0.8 σ)	k_{D}	$0.1516^{+0.0073}_{-0.0087}$ (+4.8 σ)	$f\sigma_8(2.33)$	0.261 ± 0.017 (−6.2 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.562 ± 0.017 (−1.6 σ)	$100\theta_{\mathrm{D}}$	$0.1701^{+0.0052}_{-0.0043}$ (+5.7 σ)	$\sigma_8(2.33)$	$0.262^{+0.017}_{-0.021}$ (−7.2 σ)
$\sigma_8/h^{0.5}$	$0.849^{+0.045}_{-0.057}$ (−7.1 σ)	z_{eq}	4230^{+600}_{-700} (+4.7 σ)	$\chi^2_{\mathrm{lensing}}$	12.3 ± 2.1 (+0.1 σ)
$r_{\mathrm{drag}}h$	97.2 ± 2.1 (−3.2 σ)	k_{eq}	$0.0130^{+0.0017}_{-0.0022}$ (+4.8 σ)	$\chi^2_{6\mathrm{DF}}$	0.42 ± 0.41 (+4.0 σ)
$\langle d^2 \rangle^{1/2}$	2.511 ± 0.054 (+0.3 σ)	$100\theta_{\mathrm{eq}}$	$0.752^{+0.048}_{-0.060}$ (−2.9 σ)	χ^2_{MGS}	0.71 ± 0.65 (−1.8 σ)
z_{re}	8.66 ± 0.55 (+5.0 σ)	$100\theta_{\mathrm{s,eq}}$	$0.419^{+0.025}_{-0.031}$ (−2.9 σ)	$\chi^2_{\mathrm{DR12BAO}}$	3.8 ± 1.6 (−0.7 σ)
10^9A_{s}	$2.11^{+0.24}_{-0.28}$ (−0.8 σ)	$H(0.15)$	$77.4^{+2.8}_{-3.5}$ (+3.8 σ)	χ^2_{prior}	2.0 ± 2.0 (−0.0 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.89^{+0.21}_{-0.25}$ (−0.8 σ)	$D_{\mathrm{M}}(0.15)$	610 ± 22 (−3.1 σ)	χ^2_{BAO}	4.9 ± 1.8 (−1.2 σ)
D_{40}	1180^{+200}_{-200} (−1.6 σ)	$H(0.38)$	$90.3^{+4.4}_{-5.3}$ (+4.8 σ)		
D_{220}	5126^{+1000}_{-1000} (−1.7 σ)	$D_{\mathrm{M}}(0.38)$	1439 ± 60 (−3.6 σ)		
$\bar{\chi}^2_{\mathrm{eff}} = 19.27$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = -2.00$; $R - 1 = 0.00616$					

6.106 base_mnu_lensing_lenspriors_BAO_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02221 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2166 \pm 500 \quad (-1.6\sigma)$	$H(0.51)$	$98.7^{+5.0}_{-6.3} \quad (+3.9\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.156^{+0.022}_{-0.028} \quad (+3.4\sigma)$	D_{1420}	$629^{+200}_{-200} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1851 \pm 79 \quad (-3.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110^{+0.038}_{-0.034} \quad (+4.7\sigma)$	D_{2000}	$182^{+50}_{-70} \quad (-1.9\sigma)$	$H(0.61)$	$105.7^{+5.8}_{-7.2} \quad (+4.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.72^{+0.61}_{-1.2}$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2146 \pm 96 \quad (-3.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.03 \pm 0.12 \quad (-0.5\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+21}_{-25} \quad (+4.5\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00020} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5195 \pm 320 \quad (-3.5\sigma)$
H_0	$70.6^{+1.9}_{-2.3} \quad (+2.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.618^{+0.088}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.451 \pm 0.018 \quad (+0.1\sigma)$
Ω_{Λ}	$0.608^{+0.053}_{-0.045} \quad (-5.2\sigma)$	Age/Gyr	$12.43 \pm 0.77 \quad (-3.5\sigma)$	$\sigma_8(0.15)$	$0.660 \pm 0.044 \quad (-5.1\sigma)$
Ω_{m}	$0.392^{+0.045}_{-0.053} \quad (+5.2\sigma)$	z_*	$1093.8^{+2.2}_{-2.8} \quad (+3.4\sigma)$	$f\sigma_8(0.38)$	$0.453^{+0.020}_{-0.018} \quad (-1.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.196^{+0.028}_{-0.040} \quad (+5.0\sigma)$	r_*	$135.4 \pm 5.9 \quad (-3.3\sigma)$	$\sigma_8(0.38)$	$0.579 \pm 0.041 \quad (-5.7\sigma)$
$\Omega_{\nu} h^2$	$0.0185^{+0.0065}_{-0.013}$	$100\theta_*$	$1.110^{+0.038}_{-0.034} \quad (+4.7\sigma)$	$f\sigma_8(0.51)$	$0.444^{+0.023}_{-0.019} \quad (-1.8\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.139^{+0.022}_{-0.034} \quad (+4.8\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.23^{+0.87}_{-1.0} \quad (-3.6\sigma)$	$\sigma_8(0.51)$	$0.540 \pm 0.040 \quad (-6.0\sigma)$
σ_8	$0.720 \pm 0.044 \quad (-4.6\sigma)$	z_{drag}	$1062.6 \pm 2.3 \quad (+2.2\sigma)$	$f\sigma_8(0.61)$	$0.435^{+0.024}_{-0.020} \quad (-2.3\sigma)$
S_8	$0.819 \pm 0.035 \quad (+0.2\sigma)$	r_{drag}	$137.9 \pm 6.1 \quad (-3.3\sigma)$	$\sigma_8(0.61)$	$0.513 \pm 0.038 \quad (-6.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.448 \pm 0.019 \quad (+0.2\sigma)$	k_{D}	$0.1517^{+0.0069}_{-0.0085} \quad (+3.6\sigma)$	$f\sigma_8(2.33)$	$0.263^{+0.022}_{-0.018} \quad (-5.5\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.568 \pm 0.025 \quad (-1.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.1701^{+0.0049}_{-0.0044} \quad (+4.5\sigma)$	$\sigma_8(2.33)$	$0.265 \pm 0.022 \quad (-6.6\sigma)$
$\sigma_8/h^{0.5}$	$0.858 \pm 0.060 \quad (-6.1\sigma)$	z_{eq}	$4251^{+500}_{-700} \quad (+3.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.8 \pm 2.0 \quad (-0.0\sigma)$
$r_{\mathrm{drag}} h$	$97.2 \pm 2.0 \quad (-2.8\sigma)$	k_{eq}	$0.0130^{+0.0016}_{-0.0021} \quad (+3.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.41 \pm 0.41 \quad (+4.2\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.506 \pm 0.054 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.748^{+0.045}_{-0.056} \quad (-2.1\sigma)$	χ_{MGS}^2	$0.71 \pm 0.64 \quad (-1.6\sigma)$
z_{re}	$8.66^{+0.50}_{-0.59} \quad (+4.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.417^{+0.024}_{-0.029} \quad (-2.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.8 \pm 1.6 \quad (-0.5\sigma)$
$10^9 A_{\mathrm{s}}$	$2.08^{+0.23}_{-0.27} \quad (-0.5\sigma)$	$H(0.15)$	$77.4^{+2.7}_{-3.4} \quad (+2.9\sigma)$	χ_{prior}^2	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.87^{+0.20}_{-0.24} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$610 \pm 21 \quad (-2.4\sigma)$	χ_{BAO}^2	$4.9 \pm 1.8 \quad (-0.9\sigma)$
D_{40}	$1160^{+200}_{-200} \quad (-1.1\sigma)$	$H(0.38)$	$90.3^{+4.1}_{-5.2} \quad (+3.7\sigma)$		
D_{220}	$5029^{+900}_{-1000} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1437 \pm 57 \quad (-2.8\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 16.75; \Delta \bar{\chi}_{\mathrm{eff}}^2 = -1.65; R - 1 = 0.00892$					

6.107 base_mnu_lensing_lenspriors_BAO_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2199 \pm 500 \quad (-2.1\sigma)$	$H(0.51)$	$98.6^{+5.4}_{-6.4} \quad (+5.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.154^{+0.023}_{-0.028} \quad (+4.7\sigma)$	D_{1420}	$637^{+200}_{-200} \quad (-2.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1854 \pm 82 \quad (-3.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.110^{+0.041}_{-0.033} \quad (+6.1\sigma)$	D_{2000}	$184^{+50}_{-70} \quad (-2.2\sigma)$	$H(0.61)$	$105.6^{+6.2}_{-7.3} \quad (+5.4\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.87^{+0.70}_{-1.2}$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2149 \pm 100 \quad (-4.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.04^{+0.13}_{-0.12} \quad (-0.9\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$274^{+23}_{-26} \quad (+6.0\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5203^{+320}_{-360} \quad (-4.6\sigma)$
H_0	$70.4^{+1.9}_{-2.4} \quad (+2.7\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.618^{+0.088}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.441 \pm 0.014 \quad (+0.3\sigma)$
Ω_{Λ}	$0.607^{+0.053}_{-0.048} \quad (-6.8\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$12.45^{+0.76}_{-0.88} \quad (-4.6\sigma)$	$\sigma_8(0.15)$	$0.644^{+0.036}_{-0.042} \quad (-6.2\sigma)$
Ω_{m}	$0.393 \pm 0.050 \quad (+6.8\sigma)$	z_*	$1093.7^{+2.3}_{-2.9} \quad (+4.4\sigma)$	$f\sigma_8(0.38)$	$0.442 \pm 0.015 \quad (-1.2\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.196^{+0.030}_{-0.041} \quad (+6.8\sigma)$	r_*	$135.7 \pm 6.2 \quad (-4.5\sigma)$	$\sigma_8(0.38)$	$0.565^{+0.035}_{-0.041} \quad (-6.8\sigma)$
$\Omega_{\nu} h^2$	$0.0201^{+0.0075}_{-0.013}$	$100\theta_*$	$1.111^{+0.041}_{-0.033} \quad (+6.1\sigma)$	$f\sigma_8(0.51)$	$0.434 \pm 0.017 \quad (-2.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.139^{+0.023}_{-0.034} \quad (+6.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.24^{+0.87}_{-1.1} \quad (-4.8\sigma)$	$\sigma_8(0.51)$	$0.527^{+0.033}_{-0.040} \quad (-7.1\sigma)$
σ_8	$0.703^{+0.036}_{-0.042} \quad (-5.6\sigma)$	z_{drag}	$1062.5 \pm 2.4 \quad (+2.7\sigma)$	$f\sigma_8(0.61)$	$0.425^{+0.020}_{-0.018} \quad (-2.7\sigma)$
S_8	$0.800 \pm 0.029 \quad (+0.5\sigma)$	r_{drag}	$138.2 \pm 6.3 \quad (-4.4\sigma)$	$\sigma_8(0.61)$	$0.500^{+0.032}_{-0.039} \quad (-7.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.438 \pm 0.016 \quad (+0.5\sigma)$	k_{D}	$0.1515^{+0.0073}_{-0.0087} \quad (+4.8\sigma)$	$f\sigma_8(2.33)$	$0.257 \pm 0.019 \quad (-6.4\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.555 \pm 0.019 \quad (-1.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.1702^{+0.0051}_{-0.0043} \quad (+5.8\sigma)$	$\sigma_8(2.33)$	$0.259^{+0.019}_{-0.022} \quad (-7.5\sigma)$
$\sigma_8/h^{0.5}$	$0.838^{+0.052}_{-0.060} \quad (-7.3\sigma)$	z_{eq}	$4208^{+600}_{-700} \quad (+4.7\sigma)$	$\chi^2_{\mathrm{lensing}}$	$12.3 \pm 2.0 \quad (+0.1\sigma)$
$r_{\mathrm{drag}} h$	$97.2 \pm 2.1 \quad (-3.3\sigma)$	k_{eq}	$0.0129^{+0.0017}_{-0.0021} \quad (+4.8\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.42 \pm 0.42 \quad (+4.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.510 \pm 0.054 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.755^{+0.047}_{-0.058} \quad (-2.8\sigma)$	χ^2_{MGS}	$0.71 \pm 0.66 \quad (-1.8\sigma)$
z_{re}	$8.66 \pm 0.55 \quad (+5.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.420^{+0.024}_{-0.030} \quad (-2.8\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.8 \pm 1.6 \quad (-0.7\sigma)$
$10^9 A_{\mathrm{s}}$	$2.11^{+0.25}_{-0.28} \quad (-0.8\sigma)$	$H(0.15)$	$77.3^{+2.8}_{-3.5} \quad (+3.8\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.89^{+0.22}_{-0.25} \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$611 \pm 21 \quad (-3.1\sigma)$	χ^2_{BAO}	$5.0 \pm 1.8 \quad (-1.2\sigma)$
D_{40}	$1178^{+200}_{-200} \quad (-1.6\sigma)$	$H(0.38)$	$90.2^{+4.4}_{-5.3} \quad (+4.8\sigma)$		
D_{220}	$5136^{+1000}_{-1000} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1440 \pm 59 \quad (-3.6\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 19.28; \Delta \bar{\chi}^2_{\mathrm{eff}} = -2.05; R - 1 = 0.00629$					

6.108 base_mnu_lensing_lenspriors_BAO_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00050 \quad (+0.1\sigma)$	D_{810}	$2153 \pm 500 \quad (-1.4\sigma)$	$H(0.51)$	$98.6^{+4.8}_{-6.2} \quad (+3.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.156^{+0.021}_{-0.029} \quad (+3.1\sigma)$	D_{1420}	$628^{+200}_{-200} \quad (-2.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1852^{+83}_{-75} \quad (-2.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.108 \pm 0.034 \quad (+4.3\sigma)$	D_{2000}	$182^{+50}_{-60} \quad (-1.8\sigma)$	$H(0.61)$	$105.5^{+5.5}_{-7.1} \quad (+3.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$1.53^{+0.55}_{-1.1}$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2147 \pm 94 \quad (-2.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.02 \pm 0.12 \quad (-0.4\sigma)$	Y_{P}	$0.24532^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$H(2.33)$	$273^{+20}_{-25} \quad (+4.0\sigma)$
n_{s}	$0.959 \pm 0.020 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00023}_{-0.00019} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5203 \pm 310 \quad (-3.2\sigma)$
H_0	$70.6^{+1.8}_{-2.3} \quad (+2.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.618^{+0.087}_{-0.10} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.459 \pm 0.018 \quad (+0.3\sigma)$
Ω_{Λ}	$0.611^{+0.052}_{-0.043} \quad (-4.7\sigma)$	Age/Gyr	$12.45 \pm 0.75 \quad (-3.2\sigma)$	$\sigma_8(0.15)$	$0.674 \pm 0.039 \quad (-4.6\sigma)$
Ω_{m}	$0.389^{+0.043}_{-0.052} \quad (+4.7\sigma)$	z_*	$1093.7^{+2.1}_{-2.8} \quad (+3.1\sigma)$	$f\sigma_8(0.38)$	$0.462 \pm 0.018 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.195^{+0.027}_{-0.039} \quad (+4.5\sigma)$	r_*	$135.5^{+6.2}_{-5.6} \quad (-3.0\sigma)$	$\sigma_8(0.38)$	$0.592 \pm 0.037 \quad (-5.2\sigma)$
$\Omega_{\nu}h^2$	$0.0165^{+0.0060}_{-0.012}$	$100\theta_*$	$1.108 \pm 0.034 \quad (+4.3\sigma)$	$f\sigma_8(0.51)$	$0.453^{+0.020}_{-0.017} \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.138^{+0.020}_{-0.033} \quad (+4.3\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$12.25 \pm 0.90 \quad (-3.3\sigma)$	$\sigma_8(0.51)$	$0.552 \pm 0.036 \quad (-5.4\sigma)$
σ_8	$0.735 \pm 0.040 \quad (-4.1\sigma)$	z_{drag}	$1062.5^{+2.2}_{-2.4} \quad (+2.1\sigma)$	$f\sigma_8(0.61)$	$0.444^{+0.021}_{-0.017} \quad (-1.9\sigma)$
S_8	$0.834 \pm 0.036 \quad (+0.4\sigma)$	r_{drag}	$138.0^{+6.4}_{-5.8} \quad (-3.0\sigma)$	$\sigma_8(0.61)$	$0.524 \pm 0.035 \quad (-5.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.457 \pm 0.020 \quad (+0.4\sigma)$	k_{D}	$0.1515^{+0.0065}_{-0.0084} \quad (+3.3\sigma)$	$f\sigma_8(2.33)$	$0.269^{+0.020}_{-0.016} \quad (-4.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.579 \pm 0.023 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1699 \pm 0.0044 \quad (+4.1\sigma)$	$\sigma_8(2.33)$	$0.271 \pm 0.020 \quad (-5.9\sigma)$
$\sigma_8/h^{0.5}$	$0.876 \pm 0.054 \quad (-5.6\sigma)$	z_{eq}	$4266^{+500}_{-700} \quad (+3.1\sigma)$	$\chi^2_{\mathrm{lensing}}$	$8.7 \pm 2.1 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$97.3 \pm 2.0 \quad (-2.5\sigma)$	k_{eq}	$0.0131^{+0.0016}_{-0.0021} \quad (+3.2\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.38 \pm 0.39 \quad (+3.9\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.494 \pm 0.054 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.744^{+0.047}_{-0.055} \quad (-2.0\sigma)$	χ^2_{MGS}	$0.73 \pm 0.63 \quad (-1.5\sigma)$
z_{re}	$8.64^{+0.48}_{-0.57} \quad (+3.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.414^{+0.025}_{-0.028} \quad (-2.0\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$3.7 \pm 1.6 \quad (-0.4\sigma)$
10^9A_{s}	$2.06^{+0.22}_{-0.26} \quad (-0.4\sigma)$	$H(0.15)$	$77.4^{+2.5}_{-3.3} \quad (+2.7\sigma)$	χ^2_{prior}	$2.0 \pm 2.0 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.85^{+0.19}_{-0.23} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$609^{+22}_{-19} \quad (-2.2\sigma)$	χ^2_{BAO}	$4.8 \pm 1.8 \quad (-0.8\sigma)$
D_{40}	$1150^{+200}_{-200} \quad (-1.0\sigma)$	$H(0.38)$	$90.2^{+3.9}_{-5.1} \quad (+3.3\sigma)$		
D_{220}	$4970^{+900}_{-1000} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1437^{+60}_{-54} \quad (-2.6\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 15.55; \Delta\bar{\chi}^2_{\mathrm{eff}} = -1.46; R - 1 = 0.00430$					

6.109 base_mnu_lensing_lenspriors_BAO_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022173	0.02218 ± 0.00049 (-0.1σ)	D_{810}	2916	2926^{+210}_{-320} $(+3.3\sigma)$	$H(0.51)$	89.10	89.08 ± 0.67 (-1.7σ)
$\Omega_c h^2$	0.11357	$0.1136^{+0.0038}_{-0.0032}$ (-2.5σ)	D_{1420}	930	935^{+70}_{-100} $(+2.9\sigma)$	$D_M(0.51)$	1991.0	1992 ± 19 $(+1.3\sigma)$
$100\theta_{MC}$	1.04088	1.04091 ± 0.00060 $(+0.0\sigma)$	D_{2000}	261.4	263^{+21}_{-30} $(+2.6\sigma)$	$H(0.61)$	94.62	$94.61^{+0.72}_{-0.64}$ (-1.9σ)
Σm_ν [eV]	0.292	$0.30^{+0.15}_{-0.21}$	$n_{s,0.002}$	0.9607	0.962 ± 0.019 $(+0.4\sigma)$	$D_M(0.61)$	2317.6	2319 ± 21 $(+1.3\sigma)$
$\ln(10^{10} A_s)$	3.178	$3.177^{+0.078}_{-0.094}$ $(+3.1\sigma)$	Y_P	0.245315	$0.24530^{+0.00023}_{-0.00020}$ (-0.1σ)	$H(2.33)$	233.39	233.4 ± 1.7 (-1.2σ)
n_s	0.9607	0.962 ± 0.019 $(+0.4\sigma)$	Y_P^{BBN}	0.246641	$0.24663^{+0.00023}_{-0.00020}$ (-0.1σ)	$D_M(2.33)$	5808.5	5809^{+37}_{-43} $(+2.0\sigma)$
H_0	67.41	67.37 ± 0.80 (-1.0σ)	$10^5 D/H$	2.623	$2.624^{+0.087}_{-0.099}$ $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4436	$0.443^{+0.014}_{-0.012}$ (-1.1σ)
Ω_Λ	0.6944	0.6936 ± 0.0089 (-0.3σ)	Age/Gyr	13.908	$13.910^{+0.088}_{-0.10}$ $(+2.1\sigma)$	$\sigma_8(0.15)$	0.7294	$0.727^{+0.026}_{-0.021}$ (-1.7σ)
Ω_m	0.3056	0.3064 ± 0.0089 $(+0.3\sigma)$	z_*	1089.63	1089.65 ± 0.65 (-0.5σ)	$f\sigma_8(0.38)$	0.4634	$0.462^{+0.014}_{-0.012}$ (-1.2σ)
$\Omega_m h^2$	0.13888	0.1390 ± 0.0022 (-0.9σ)	r_*	146.23	146.21 ± 0.99 $(+1.7\sigma)$	$\sigma_8(0.38)$	0.6478	$0.646^{+0.023}_{-0.019}$ (-1.6σ)
$\Omega_\nu h^2$	0.00314	$0.0032^{+0.0016}_{-0.0023}$	$100\theta_*$	1.04122	1.04124 ± 0.00061 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4630	$0.462^{+0.014}_{-0.012}$ (-1.2σ)
$\Omega_m h^3$	0.09362	$0.0936^{+0.0019}_{-0.0018}$ (-1.9σ)	$D_M(z_*)/\text{Gpc}$	14.044	14.042 ± 0.095 $(+1.7\sigma)$	$\sigma_8(0.51)$	0.6069	$0.605^{+0.021}_{-0.018}$ (-1.6σ)
σ_8	0.7882	$0.786^{+0.028}_{-0.023}$ (-1.7σ)	z_{drag}	1059.06	1059.1 ± 1.2 (-0.3σ)	$f\sigma_8(0.61)$	0.4588	$0.457^{+0.014}_{-0.011}$ (-1.2σ)
S_8	0.7956	$0.794^{+0.027}_{-0.024}$ (-1.3σ)	r_{drag}	149.00	149.0 ± 1.1 $(+1.5\sigma)$	$\sigma_8(0.61)$	0.5779	$0.576^{+0.020}_{-0.017}$ (-1.6σ)
$\sigma_8 \Omega_m^{0.5}$	0.4357	$0.435^{+0.015}_{-0.013}$ (-1.3σ)	k_D	0.13876	0.1388 ± 0.0014 (-1.0σ)	$f\sigma_8(2.33)$	0.2953	$0.2942^{+0.0083}_{-0.0073}$ (-1.0σ)
$\sigma_8 \Omega_m^{0.25}$	0.5860	$0.585^{+0.020}_{-0.017}$ (-1.6σ)	$100\theta_D$	0.16121	0.16121 ± 0.00071 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.3027	$0.3015^{+0.0098}_{-0.0084}$ (-1.3σ)
$\sigma_8/h^{0.5}$	0.9600	$0.957^{+0.030}_{-0.026}$ (-1.5σ)	z_{eq}	3244	3244^{+92}_{-80} (-2.3σ)	χ^2_{lensing}	7.50	9.2 ± 1.8 (-0.0σ)
$r_{\text{drag}} h$	100.44	100.4 ± 1.1 (-0.2σ)	k_{eq}	0.009903	$0.00990^{+0.00028}_{-0.00024}$ (-2.3σ)	$\chi^2_{6\text{DF}}$	0.0001	0.056 ± 0.079 $(+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	2.526	$2.525^{+0.050}_{-0.056}$ $(+1.2\sigma)$	$100\theta_{\text{eq}}$	0.8425	$0.843^{+0.014}_{-0.019}$ $(+2.7\sigma)$	χ^2_{MGS}	1.68	1.72 ± 0.69 (-0.2σ)
z_{re}	7.722	7.73 ± 0.11 (-0.2σ)	$100\theta_{s,\text{eq}}$	0.4648	$0.4650^{+0.0076}_{-0.0099}$ $(+2.6\sigma)$	χ^2_{DR12BAO}	3.43	4.3 ± 1.4 $(+0.0\sigma)$
$10^9 A_s$	2.400	$2.41^{+0.17}_{-0.24}$ $(+3.3\sigma)$	$H(0.15)$	72.58	72.54 ± 0.75 (-1.1σ)	χ^2_{prior}	0.00	2.9 ± 2.4 $(+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	2.150	$2.16^{+0.15}_{-0.22}$ $(+3.3\sigma)$	$D_M(0.15)$	643.6	644.0 ± 7.2 $(+1.1\sigma)$	χ^2_{BAO}	5.11	6.1 ± 1.4 (-0.0σ)
D_{40}	1437	1434^{+100}_{-130} $(+2.4\sigma)$	$H(0.38)$	82.50	82.47 ± 0.68 (-1.5σ)			
D_{220}	6745	6763^{+510}_{-750} $(+3.5\sigma)$	$D_M(0.38)$	1536.3	1537 ± 15 $(+1.2\sigma)$			

Best-fit $\chi^2_{\text{eff}} = 12.61$; $\Delta\chi^2_{\text{eff}} = -0.74$; $\bar{\chi}^2_{\text{eff}} = 18.27$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.08$; $R - 1 = 0.00180$

χ^2_{eff} : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.68 (Δ -0.07) DR12BAO: 3.43 (Δ 0.00) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.50 (Δ -0.60)

6.110 base_mnu_lensing_lenspriors_BAO_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022196	0.02219 ± 0.00049 (-0.1σ)	D_{810}	2910	2929^{+210}_{-320} $(+3.3\sigma)$	$H(0.51)$	89.16	$89.12^{+0.70}_{-0.63}$ (-1.7σ)
$\Omega_c h^2$	0.11359	$0.1135^{+0.0038}_{-0.0032}$ (-2.7σ)	D_{1420}	929	935^{+70}_{-110} $(+2.9\sigma)$	$D_M(0.51)$	1989.1	1990 ± 18 $(+1.3\sigma)$
$100\theta_{MC}$	1.04090	1.04090 ± 0.00061 $(+0.0\sigma)$	D_{2000}	261.1	263^{+20}_{-30} $(+2.6\sigma)$	$H(0.61)$	94.67	$94.64^{+0.71}_{-0.63}$ (-1.9σ)
Σm_ν [eV]	0.284	$0.30^{+0.14}_{-0.22}$	$n_{s,0.002}$	0.9609	0.962 ± 0.019 $(+0.4\sigma)$	$D_M(0.61)$	2315.4	2317 ± 20 $(+1.4\sigma)$
$\ln(10^{10} A_s)$	3.176	$3.178^{+0.077}_{-0.096}$ $(+3.1\sigma)$	Y_P	0.245324	$0.24531^{+0.00023}_{-0.00019}$ (-0.1σ)	$H(2.33)$	233.38	233.4 ± 1.7 (-1.2σ)
n_s	0.9609	0.962 ± 0.019 $(+0.4\sigma)$	Y_P^{BBN}	0.246650	$0.24663^{+0.00023}_{-0.00019}$ (-0.1σ)	$D_M(2.33)$	5805.5	5808^{+37}_{-43} $(+2.0\sigma)$
H_0	67.50	67.44 ± 0.76 (-1.0σ)	$10^5 D/H$	2.619	$2.623^{+0.087}_{-0.098}$ $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4436	$0.442^{+0.014}_{-0.012}$ (-1.1σ)
Ω_Λ	0.6952	0.6947 ± 0.0082 (-0.2σ)	Age/Gyr	13.901	$13.907^{+0.087}_{-0.10}$ $(+2.0\sigma)$	$\sigma_8(0.15)$	0.7305	$0.728^{+0.026}_{-0.021}$ (-1.7σ)
Ω_m	0.3048	0.3053 ± 0.0082 $(+0.2\sigma)$	z_*	1089.61	1089.63 ± 0.64 (-0.5σ)	$f\sigma_8(0.38)$	0.4636	$0.462^{+0.014}_{-0.012}$ (-1.2σ)
$\Omega_m h^2$	0.13884	0.1388 ± 0.0021 (-1.0σ)	r_*	146.21	$146.24^{+0.94}_{-1.1}$ $(+1.8\sigma)$	$\sigma_8(0.38)$	0.6489	$0.647^{+0.023}_{-0.019}$ (-1.6σ)
$\Omega_\nu h^2$	0.00306	$0.0032^{+0.0015}_{-0.0023}$	$100\theta_*$	1.04123	1.04123 ± 0.00062 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4633	$0.462^{+0.014}_{-0.012}$ (-1.2σ)
$\Omega_m h^3$	0.09371	$0.0936^{+0.0019}_{-0.0017}$ (-1.9σ)	$D_M(z_*)/\text{Gpc}$	14.042	$14.045^{+0.091}_{-0.10}$ $(+1.7\sigma)$	$\sigma_8(0.51)$	0.6079	$0.606^{+0.021}_{-0.018}$ (-1.6σ)
σ_8	0.7893	$0.787^{+0.028}_{-0.023}$ (-1.7σ)	z_{drag}	1059.09	1059.1 ± 1.2 (-0.3σ)	$f\sigma_8(0.61)$	0.4592	$0.458^{+0.013}_{-0.011}$ (-1.2σ)
S_8	0.7955	$0.793^{+0.027}_{-0.024}$ (-1.3σ)	r_{drag}	148.97	149.0 ± 1.1 $(+1.5\sigma)$	$\sigma_8(0.61)$	0.5789	$0.577^{+0.020}_{-0.017}$ (-1.6σ)
$\sigma_8 \Omega_m^{0.5}$	0.4357	$0.435^{+0.015}_{-0.013}$ (-1.3σ)	k_D	0.13880	0.1388 ± 0.0014 (-1.0σ)	$f\sigma_8(2.33)$	0.2958	$0.2946^{+0.0083}_{-0.0072}$ (-0.9σ)
$\sigma_8 \Omega_m^{0.25}$	0.5865	$0.585^{+0.020}_{-0.017}$ (-1.6σ)	$100\theta_D$	0.16119	0.16120 ± 0.00071 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.3032	$0.3020^{+0.0098}_{-0.0083}$ (-1.3σ)
$\sigma_8/h^{0.5}$	0.9607	$0.958^{+0.030}_{-0.026}$ (-1.5σ)	z_{eq}	3245	3242^{+93}_{-78} (-2.4σ)	χ^2_{lensing}	7.50	9.2 ± 1.8 (-0.0σ)
$r_{\text{drag}} h$	100.55	100.5 ± 1.1 (-0.2σ)	k_{eq}	0.009905	$0.00990^{+0.00028}_{-0.00024}$ (-2.4σ)	χ^2_{JLA}	1034.803	1034.95 ± 0.29 $(+0.2\sigma)$
$\langle d^2 \rangle^{1/2}$	2.524	$2.525^{+0.050}_{-0.056}$ $(+1.2\sigma)$	$100\theta_{\text{eq}}$	0.8424	$0.844^{+0.014}_{-0.019}$ $(+2.8\sigma)$	$\chi^2_{6\text{DF}}$	0.0002	0.048 ± 0.069 (-0.0σ)
z_{re}	7.716	7.72 ± 0.11 (-0.3σ)	$100\theta_{s,\text{eq}}$	0.4647	$0.4653^{+0.0075}_{-0.010}$ $(+2.7\sigma)$	χ^2_{MGS}	1.75	1.79 ± 0.65 (-0.2σ)
$10^9 A_s$	2.395	$2.41^{+0.16}_{-0.25}$ $(+3.4\sigma)$	$H(0.15)$	72.66	72.61 ± 0.72 (-1.2σ)	χ^2_{DR12BAO}	3.377	4.2 ± 1.2 $(+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	2.146	$2.16^{+0.15}_{-0.22}$ $(+3.4\sigma)$	$D_M(0.15)$	642.8	643.3 ± 6.8 $(+1.1\sigma)$	χ^2_{prior}	0.00	2.9 ± 2.4 $(+0.0\sigma)$
D_{40}	1434	1436^{+100}_{-130} $(+2.5\sigma)$	$H(0.38)$	82.57	82.52 ± 0.67 (-1.5σ)	χ^2_{BAO}	5.13	6.0 ± 1.2 (-0.1σ)
D_{220}	6734	6771^{+510}_{-760} $(+3.6\sigma)$	$D_M(0.38)$	1534.6	1536 ± 15 $(+1.2\sigma)$			

Best-fit $\chi^2_{\text{eff}} = 1047.43$; $\Delta\chi^2_{\text{eff}} = -0.70$; $\bar{\chi}^2_{\text{eff}} = 1053.09$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.04$; $R - 1 = 0.00184$
 χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.75 (Δ -0.07) DR12BAO: 3.38 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.50 (Δ -0.58) SN
- JLA Pantheon18: 1034.80 (Δ 0.03)

6.111 base_mnu_lensing_lenspriors_BAO_theta_post_agr2

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2967^{+250}_{-310} \quad (+4.4\sigma)$	$H(0.51)$	$88.92 \pm 0.68 \quad (-2.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1125 \pm 0.0035 \quad (-3.1\sigma)$	D_{1420}	$946^{+83}_{-100} \quad (+4.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 19 \quad (+1.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$266^{+24}_{-30} \quad (+3.6\sigma)$	$H(0.61)$	$94.44 \pm 0.68 \quad (-2.4\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	0.36 ± 0.17	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2323 \pm 21 \quad (+1.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.189 \pm 0.087 \quad (+4.1\sigma)$	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.0 \pm 1.7 \quad (-1.4\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5820 \pm 40 \quad (+2.6\sigma)$
H_0	$67.26 \pm 0.81 \quad (-1.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.099} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.435 \pm 0.012 \quad (-1.3\sigma)$
Ω_{Λ}	$0.6937 \pm 0.0088 \quad (-0.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.935 \pm 0.095 \quad (+2.6\sigma)$	$\sigma_8(0.15)$	$0.715 \pm 0.022 \quad (-2.1\sigma)$
Ω_{m}	$0.3063 \pm 0.0088 \quad (+0.4\sigma)$	z_*	$1089.56 \pm 0.64 \quad (-0.6\sigma)$	$f\sigma_8(0.38)$	$0.455^{+0.012}_{-0.011} \quad (-1.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1385 \pm 0.0021 \quad (-1.1\sigma)$	r_*	$146.49 \pm 0.99 \quad (+2.1\sigma)$	$\sigma_8(0.38)$	$0.635 \pm 0.019 \quad (-2.0\sigma)$
$\Omega_{\nu}h^2$	0.0038 ± 0.0019	$100\theta_*$	$1.04126 \pm 0.00062 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.454^{+0.012}_{-0.011} \quad (-1.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0931 \pm 0.0018 \quad (-2.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.068 \pm 0.095 \quad (+2.0\sigma)$	$\sigma_8(0.51)$	$0.595 \pm 0.018 \quad (-2.0\sigma)$
σ_8	$0.772 \pm 0.024 \quad (-2.2\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.450^{+0.012}_{-0.011} \quad (-1.5\sigma)$
S_8	$0.780 \pm 0.023 \quad (-1.6\sigma)$	r_{drag}	$149.3 \pm 1.1 \quad (+1.8\sigma)$	$\sigma_8(0.61)$	$0.566 \pm 0.017 \quad (-2.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.427 \pm 0.013 \quad (-1.6\sigma)$	k_{D}	$0.1385 \pm 0.0014 \quad (-1.2\sigma)$	$f\sigma_8(2.33)$	$0.2901 \pm 0.0074 \quad (-1.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.575 \pm 0.017 \quad (-2.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16122 \pm 0.00071 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.2969 \pm 0.0086 \quad (-1.6\sigma)$
$\sigma_8/h^{0.5}$	$0.942 \pm 0.026 \quad (-1.9\sigma)$	z_{eq}	$3217 \pm 85 \quad (-2.9\sigma)$	$\chi^2_{\mathrm{lensing}}$	$11.7 \pm 1.8 \quad (-0.4\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.1 \quad (-0.3\sigma)$	k_{eq}	$0.00982 \pm 0.00026 \quad (-2.8\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.055 \pm 0.077 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.528 \pm 0.054 \quad (+1.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.848^{+0.016}_{-0.018} \quad (+3.3\sigma)$	χ^2_{MGS}	$1.73 \pm 0.69 \quad (-0.3\sigma)$
z_{re}	$7.71 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4678^{+0.0085}_{-0.0095} \quad (+3.2\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$4.3 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.44^{+0.20}_{-0.24} \quad (+4.5\sigma)$	$H(0.15)$	$72.42 \pm 0.76 \quad (-1.5\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.18^{+0.18}_{-0.21} \quad (+4.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.1 \pm 7.3 \quad (+1.4\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.1\sigma)$
D_{40}	$1461 \pm 110 \quad (+3.0\sigma)$	$H(0.38)$	$82.33 \pm 0.69 \quad (-1.9\sigma)$		
D_{220}	$6900^{+610}_{-720} \quad (+4.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1540 \pm 16 \quad (+1.6\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 20.82; \Delta\bar{\chi}^2_{\mathrm{eff}} = -0.90; R - 1 = 0.00190$					

6.112 base_mnu_lensing_lenspriors_BAO_theta_post_conslmin40

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00050 \quad (-0.1\sigma)$	D_{810}	$2993^{+250}_{-380} \quad (+4.0\sigma)$	$H(0.51)$	$88.96^{+0.77}_{-0.69} \quad (-2.0\sigma)$
$\Omega_c h^2$	$0.1128^{+0.0044}_{-0.0036} \quad (-3.0\sigma)$	D_{1420}	$955^{+81}_{-120} \quad (+3.5\sigma)$	$D_M(0.51)$	$1995^{+19}_{-21} \quad (+1.5\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$268^{+23}_{-35} \quad (+3.1\sigma)$	$H(0.61)$	$94.48^{+0.78}_{-0.69} \quad (-2.2\sigma)$
Σm_ν [eV]	$0.34^{+0.16}_{-0.25}$	$n_{s,0.002}$	$0.962 \pm 0.019 \quad (+0.3\sigma)$	$D_M(0.61)$	$2322^{+21}_{-24} \quad (+1.5\sigma)$
$\ln(10^{10} A_s)$	$3.198^{+0.090}_{-0.11} \quad (+3.6\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.1 \pm 1.8 \quad (-1.4\sigma)$
n_s	$0.962 \pm 0.019 \quad (+0.3\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5817^{+40}_{-47} \quad (+2.4\sigma)$
H_0	$67.28 \pm 0.83 \quad (-1.1\sigma)$	$10^5 D/H$	$2.625^{+0.088}_{-0.10} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.440^{+0.015}_{-0.013} \quad (-1.4\sigma)$
Ω_Λ	$0.6936 \pm 0.0089 \quad (-0.2\sigma)$	Age/Gyr	$13.928^{+0.096}_{-0.11} \quad (+2.4\sigma)$	$\sigma_8(0.15)$	$0.723^{+0.028}_{-0.023} \quad (-2.0\sigma)$
Ω_m	$0.3064 \pm 0.0089 \quad (+0.2\sigma)$	z_*	$1089.59 \pm 0.66 \quad (-0.6\sigma)$	$f\sigma_8(0.38)$	$0.460^{+0.015}_{-0.013} \quad (-1.5\sigma)$
$\Omega_m h^2$	$0.1386 \pm 0.0023 \quad (-1.1\sigma)$	r_*	$146.4 \pm 1.1 \quad (+2.1\sigma)$	$\sigma_8(0.38)$	$0.642^{+0.025}_{-0.021} \quad (-1.9\sigma)$
$\Omega_\nu h^2$	$0.0037^{+0.0018}_{-0.0027}$	$100\theta_*$	$1.04126 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.459^{+0.015}_{-0.012} \quad (-1.5\sigma)$
$\Omega_m h^3$	$0.0933^{+0.0021}_{-0.0019} \quad (-2.3\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.06 \pm 0.10 \quad (+2.0\sigma)$	$\sigma_8(0.51)$	$0.601^{+0.023}_{-0.019} \quad (-1.9\sigma)$
σ_8	$0.781^{+0.031}_{-0.025} \quad (-2.0\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.455^{+0.015}_{-0.012} \quad (-1.5\sigma)$
S_8	$0.789^{+0.030}_{-0.026} \quad (-1.6\sigma)$	r_{drag}	$149.2 \pm 1.2 \quad (+1.7\sigma)$	$\sigma_8(0.61)$	$0.572^{+0.022}_{-0.018} \quad (-1.9\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.432^{+0.017}_{-0.014} \quad (-1.6\sigma)$	k_D	$0.1386 \pm 0.0014 \quad (-1.2\sigma)$	$f\sigma_8(2.33)$	$0.2929^{+0.0091}_{-0.0077} \quad (-1.2\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.581^{+0.022}_{-0.018} \quad (-1.9\sigma)$	$100\theta_D$	$0.16122^{+0.00067}_{-0.00075} \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.300^{+0.011}_{-0.0090} \quad (-1.5\sigma)$
$\sigma_8/h^{0.5}$	$0.952^{+0.034}_{-0.028} \quad (-1.8\sigma)$	z_{eq}	$3225^{+100}_{-89} \quad (-2.8\sigma)$	χ^2_{lensing}	$9.1 \pm 1.7 \quad (-0.0\sigma)$
$r_{\text{drag}} h$	$100.4 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00985^{+0.00031}_{-0.00027} \quad (-2.7\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.540^{+0.060}_{-0.072} \quad (+1.6\sigma)$	$100\theta_{\text{eq}}$	$0.847^{+0.016}_{-0.022} \quad (+3.2\sigma)$	χ^2_{MGS}	$1.71 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.72 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{s,\text{eq}}$	$0.4671^{+0.0085}_{-0.012} \quad (+3.1\sigma)$	χ^2_{DR12BAO}	$4.3 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s$	$2.46^{+0.19}_{-0.29} \quad (+4.0\sigma)$	$H(0.15)$	$72.45 \pm 0.78 \quad (-1.3\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.20^{+0.17}_{-0.26} \quad (+4.0\sigma)$	$D_M(0.15)$	$644.9^{+7.0}_{-7.9} \quad (+1.2\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1468^{+120}_{-160} \quad (+3.0\sigma)$	$H(0.38)$	$82.37^{+0.78}_{-0.70} \quad (-1.7\sigma)$		
D_{220}	$6942^{+600}_{-930} \quad (+4.2\sigma)$	$D_M(0.38)$	$1539^{+15}_{-17} \quad (+1.4\sigma)$		
$\bar{\chi}^2_{\text{eff}} = 18.19; \Delta\bar{\chi}^2_{\text{eff}} = -0.08; R - 1 = 0.00198$					

6.113 base_mnu_lensing_lenspriors_BAO_theta_post_agrlmax425

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02217 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2919^{+210}_{-320} \quad (+3.2\sigma)$	$H(0.51)$	$89.09^{+0.71}_{-0.64} \quad (-1.7\sigma)$
$\Omega_c h^2$	$0.1137^{+0.0038}_{-0.0032} \quad (-2.4\sigma)$	D_{1420}	$933^{+69}_{-100} \quad (+2.8\sigma)$	$D_M(0.51)$	$1992 \pm 19 \quad (+1.2\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$262^{+20}_{-30} \quad (+2.5\sigma)$	$H(0.61)$	$94.62^{+0.72}_{-0.63} \quad (-1.8\sigma)$
Σm_ν [eV]	$0.29^{+0.14}_{-0.22}$	$n_{s,0.002}$	$0.962 \pm 0.019 \quad (+0.4\sigma)$	$D_M(0.61)$	$2318 \pm 21 \quad (+1.3\sigma)$
$\ln(10^{10} A_s)$	$3.175^{+0.076}_{-0.095} \quad (+3.0\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00019} \quad (-0.1\sigma)$	$H(2.33)$	$233.5 \pm 1.7 \quad (-1.1\sigma)$
n_s	$0.962 \pm 0.019 \quad (+0.4\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5808^{+36}_{-43} \quad (+2.0\sigma)$
H_0	$67.38 \pm 0.80 \quad (-1.0\sigma)$	$10^5 D/H$	$2.625^{+0.087}_{-0.099} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.012} \quad (-1.1\sigma)$
Ω_Λ	$0.6936 \pm 0.0088 \quad (-0.2\sigma)$	Age/Gyr	$13.907^{+0.086}_{-0.10} \quad (+2.0\sigma)$	$\sigma_8(0.15)$	$0.729^{+0.025}_{-0.021} \quad (-1.6\sigma)$
Ω_m	$0.3064 \pm 0.0088 \quad (+0.2\sigma)$	z_*	$1089.67 \pm 0.65 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.463^{+0.014}_{-0.012} \quad (-1.2\sigma)$
$\Omega_m h^2$	$0.1390 \pm 0.0022 \quad (-0.9\sigma)$	r_*	$146.18^{+0.94}_{-1.0} \quad (+1.7\sigma)$	$\sigma_8(0.38)$	$0.647^{+0.022}_{-0.019} \quad (-1.6\sigma)$
$\Omega_\nu h^2$	$0.0031^{+0.0015}_{-0.0023}$	$100\theta_*$	$1.04124 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.463^{+0.014}_{-0.011} \quad (-1.2\sigma)$
$\Omega_m h^3$	$0.0937^{+0.0019}_{-0.0017} \quad (-1.9\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.039^{+0.090}_{-0.10} \quad (+1.6\sigma)$	$\sigma_8(0.51)$	$0.606^{+0.021}_{-0.018} \quad (-1.5\sigma)$
σ_8	$0.788^{+0.027}_{-0.023} \quad (-1.7\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.011} \quad (-1.2\sigma)$
S_8	$0.796^{+0.027}_{-0.024} \quad (-1.3\sigma)$	r_{drag}	$148.9 \pm 1.1 \quad (+1.4\sigma)$	$\sigma_8(0.61)$	$0.577^{+0.020}_{-0.017} \quad (-1.5\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.436^{+0.015}_{-0.013} \quad (-1.3\sigma)$	k_D	$0.1388 \pm 0.0014 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2947^{+0.0083}_{-0.0073} \quad (-0.9\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.586^{+0.020}_{-0.017} \quad (-1.6\sigma)$	$100\theta_D$	$0.16122 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3021^{+0.0097}_{-0.0083} \quad (-1.2\sigma)$
$\sigma_8/h^{0.5}$	$0.959^{+0.030}_{-0.026} \quad (-1.4\sigma)$	z_{eq}	$3248^{+92}_{-78} \quad (-2.3\sigma)$	χ^2_{lensing}	$7.0 \pm 1.8 \quad (-0.0\sigma)$
$r_{\text{drag}} h$	$100.4 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00991^{+0.00028}_{-0.00024} \quad (-2.2\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.524^{+0.050}_{-0.056} \quad (+1.1\sigma)$	$100\theta_{\text{eq}}$	$0.842^{+0.014}_{-0.019} \quad (+2.6\sigma)$	χ^2_{MGS}	$1.71 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.73 \pm 0.11 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4647^{+0.0075}_{-0.0098} \quad (+2.5\sigma)$	χ^2_{DR12BAO}	$4.4 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s$	$2.40^{+0.16}_{-0.24} \quad (+3.2\sigma)$	$H(0.15)$	$72.55 \pm 0.74 \quad (-1.1\sigma)$	χ^2_{prior}	$2.9 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.15^{+0.14}_{-0.22} \quad (+3.2\sigma)$	$D_M(0.15)$	$643.9 \pm 7.1 \quad (+1.0\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1430^{+100}_{-130} \quad (+2.4\sigma)$	$H(0.38)$	$82.49 \pm 0.68 \quad (-1.5\sigma)$		
D_{220}	$6741^{+500}_{-750} \quad (+3.4\sigma)$	$D_M(0.38)$	$1537 \pm 15 \quad (+1.2\sigma)$		

$$\bar{\chi}^2_{\text{eff}} = 16.07; \Delta \bar{\chi}^2_{\text{eff}} = -0.02; R - 1 = 0.00165$$

6.114 base_mnu_lensing_lenspriors_BAO_theta_post_ptt

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00051 \quad (-0.1\sigma)$	D_{810}	$3253^{+350}_{-300} \quad (+5.7\sigma)$	$H(0.51)$	$88.54 \pm 0.73 \quad (-3.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1098^{+0.0034}_{-0.0041} \quad (-4.6\sigma)$	D_{1420}	$1035 \pm 100 \quad (+5.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2004 \pm 21 \quad (+2.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00061 \quad (+0.1\sigma)$	D_{2000}	$290 \pm 30 \quad (+4.6\sigma)$	$H(0.61)$	$94.04 \pm 0.73 \quad (-3.4\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	$0.50^{+0.22}_{-0.19}$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.019 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2333 \pm 23 \quad (+2.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.28^{+0.11}_{-0.078} \quad (+5.0\sigma)$	Y_{P}	$0.24531^{+0.00024}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$232.1 \pm 1.7 \quad (-2.1\sigma)$
n_{s}	$0.960 \pm 0.019 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00024}_{-0.00020} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5844 \pm 44 \quad (+3.6\sigma)$
H_0	$66.96 \pm 0.86 \quad (-1.7\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.621^{+0.091}_{-0.10} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.432 \pm 0.015 \quad (-2.1\sigma)$
Ω_{Λ}	$0.6935 \pm 0.0091 \quad (-0.4\sigma)$	Age/Gyr	$13.99 \pm 0.10 \quad (+3.7\sigma)$	$\sigma_8(0.15)$	$0.707 \pm 0.027 \quad (-3.0\sigma)$
Ω_{m}	$0.3065 \pm 0.0091 \quad (+0.4\sigma)$	z_*	$1089.36 \pm 0.67 \quad (-0.9\sigma)$	$f\sigma_8(0.38)$	$0.451 \pm 0.015 \quad (-2.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1374 \pm 0.0022 \quad (-1.7\sigma)$	r_*	$147.1^{+1.1}_{-0.99} \quad (+3.1\sigma)$	$\sigma_8(0.38)$	$0.628 \pm 0.024 \quad (-2.9\sigma)$
$\Omega_{\nu}h^2$	$0.0053^{+0.0024}_{-0.0020}$	$100\theta_*$	$1.04133 \pm 0.00063 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.451 \pm 0.015 \quad (-2.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0920^{+0.0018}_{-0.0021} \quad (-3.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.13^{+0.10}_{-0.095} \quad (+3.0\sigma)$	$\sigma_8(0.51)$	$0.588 \pm 0.023 \quad (-2.8\sigma)$
σ_8	$0.764 \pm 0.029 \quad (-3.0\sigma)$	z_{drag}	$1058.9 \pm 1.2 \quad (-0.5\sigma)$	$f\sigma_8(0.61)$	$0.447 \pm 0.015 \quad (-2.3\sigma)$
S_8	$0.772 \pm 0.029 \quad (-2.4\sigma)$	r_{drag}	$149.9 \pm 1.2 \quad (+2.6\sigma)$	$\sigma_8(0.61)$	$0.560 \pm 0.022 \quad (-2.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.423 \pm 0.016 \quad (-2.4\sigma)$	k_{D}	$0.1379 \pm 0.0014 \quad (-1.7\sigma)$	$f\sigma_8(2.33)$	$0.2887 \pm 0.0094 \quad (-1.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.568 \pm 0.021 \quad (-2.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16125 \pm 0.00073 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.294 \pm 0.011 \quad (-2.3\sigma)$
$\sigma_8/h^{0.5}$	$0.933 \pm 0.033 \quad (-2.6\sigma)$	z_{eq}	$3155^{+84}_{-100} \quad (-4.3\sigma)$	$\chi^2_{\mathrm{lensing}}$	$10.6 \pm 1.7 \quad (-1.2\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.2 \quad (-0.3\sigma)$	k_{eq}	$0.00964^{+0.00025}_{-0.00030} \quad (-4.2\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.058 \pm 0.080 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.605 \pm 0.067 \quad (+2.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.862 \pm 0.019 \quad (+5.0\sigma)$	χ^2_{MGS}	$1.72 \pm 0.71 \quad (-0.3\sigma)$
z_{re}	$7.69 \pm 0.12 \quad (-0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.475 \pm 0.010 \quad (+4.9\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$4.4 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.66^{+0.27}_{-0.23} \quad (+5.6\sigma)$	$H(0.15)$	$72.10 \pm 0.81 \quad (-2.0\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.39^{+0.24}_{-0.20} \quad (+5.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$648.0 \pm 7.8 \quad (+1.9\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.1\sigma)$
D_{40}	$1602^{+150}_{-130} \quad (+4.1\sigma)$	$H(0.38)$	$81.98 \pm 0.75 \quad (-2.7\sigma)$		
D_{220}	$7646^{+900}_{-700} \quad (+5.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1547 \pm 17 \quad (+2.1\sigma)$		

$\bar{\chi}^2_{\mathrm{eff}} = 19.79$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = -2.61$; $R - 1 = 0.03408$

6.115 base_mnu_lensing_lenspriors_BAO_theta_post_bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2861^{+200}_{-310} \quad (+3.1\sigma)$	$H(0.51)$	$89.11^{+0.71}_{-0.63} \quad (-1.7\sigma)$
$\Omega_c h^2$	$0.1138^{+0.0038}_{-0.0031} \quad (-2.4\sigma)$	D_{1420}	$914^{+66}_{-100} \quad (+2.7\sigma)$	$D_M(0.51)$	$1991^{+18}_{-20} \quad (+1.2\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$257^{+19}_{-29} \quad (+2.4\sigma)$	$H(0.61)$	$94.64^{+0.72}_{-0.62} \quad (-1.8\sigma)$
Σm_ν [eV]	$0.29^{+0.13}_{-0.22}$	$n_{s,0.002}$	$0.963 \pm 0.019 \quad (+0.4\sigma)$	$D_M(0.61)$	$2318^{+20}_{-22} \quad (+1.3\sigma)$
$\ln(10^{10} A_s)$	$3.154^{+0.074}_{-0.093} \quad (+3.0\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.5 \pm 1.7 \quad (-1.1\sigma)$
n_s	$0.963 \pm 0.019 \quad (+0.4\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5807^{+36}_{-43} \quad (+1.9\sigma)$
H_0	$67.39 \pm 0.80 \quad (-1.0\sigma)$	$10^5 D/H$	$2.625^{+0.088}_{-0.098} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.440^{+0.014}_{-0.011} \quad (-1.1\sigma)$
Ω_Λ	$0.6936 \pm 0.0088 \quad (-0.3\sigma)$	Age/Gyr	$13.905^{+0.085}_{-0.10} \quad (+2.0\sigma)$	$\sigma_8(0.15)$	$0.723^{+0.025}_{-0.021} \quad (-1.7\sigma)$
Ω_m	$0.3064 \pm 0.0088 \quad (+0.3\sigma)$	z_*	$1089.67 \pm 0.64 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.459^{+0.014}_{-0.011} \quad (-1.2\sigma)$
$\Omega_m h^2$	$0.1391 \pm 0.0022 \quad (-0.9\sigma)$	r_*	$146.16^{+0.93}_{-1.1} \quad (+1.7\sigma)$	$\sigma_8(0.38)$	$0.642^{+0.023}_{-0.018} \quad (-1.6\sigma)$
$\Omega_\nu h^2$	$0.0031^{+0.0014}_{-0.0024}$	$100\theta_*$	$1.04124 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.459^{+0.014}_{-0.011} \quad (-1.2\sigma)$
$\Omega_m h^3$	$0.0937^{+0.0019}_{-0.0017} \quad (-1.8\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.037^{+0.090}_{-0.10} \quad (+1.6\sigma)$	$\sigma_8(0.51)$	$0.601^{+0.021}_{-0.017} \quad (-1.6\sigma)$
σ_8	$0.781^{+0.028}_{-0.022} \quad (-1.7\sigma)$	z_{drag}	$1059.1 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.454^{+0.013}_{-0.011} \quad (-1.2\sigma)$
S_8	$0.789^{+0.027}_{-0.023} \quad (-1.3\sigma)$	r_{drag}	$148.9^{+1.0}_{-1.2} \quad (+1.4\sigma)$	$\sigma_8(0.61)$	$0.572^{+0.020}_{-0.016} \quad (-1.5\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.432^{+0.015}_{-0.013} \quad (-1.3\sigma)$	k_D	$0.1388 \pm 0.0014 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2921^{+0.0082}_{-0.0071} \quad (-0.9\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.581^{+0.020}_{-0.016} \quad (-1.6\sigma)$	$100\theta_D$	$0.16121 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.2995^{+0.0097}_{-0.0082} \quad (-1.2\sigma)$
$\sigma_8/h^{0.5}$	$0.951^{+0.030}_{-0.025} \quad (-1.5\sigma)$	z_{eq}	$3250^{+93}_{-78} \quad (-2.2\sigma)$	χ^2_{lensing}	$9.4 \pm 1.8 \quad (+0.0\sigma)$
$r_{\text{drag}} h$	$100.4 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00992^{+0.00028}_{-0.00024} \quad (-2.2\sigma)$	$\chi^2_{6\text{DF}}$	$0.055 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.499 \pm 0.050 \quad (+1.1\sigma)$	$100\theta_{\text{eq}}$	$0.842^{+0.014}_{-0.019} \quad (+2.5\sigma)$	χ^2_{MGS}	$1.71 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.73 \pm 0.11 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4644^{+0.0074}_{-0.0099} \quad (+2.5\sigma)$	χ^2_{DR12BAO}	$4.4 \pm 1.4 \quad (+0.1\sigma)$
$10^9 A_s$	$2.35^{+0.16}_{-0.23} \quad (+3.2\sigma)$	$H(0.15)$	$72.57 \pm 0.74 \quad (-1.1\sigma)$	χ^2_{prior}	$2.9 \pm 2.3 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.11^{+0.14}_{-0.21} \quad (+3.2\sigma)$	$D_M(0.15)$	$643.8 \pm 7.1 \quad (+1.0\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1400^{+100}_{-120} \quad (+2.4\sigma)$	$H(0.38)$	$82.50^{+0.72}_{-0.65} \quad (-1.4\sigma)$		
D_{220}	$6599^{+490}_{-720} \quad (+3.4\sigma)$	$D_M(0.38)$	$1537 \pm 15 \quad (+1.2\sigma)$		

$\bar{\chi}^2_{\text{eff}} = 18.46$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.09$; $R - 1 = 0.00205$

6.116 base_mnu_lensing_lenspriors_BAO_theta_post_agr2bfcl

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2894^{+240}_{-300} \quad (+4.2\sigma)$	$H(0.51)$	$88.97 \pm 0.67 \quad (-2.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1128 \pm 0.0034 \quad (-2.9\sigma)$	D_{1420}	$924^{+77}_{-100} \quad (+3.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1994 \pm 19 \quad (+1.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00062 \quad (+0.0\sigma)$	D_{2000}	$259^{+22}_{-29} \quad (+3.3\sigma)$	$H(0.61)$	$94.49 \pm 0.67 \quad (-2.3\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	0.34 ± 0.17	$n_{\mathrm{s},0.002}$	$0.961 \pm 0.019 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2321 \pm 21 \quad (+1.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.165 \pm 0.084 \quad (+3.9\sigma)$	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.2 \pm 1.7 \quad (-1.3\sigma)$
n_{s}	$0.961 \pm 0.019 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5816 \pm 40 \quad (+2.4\sigma)$
H_0	$67.29 \pm 0.81 \quad (-1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.624 \pm 0.093 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.433 \pm 0.012 \quad (-1.3\sigma)$
Ω_{Λ}	$0.6937 \pm 0.0088 \quad (-0.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.927 \pm 0.094 \quad (+2.5\sigma)$	$\sigma_8(0.15)$	$0.711 \pm 0.022 \quad (-2.1\sigma)$
Ω_{m}	$0.3063 \pm 0.0088 \quad (+0.4\sigma)$	z_*	$1089.59 \pm 0.64 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.453^{+0.012}_{-0.011} \quad (-1.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1386 \pm 0.0021 \quad (-1.0\sigma)$	r_*	$146.40 \pm 0.98 \quad (+2.0\sigma)$	$\sigma_8(0.38)$	$0.632^{+0.020}_{-0.018} \quad (-2.0\sigma)$
$\Omega_{\nu}h^2$	0.0036 ± 0.0019	$100\theta_*$	$1.04126 \pm 0.00063 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.452^{+0.012}_{-0.011} \quad (-1.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0933 \pm 0.0018 \quad (-2.3\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.060 \pm 0.094 \quad (+1.9\sigma)$	$\sigma_8(0.51)$	$0.592^{+0.019}_{-0.017} \quad (-1.9\sigma)$
σ_8	$0.769 \pm 0.023 \quad (-2.1\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.448^{+0.012}_{-0.011} \quad (-1.5\sigma)$
S_8	$0.777 \pm 0.023 \quad (-1.5\sigma)$	r_{drag}	$149.2 \pm 1.1 \quad (+1.7\sigma)$	$\sigma_8(0.61)$	$0.564^{+0.018}_{-0.016} \quad (-1.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.425 \pm 0.013 \quad (-1.5\sigma)$	k_{D}	$0.1386 \pm 0.0014 \quad (-1.2\sigma)$	$f\sigma_8(2.33)$	$0.2884 \pm 0.0073 \quad (-1.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.572 \pm 0.017 \quad (-2.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16122 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.2953^{+0.0088}_{-0.0080} \quad (-1.5\sigma)$
$\sigma_8/h^{0.5}$	$0.937 \pm 0.026 \quad (-1.8\sigma)$	z_{eq}	$3226 \pm 84 \quad (-2.7\sigma)$	$\chi^2_{\mathrm{lensing}}$	$11.9 \pm 1.8 \quad (-0.3\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.1 \quad (-0.3\sigma)$	k_{eq}	$0.00985 \pm 0.00025 \quad (-2.6\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.055 \pm 0.077 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.501 \pm 0.051 \quad (+1.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.847^{+0.016}_{-0.018} \quad (+3.1\sigma)$	χ^2_{MGS}	$1.72 \pm 0.69 \quad (-0.3\sigma)$
z_{re}	$7.72 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4669^{+0.0083}_{-0.0095} \quad (+3.0\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$4.3 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.38^{+0.18}_{-0.22} \quad (+4.3\sigma)$	$H(0.15)$	$72.46 \pm 0.75 \quad (-1.4\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.13^{+0.16}_{-0.20} \quad (+4.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$644.8 \pm 7.2 \quad (+1.3\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.1\sigma)$
D_{40}	$1422 \pm 110 \quad (+2.9\sigma)$	$H(0.38)$	$82.38 \pm 0.69 \quad (-1.8\sigma)$		
D_{220}	$6715^{+580}_{-680} \quad (+4.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1539 \pm 15 \quad (+1.5\sigma)$		
$\bar{\chi}^2_{\mathrm{eff}} = 20.96; \Delta\bar{\chi}^2_{\mathrm{eff}} = -0.55; R - 1 = 0.00384$					

6.117 base_mnu_lensing_lenspriors_BAO_theta_post_linear

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02217 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2899^{+190}_{-310} \quad (+2.7\sigma)$	$H(0.51)$	$89.18^{+0.70}_{-0.61} \quad (-1.4\sigma)$
$\Omega_c h^2$	$0.1143^{+0.0038}_{-0.0029} \quad (-2.1\sigma)$	D_{1420}	$927^{+63}_{-100} \quad (+2.4\sigma)$	$D_M(0.51)$	$1990^{+17}_{-19} \quad (+1.1\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00060 \quad (+0.0\sigma)$	D_{2000}	$260^{+19}_{-29} \quad (+2.1\sigma)$	$H(0.61)$	$94.71^{+0.71}_{-0.60} \quad (-1.6\sigma)$
Σm_ν [eV]	$0.262^{+0.095}_{-0.23}$	$n_{s,0.002}$	$0.963 \pm 0.019 \quad (+0.3\sigma)$	$D_M(0.61)$	$2316^{+19}_{-22} \quad (+1.1\sigma)$
$\ln(10^{10} A_s)$	$3.169^{+0.068}_{-0.094} \quad (+2.5\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00019} \quad (-0.1\sigma)$	$H(2.33)$	$233.7 \pm 1.7 \quad (-1.0\sigma)$
n_s	$0.963 \pm 0.019 \quad (+0.3\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5803^{+34}_{-43} \quad (+1.7\sigma)$
H_0	$67.44 \pm 0.79 \quad (-0.8\sigma)$	$10^5 D/H$	$2.626^{+0.087}_{-0.099} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.447^{+0.014}_{-0.012} \quad (-0.9\sigma)$
Ω_Λ	$0.6936 \pm 0.0089 \quad (-0.2\sigma)$	Age/Gyr	$13.895^{+0.081}_{-0.10} \quad (+1.7\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.026}_{-0.020} \quad (-1.4\sigma)$
Ω_m	$0.3064 \pm 0.0089 \quad (+0.2\sigma)$	z_*	$1089.71 \pm 0.64 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.467^{+0.014}_{-0.011} \quad (-1.0\sigma)$
$\Omega_m h^2$	$0.1393 \pm 0.0021 \quad (-0.8\sigma)$	r_*	$146.04^{+0.90}_{-1.0} \quad (+1.5\sigma)$	$\sigma_8(0.38)$	$0.653^{+0.023}_{-0.018} \quad (-1.4\sigma)$
$\Omega_\nu h^2$	$0.0028^{+0.0010}_{-0.0025}$	$100\theta_*$	$1.04122 \pm 0.00061 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.466^{+0.014}_{-0.011} \quad (-1.0\sigma)$
$\Omega_m h^3$	$0.0939^{+0.0019}_{-0.0016} \quad (-1.6\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.026^{+0.086}_{-0.10} \quad (+1.4\sigma)$	$\sigma_8(0.51)$	$0.611^{+0.021}_{-0.017} \quad (-1.3\sigma)$
σ_8	$0.795^{+0.028}_{-0.022} \quad (-1.5\sigma)$	z_{drag}	$1059.1 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.462^{+0.013}_{-0.011} \quad (-1.0\sigma)$
S_8	$0.803^{+0.027}_{-0.023} \quad (-1.1\sigma)$	r_{drag}	$148.8^{+1.0}_{-1.2} \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.582^{+0.020}_{-0.016} \quad (-1.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.440^{+0.015}_{-0.013} \quad (-1.1\sigma)$	k_D	$0.1390 \pm 0.0014 \quad (-0.9\sigma)$	$f\sigma_8(2.33)$	$0.2968^{+0.0084}_{-0.0071} \quad (-0.8\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.020}_{-0.016} \quad (-1.4\sigma)$	$100\theta_D$	$0.16121 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3045^{+0.0098}_{-0.0081} \quad (-1.1\sigma)$
$\sigma_8/h^{0.5}$	$0.967^{+0.031}_{-0.025} \quad (-1.3\sigma)$	z_{eq}	$3261^{+92}_{-73} \quad (-2.0\sigma)$	χ^2_{lensing}	$9.7 \pm 1.8 \quad (+0.2\sigma)$
$r_{\text{drag}} h$	$100.3 \pm 1.1 \quad (-0.1\sigma)$	k_{eq}	$0.00996^{+0.00028}_{-0.00022} \quad (-2.0\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.080 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.520^{+0.048}_{-0.055} \quad (+1.0\sigma)$	$100\theta_{\text{eq}}$	$0.840^{+0.013}_{-0.018} \quad (+2.2\sigma)$	χ^2_{MGS}	$1.71 \pm 0.69 \quad (-0.1\sigma)$
z_{re}	$7.73 \pm 0.11 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4632^{+0.0069}_{-0.0097} \quad (+2.2\sigma)$	χ^2_{DR12BAO}	$4.4 \pm 1.5 \quad (+0.0\sigma)$
$10^9 A_s$	$2.39^{+0.14}_{-0.23} \quad (+2.7\sigma)$	$H(0.15)$	$72.62 \pm 0.73 \quad (-1.0\sigma)$	χ^2_{prior}	$2.9 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.14^{+0.13}_{-0.21} \quad (+2.7\sigma)$	$D_M(0.15)$	$643.3 \pm 7.0 \quad (+0.9\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1417^{+94}_{-130} \quad (+2.1\sigma)$	$H(0.38)$	$82.56^{+0.71}_{-0.63} \quad (-1.3\sigma)$		
D_{220}	$6673^{+450}_{-730} \quad (+2.9\sigma)$	$D_M(0.38)$	$1535^{+14}_{-16} \quad (+1.0\sigma)$		

$$\bar{\chi}^2_{\text{eff}} = 18.71; \Delta \bar{\chi}^2_{\text{eff}} = 0.26; R - 1 = 0.00239$$

6.118 base_mnu_lensing_lenspriors_BAO_theta_post_acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2928^{+210}_{-320} \quad (+3.3\sigma)$	$H(0.51)$	$89.07^{+0.72}_{-0.65} \quad (-1.8\sigma)$
$\Omega_c h^2$	$0.1135^{+0.0038}_{-0.0032} \quad (-2.5\sigma)$	D_{1420}	$935^{+71}_{-110} \quad (+2.9\sigma)$	$D_M(0.51)$	$1992 \pm 19 \quad (+1.3\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$263^{+21}_{-30} \quad (+2.6\sigma)$	$H(0.61)$	$94.60^{+0.72}_{-0.64} \quad (-1.9\sigma)$
Σm_ν [eV]	$0.30^{+0.15}_{-0.22}$	$n_{s,0.002}$	$0.962 \pm 0.019 \quad (+0.4\sigma)$	$D_M(0.61)$	$2319 \pm 21 \quad (+1.4\sigma)$
$\ln(10^{10} A_s)$	$3.177^{+0.078}_{-0.095} \quad (+3.1\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00019} \quad (-0.1\sigma)$	$H(2.33)$	$233.4 \pm 1.7 \quad (-1.2\sigma)$
n_s	$0.962 \pm 0.019 \quad (+0.4\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5810^{+37}_{-44} \quad (+2.1\sigma)$
H_0	$67.36 \pm 0.80 \quad (-1.0\sigma)$	$10^5 D/H$	$2.625^{+0.087}_{-0.099} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.442^{+0.014}_{-0.012} \quad (-1.1\sigma)$
Ω_Λ	$0.6937 \pm 0.0088 \quad (-0.3\sigma)$	Age/Gyr	$13.911^{+0.088}_{-0.10} \quad (+2.1\sigma)$	$\sigma_8(0.15)$	$0.727^{+0.026}_{-0.022} \quad (-1.7\sigma)$
Ω_m	$0.3063 \pm 0.0088 \quad (+0.3\sigma)$	z_*	$1089.65 \pm 0.65 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.462^{+0.014}_{-0.012} \quad (-1.2\sigma)$
$\Omega_m h^2$	$0.1389 \pm 0.0022 \quad (-0.9\sigma)$	r_*	$146.23 \pm 0.99 \quad (+1.8\sigma)$	$\sigma_8(0.38)$	$0.645^{+0.023}_{-0.019} \quad (-1.7\sigma)$
$\Omega_\nu h^2$	$0.0032^{+0.0016}_{-0.0023}$	$100\theta_*$	$1.04124 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.461^{+0.014}_{-0.012} \quad (-1.3\sigma)$
$\Omega_m h^3$	$0.0936^{+0.0020}_{-0.0018} \quad (-1.9\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.043 \pm 0.095 \quad (+1.7\sigma)$	$\sigma_8(0.51)$	$0.604^{+0.021}_{-0.018} \quad (-1.6\sigma)$
σ_8	$0.785^{+0.028}_{-0.023} \quad (-1.8\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.457^{+0.014}_{-0.011} \quad (-1.3\sigma)$
S_8	$0.793^{+0.027}_{-0.024} \quad (-1.3\sigma)$	r_{drag}	$149.0 \pm 1.1 \quad (+1.5\sigma)$	$\sigma_8(0.61)$	$0.575^{+0.020}_{-0.017} \quad (-1.6\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.435^{+0.015}_{-0.013} \quad (-1.3\sigma)$	k_D	$0.1388 \pm 0.0014 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2940^{+0.0084}_{-0.0074} \quad (-1.0\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.584^{+0.020}_{-0.017} \quad (-1.6\sigma)$	$100\theta_D$	$0.16121 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3013^{+0.0099}_{-0.0085} \quad (-1.3\sigma)$
$\sigma_8/h^{0.5}$	$0.957^{+0.031}_{-0.026} \quad (-1.5\sigma)$	z_{eq}	$3243^{+93}_{-80} \quad (-2.4\sigma)$	χ^2_{lensing}	$9.2 \pm 1.8 \quad (-0.1\sigma)$
$r_{\text{drag}} h$	$100.4 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00990^{+0.00028}_{-0.00024} \quad (-2.3\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.526^{+0.050}_{-0.056} \quad (+1.2\sigma)$	$100\theta_{\text{eq}}$	$0.843^{+0.014}_{-0.019} \quad (+2.7\sigma)$	χ^2_{MGS}	$1.72 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.73 \pm 0.11 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4652^{+0.0076}_{-0.010} \quad (+2.6\sigma)$	χ^2_{DR12BAO}	$4.3 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s$	$2.41^{+0.17}_{-0.24} \quad (+3.4\sigma)$	$H(0.15)$	$72.54 \pm 0.75 \quad (-1.2\sigma)$	χ^2_{prior}	$2.9 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.16^{+0.15}_{-0.22} \quad (+3.4\sigma)$	$D_M(0.15)$	$644.0 \pm 7.2 \quad (+1.1\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1435^{+110}_{-130} \quad (+2.4\sigma)$	$H(0.38)$	$82.47 \pm 0.69 \quad (-1.5\sigma)$		
D_{220}	$6766^{+520}_{-760} \quad (+3.5\sigma)$	$D_M(0.38)$	$1537 \pm 15 \quad (+1.2\sigma)$		
$\bar{\chi}^2_{\text{eff}} = 18.25; \Delta\bar{\chi}^2_{\text{eff}} = -0.10; R - 1 = 0.00162$					

6.119 base_mnu_lensing_lenspriors_BAO_theta_post_agr2acc

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2975^{+260}_{-310} \quad (+4.6\sigma)$	$H(0.51)$	$88.90 \pm 0.68 \quad (-2.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1123 \pm 0.0035 \quad (-3.1\sigma)$	D_{1420}	$948^{+84}_{-100} \quad (+4.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1996 \pm 19 \quad (+1.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$266^{+24}_{-30} \quad (+3.7\sigma)$	$H(0.61)$	$94.42 \pm 0.68 \quad (-2.5\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	0.36 ± 0.18	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2323 \pm 22 \quad (+1.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.192 \pm 0.087 \quad (+4.2\sigma)$	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.0 \pm 1.7 \quad (-1.4\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5821 \pm 40 \quad (+2.7\sigma)$
H_0	$67.24 \pm 0.81 \quad (-1.3\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.099} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.435 \pm 0.012 \quad (-1.4\sigma)$
Ω_{Λ}	$0.6937 \pm 0.0088 \quad (-0.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.938 \pm 0.096 \quad (+2.7\sigma)$	$\sigma_8(0.15)$	$0.713 \pm 0.022 \quad (-2.2\sigma)$
Ω_{m}	$0.3063 \pm 0.0088 \quad (+0.4\sigma)$	z_*	$1089.54 \pm 0.64 \quad (-0.6\sigma)$	$f\sigma_8(0.38)$	$0.454 \pm 0.012 \quad (-1.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1384 \pm 0.0021 \quad (-1.1\sigma)$	r_*	$146.52 \pm 0.99 \quad (+2.2\sigma)$	$\sigma_8(0.38)$	$0.634 \pm 0.020 \quad (-2.1\sigma)$
$\Omega_{\nu}h^2$	0.0039 ± 0.0019	$100\theta_*$	$1.04126 \pm 0.00062 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.454 \pm 0.012 \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0931 \pm 0.0018 \quad (-2.5\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.072 \pm 0.095 \quad (+2.1\sigma)$	$\sigma_8(0.51)$	$0.594 \pm 0.018 \quad (-2.1\sigma)$
σ_8	$0.771 \pm 0.024 \quad (-2.3\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.449 \pm 0.012 \quad (-1.6\sigma)$
S_8	$0.779 \pm 0.023 \quad (-1.7\sigma)$	r_{drag}	$149.3 \pm 1.1 \quad (+1.9\sigma)$	$\sigma_8(0.61)$	$0.565 \pm 0.017 \quad (-2.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.426 \pm 0.013 \quad (-1.7\sigma)$	k_{D}	$0.1385 \pm 0.0014 \quad (-1.3\sigma)$	$f\sigma_8(2.33)$	$0.2896 \pm 0.0074 \quad (-1.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.573 \pm 0.017 \quad (-2.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16123 \pm 0.00071 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.2963 \pm 0.0087 \quad (-1.6\sigma)$
$\sigma_8/h^{0.5}$	$0.940 \pm 0.026 \quad (-1.9\sigma)$	z_{eq}	$3214 \pm 85 \quad (-2.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$11.8 \pm 1.9 \quad (-0.4\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.1 \quad (-0.3\sigma)$	k_{eq}	$0.00981 \pm 0.00026 \quad (-2.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.077 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.530 \pm 0.054 \quad (+1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.849 \pm 0.017 \quad (+3.4\sigma)$	χ_{MGS}^2	$1.73 \pm 0.69 \quad (-0.3\sigma)$
z_{re}	$7.71 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4682 \pm 0.0089 \quad (+3.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.3 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.44^{+0.20}_{-0.23} \quad (+4.6\sigma)$	$H(0.15)$	$72.40 \pm 0.76 \quad (-1.5\sigma)$	χ_{prior}^2	$3.0 \pm 2.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.19^{+0.18}_{-0.21} \quad (+4.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.2 \pm 7.3 \quad (+1.4\sigma)$	χ_{BAO}^2	$6.1 \pm 1.4 \quad (-0.1\sigma)$
D_{40}	$1465 \pm 110 \quad (+3.1\sigma)$	$H(0.38)$	$82.31 \pm 0.70 \quad (-2.0\sigma)$		
D_{220}	$6921^{+620}_{-720} \quad (+4.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1540 \pm 16 \quad (+1.6\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 20.92; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.02; R - 1 = 0.00208$					

6.120 base_mnu_lensing_lenspriors_BAO_theta_post_takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2935^{+220}_{-320} \quad (+3.4\sigma)$	$H(0.51)$	$89.04 \pm 0.68 \quad (-1.8\sigma)$
$\Omega_c h^2$	$0.1133^{+0.0039}_{-0.0033} \quad (-2.7\sigma)$	D_{1420}	$937^{+73}_{-110} \quad (+2.9\sigma)$	$D_M(0.51)$	$1993 \pm 19 \quad (+1.4\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$264^{+21}_{-30} \quad (+2.6\sigma)$	$H(0.61)$	$94.56^{+0.73}_{-0.66} \quad (-2.0\sigma)$
Σm_ν [eV]	$0.31^{+0.16}_{-0.22}$	$n_{s,0.002}$	$0.962 \pm 0.019 \quad (+0.4\sigma)$	$D_M(0.61)$	$2320 \pm 21 \quad (+1.4\sigma)$
$\ln(10^{10} A_s)$	$3.180^{+0.080}_{-0.095} \quad (+3.1\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$233.3 \pm 1.7 \quad (-1.2\sigma)$
n_s	$0.962 \pm 0.019 \quad (+0.4\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5812^{+38}_{-44} \quad (+2.2\sigma)$
H_0	$67.34 \pm 0.81 \quad (-1.0\sigma)$	$10^5 D/H$	$2.624^{+0.088}_{-0.098} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.441^{+0.014}_{-0.013} \quad (-1.2\sigma)$
Ω_Λ	$0.6936 \pm 0.0088 \quad (-0.3\sigma)$	Age/Gyr	$13.917^{+0.091}_{-0.10} \quad (+2.2\sigma)$	$\sigma_8(0.15)$	$0.724^{+0.027}_{-0.023} \quad (-1.8\sigma)$
Ω_m	$0.3064 \pm 0.0088 \quad (+0.3\sigma)$	z_*	$1089.63 \pm 0.65 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.460^{+0.015}_{-0.012} \quad (-1.3\sigma)$
$\Omega_m h^2$	$0.1388 \pm 0.0022 \quad (-1.0\sigma)$	r_*	$146.3 \pm 1.0 \quad (+1.8\sigma)$	$\sigma_8(0.38)$	$0.643^{+0.024}_{-0.020} \quad (-1.7\sigma)$
$\Omega_\nu h^2$	$0.0034^{+0.0017}_{-0.0023}$	$100\theta_*$	$1.04124 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.460^{+0.014}_{-0.012} \quad (-1.3\sigma)$
$\Omega_m h^3$	$0.0935 \pm 0.0018 \quad (-2.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.049 \pm 0.097 \quad (+1.8\sigma)$	$\sigma_8(0.51)$	$0.602^{+0.022}_{-0.019} \quad (-1.7\sigma)$
σ_8	$0.782^{+0.029}_{-0.025} \quad (-1.8\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.012} \quad (-1.3\sigma)$
S_8	$0.790^{+0.028}_{-0.025} \quad (-1.4\sigma)$	r_{drag}	$149.1 \pm 1.1 \quad (+1.6\sigma)$	$\sigma_8(0.61)$	$0.573^{+0.021}_{-0.018} \quad (-1.7\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.433^{+0.016}_{-0.014} \quad (-1.4\sigma)$	k_D	$0.1387 \pm 0.0014 \quad (-1.1\sigma)$	$f\sigma_8(2.33)$	$0.2931^{+0.0088}_{-0.0077} \quad (-1.1\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.582^{+0.021}_{-0.018} \quad (-1.7\sigma)$	$100\theta_D$	$0.16122 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.300^{+0.010}_{-0.0089} \quad (-1.4\sigma)$
$\sigma_8/h^{0.5}$	$0.953^{+0.032}_{-0.027} \quad (-1.6\sigma)$	z_{eq}	$3237^{+94}_{-82} \quad (-2.5\sigma)$	χ^2_{lensing}	$9.2 \pm 1.8 \quad (-0.1\sigma)$
$r_{\text{drag}} h$	$100.4 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00988^{+0.00028}_{-0.00025} \quad (-2.5\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.526 \pm 0.053 \quad (+1.3\sigma)$	$100\theta_{\text{eq}}$	$0.844^{+0.015}_{-0.020} \quad (+2.8\sigma)$	χ^2_{MGS}	$1.72 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.72 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{s,\text{eq}}$	$0.4658^{+0.0079}_{-0.010} \quad (+2.8\sigma)$	χ^2_{DR12BAO}	$4.3 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s$	$2.41^{+0.17}_{-0.24} \quad (+3.4\sigma)$	$H(0.15)$	$72.51 \pm 0.76 \quad (-1.2\sigma)$	χ^2_{prior}	$3.0 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.16^{+0.15}_{-0.22} \quad (+3.4\sigma)$	$D_M(0.15)$	$644.3 \pm 7.2 \quad (+1.1\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1439^{+110}_{-130} \quad (+2.6\sigma)$	$H(0.38)$	$82.44 \pm 0.69 \quad (-1.6\sigma)$		
D_{220}	$6792^{+530}_{-760} \quad (+3.7\sigma)$	$D_M(0.38)$	$1538 \pm 16 \quad (+1.3\sigma)$		
$\bar{\chi}^2_{\text{eff}} = 18.22; \Delta \bar{\chi}^2_{\text{eff}} = -0.18; R - 1 = 0.00182$					

6.121 base_mnu_lensing_lenspriors_BAO_theta_post_agr2takahashi

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2984^{+260}_{-310} \quad (+4.6\sigma)$	$H(0.51)$	$88.86 \pm 0.69 \quad (-2.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1120 \pm 0.0035 \quad (-3.3\sigma)$	D_{1420}	$951^{+86}_{-100} \quad (+4.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1997 \pm 19 \quad (+1.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00062 \quad (+0.0\sigma)$	D_{2000}	$267^{+25}_{-30} \quad (+3.7\sigma)$	$H(0.61)$	$94.37 \pm 0.69 \quad (-2.6\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	0.38 ± 0.18	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2324 \pm 22 \quad (+1.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.195 \pm 0.087 \quad (+4.3\sigma)$	Y_{P}	$0.24531^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$H(2.33)$	$232.9 \pm 1.7 \quad (-1.5\sigma)$
n_{s}	$0.960 \pm 0.020 \quad (+0.6\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5824 \pm 41 \quad (+2.8\sigma)$
H_0	$67.20 \pm 0.82 \quad (-1.4\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.623^{+0.088}_{-0.098} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.433 \pm 0.012 \quad (-1.5\sigma)$
Ω_{Λ}	$0.6937 \pm 0.0088 \quad (-0.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.945 \pm 0.097 \quad (+2.8\sigma)$	$\sigma_8(0.15)$	$0.710 \pm 0.023 \quad (-2.3\sigma)$
Ω_{m}	$0.3063 \pm 0.0088 \quad (+0.4\sigma)$	z_*	$1089.52 \pm 0.64 \quad (-0.6\sigma)$	$f\sigma_8(0.38)$	$0.452 \pm 0.012 \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1383 \pm 0.0022 \quad (-1.2\sigma)$	r_*	$146.6 \pm 1.0 \quad (+2.3\sigma)$	$\sigma_8(0.38)$	$0.631 \pm 0.020 \quad (-2.2\sigma)$
$\Omega_{\nu}h^2$	0.0041 ± 0.0019	$100\theta_*$	$1.04127 \pm 0.00063 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.452 \pm 0.012 \quad (-1.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0929 \pm 0.0018 \quad (-2.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.079 \pm 0.096 \quad (+2.2\sigma)$	$\sigma_8(0.51)$	$0.591 \pm 0.019 \quad (-2.2\sigma)$
σ_8	$0.767 \pm 0.025 \quad (-2.3\sigma)$	z_{drag}	$1059.0 \pm 1.2 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.448 \pm 0.012 \quad (-1.7\sigma)$
S_8	$0.775 \pm 0.024 \quad (-1.8\sigma)$	r_{drag}	$149.4 \pm 1.1 \quad (+1.9\sigma)$	$\sigma_8(0.61)$	$0.563 \pm 0.018 \quad (-2.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.424 \pm 0.013 \quad (-1.8\sigma)$	k_{D}	$0.1384 \pm 0.0014 \quad (-1.3\sigma)$	$f\sigma_8(2.33)$	$0.2884 \pm 0.0078 \quad (-1.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.571 \pm 0.018 \quad (-2.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16123 \pm 0.00071 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.2950 \pm 0.0090 \quad (-1.7\sigma)$
$\sigma_8/h^{0.5}$	$0.936 \pm 0.027 \quad (-2.0\sigma)$	z_{eq}	$3207 \pm 86 \quad (-3.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$11.8 \pm 1.9 \quad (-0.5\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.1 \quad (-0.3\sigma)$	k_{eq}	$0.00979 \pm 0.00026 \quad (-3.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.077 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.530 \pm 0.055 \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.851 \pm 0.017 \quad (+3.6\sigma)$	χ_{MGS}^2	$1.73 \pm 0.69 \quad (-0.3\sigma)$
z_{re}	$7.71 \pm 0.11 \quad (-0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4690 \pm 0.0090 \quad (+3.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.3 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.45^{+0.20}_{-0.23} \quad (+4.7\sigma)$	$H(0.15)$	$72.37 \pm 0.76 \quad (-1.6\sigma)$	χ_{prior}^2	$3.0 \pm 2.4 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$2.19^{+0.18}_{-0.21} \quad (+4.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.6 \pm 7.3 \quad (+1.5\sigma)$	χ_{BAO}^2	$6.1 \pm 1.4 \quad (-0.1\sigma)$
D_{40}	$1469 \pm 110 \quad (+3.3\sigma)$	$H(0.38)$	$82.27 \pm 0.70 \quad (-2.1\sigma)$		
D_{220}	$6952 \pm 660 \quad (+4.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 16 \quad (+1.7\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 20.91; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.18; R - 1 = 0.00288$					

6.122 base_mnu_lensing_lenspriors_BAO_theta_post_Apr6

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02217 \pm 0.00049 \quad (-0.1\sigma)$	D_{810}	$2893^{+200}_{-310} \quad (+3.0\sigma)$	$H(0.51)$	$89.12^{+0.70}_{-0.63} \quad (-1.6\sigma)$
$\Omega_c h^2$	$0.1139^{+0.0038}_{-0.0031} \quad (-2.3\sigma)$	D_{1420}	$925^{+66}_{-100} \quad (+2.6\sigma)$	$D_M(0.51)$	$1991 \pm 19 \quad (+1.2\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00061 \quad (+0.0\sigma)$	D_{2000}	$260^{+19}_{-29} \quad (+2.3\sigma)$	$H(0.61)$	$94.65^{+0.72}_{-0.62} \quad (-1.8\sigma)$
Σm_ν [eV]	$0.28^{+0.13}_{-0.22}$	$n_{s,0.002}$	$0.963 \pm 0.019 \quad (+0.3\sigma)$	$D_M(0.61)$	$2318^{+20}_{-22} \quad (+1.3\sigma)$
$\ln(10^{10} A_s)$	$3.166^{+0.073}_{-0.094} \quad (+2.8\sigma)$	Y_P	$0.24530^{+0.00023}_{-0.00019} \quad (-0.1\sigma)$	$H(2.33)$	$233.6 \pm 1.7 \quad (-1.1\sigma)$
n_s	$0.963 \pm 0.019 \quad (+0.3\sigma)$	Y_P^{BBN}	$0.24663^{+0.00023}_{-0.00020} \quad (-0.1\sigma)$	$D_M(2.33)$	$5807^{+36}_{-43} \quad (+1.9\sigma)$
H_0	$67.40 \pm 0.80 \quad (-0.9\sigma)$	$10^5 D/H$	$2.625^{+0.087}_{-0.098} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.012} \quad (-1.0\sigma)$
Ω_Λ	$0.6936 \pm 0.0088 \quad (-0.2\sigma)$	Age/Gyr	$13.903^{+0.084}_{-0.10} \quad (+1.9\sigma)$	$\sigma_8(0.15)$	$0.728^{+0.025}_{-0.021} \quad (-1.6\sigma)$
Ω_m	$0.3064 \pm 0.0088 \quad (+0.2\sigma)$	z_*	$1089.68 \pm 0.64 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.463^{+0.014}_{-0.011} \quad (-1.1\sigma)$
$\Omega_m h^2$	$0.1391 \pm 0.0021 \quad (-0.8\sigma)$	r_*	$146.13^{+0.92}_{-1.0} \quad (+1.6\sigma)$	$\sigma_8(0.38)$	$0.647^{+0.022}_{-0.018} \quad (-1.5\sigma)$
$\Omega_\nu h^2$	$0.0030^{+0.0014}_{-0.0024}$	$100\theta_*$	$1.04123 \pm 0.00062 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.013}_{-0.011} \quad (-1.1\sigma)$
$\Omega_m h^3$	$0.0938^{+0.0019}_{-0.0017} \quad (-1.8\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.034^{+0.089}_{-0.10} \quad (+1.6\sigma)$	$\sigma_8(0.51)$	$0.606^{+0.021}_{-0.017} \quad (-1.5\sigma)$
σ_8	$0.787^{+0.027}_{-0.022} \quad (-1.6\sigma)$	z_{drag}	$1059.1 \pm 1.2 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.011} \quad (-1.1\sigma)$
S_8	$0.795^{+0.027}_{-0.023} \quad (-1.2\sigma)$	r_{drag}	$148.9^{+1.0}_{-1.2} \quad (+1.4\sigma)$	$\sigma_8(0.61)$	$0.577^{+0.020}_{-0.016} \quad (-1.5\sigma)$
$\sigma_8 \Omega_m^{0.5}$	$0.436^{+0.015}_{-0.013} \quad (-1.2\sigma)$	k_D	$0.1389 \pm 0.0014 \quad (-0.9\sigma)$	$f\sigma_8(2.33)$	$0.2944^{+0.0082}_{-0.0072} \quad (-0.9\sigma)$
$\sigma_8 \Omega_m^{0.25}$	$0.586^{+0.020}_{-0.016} \quad (-1.5\sigma)$	$100\theta_D$	$0.16121 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3019^{+0.0097}_{-0.0082} \quad (-1.2\sigma)$
$\sigma_8/h^{0.5}$	$0.959^{+0.030}_{-0.025} \quad (-1.4\sigma)$	z_{eq}	$3252^{+92}_{-77} \quad (-2.2\sigma)$	χ^2_{lensing}	$8.0 \pm 1.8 \quad (+0.0\sigma)$
$r_{\text{drag}} h$	$100.3 \pm 1.1 \quad (-0.2\sigma)$	k_{eq}	$0.00993^{+0.00028}_{-0.00023} \quad (-2.1\sigma)$	$\chi^2_{6\text{DF}}$	$0.056 \pm 0.079 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.515^{+0.049}_{-0.055} \quad (+1.1\sigma)$	$100\theta_{\text{eq}}$	$0.841^{+0.014}_{-0.019} \quad (+2.5\sigma)$	χ^2_{MGS}	$1.71 \pm 0.69 \quad (-0.2\sigma)$
z_{re}	$7.73 \pm 0.11 \quad (-0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4642^{+0.0073}_{-0.0098} \quad (+2.4\sigma)$	χ^2_{DR12BAO}	$4.4 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s$	$2.38^{+0.15}_{-0.24} \quad (+3.1\sigma)$	$H(0.15)$	$72.58 \pm 0.74 \quad (-1.1\sigma)$	χ^2_{prior}	$2.9 \pm 2.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	$2.13^{+0.14}_{-0.21} \quad (+3.1\sigma)$	$D_M(0.15)$	$643.7 \pm 7.1 \quad (+1.0\sigma)$	χ^2_{BAO}	$6.1 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1416^{+100}_{-120} \quad (+2.3\sigma)$	$H(0.38)$	$82.51 \pm 0.67 \quad (-1.4\sigma)$		
D_{220}	$6672^{+480}_{-730} \quad (+3.2\sigma)$	$D_M(0.38)$	$1536 \pm 15 \quad (+1.1\sigma)$		

$\bar{\chi}^2_{\text{eff}} = 17.02$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.08$; $R - 1 = 0.00149$

6.123 base_mnu_lensing_lenspriors_pttagr2

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220	0.02220 ± 0.00051 (+0.0 σ)	D_{40}	2016	1359^{+300}_{-400} (−1.5 σ)	$H(0.15)$	92.8	76^{+10}_{-20} (+0.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.1046	$0.143^{+0.031}_{-0.040}$ (+5.4 σ)	D_{220}	9220	6093^{+1000}_{-2000} (−1.9 σ)	$D_{\mathrm{M}}(0.15)$	495	658^{+80}_{-200} (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.096	$1.094^{+0.078}_{-0.065}$ (+1.3 σ)	D_{810}	3677	2457^{+700}_{-900} (−1.4 σ)	$H(0.38)$	100.3	89^{+10}_{-20} (+0.3 σ)
Σm_{ν} [eV]	0.45	< 2.60	D_{1420}	1066	733^{+200}_{-300} (−1.9 σ)	$D_{\mathrm{M}}(0.38)$	1211	1529^{+200}_{-500} (−0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.458	$3.15^{+0.22}_{-0.20}$ (−1.4 σ)	D_{2000}	305	221^{+50}_{-100} (−1.7 σ)	$H(0.51)$	105.5	97 ± 10 (+0.5 σ)
n_{s}	0.9609	0.959 ± 0.019 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9609	0.959 ± 0.019 (+0.0 σ)	$D_{\mathrm{M}}(0.51)$	1590	1959^{+200}_{-500} (−0.1 σ)
H_0	89.0	—	Y_{P}	0.245327	$0.24531^{+0.00023}_{-0.00020}$ (+0.0 σ)	$H(0.61)$	110.0	104 ± 10 (+0.7 σ)
Ω_{Λ}	0.834	$0.521^{+0.33}_{-0.092}$ (−1.4 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246653	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	1869	2264^{+300}_{-600} (−0.2 σ)
Ω_{m}	0.166	$0.479^{+0.092}_{-0.33}$ (+1.4 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.617	$2.620^{+0.089}_{-0.10}$ (−0.0 σ)	$H(2.33)$	235.0	267 ± 30 (+4.5 σ)
$\Omega_{\mathrm{m}}h^2$	0.1316	$0.187^{+0.039}_{-0.060}$ (+7.6 σ)	Age/Gyr	12.40	$13.0^{+1.3}_{-2.2}$ (−0.8 σ)	$D_{\mathrm{M}}(2.33)$	5134	5411^{+540}_{-920} (−0.8 σ)
$\Omega_{\nu}h^2$	0.0048	< 0.0279	z_{*}	1088.83	$1092.9^{+3.3}_{-4.3}$ (+5.0 σ)	$f\sigma_{\mathrm{s}}(0.15)$	0.3623	$0.427^{+0.050}_{-0.027}$ (+0.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.1171	$0.129^{+0.033}_{-0.060}$ (+2.0 σ)	r_{*}	148.6	138.2 ± 8.7 (−4.8 σ)	$\sigma_{\mathrm{s}}(0.15)$	0.807	0.63 ± 0.11 (−1.2 σ)
σ_{s}	0.853	0.684 ± 0.099 (−1.3 σ)	$100\theta_{*}$	1.097	$1.095^{+0.078}_{-0.065}$ (+1.3 σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4134	$0.421^{+0.023}_{-0.015}$ (−0.2 σ)
S_{s}	0.635	$0.796^{+0.098}_{-0.14}$ (+0.7 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.55	$12.7^{+1.2}_{-1.8}$ (−2.2 σ)	$\sigma_{\mathrm{s}}(0.38)$	0.738	0.55 ± 0.11 (−1.2 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.348	$0.436^{+0.054}_{-0.077}$ (+0.7 σ)	z_{drag}	1058.48	1061.8 ± 3.1 (+3.0 σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.4317	$0.412^{+0.035}_{-0.015}$ (−1.2 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5445	0.541 ± 0.018 (−0.9 σ)	r_{drag}	151.4	$140.7^{+9.1}_{-10}$ (−4.8 σ)	$\sigma_{\mathrm{s}}(0.51)$	0.701	0.51 ± 0.11 (−1.1 σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.904	$0.831^{+0.051}_{-0.082}$ (−4.9 σ)	k_{D}	0.1363	$0.149^{+0.011}_{-0.012}$ (+5.3 σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.4412	$0.404^{+0.046}_{-0.020}$ (−1.4 σ)
$r_{\mathrm{drag}}h$	134.7	97^{+20}_{-30} (−0.5 σ)	$100\theta_{\mathrm{D}}$	0.1701	$0.168^{+0.011}_{-0.0095}$ (+1.1 σ)	$\sigma_{\mathrm{s}}(0.61)$	0.674	$0.49^{+0.10}_{-0.12}$ (−1.1 σ)
$\langle d^2 \rangle^{1/2}$	2.627	2.598 ± 0.074 (−0.1 σ)	z_{eq}	3030	3950^{+700}_{-1000} (+5.4 σ)	$f\sigma_{\mathrm{s}}(2.33)$	0.355	$0.252^{+0.057}_{-0.068}$ (−1.0 σ)
z_{re}	7.71	8.48 ± 0.76 (+4.3 σ)	k_{eq}	0.00925	$0.0121^{+0.0023}_{-0.0031}$ (+5.5 σ)	$\sigma_{\mathrm{s}}(2.33)$	0.376	$0.256^{+0.057}_{-0.079}$ (−1.0 σ)
10^9A_{s}	3.174	$2.38^{+0.41}_{-0.55}$ (−1.2 σ)	$100\theta_{\mathrm{eq}}$	0.935	$0.789^{+0.072}_{-0.11}$ (−2.8 σ)	$\chi^2_{\mathrm{lensing}}$	15.50	18.6 ± 2.2 (+0.3 σ)
$10^9A_{\mathrm{s}}e^{-2\tau}$	2.843	$2.13^{+0.37}_{-0.50}$ (−1.2 σ)	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.5141	$0.438^{+0.038}_{-0.054}$ (−2.7 σ)	χ^2_{prior}	0.00	2.0 ± 2.0 (−0.0 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 15.50$; $\Delta\chi^2_{\mathrm{eff}} = -0.07$; $\bar{\chi}^2_{\mathrm{eff}} = 20.55$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = 0.50$; $R - 1 = 0.00794$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 15.50 (Δ -0.07)

6.124 base_mnu_lensing_lenspriors_pttagr2_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022203	0.02221 ± 0.00049 (-0.0σ)	D_{40}	1858	1373^{+200}_{-500} (-2.0σ)	$H(0.15)$	76.7	$64.1^{+4.8}_{-12}$ (-5.3σ)
$\Omega_c h^2$	0.0991	0.128 ± 0.022 $(+4.1\sigma)$	D_{220}	8962	6521^{+1000}_{-3000} (-1.8σ)	$D_M(0.15)$	604	768 ± 100 $(+8.0\sigma)$
$100\theta_{MC}$	1.04090	1.04090 ± 0.00060 $(+0.0\sigma)$	D_{810}	3670	2894^{+400}_{-800} (-1.5σ)	$H(0.38)$	85.29	$77.4^{+1.9}_{-5.9}$ (-4.7σ)
Σm_ν [eV]	0.36	< 1.96	D_{1420}	1155	935^{+100}_{-200} (-1.3σ)	$D_M(0.38)$	1458	1758^{+300}_{-100} $(+7.2\sigma)$
$\ln(10^{10} A_s)$	3.393	$3.15^{+0.19}_{-0.23}$ (-1.7σ)	D_{2000}	322	264^{+40}_{-60} (-1.2σ)	$H(0.51)$	91.08	$85.79^{+0.63}_{-3.6}$ (-4.2σ)
n_s	0.9596	0.959 ± 0.020 $(+0.0\sigma)$	$n_{s,0.002}$	0.9596	0.959 ± 0.020 $(+0.0\sigma)$	$D_M(0.51)$	1900	2238^{+300}_{-200} $(+6.8\sigma)$
H_0	72.4	< 62.1 (-5.7σ)	Y_P	0.245327	$0.24532^{+0.00023}_{-0.00020}$ (-0.0σ)	$H(0.61)$	95.97	$92.61^{+0.31}_{-2.5}$ (-3.8σ)
Ω_Λ	0.761	$0.38^{+0.45}_{-0.18}$ (-12.8σ)	Y_P^{BBN}	0.246653	$0.24664^{+0.00023}_{-0.00020}$ (-0.0σ)	$D_M(0.61)$	2221	2574^{+400}_{-200} $(+6.6\sigma)$
Ω_m	0.239	$0.62^{+0.18}_{-0.45}$ $(+12.8\sigma)$	$10^5 D/H$	2.617	2.619 ± 0.094 $(+0.0\sigma)$	$H(2.33)$	224.1	250 ± 20 $(+5.7\sigma)$
$\Omega_m h^2$	0.1252	0.166 ± 0.031 $(+6.0\sigma)$	Age/Gyr	13.862	$14.30^{+0.39}_{-0.15}$ $(+7.6\sigma)$	$D_M(2.33)$	5776	5957^{+150}_{-41} $(+5.8\sigma)$
$\Omega_\nu h^2$	0.0039	< 0.0211	z_*	1088.28	1091.4 ± 2.4 $(+3.8\sigma)$	$f\sigma_8(0.15)$	0.3977	$0.443^{+0.042}_{-0.016}$ $(+2.3\sigma)$
$\Omega_m h^3$	0.09058	0.0902 ± 0.0017 (-0.6σ)	r_*	150.3	$141.9^{+5.4}_{-8.5}$ (-3.9σ)	$\sigma_8(0.15)$	0.736	$0.582^{+0.071}_{-0.16}$ (-9.6σ)
σ_8	0.788	$0.644^{+0.068}_{-0.15}$ (-9.7σ)	$100\theta_*$	1.04129	1.04143 ± 0.00062 $(+0.5\sigma)$	$f\sigma_8(0.38)$	0.4318	$0.417^{+0.030}_{-0.018}$ (-0.4σ)
S_8	0.703	$0.85^{+0.14}_{-0.11}$ $(+3.6\sigma)$	$D_M(z_*)/\text{Gpc}$	14.43	$13.63^{+0.52}_{-0.82}$ (-3.9σ)	$\sigma_8(0.38)$	0.662	$0.506^{+0.069}_{-0.16}$ (-9.0σ)
$\sigma_8 \Omega_m^{0.5}$	0.385	$0.467^{+0.078}_{-0.062}$ $(+3.6\sigma)$	z_{drag}	1058.03	1060.6 ± 2.3 $(+2.1\sigma)$	$f\sigma_8(0.51)$	0.4395	$0.401^{+0.048}_{-0.027}$ (-2.3σ)
$\sigma_8 \Omega_m^{0.25}$	0.5508	0.542 ± 0.017 (-0.8σ)	r_{drag}	153.1	$144.6^{+5.6}_{-8.6}$ (-3.9σ)	$\sigma_8(0.51)$	0.624	$0.470^{+0.066}_{-0.15}$ (-8.6σ)
$\sigma_8/h^{0.5}$	0.926	$0.855^{+0.049}_{-0.069}$ (-4.2σ)	k_D	0.1346	0.1442 ± 0.0074 $(+4.1\sigma)$	$f\sigma_8(0.61)$	0.441	0.388 ± 0.044 (-4.0σ)
$r_{\text{drag}} h$	110.8	82^{+10}_{-30} (-4.9σ)	$100\theta_D$	0.16171	$0.1602^{+0.0013}_{-0.0015}$ (-2.1σ)	$\sigma_8(0.61)$	0.596	$0.445^{+0.063}_{-0.15}$ (-8.4σ)
$\langle d^2 \rangle^{1/2}$	2.632	2.623 ± 0.063 $(+0.4\sigma)$	z_{eq}	2898	3581 ± 500 $(+4.1\sigma)$	$f\sigma_8(2.33)$	0.309	$0.227^{+0.036}_{-0.081}$ (-7.4σ)
z_{re}	7.49	$8.10^{+0.57}_{-0.48}$ $(+4.4\sigma)$	k_{eq}	0.00885	0.0110 ± 0.0017 $(+4.2\sigma)$	$\sigma_8(2.33)$	0.320	$0.229^{+0.035}_{-0.087}$ (-6.7σ)
$10^9 A_s$	2.974	$2.39^{+0.33}_{-0.62}$ (-1.5σ)	$100\theta_{\text{eq}}$	0.918	$0.800^{+0.060}_{-0.12}$ (-3.0σ)	χ^2_{lensing}	15.72	18.3 ± 2.0 $(+0.2\sigma)$
$10^9 A_s e^{-2\tau}$	2.665	$2.14^{+0.30}_{-0.56}$ (-1.5σ)	$100\theta_{s,\text{eq}}$	0.5037	$0.442^{+0.032}_{-0.061}$ (-3.0σ)	χ^2_{prior}	0.00	3.0 ± 2.4 (-0.0σ)

Best-fit $\chi^2_{\text{eff}} = 15.72$; $\Delta\chi^2_{\text{eff}} = -0.11$; $\bar{\chi}^2_{\text{eff}} = 21.22$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.31$; $R - 1 = 0.00948$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 15.72 (Δ -0.11)

6.125 base_mnu_lensing_lenspriors_pttagr2_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022177	0.02221 ± 0.00049 (-0.0σ)	D_{810}	2869	2561 ± 600 (-1.9σ)	$H(0.51)$	94.3	$96.9^{+4.9}_{-5.8}$ ($+5.6\sigma$)
$\Omega_c h^2$	0.1326	$0.144^{+0.020}_{-0.025}$ ($+5.2\sigma$)	D_{1420}	869	750^{+200}_{-200} (-2.5σ)	$D_M(0.51)$	1918	1882 ± 77 (-4.1σ)
$100\theta_{MC}$	1.0894	$1.103^{+0.037}_{-0.031}$ ($+6.6\sigma$)	D_{2000}	253	216 ± 60 (-1.7σ)	$H(0.61)$	100.7	$103.6^{+5.6}_{-6.5}$ ($+5.9\sigma$)
Σm_ν [eV]	1.50	$1.93^{+0.68}_{-1.0}$	$n_{s,0.002}$	0.9604	0.959 ± 0.020 ($+0.3\sigma$)	$D_M(0.61)$	2225	2182 ± 94 (-4.3σ)
$\ln(10^{10} A_s)$	3.224	3.16 ± 0.12 (-0.9σ)	Y_P	0.245316	$0.24532^{+0.00023}_{-0.00019}$ (-0.0σ)	$H(2.33)$	257.2	267 ± 21 ($+6.6\sigma$)
n_s	0.9604	0.959 ± 0.020 ($+0.3\sigma$)	Y_P^{BBN}	0.246643	$0.24664^{+0.00023}_{-0.00019}$ (-0.0σ)	$D_M(2.33)$	5438	5300^{+300}_{-340} (-5.0σ)
H_0	68.65	$69.6^{+1.8}_{-2.2}$ ($+2.9\sigma$)	$10^5 D/H$	2.622	$2.620^{+0.086}_{-0.098}$ ($+0.0\sigma$)	$f\sigma_8(0.15)$	0.4292	0.431 ± 0.015 ($+0.7\sigma$)
Ω_Λ	0.6374	0.617 ± 0.045 (-7.6σ)	Age/Gyr	13.01	$12.68^{+0.72}_{-0.83}$ (-5.0σ)	$\sigma_8(0.15)$	0.6449	$0.635^{+0.030}_{-0.036}$ (-6.0σ)
Ω_m	0.3626	0.383 ± 0.045 ($+7.6\sigma$)	z_*	1091.88	$1093.0^{+2.2}_{-2.6}$ ($+5.0\sigma$)	$f\sigma_8(0.38)$	0.4364	0.434 ± 0.014 (-0.8σ)
$\Omega_m h^2$	0.1709	$0.187^{+0.027}_{-0.035}$ ($+7.5\sigma$)	r_*	140.4	137.7 ± 5.8 (-4.9σ)	$\sigma_8(0.38)$	0.5684	$0.559^{+0.029}_{-0.035}$ (-6.8σ)
$\Omega_\nu h^2$	0.0161	$0.0207^{+0.0074}_{-0.011}$	$100\theta_*$	1.0900	$1.104^{+0.038}_{-0.031}$ ($+6.7\sigma$)	$f\sigma_8(0.51)$	0.4308	0.427 ± 0.015 (-1.7σ)
$\Omega_m h^3$	0.1173	$0.130^{+0.021}_{-0.029}$ ($+7.3\sigma$)	$D_M(z_*)/\text{Gpc}$	12.89	$12.50^{+0.82}_{-1.0}$ (-5.2σ)	$\sigma_8(0.51)$	0.5308	$0.521^{+0.028}_{-0.034}$ (-7.1σ)
σ_8	0.7015	$0.693^{+0.031}_{-0.036}$ (-5.4σ)	z_{drag}	1060.89	1061.9 ± 2.2 ($+2.8\sigma$)	$f\sigma_8(0.61)$	0.4236	0.419 ± 0.016 (-2.3σ)
S_8	0.7712	0.779 ± 0.032 ($+0.9\sigma$)	r_{drag}	143.1	140.3 ± 5.9 (-4.8σ)	$\sigma_8(0.61)$	0.5044	$0.495^{+0.027}_{-0.034}$ (-7.2σ)
$\sigma_8 \Omega_m^{0.5}$	0.4224	0.427 ± 0.017 ($+0.9\sigma$)	k_D	0.1456	$0.1491^{+0.0068}_{-0.0078}$ ($+5.2\sigma$)	$f\sigma_8(2.33)$	0.2618	0.256 ± 0.016 (-6.5σ)
$\sigma_8 \Omega_m^{0.25}$	0.5443	0.544 ± 0.018 (-1.6σ)	$100\theta_D$	0.16746	$0.1692^{+0.0047}_{-0.0040}$ ($+6.4\sigma$)	$\sigma_8(2.33)$	0.2627	$0.257^{+0.016}_{-0.020}$ (-7.7σ)
$\sigma_8/h^{0.5}$	0.8466	$0.831^{+0.043}_{-0.052}$ (-7.0σ)	z_{eq}	3698	3964^{+500}_{-600} ($+5.2\sigma$)	χ^2_{lensing}	16.01	18.4 ± 2.1 (-0.0σ)
$r_{\text{drag}} h$	98.21	97.5 ± 1.9 (-3.6σ)	k_{eq}	0.01134	$0.0122^{+0.0015}_{-0.0019}$ ($+5.3\sigma$)	$\chi^2_{6\text{DF}}$	0.139	0.35 ± 0.35 ($+1.8\sigma$)
$\langle d^2 \rangle^{1/2}$	2.621	2.598 ± 0.063 ($+0.3\sigma$)	$100\theta_{\text{eq}}$	0.804	$0.784^{+0.047}_{-0.057}$ (-3.1σ)	χ^2_{MGS}	0.820	0.79 ± 0.67 (-2.1σ)
z_{re}	8.29	8.51 ± 0.50 ($+5.7\sigma$)	$100\theta_{s,\text{eq}}$	0.4460	$0.435^{+0.024}_{-0.029}$ (-3.1σ)	χ^2_{DR12BAO}	2.09	3.6 ± 1.5 (-1.4σ)
$10^9 A_s$	2.514	$2.38^{+0.26}_{-0.33}$ (-0.9σ)	$H(0.15)$	74.85	$76.2^{+2.6}_{-3.1}$ ($+4.1\sigma$)	χ^2_{prior}	0.00	2.0 ± 1.9 (-0.1σ)
$10^9 A_s e^{-2\tau}$	2.252	$2.13^{+0.24}_{-0.29}$ (-0.9σ)	$D_M(0.15)$	628.0	619 ± 20 (-3.3σ)	χ^2_{BAO}	3.05	4.7 ± 1.7 (-2.1σ)
D_{40}	1429	1340^{+200}_{-200} (-1.7σ)	$H(0.38)$	86.57	$88.7^{+4.0}_{-4.8}$ ($+5.2\sigma$)			
D_{220}	6538	5992^{+1000}_{-1000} (-1.8σ)	$D_M(0.38)$	1486	1460 ± 56 (-3.9σ)			

Best-fit $\chi^2_{\text{eff}} = 19.07$; $\Delta\chi^2_{\text{eff}} = -4.98$; $\bar{\chi}^2_{\text{eff}} = 25.07$; $\Delta\bar{\chi}^2_{\text{eff}} = -4.02$; $R - 1 = 0.00956$

χ^2_{eff} : BAO - 6DF: 0.14 (Δ 0.09) MGS: 0.82 (Δ -1.53) DR12BAO: 2.10 (Δ -3.07) CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 16.01 (Δ -0.39)

6.126 base_mnu_lensing_lenspriors_pttagr2_BAO_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022188	0.02218 ± 0.00049 (-0.2σ)	D_{810}	3439	3410 ± 320 $(+8.2\sigma)$	$H(0.51)$	88.14	$88.18^{+0.62}_{-0.71}$ (-4.0σ)
$\Omega_c h^2$	0.10695	$0.1074^{+0.0030}_{-0.0036}$ (-5.8σ)	D_{1420}	1092	1083 ± 110 $(+7.5\sigma)$	$D_M(0.51)$	2012.8	2013 ± 19 $(+3.1\sigma)$
$100\theta_{MC}$	1.04088	1.04090 ± 0.00060 $(+0.1\sigma)$	D_{2000}	305.9	304 ± 31 $(+6.8\sigma)$	$H(0.61)$	93.61	$93.66^{+0.61}_{-0.70}$ (-4.4σ)
Σm_ν [eV]	0.639	$0.62^{+0.19}_{-0.16}$	$n_{s,0.002}$	0.9595	0.959 ± 0.020 $(+1.2\sigma)$	$D_M(0.61)$	2342.9	2343 ± 22 $(+3.2\sigma)$
$\ln(10^{10} A_s)$	3.334	$3.322^{+0.093}_{-0.077}$ $(+7.0\sigma)$	Y_P	0.245321	$0.24531^{+0.00023}_{-0.00019}$ (-0.2σ)	$H(2.33)$	230.95	231.2 ± 1.6 (-2.6σ)
n_s	0.9595	0.959 ± 0.020 $(+1.2\sigma)$	Y_P^{BBN}	0.246647	$0.24663^{+0.00023}_{-0.00019}$ (-0.2σ)	$D_M(2.33)$	5871.0	5868^{+42}_{-37} $(+4.7\sigma)$
H_0	66.67	66.67 ± 0.81 (-2.3σ)	$10^5 D/H$	2.620	$2.623^{+0.087}_{-0.099}$ $(+0.2\sigma)$	$f\sigma_8(0.15)$	0.4197	0.420 ± 0.013 (-2.6σ)
Ω_Λ	0.6940	0.6933 ± 0.0088 (-0.6σ)	Age/Gyr	14.058	$14.050^{+0.099}_{-0.087}$ $(+4.8\sigma)$	$\sigma_8(0.15)$	0.6854	0.686 ± 0.024 (-3.8σ)
Ω_m	0.3060	0.3067 ± 0.0088 $(+0.6\sigma)$	z_*	1089.14	1089.20 ± 0.63 (-0.9σ)	$f\sigma_8(0.38)$	0.4389	0.439 ± 0.013 (-2.9σ)
$\Omega_m h^2$	0.13600	$0.1363^{+0.0019}_{-0.0022}$ (-2.1σ)	r_*	147.83	$147.7^{+1.0}_{-0.89}$ $(+3.9\sigma)$	$\sigma_8(0.38)$	0.6093	0.610 ± 0.021 (-3.7σ)
$\Omega_\nu h^2$	0.00687	$0.0067^{+0.0020}_{-0.0017}$	$100\theta_*$	1.04136	1.04137 ± 0.00061 $(+0.5\sigma)$	$f\sigma_8(0.51)$	0.4388	0.439 ± 0.013 (-2.9σ)
$\Omega_m h^3$	0.09068	$0.0909^{+0.0015}_{-0.0019}$ (-4.4σ)	$D_M(z_*)/\text{Gpc}$	14.196	$14.185^{+0.096}_{-0.085}$ $(+3.7\sigma)$	$\sigma_8(0.51)$	0.5711	0.571 ± 0.020 (-3.6σ)
σ_8	0.7403	0.741 ± 0.025 (-3.9σ)	z_{drag}	1058.67	1058.7 ± 1.2 (-0.7σ)	$f\sigma_8(0.61)$	0.4350	0.435 ± 0.013 (-3.0σ)
S_8	0.7476	0.749 ± 0.025 (-3.0σ)	r_{drag}	150.63	150.5 ± 1.1 $(+3.3\sigma)$	$\sigma_8(0.61)$	0.5440	0.544 ± 0.019 (-3.6σ)
$\sigma_8 \Omega_m^{0.5}$	0.4095	0.410 ± 0.014 (-3.0σ)	k_D	0.13721	0.1373 ± 0.0013 (-2.2σ)	$f\sigma_8(2.33)$	0.2820	0.2818 ± 0.0085 (-2.4σ)
$\sigma_8 \Omega_m^{0.25}$	0.5506	0.551 ± 0.018 (-3.6σ)	$100\theta_D$	0.16129	0.16129 ± 0.00071 $(+0.4\sigma)$	$\sigma_8(2.33)$	0.2867	0.2866 ± 0.0096 (-3.0σ)
$\sigma_8/h^{0.5}$	0.9067	0.908 ± 0.028 (-3.4σ)	z_{eq}	3086	3096^{+75}_{-88} (-5.4σ)	χ^2_{lensing}	15.79	17.8 ± 1.9 (-2.0σ)
$r_{\text{drag}} h$	100.43	100.4 ± 1.1 (-0.5σ)	k_{eq}	0.009430	$0.00946^{+0.00022}_{-0.00026}$ (-5.3σ)	$\chi^2_{6\text{DF}}$	0.0001	0.055 ± 0.079 (-0.1σ)
$\langle d^2 \rangle^{1/2}$	2.637	2.630 ± 0.065 $(+2.9\sigma)$	$100\theta_{\text{eq}}$	0.8758	0.874 ± 0.018 $(+6.4\sigma)$	χ^2_{MGS}	1.68	1.71 ± 0.68 (-0.5σ)
z_{re}	7.661	7.67 ± 0.11 (-0.5σ)	$100\theta_{s,\text{eq}}$	0.4821	0.4812 ± 0.0094 $(+6.2\sigma)$	χ^2_{DR12BAO}	3.40	4.3 ± 1.4 $(+0.0\sigma)$
$10^9 A_s$	2.806	2.78 ± 0.24 $(+8.0\sigma)$	$H(0.15)$	71.79	71.80 ± 0.75 (-2.7σ)	χ^2_{prior}	0.00	3.0 ± 2.4 (-0.4σ)
$10^9 A_s e^{-2\tau}$	2.514	2.49 ± 0.21 $(+8.0\sigma)$	$D_M(0.15)$	650.6	650.7 ± 7.3 $(+2.6\sigma)$	χ^2_{BAO}	5.08	6.1 ± 1.4 (-0.2σ)
D_{40}	1694	1677 ± 130 $(+5.3\sigma)$	$H(0.38)$	81.61	$81.64^{+0.64}_{-0.72}$ (-3.5σ)			
D_{220}	8161	8082 ± 760 $(+8.0\sigma)$	$D_M(0.38)$	1553.1	1553 ± 16 $(+2.9\sigma)$			

Best-fit $\chi^2_{\text{eff}} = 20.88$; $\Delta\chi^2_{\text{eff}} = -7.46$; $\bar{\chi}^2_{\text{eff}} = 26.80$; $\Delta\bar{\chi}^2_{\text{eff}} = -6.67$; $R - 1 = 0.01217$

χ^2_{eff} : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.68 (Δ -0.29) DR12BAO: 3.40 (Δ 0.04) CMB - smicadx12_Dec5_ftl_mv2_ndclpttptt_p_teb_agr2_CMBmarged: 15.79 (Δ -5.93)

6.127 base_mnu_lensing_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_m	0.311	$0.325^{+0.056}_{-0.089}$ $(+0.9\sigma)$	$\Omega_b h^2$	0.0250	$0.0256^{+0.0054}_{-0.012}$ (-0.0σ)	S_8	0.802	0.804 ± 0.056 $(+0.5\sigma)$
Ω_b	0.0540	—	$\Omega_c h^2$	0.1137	$0.126^{+0.019}_{-0.027}$ $(+0.6\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4391	0.440 ± 0.031 $(+0.5\sigma)$
H_0	68.1	< 76.1 (-0.1σ)	Ω_Λ	0.689	$0.675^{+0.089}_{-0.056}$ (-0.9σ)	$\sigma_8 \Omega_m^{0.25}$	0.5880	0.586 ± 0.020 (-0.2σ)
Σm_ν [eV]	0.513	—	$\Omega_\nu h^2$	0.00551	$0.0058^{+0.0045}_{-0.0021}$	χ^2_{lensing}	7.25	9.5 ± 2.0 (-0.1σ)
$10^9 A_s$	2.677	$2.42^{+0.35}_{-0.53}$ (-0.1σ)	$\ln(10^{10} A_s)$	3.287	3.17 ± 0.18 (-0.1σ)			
n_s	1.017	—	σ_8	0.787	0.782 ± 0.048 (-0.9σ)			

Best-fit $\chi^2_{\text{eff}} = 7.25$; $\Delta\chi^2_{\text{eff}} = -0.13$; $\bar{\chi}^2_{\text{eff}} = 9.49$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.15$; $R - 1 = 0.00994$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.25 (Δ -0.13)

6.128 base_mnu_lensing_DESpriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3615	$0.334^{+0.027}_{-0.034}$ (+1.3 σ)	$\Omega_{\text{c}}h^2$	0.1352	$0.133^{+0.021}_{-0.029}$ (+0.4 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5830	0.588 ± 0.020 (−0.5 σ)
Ω_{b}	0.0445	$0.0472^{+0.0079}_{-0.015}$ (−0.1 σ)	Ω_{Λ}	0.6385	$0.666^{+0.034}_{-0.027}$ (−1.3 σ)	χ^2_{lensing}	7.59	9.6 ± 2.0 (−0.2 σ)
H_0	67.8	$69.9^{+5.0}_{-11}$ (+0.0 σ)	$\Omega_{\nu}h^2$	0.01071	$0.0067^{+0.0038}_{-0.0015}$	$\chi^2_{6\text{DF}}$	0.139	0.12 ± 0.16 (+0.4 σ)
Σm_{ν} [eV]	0.996	> 0.506	$\ln(10^{10}A_{\text{s}})$	3.125	$3.12^{+0.15}_{-0.20}$ (+0.3 σ)	χ^2_{MGS}	0.82	1.34 ± 0.73 (−0.7 σ)
$10^9 A_{\text{s}}$	2.277	$2.29^{+0.27}_{-0.50}$ (+0.3 σ)	σ_8	0.7519	0.775 ± 0.030 (−1.3 σ)	χ^2_{DR12BAO}	2.11	3.7 ± 1.6 (−0.6 σ)
n_{s}	0.972	< 0.992 (+0.3 σ)	S_8	0.8254	0.816 ± 0.035 (+0.2 σ)	χ^2_{BAO}	3.07	5.2 ± 1.8 (−0.7 σ)
$\Omega_{\text{b}}h^2$	0.0205	$0.0244^{+0.0048}_{-0.014}$ (−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4521	0.447 ± 0.019 (+0.2 σ)			

Best-fit $\chi^2_{\text{eff}} = 10.66$; $\Delta\chi^2_{\text{eff}} = -1.15$; $\bar{\chi}^2_{\text{eff}} = 14.70$; $\Delta\bar{\chi}^2_{\text{eff}} = -1.82$; $R - 1 = 0.01029$
 χ^2_{eff} : BAO - 6DF: 0.14 (Δ 0.09) MGS: 0.82 (Δ -0.34) DR12BAO: 2.11 (Δ -0.32) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.59 (Δ -0.58)

6.129 base_mnu_lensing_DESpriors_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.287	$0.335^{+0.079}_{-0.10}$ (+0.5 σ)	$\Omega_{\text{b}}h^2$	0.02219	0.02220 ± 0.00051 (+0.0 σ)	S_8	0.788	0.809 ± 0.063 (+0.2 σ)
Ω_{b}	0.0478	—	$\Omega_{\text{c}}h^2$	0.1069	$0.121^{+0.015}_{-0.021}$ (+0.9 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4318	0.443 ± 0.035 (+0.2 σ)
H_0	68.2	$67.9^{+4.5}_{-12}$ (+0.1 σ)	Ω_{Λ}	0.713	$0.665^{+0.10}_{-0.079}$ (−0.5 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5897	0.586 ± 0.020 (−0.3 σ)
Σm_{ν} [eV]	0.412	—	$\Omega_{\nu}h^2$	0.00443	0.0057 ± 0.0029	χ^2_{lensing}	7.26	9.4 ± 2.0 (−0.1 σ)
$10^9 A_{\text{s}}$	2.783	$2.47^{+0.40}_{-0.56}$ (+0.0 σ)	$\ln(10^{10}A_{\text{s}})$	3.326	3.19 ± 0.19 (+0.0 σ)	χ^2_{prior}	0.00	1.0 ± 1.4 (+0.0 σ)
n_{s}	1.021	—	σ_8	0.805	$0.778^{+0.047}_{-0.065}$ (−0.6 σ)			

Best-fit $\chi^2_{\text{eff}} = 7.26$; $\Delta\chi^2_{\text{eff}} = -0.11$; $\bar{\chi}^2_{\text{eff}} = 10.46$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.11$; $R - 1 = 0.00663$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.26 (Δ -0.10)

6.130 base_mnu_lensing_DESpriors_CookeDH_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3643	0.336 ± 0.027 (+1.4 σ)	$\Omega_{\text{c}}h^2$	0.1457	$0.129^{+0.015}_{-0.018}$ (+0.7 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5805	0.588 ± 0.020 (−0.6 σ)
Ω_{b}	0.04553	0.0473 ± 0.0022 (−0.4 σ)	Ω_{Λ}	0.6357	0.664 ± 0.027 (−1.4 σ)	χ^2_{lensing}	7.65	9.5 ± 2.0 (−0.1 σ)
H_0	69.83	$68.5^{+1.4}_{-1.7}$ (+0.3 σ)	$\Omega_{\nu}h^2$	0.00977	$0.0067^{+0.0039}_{-0.0014}$	$\chi^2_{6\text{DF}}$	0.141	0.12 ± 0.16 (+0.5 σ)
Σm_{ν} [eV]	0.908	> 0.508	$\ln(10^{10}A_{\text{s}})$	3.015	$3.12^{+0.15}_{-0.18}$ (+0.4 σ)	χ^2_{MGS}	0.82	1.30 ± 0.72 (−0.6 σ)
$10^9 A_{\text{s}}$	2.039	$2.30^{+0.28}_{-0.46}$ (+0.4 σ)	σ_8	0.7472	$0.773^{+0.026}_{-0.029}$ (−1.4 σ)	χ^2_{DR12BAO}	2.08	3.6 ± 1.6 (−0.5 σ)
n_{s}	0.920	< 0.991 (+0.3 σ)	S_8	0.8234	0.817 ± 0.035 (+0.1 σ)	χ^2_{prior}	0.000	1.0 ± 1.4 (+0.0 σ)
$\Omega_{\text{b}}h^2$	0.022204	0.02218 ± 0.00050 (−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4510	0.447 ± 0.019 (+0.1 σ)	χ^2_{BAO}	3.04	5.0 ± 1.8 (−0.7 σ)

Best-fit $\chi^2_{\text{eff}} = 10.69$; $\Delta\chi^2_{\text{eff}} = -1.30$; $\bar{\chi}^2_{\text{eff}} = 15.50$; $\Delta\bar{\chi}^2_{\text{eff}} = -1.65$; $R - 1 = 0.01121$
 χ^2_{eff} : BAO - 6DF: 0.14 (Δ 0.11) MGS: 0.82 (Δ -0.46) DR12BAO: 2.08 (Δ -0.59) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.65 (Δ -0.35)

6.131 base_mnu_DES_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221	0.02220 ± 0.00050 (-0.0σ)	$\Omega_{\mathrm{m}}h^2$	0.1373	$0.169^{+0.021}_{-0.039}$ ($+3.3\sigma$)	k_{D}	0.1381	$0.1454^{+0.0057}_{-0.0090}$ ($+2.4\sigma$)
$\Omega_{\mathrm{c}}h^2$	0.1105	$0.135^{+0.018}_{-0.031}$ ($+2.4\sigma$)	$\Omega_{\nu}h^2$	0.0046	$0.0110^{+0.0035}_{-0.010}$	$100\theta_{\mathrm{D}}$	0.1631	$0.1697^{+0.0066}_{-0.0090}$ ($+1.7\sigma$)
$100\theta_{\mathrm{MC}}$	1.053	$1.102^{+0.048}_{-0.064}$ ($+1.8\sigma$)	$\Omega_{\mathrm{m}}h^3$	0.0980	$0.133^{+0.022}_{-0.049}$ ($+2.1\sigma$)	z_{eq}	3171	3766^{+400}_{-700} ($+2.4\sigma$)
Σm_{ν} [eV]	0.42	$1.02^{+0.33}_{-0.93}$	σ_8	0.831	$0.807^{+0.078}_{-0.088}$ (-0.7σ)	k_{eq}	0.00968	$0.0115^{+0.0013}_{-0.0023}$ ($+2.4\sigma$)
$\ln(10^{10}A_{\mathrm{s}})$	3.372	$3.22^{+0.18}_{-0.16}$ (-0.5σ)	S_8	0.7870	0.777 ± 0.025 (-0.5σ)	$100\theta_{\mathrm{eq}}$	0.868	0.810 ± 0.054 (-1.9σ)
n_{s}	0.9628	0.962 ± 0.020 ($+0.1\sigma$)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4311	0.426 ± 0.014 (-0.5σ)	$100\theta_{\mathrm{s,eq}}$	0.4781	$0.449^{+0.030}_{-0.027}$ (-1.9σ)
b_{DES}^1	1.411	$1.47^{+0.15}_{-0.20}$ ($+0.7\sigma$)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5985	0.586 ± 0.038 (-0.7σ)	$H(0.15)$	76.3	$82.9^{+7.4}_{-12}$ ($+0.8\sigma$)
b_{DES}^2	1.615	$1.68^{+0.16}_{-0.20}$ ($+0.7\sigma$)	$\sigma_8/h^{0.5}$	0.983	$0.919^{+0.068}_{-0.078}$ (-1.8σ)	$D_{\mathrm{M}}(0.15)$	610	570 ± 70 (-0.7σ)
b_{DES}^3	1.597	$1.66^{+0.15}_{-0.20}$ ($+0.7\sigma$)	$r_{\mathrm{drag}}h$	107.0	$110.4^{+9.4}_{-12}$ ($+0.2\sigma$)	$H(0.38)$	85.7	$93.4^{+7.6}_{-13}$ ($+1.0\sigma$)
b_{DES}^4	1.926	$2.00^{+0.18}_{-0.23}$ ($+0.7\sigma$)	$\langle d^2 \rangle^{1/2}$	2.695	2.60 ± 0.16 (-0.3σ)	$D_{\mathrm{M}}(0.38)$	1465	1365 ± 200 (-0.8σ)
b_{DES}^5	1.989	$2.06^{+0.20}_{-0.25}$ ($+0.6\sigma$)	z_{re}	7.71	$8.26^{+0.45}_{-0.68}$ ($+2.5\sigma$)	$H(0.51)$	92.0	$100.5^{+7.9}_{-13}$ ($+1.2\sigma$)
m_{DES}^1	0.0133	0.012 ± 0.023 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.914	$2.55^{+0.38}_{-0.47}$ (-0.4σ)	$D_{\mathrm{M}}(0.51)$	1904	1772 ± 200 (-0.8σ)
m_{DES}^2	0.0147	0.015 ± 0.022 ($+0.0\sigma$)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	2.611	$2.28^{+0.34}_{-0.43}$ (-0.4σ)	$H(0.61)$	97.3	$106.4^{+8.2}_{-14}$ ($+1.3\sigma$)
m_{DES}^3	0.0071	0.009 ± 0.021 (-0.0σ)	D_{40}	1760	1484^{+200}_{-300} (-0.7σ)	$D_{\mathrm{M}}(0.61)$	2221	2066 ± 200 (-0.8σ)
m_{DES}^4	0.0094	0.011 ± 0.021 ($+0.0\sigma$)	D_{220}	8295	6603^{+1000}_{-2000} (-0.9σ)	$H(2.33)$	233.3	257^{+19}_{-29} ($+2.6\sigma$)
$A_{\mathrm{IA,DES}}$	0.480	$0.46^{+0.17}_{-0.21}$ (-0.2σ)	D_{810}	3548	2687 ± 700 (-1.0σ)	$D_{\mathrm{M}}(2.33)$	5674	5236^{+570}_{-520} (-1.3σ)
$\alpha_{\mathrm{IA,DES}}$	-1.44	$-0.4^{+2.3}_{-2.8}$ (-0.1σ)	D_{1420}	1124	790^{+300}_{-300} (-1.2σ)	$f\sigma_8(0.15)$	0.4431	0.437 ± 0.016 (-0.3σ)
$\Delta z_{\mathrm{l,DES}}^1$	0.0040	0.0042 ± 0.0075 (-0.0σ)	D_{2000}	318	228^{+70}_{-100} (-1.2σ)	$\sigma_8(0.15)$	0.773	$0.750^{+0.076}_{-0.087}$ (-0.7σ)
$\Delta z_{\mathrm{l,DES}}^2$	0.0018	0.0018 ± 0.0066 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9628	0.962 ± 0.020 ($+0.1\sigma$)	$f\sigma_8(0.38)$	0.4726	0.464 ± 0.027 (-0.5σ)
$\Delta z_{\mathrm{l,DES}}^3$	0.0043	0.0041 ± 0.0066 (-0.1σ)	Y_{P}	0.245331	$0.24531^{+0.00023}_{-0.00020}$ (-0.0σ)	$\sigma_8(0.38)$	0.691	$0.670^{+0.072}_{-0.083}$ (-0.7σ)
$\Delta z_{\mathrm{l,DES}}^4$	0.0029	0.0020 ± 0.0091 (-0.1σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246657	$0.24664^{+0.00023}_{-0.00020}$ (-0.0σ)	$f\sigma_8(0.51)$	0.4769	0.467 ± 0.032 (-0.5σ)
$\Delta z_{\mathrm{l,DES}}^5$	0.0010	0.0012 ± 0.0099 ($+0.0\sigma$)	$10^5 \mathrm{D}/\mathrm{H}$	2.616	2.621 ± 0.096 ($+0.0\sigma$)	$\sigma_8(0.51)$	0.650	$0.629^{+0.070}_{-0.081}$ (-0.7σ)
$\Delta z_{\mathrm{s,DES}}^1$	-0.0013	-0.004 ± 0.014 (-0.1σ)	Age/Gyr	13.60	$12.5^{+1.4}_{-1.2}$ (-1.3σ)	$f\sigma_8(0.61)$	0.4758	0.465 ± 0.036 (-0.5σ)
$\Delta z_{\mathrm{s,DES}}^2$	-0.0286	-0.030 ± 0.011 (-0.0σ)	z_*	1089.34	$1091.8^{+1.8}_{-3.0}$ ($+2.3\sigma$)	$\sigma_8(0.61)$	0.620	$0.600^{+0.068}_{-0.079}$ (-0.7σ)
$\Delta z_{\mathrm{s,DES}}^3$	0.0059	0.0071 ± 0.0098 ($+0.0\sigma$)	r_*	147.0	$140.6^{+7.4}_{-5.3}$ (-2.3σ)	$f\sigma_8(2.33)$	0.3204	$0.312^{+0.036}_{-0.043}$ (-0.5σ)
$\Delta z_{\mathrm{s,DES}}^4$	-0.0254	-0.023 ± 0.019 ($+0.1\sigma$)	$100\theta_*$	1.053	$1.103^{+0.048}_{-0.064}$ ($+1.8\sigma$)	$\sigma_8(2.33)$	0.3293	$0.319^{+0.039}_{-0.047}$ (-0.6σ)
H_0	71.4	$77.4^{+7.6}_{-12}$ ($+0.7\sigma$)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95	$12.8^{+1.3}_{-1.2}$ (-1.9σ)	χ_{DES}^2	500.51	513.5 ± 5.2 ($+0.1\sigma$)
Ω_{Λ}	0.7310	$0.715^{+0.054}_{-0.037}$ (-0.8σ)	z_{drag}	1058.94	$1060.8^{+2.1}_{-2.5}$ ($+1.5\sigma$)	χ_{prior}^2	1.22	14.3 ± 5.2 (-0.0σ)
Ω_{m}	0.2690	$0.285^{+0.037}_{-0.054}$ ($+0.8\sigma$)	r_{drag}	149.7	$143.3^{+7.6}_{-5.5}$ (-2.3σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 501.73$; $\Delta\chi_{\mathrm{eff}}^2 = -0.09$; $\bar{\chi}_{\mathrm{eff}}^2 = 527.78$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.64$; $R - 1 = 0.00413$
 χ_{eff}^2 : WL - DES_1YR_final: 500.51 (Δ 0.01)

6.132 base_mnu_DESlens_lenspriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022207	0.02219 ± 0.00050 (+0.0 σ)	$\sigma_8/h^{0.5}$	1.006	$0.84^{+0.11}_{-0.14}$ (−1.1 σ)	$100\theta_{\mathrm{eq}}$	0.827	$0.703^{+0.083}_{-0.11}$ (−1.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.121	$0.192^{+0.040}_{-0.067}$ (+1.6 σ)	$r_{\mathrm{drag}}h$	109.1	112^{+20}_{-10} (−0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.457	$0.393^{+0.045}_{-0.060}$ (−1.0 σ)
$100\theta_{\mathrm{MC}}$	1.062	$1.163^{+0.074}_{-0.042}$ (+1.5 σ)	$\langle d^2 \rangle^{1/2}$	2.511	$2.27^{+0.33}_{-0.48}$ (−0.3 σ)	$H(0.15)$	79.1	92^{+10}_{-6} (+0.7 σ)
Σm_{ν} [eV]	0.08	< 2.10	z_{re}	7.84	$9.19^{+0.84}_{-1.0}$ (+1.8 σ)	$D_{\mathrm{M}}(0.15)$	588	519^{+20}_{-84} (−0.5 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.13	2.75 ± 0.51 (−0.4 σ)	$10^9 A_{\mathrm{s}}$	2.29	$1.78^{+0.37}_{-1.1}$ (−0.4 σ)	$H(0.38)$	88.6	105^{+10}_{-9} (+1.0 σ)
n_{s}	0.9604	0.961 ± 0.020 (+0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	2.05	$1.59^{+0.33}_{-1.0}$ (−0.4 σ)	$D_{\mathrm{M}}(0.38)$	1413	1235^{+56}_{-190} (−0.6 σ)
m_{DES}^1	0.0157	0.013 ± 0.023 (−0.0 σ)	D_{40}	1372	1002^{+200}_{-700} (−0.4 σ)	$H(0.51)$	95.0	113^{+20}_{-10} (+1.1 σ)
m_{DES}^2	0.0133	0.013 ± 0.022 (−0.0 σ)	D_{220}	6233	4059^{+800}_{-3000} (−0.5 σ)	$D_{\mathrm{M}}(0.51)$	1838	1598^{+78}_{-250} (−0.7 σ)
m_{DES}^3	0.0014	0.003 ± 0.022 (−0.1 σ)	D_{810}	2740	1519^{+300}_{-1000} (−0.7 σ)	$H(0.61)$	100.4	120^{+20}_{-10} (+1.2 σ)
m_{DES}^4	0.0168	0.018 ± 0.022 (+0.0 σ)	D_{1420}	866	429^{+70}_{-300} (−0.7 σ)	$D_{\mathrm{M}}(0.61)$	2145	1858^{+95}_{-280} (−0.7 σ)
$A_{\mathrm{IA,DES}}$	1.33	$0.80^{+0.73}_{-0.59}$ (+0.1 σ)	D_{2000}	247	125^{+20}_{-100} (−0.7 σ)	$H(2.33)$	239.2	298^{+40}_{-50} (+1.9 σ)
$\alpha_{\mathrm{IA,DES}}$	3.35	> 0.976 (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.9604	0.961 ± 0.020 (+0.0 σ)	$D_{\mathrm{M}}(2.33)$	5504	4634^{+360}_{-680} (−1.1 σ)
$\Delta z_{\mathrm{s,DES}}^1$	0.0032	0.002 ± 0.015 (−0.0 σ)	Y_{P}	0.245329	$0.24531^{+0.00023}_{-0.00020}$ (−0.0 σ)	$f\sigma_8(0.15)$	0.4519	$0.434^{+0.027}_{-0.019}$ (−0.2 σ)
$\Delta z_{\mathrm{s,DES}}^2$	−0.0192	$−0.021 \pm 0.012$ (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246655	$0.24664^{+0.00023}_{-0.00020}$ (−0.0 σ)	$\sigma_8(0.15)$	0.807	0.71 ± 0.13 (−0.6 σ)
$\Delta z_{\mathrm{s,DES}}^3$	0.0081	0.008 ± 0.011 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.617	$2.622^{+0.088}_{-0.099}$ (+0.0 σ)	$f\sigma_8(0.38)$	0.4834	$0.451^{+0.049}_{-0.034}$ (−0.4 σ)
$\Delta z_{\mathrm{s,DES}}^4$	−0.0175	$−0.016 \pm 0.021$ (−0.0 σ)	Age/Gyr	13.20	$11.11^{+0.87}_{-1.6}$ (−1.1 σ)	$\sigma_8(0.38)$	0.721	$0.63^{+0.12}_{-0.13}$ (−0.6 σ)
H_0	74.2	> 80.7 (+0.5 σ)	z_*	1090.19	$1096.2^{+3.8}_{-5.1}$ (+1.7 σ)	$f\sigma_8(0.51)$	0.488	$0.451^{+0.059}_{-0.043}$ (−0.5 σ)
Ω_{Λ}	0.739	$0.669^{+0.12}_{-0.058}$ (−0.6 σ)	r_*	144.4	130 ± 10 (−1.5 σ)	$\sigma_8(0.51)$	0.678	$0.60^{+0.11}_{-0.13}$ (−0.6 σ)
Ω_{m}	0.261	$0.331^{+0.058}_{-0.12}$ (+0.6 σ)	$100\theta_*$	1.063	$1.163^{+0.074}_{-0.042}$ (+1.5 σ)	$f\sigma_8(0.61)$	0.488	$0.447^{+0.065}_{-0.050}$ (−0.5 σ)
$\Omega_{\mathrm{m}}h^2$	0.144	$0.232^{+0.046}_{-0.081}$ (+2.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.59	$11.2^{+1.1}_{-1.7}$ (−1.4 σ)	$\sigma_8(0.61)$	0.647	$0.57^{+0.11}_{-0.13}$ (−0.6 σ)
$\Omega_{\nu}h^2$	0.0008	< 0.0226	z_{drag}	1059.63	$1064.5^{+3.5}_{-4.1}$ (+1.5 σ)	$f\sigma_8(2.33)$	0.329	$0.293^{+0.060}_{-0.069}$ (−0.5 σ)
$\Omega_{\mathrm{m}}h^3$	0.107	$0.200^{+0.051}_{-0.086}$ (+1.9 σ)	r_{drag}	147.1	132 ± 10 (−1.5 σ)	$\sigma_8(2.33)$	0.342	$0.299^{+0.062}_{-0.077}$ (−0.5 σ)
σ_8	0.867	0.77 ± 0.13 (−0.6 σ)	k_{D}	0.1408	$0.159^{+0.012}_{-0.016}$ (+1.7 σ)	χ_{DES}^2	228.67	233.8 ± 2.9 (+0.0 σ)
S_8	0.8088	$0.780^{+0.035}_{-0.029}$ (−0.3 σ)	$100\theta_{\mathrm{D}}$	0.1643	$0.178^{+0.010}_{-0.0062}$ (+1.4 σ)	χ_{prior}^2	0.37	9.5 ± 4.2 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4430	$0.427^{+0.019}_{-0.016}$ (−0.3 σ)	z_{eq}	3417	5113^{+1000}_{-2000} (+1.6 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.620	$0.572^{+0.060}_{-0.054}$ (−0.6 σ)	k_{eq}	0.01043	$0.0157^{+0.0030}_{-0.0050}$ (+1.6 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 229.04$; $\Delta\chi_{\mathrm{eff}}^2 = -0.01$; $\bar{\chi}_{\mathrm{eff}}^2 = 243.26$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.08$; $R - 1 = 0.00786$
 χ_{eff}^2 : WL - DES_1YR_final: 228.67 (Δ -0.04)

6.133 base_mnu_DES_lenspriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022219	0.02220 ± 0.00049 (-0.0σ)	$\Omega_{\mathrm{m}}h^2$	0.1469	$0.170^{+0.018}_{-0.038}$ ($+4.8\sigma$)	k_{D}	0.1405	$0.1459^{+0.0048}_{-0.0087}$ ($+3.3\sigma$)
$\Omega_{\mathrm{c}}h^2$	0.1188	$0.137^{+0.015}_{-0.030}$ ($+3.6\sigma$)	$\Omega_{\nu}h^2$	0.0058	$0.0110^{+0.0037}_{-0.0092}$	$100\theta_{\mathrm{D}}$	0.1645	$0.1696^{+0.0057}_{-0.0078}$ ($+3.0\sigma$)
$100\theta_{\mathrm{MC}}$	1.0644	$1.102^{+0.041}_{-0.057}$ ($+3.2\sigma$)	$\Omega_{\mathrm{m}}h^3$	0.1047	$0.132^{+0.018}_{-0.044}$ ($+3.7\sigma$)	z_{eq}	3371	3810^{+360}_{-710} ($+3.6\sigma$)
Σm_{ν} [eV]	0.54	$1.02^{+0.35}_{-0.86}$	σ_8	0.7890	0.786 ± 0.037 (-0.9σ)	k_{eq}	0.01029	$0.0117^{+0.0011}_{-0.0022}$ ($+3.6\sigma$)
$\ln(10^{10}A_{\mathrm{s}})$	3.222	$3.16^{+0.10}_{-0.080}$ (-0.3σ)	S_8	0.7747	0.772 ± 0.015 (-0.3σ)	$100\theta_{\mathrm{eq}}$	0.8379	$0.802^{+0.057}_{-0.043}$ (-2.5σ)
n_{s}	0.9642	0.963 ± 0.020 ($+0.1\sigma$)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4243	0.4227 ± 0.0083 (-0.3σ)	$100\theta_{\mathrm{s,eq}}$	0.4629	$0.445^{+0.029}_{-0.021}$ (-2.5σ)
b_{DES}^1	1.500	1.50 ± 0.11 ($+0.6\sigma$)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5786	0.576 ± 0.015 (-0.9σ)	$H(0.15)$	76.4	$82.1^{+5.6}_{-9.4}$ ($+1.8\sigma$)
b_{DES}^2	1.713	1.712 ± 0.094 ($+0.7\sigma$)	$\sigma_8/h^{0.5}$	0.9346	$0.901^{+0.050}_{-0.045}$ (-4.6σ)	$D_{\mathrm{M}}(0.15)$	610	573^{+59}_{-51} (-1.5σ)
b_{DES}^3	1.696	1.696 ± 0.084 ($+0.8\sigma$)	$r_{\mathrm{drag}}h$	105.0	$108.9^{+5.8}_{-7.7}$ ($+0.8\sigma$)	$H(0.38)$	86.4	$92.8^{+6.1}_{-10}$ ($+2.1\sigma$)
b_{DES}^4	2.050	2.045 ± 0.097 ($+0.7\sigma$)	$\langle d^2 \rangle^{1/2}$	2.5473	2.524 ± 0.049 ($+0.1\sigma$)	$D_{\mathrm{M}}(0.38)$	1460	1371^{+140}_{-120} (-1.6σ)
b_{DES}^5	2.122	2.12 ± 0.11 ($+0.6\sigma$)	z_{re}	7.88	$8.29^{+0.40}_{-0.64}$ ($+3.6\sigma$)	$H(0.51)$	93.1	$99.97^{+6.4}_{-11}$ ($+2.3\sigma$)
m_{DES}^1	0.0132	0.012 ± 0.023 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.508	2.36 ± 0.22 (-0.3σ)	$D_{\mathrm{M}}(0.51)$	1894	1779^{+180}_{-150} (-1.7σ)
m_{DES}^2	0.0157	0.015 ± 0.022 (-0.0σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	2.247	2.12 ± 0.20 (-0.3σ)	$H(0.61)$	98.7	$106.0^{+6.8}_{-12}$ ($+2.5\sigma$)
m_{DES}^3	0.0097	0.010 ± 0.021 (-0.1σ)	D_{40}	1482	1364^{+200}_{-100} (-1.1σ)	$D_{\mathrm{M}}(0.61)$	2207	2073^{+210}_{-180} (-1.7σ)
m_{DES}^4	0.0115	0.012 ± 0.021 (-0.1σ)	D_{220}	6876	6065^{+1000}_{-900} (-1.4σ)	$H(2.33)$	240.6	258^{+16}_{-28} ($+4.0\sigma$)
$A_{\mathrm{IA,DES}}$	0.452	$0.44^{+0.17}_{-0.20}$ (-0.1σ)	D_{810}	3012	2521^{+700}_{-400} (-1.7σ)	$D_{\mathrm{M}}(2.33)$	5577	5237^{+510}_{-420} (-2.3σ)
$\alpha_{\mathrm{IA,DES}}$	-1.49	$-0.3^{+2.3}_{-2.8}$ (-0.1σ)	D_{1420}	952	744^{+300}_{-300} (-2.3σ)	$f\sigma_8(0.15)$	0.4352	0.4338 ± 0.0080 ($+0.2\sigma$)
$\Delta z_{\mathrm{l,DES}}^1$	0.0038	0.0042 ± 0.0075 (-0.0σ)	D_{2000}	272	214^{+80}_{-100} (-1.8σ)	$\sigma_8(0.15)$	0.7320	0.730 ± 0.037 (-0.9σ)
$\Delta z_{\mathrm{l,DES}}^2$	0.0013	0.0016 ± 0.0067 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9642	0.963 ± 0.020 ($+0.1\sigma$)	$f\sigma_8(0.38)$	0.4590	0.458 ± 0.010 (-0.2σ)
$\Delta z_{\mathrm{l,DES}}^3$	0.0041	0.0039 ± 0.0066 (-0.0σ)	Y_{P}	0.245334	$0.24531^{+0.00023}_{-0.00019}$ (-0.0σ)	$\sigma_8(0.38)$	0.6523	0.650 ± 0.036 (-0.8σ)
$\Delta z_{\mathrm{l,DES}}^4$	0.0022	0.0020 ± 0.0092 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246660	$0.24664^{+0.00023}_{-0.00019}$ (-0.0σ)	$f\sigma_8(0.51)$	0.4608	0.459 ± 0.013 (-0.3σ)
$\Delta z_{\mathrm{l,DES}}^5$	0.0007	0.00099 ± 0.0097 ($+0.1\sigma$)	$10^5 \mathrm{D}/\mathrm{H}$	2.614	$2.620^{+0.087}_{-0.098}$ ($+0.0\sigma$)	$\sigma_8(0.51)$	0.6120	0.610 ± 0.035 (-0.8σ)
$\Delta z_{\mathrm{s,DES}}^1$	-0.0015	-0.004 ± 0.014 (-0.0σ)	Age/Gyr	13.36	$12.5^{+1.2}_{-1.0}$ (-2.4σ)	$f\sigma_8(0.61)$	0.4580	0.457 ± 0.014 (-0.4σ)
$\Delta z_{\mathrm{s,DES}}^2$	-0.0287	-0.029 ± 0.011 ($+0.0\sigma$)	z_{*}	1090.12	$1091.9^{+1.6}_{-2.8}$ ($+3.1\sigma$)	$\sigma_8(0.61)$	0.5834	0.582 ± 0.034 (-0.8σ)
$\Delta z_{\mathrm{s,DES}}^3$	0.0072	0.0078 ± 0.0097 (-0.0σ)	r_{*}	144.7	$140.2^{+7.2}_{-4.4}$ (-3.3σ)	$f\sigma_8(2.33)$	0.3016	$0.302^{+0.017}_{-0.019}$ (-0.3σ)
$\Delta z_{\mathrm{s,DES}}^4$	-0.0222	-0.021 ± 0.018 (-0.0σ)	$100\theta_{*}$	1.0648	$1.102^{+0.041}_{-0.057}$ ($+3.2\sigma$)	$\sigma_8(2.33)$	0.3083	$0.308^{+0.019}_{-0.021}$ (-0.6σ)
H_0	71.3	$76.5^{+5.4}_{-9.0}$ ($+1.6\sigma$)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.59	$12.8^{+1.2}_{-0.99}$ (-3.0σ)	$\chi_{\mathrm{lensing}}^2$	7.63	9.2 ± 1.6 ($+0.1\sigma$)
Ω_{Λ}	0.7108	$0.709^{+0.030}_{-0.025}$ (-0.8σ)	z_{drag}	1059.59	$1061.0^{+1.9}_{-2.5}$ ($+1.7\sigma$)	χ_{DES}^2	501.56	513.1 ± 4.8 ($+0.0\sigma$)
Ω_{m}	0.2892	$0.291^{+0.025}_{-0.030}$ ($+0.8\sigma$)	r_{drag}	147.4	$142.8^{+7.3}_{-4.6}$ (-3.2σ)	χ_{prior}^2	1.04	14.1 ± 5.2 (-0.0σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 510.24$; $\bar{\chi}_{\mathrm{eff}}^2 = 536.32$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.37$; $R - 1 = 0.00963$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8_CMBmargd: 7.63 WL - DES_1YR_final: 501.56

6.134 base_mnu_DESlens_lenspriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220	0.02221 ± 0.00050 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.940	0.889 ± 0.055 (−5.0 σ)	$100\theta_{\mathrm{eq}}$	0.817	0.764 ± 0.059 (−2.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.1248	$0.157^{+0.026}_{-0.040}$ (+3.6 σ)	$r_{\mathrm{drag}}h$	104.4	113.2 ± 9.0 (+0.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.4523	0.425 ± 0.030 (−2.4 σ)
$100\theta_{\mathrm{MC}}$	1.071	$1.135^{+0.069}_{-0.052}$ (+2.6 σ)	$\langle d^2 \rangle^{1/2}$	2.512	2.486 ± 0.055 (−0.0 σ)	$H(0.15)$	76.9	88^{+10}_{-10} (+1.4 σ)
Σm_{ν} [eV]	0.53	< 1.72	z_{re}	7.99	$8.66^{+0.64}_{-0.76}$ (+3.5 σ)	$D_{\mathrm{M}}(0.15)$	607	536^{+37}_{-86} (−1.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.159	$3.07^{+0.13}_{-0.11}$ (−0.7 σ)	10^9A_{s}	2.354	2.17 ± 0.26 (−0.6 σ)	$H(0.38)$	87.2	99 ± 11 (+1.7 σ)
n_{s}	0.9628	0.960 ± 0.020 (−0.0 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	2.109	1.95 ± 0.23 (−0.6 σ)	$D_{\mathrm{M}}(0.38)$	1450	1283^{+94}_{-190} (−1.3 σ)
m_{DES}^1	0.0141	0.013 ± 0.023 (+0.0 σ)	D_{40}	1382	1240 ± 200 (−1.2 σ)	$H(0.51)$	94.1	107 ± 11 (+1.9 σ)
m_{DES}^2	0.0151	0.013 ± 0.022 (−0.0 σ)	D_{220}	6296	5218^{+1000}_{-1000} (−1.5 σ)	$D_{\mathrm{M}}(0.51)$	1880	1665^{+120}_{-250} (−1.3 σ)
m_{DES}^3	0.0016	0.004 ± 0.022 (−0.0 σ)	D_{810}	2786	2041 ± 700 (−2.3 σ)	$H(0.61)$	99.8	113 ± 12 (+2.1 σ)
m_{DES}^4	0.0180	0.017 ± 0.021 (−0.0 σ)	D_{1420}	875	582^{+300}_{-300} (−2.4 σ)	$D_{\mathrm{M}}(0.61)$	2190	1940^{+150}_{-280} (−1.4 σ)
$A_{\mathrm{IA,DES}}$	1.23	$0.65^{+0.83}_{-0.56}$ (+0.1 σ)	D_{2000}	252	169^{+90}_{-80} (−2.1 σ)	$H(2.33)$	244.9	275^{+27}_{-34} (+3.8 σ)
$\alpha_{\mathrm{IA,DES}}$	2.88	> 1.00 (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9628	0.960 ± 0.020 (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5508	4915^{+420}_{-650} (−1.9 σ)
$\Delta z_{\mathrm{s,DES}}^1$	0.0029	0.001 ± 0.015 (+0.0 σ)	Y_{P}	0.245327	$0.24532^{+0.00023}_{-0.00020}$ (+0.0 σ)	$f\sigma_8(0.15)$	0.4443	$0.439^{+0.013}_{-0.010}$ (+0.2 σ)
$\Delta z_{\mathrm{s,DES}}^2$	−0.0196	$−0.020 \pm 0.012$ (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246653	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$\sigma_8(0.15)$	0.7370	$0.746^{+0.042}_{-0.050}$ (−0.7 σ)
$\Delta z_{\mathrm{s,DES}}^3$	0.0074	0.008 ± 0.011 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.618	$2.619^{+0.088}_{-0.10}$ (−0.0 σ)	$f\sigma_8(0.38)$	0.4664	0.464 ± 0.013 (−0.1 σ)
$\Delta z_{\mathrm{s,DES}}^4$	−0.0171	$−0.016 \pm 0.021$ (−0.0 σ)	Age/Gyr	13.19	$11.8^{+1.0}_{-1.6}$ (−2.0 σ)	$\sigma_8(0.38)$	0.6558	$0.666^{+0.040}_{-0.049}$ (−0.6 σ)
H_0	71.6	82 ± 9 (+1.2 σ)	z_*	1090.65	$1093.6^{+2.6}_{-3.6}$ (+3.4 σ)	$f\sigma_8(0.51)$	0.4670	0.467 ± 0.016 (−0.3 σ)
Ω_{Λ}	0.7020	0.714 ± 0.039 (−0.5 σ)	r_*	143.2	$135.8^{+8.2}_{-7.1}$ (−3.3 σ)	$\sigma_8(0.51)$	0.6148	$0.625^{+0.039}_{-0.048}$ (−0.6 σ)
Ω_{m}	0.2980	0.286 ± 0.039 (+0.5 σ)	$100\theta_*$	1.071	$1.136^{+0.069}_{-0.052}$ (+2.6 σ)	$f\sigma_8(0.61)$	0.4635	0.464 ± 0.017 (−0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.1527	$0.194^{+0.031}_{-0.053}$ (+4.8 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.37	$12.0^{+1.1}_{-1.5}$ (−2.7 σ)	$\sigma_8(0.61)$	0.5858	$0.596^{+0.038}_{-0.047}$ (−0.6 σ)
$\Omega_{\nu}h^2$	0.0057	< 0.0185	z_{drag}	1059.97	$1062.4^{+2.4}_{-3.0}$ (+2.2 σ)	$f\sigma_8(2.33)$	0.3020	$0.309^{+0.021}_{-0.026}$ (−0.3 σ)
$\Omega_{\mathrm{m}}h^3$	0.109	$0.162^{+0.037}_{-0.064}$ (+3.4 σ)	r_{drag}	145.9	$138.3^{+8.4}_{-7.3}$ (−3.2 σ)	$\sigma_8(2.33)$	0.3085	$0.316^{+0.022}_{-0.029}$ (−0.5 σ)
σ_8	0.7954	$0.804^{+0.042}_{-0.050}$ (−0.7 σ)	k_{D}	0.1421	$0.1513^{+0.0078}_{-0.011}$ (+3.5 σ)	$\chi_{\mathrm{lensing}}^2$	7.48	9.7 ± 2.0 (+0.1 σ)
S_8	0.7927	$0.781^{+0.027}_{-0.019}$ (−0.1 σ)	$100\theta_{\mathrm{D}}$	0.1653	$0.1743^{+0.0095}_{-0.0072}$ (+2.4 σ)	χ_{DES}^2	228.82	232.8 ± 2.5 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4342	$0.428^{+0.015}_{-0.011}$ (−0.1 σ)	z_{eq}	3512	4278^{+600}_{-900} (+3.6 σ)	χ_{prior}^2	0.40	9.4 ± 4.2 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5877	0.586 ± 0.019 (−0.7 σ)	k_{eq}	0.01073	$0.0131^{+0.0019}_{-0.0029}$ (+3.6 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 236.70$; $\Delta\chi_{\mathrm{eff}}^2 = -0.27$; $\bar{\chi}_{\mathrm{eff}}^2 = 251.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.27$; $R - 1 = 0.00519$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8_CMBmarged: 7.48 (Δ -0.23) WL - DES_1YR_final: 228.82 (Δ -0.14)

6.135 base_mnu_DES_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02221	0.02219 ± 0.00050 (-0.1σ)	$\Omega_\nu h^2$	0.00862	$0.0104^{+0.0042}_{-0.0055}$	z_{eq}	3377	3531^{+290}_{-380} $(+2.8\sigma)$
$\Omega_c h^2$	0.1191	$0.126^{+0.012}_{-0.016}$ $(+2.8\sigma)$	$\Omega_m h^3$	0.1016	$0.108^{+0.012}_{-0.017}$ $(+3.7\sigma)$	k_{eq}	0.01032	$0.01080^{+0.00088}_{-0.0012}$ $(+2.8\sigma)$
$100\theta_{\text{MC}}$	1.0606	1.070 ± 0.025 $(+4.2\sigma)$	σ_8	0.7395	$0.720^{+0.039}_{-0.044}$ (-2.8σ)	$100\theta_{\text{eq}}$	0.8347	0.819 ± 0.039 (-1.8σ)
Σm_ν [eV]	0.802	$0.97^{+0.39}_{-0.51}$	S_8	0.7714	0.762 ± 0.022 (-0.9σ)	$100\theta_{\text{s,eq}}$	0.4612	0.453 ± 0.020 (-1.8σ)
$\ln(10^{10} A_s)$	3.237	3.15 ± 0.16 (-0.4σ)	$\sigma_8 \Omega_m^{0.5}$	0.4225	0.417 ± 0.012 (-0.9σ)	$H(0.15)$	73.31	$74.1^{+1.6}_{-2.0}$ $(+1.9\sigma)$
n_s	0.9611	0.961 ± 0.020 $(+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.5590	0.548 ± 0.022 (-2.1σ)	$D_M(0.15)$	638.7	633^{+15}_{-13} (-1.5σ)
b_{DES}^1	1.599	1.65 ± 0.12 $(+2.0\sigma)$	$\sigma_8/h^{0.5}$	0.898	$0.871^{+0.053}_{-0.059}$ (-2.8σ)	$H(0.38)$	83.87	$85.1^{+2.4}_{-3.0}$ $(+2.6\sigma)$
b_{DES}^2	1.820	1.87 ± 0.12 $(+2.3\sigma)$	$r_{\text{drag}} h$	99.71	99.3 ± 1.5 (-2.0σ)	$D_M(0.38)$	1519.7	1504^{+41}_{-36} (-1.9σ)
b_{DES}^3	1.793	1.85 ± 0.11 $(+2.3\sigma)$	$\langle d^2 \rangle^{1/2}$	2.579	2.51 ± 0.14 (-0.4σ)	$H(0.51)$	90.86	$92.3^{+2.9}_{-3.6}$ $(+2.9\sigma)$
b_{DES}^4	2.162	2.22 ± 0.14 $(+2.1\sigma)$	z_{re}	7.918	$8.06^{+0.31}_{-0.37}$ $(+3.3\sigma)$	$D_M(0.51)$	1966	1945^{+56}_{-50} (-2.1σ)
b_{DES}^5	2.224	$2.29^{+0.15}_{-0.16}$ $(+1.7\sigma)$	$10^9 A_s$	2.545	$2.37^{+0.32}_{-0.40}$ (-0.4σ)	$H(0.61)$	96.70	$98.3^{+3.4}_{-4.2}$ $(+3.1\sigma)$
m_{DES}^1	0.0129	0.011 ± 0.023 (-0.0σ)	$10^9 A_s e^{-2\tau}$	2.280	$2.12^{+0.28}_{-0.36}$ (-0.4σ)	$D_M(0.61)$	2286	2260^{+68}_{-61} (-2.2σ)
m_{DES}^2	0.0152	0.014 ± 0.022 $(+0.0\sigma)$	D_{40}	1494	1376^{+200}_{-300} (-0.7σ)	$H(2.33)$	241.8	248^{+12}_{-15} $(+3.7\sigma)$
m_{DES}^3	0.0055	0.008 ± 0.021 (-0.0σ)	D_{220}	7005	6389^{+1000}_{-1000} (-0.8σ)	$D_M(2.33)$	5674	5585 ± 220 (-2.9σ)
m_{DES}^4	0.0099	0.012 ± 0.021 $(+0.0\sigma)$	D_{810}	3067	2781 ± 500 (-0.5σ)	$f\sigma_8(0.15)$	0.4316	0.425 ± 0.013 (-0.8σ)
$A_{\text{IA,DES}}$	0.415	$0.40^{+0.15}_{-0.18}$ (-0.3σ)	D_{1420}	974	865 ± 200 (-0.6σ)	$\sigma_8(0.15)$	0.6829	$0.664^{+0.038}_{-0.043}$ (-2.8σ)
$\alpha_{\text{IA,DES}}$	-2.02	$-0.7^{+2.0}_{-3.1}$ (-0.1σ)	D_{2000}	277.2	248 ± 50 (-0.6σ)	$f\sigma_8(0.38)$	0.4466	0.437 ± 0.016 (-1.5σ)
$\Delta z_{\text{l,DES}}^1$	0.0032	0.0038 ± 0.0075 (-0.1σ)	$n_{\text{s},0.002}$	0.9611	0.961 ± 0.020 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6051	$0.587^{+0.036}_{-0.041}$ (-2.9σ)
$\Delta z_{\text{l,DES}}^2$	0.0008	0.0012 ± 0.0066 (-0.1σ)	Y_{P}	0.245330	$0.24531^{+0.00023}_{-0.00020}$ (-0.1σ)	$f\sigma_8(0.51)$	0.4443	0.434 ± 0.018 (-1.8σ)
$\Delta z_{\text{l,DES}}^3$	0.0037	0.0036 ± 0.0066 (-0.1σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246656	$0.24664^{+0.00023}_{-0.00020}$ (-0.1σ)	$\sigma_8(0.51)$	0.5663	$0.549^{+0.034}_{-0.039}$ (-2.9σ)
$\Delta z_{\text{l,DES}}^4$	0.0015	0.0014 ± 0.0091 (-0.0σ)	10^5D/H	2.616	$2.622^{+0.089}_{-0.10}$ $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.4391	0.428 ± 0.020 (-1.9σ)
$\Delta z_{\text{l,DES}}^5$	0.0001	0.0002 ± 0.0098 $(+0.0\sigma)$	Age/Gyr	13.58	13.37 ± 0.54 (-2.9σ)	$\sigma_8(0.61)$	0.5390	$0.523^{+0.033}_{-0.038}$ (-2.9σ)
$\Delta z_{\text{s,DES}}^1$	-0.0013	-0.005 ± 0.014 (-0.0σ)	z_*	1090.28	$1091.0^{+1.3}_{-1.7}$ $(+2.6\sigma)$	$f\sigma_8(2.33)$	0.2791	0.270 ± 0.018 (-2.4σ)
$\Delta z_{\text{s,DES}}^2$	-0.0287	-0.029 ± 0.011 (-0.0σ)	r_*	144.43	$142.8^{+4.1}_{-3.6}$ (-2.7σ)	$\sigma_8(2.33)$	0.2826	$0.273^{+0.019}_{-0.021}$ (-2.7σ)
$\Delta z_{\text{s,DES}}^3$	0.0064	0.0076 ± 0.0098 $(+0.1\sigma)$	$100\theta_*$	1.0611	1.070 ± 0.025 $(+4.2\sigma)$	χ_{6DF}^2	0.014	0.11 ± 0.15 $(+0.2\sigma)$
$\Delta z_{\text{s,DES}}^4$	-0.0238	-0.020 ± 0.019 $(+0.2\sigma)$	$D_M(z_*)/\text{Gpc}$	13.61	13.36 ± 0.66 (-3.2σ)	χ_{MGS}^2	1.41	1.34 ± 0.71 (-1.3σ)
H_0	67.77	$68.3^{+1.3}_{-1.5}$ $(+1.2\sigma)$	z_{drag}	1059.70	1060.2 ± 1.7 $(+1.3\sigma)$	χ_{DR12BAO}^2	2.57	3.5 ± 1.4 (-1.2σ)
Ω_Λ	0.6736	$0.662^{+0.032}_{-0.028}$ (-4.5σ)	r_{drag}	147.14	$145.5^{+4.3}_{-3.7}$ (-2.6σ)	χ_{DES}^2	502.02	514.1 ± 5.1 $(+0.3\sigma)$
Ω_m	0.3264	$0.338^{+0.028}_{-0.032}$ $(+4.5\sigma)$	k_{D}	0.14090	$0.1428^{+0.0040}_{-0.0050}$ $(+2.7\sigma)$	χ_{prior}^2	1.07	14.1 ± 5.2 (-0.0σ)
$\Omega_m h^2$	0.1499	$0.158^{+0.016}_{-0.021}$ $(+4.1\sigma)$	$100\theta_{\text{D}}$	0.16380	0.1650 ± 0.0032 $(+4.1\sigma)$	χ_{BAO}^2	3.99	4.9 ± 1.7 (-1.6σ)

Best-fit $\chi_{\text{eff}}^2 = 507.09$; $\Delta\chi_{\text{eff}}^2 = -2.54$; $\bar{\chi}_{\text{eff}}^2 = 533.11$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.63$; $R - 1 = 0.00572$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.03) MGS: 1.41 (Δ -0.86) DR12BAO: 2.57 (Δ -2.07) WL - DES_1YR_final: 502.02 (Δ 0.59)

6.136 base_mnu_DESlens_lenspriors_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022167	0.02220 ± 0.00049 (-0.0σ)	$r_{\text{drag}} h$	98.86	97.4 ± 2.0 (-0.8σ)	$H(0.15)$	75.35	$78.2^{+3.1}_{-3.9}$ $(+0.4\sigma)$
$\Omega_c h^2$	0.1388	$0.165^{+0.027}_{-0.037}$ $(+0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	2.247	$2.14^{+0.24}_{-0.30}$ $(+0.3\sigma)$	$D_M(0.15)$	622.7	604 ± 24 (-0.3σ)
$100\theta_{\text{MC}}$	1.0753	1.107 ± 0.034 $(+0.9\sigma)$	z_{re}	8.21	$8.69^{+0.52}_{-0.60}$ $(+0.7\sigma)$	$H(0.38)$	86.7	$91.1^{+4.6}_{-5.7}$ $(+0.5\sigma)$
Σm_ν [eV]	0.48	$1.04^{+0.34}_{-0.93}$	$10^9 A_s$	1.71	$1.52^{+0.33}_{-0.67}$ $(+0.3\sigma)$	$D_M(0.38)$	1477	1424 ± 65 (-0.4σ)
$\ln(10^{10} A_s)$	2.838	2.65 ± 0.37 $(+0.3\sigma)$	$10^9 A_s e^{-2\tau}$	1.530	$1.36^{+0.30}_{-0.60}$ $(+0.3\sigma)$	$H(0.51)$	94.2	$99.5^{+5.5}_{-6.9}$ $(+0.6\sigma)$
n_s	0.9605	0.960 ± 0.020 $(+0.0\sigma)$	D_{40}	981	854^{+200}_{-400} $(+0.2\sigma)$	$D_M(0.51)$	1909	1835 ± 89 (-0.4σ)
m_{DES}^1	0.0144	0.013 ± 0.023 (-0.0σ)	D_{220}	4330	3690^{+800}_{-2000} $(+0.1\sigma)$	$H(0.61)$	100.4	$106.5^{+6.2}_{-7.8}$ $(+0.6\sigma)$
m_{DES}^2	0.0128	0.012 ± 0.022 $(+0.0\sigma)$	D_{810}	1979	1618^{+400}_{-900} $(+0.1\sigma)$	$D_M(0.61)$	2217	2128 ± 110 (-0.4σ)
m_{DES}^3	0.0009	0.002 ± 0.021 (-0.0σ)	D_{1420}	622	478^{+100}_{-300} (-0.0σ)	$H(2.33)$	254.0	275^{+22}_{-26} $(+0.7\sigma)$
m_{DES}^4	0.0186	0.018 ± 0.021 (-0.0σ)	D_{2000}	180	138^{+40}_{-90} (-0.0σ)	$D_M(2.33)$	5457	5162 ± 350 (-0.6σ)
$A_{\text{IA,DES}}$	1.31	0.96 ± 0.60 (-0.1σ)	$n_{s,0.002}$	0.9605	0.960 ± 0.020 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4362	0.423 ± 0.016 (-0.3σ)
$\alpha_{\text{IA,DES}}$	2.68	> 0.854 (-0.1σ)	Y_P	0.245312	$0.24531^{+0.00023}_{-0.00020}$ (-0.0σ)	$\sigma_8(0.15)$	0.676	$0.625^{+0.046}_{-0.055}$ (-0.9σ)
$\Delta z_{s,\text{DES}}^1$	0.0036	0.003 ± 0.015 (-0.1σ)	Y_P^{BBN}	0.246639	$0.24664^{+0.00023}_{-0.00020}$ (-0.0σ)	$f\sigma_8(0.38)$	0.4467	0.426 ± 0.022 (-0.6σ)
$\Delta z_{s,\text{DES}}^2$	-0.0201	-0.021 ± 0.012 $(+0.0\sigma)$	10^5D/H	2.624	$2.620^{+0.088}_{-0.098}$ $(+0.0\sigma)$	$\sigma_8(0.38)$	0.5965	$0.549^{+0.043}_{-0.052}$ (-0.9σ)
$\Delta z_{s,\text{DES}}^3$	0.0074	0.008 ± 0.011 (-0.0σ)	Age/Gyr	13.06	12.35 ± 0.83 (-0.6σ)	$f\sigma_8(0.51)$	0.4423	0.418 ± 0.024 (-0.6σ)
$\Delta z_{s,\text{DES}}^4$	-0.0164	-0.016 ± 0.020 $(+0.0\sigma)$	z_*	1091.86	$1094.1^{+2.4}_{-2.9}$ $(+0.5\sigma)$	$\sigma_8(0.51)$	0.5574	$0.512^{+0.041}_{-0.050}$ (-0.9σ)
H_0	69.37	$71.3^{+2.3}_{-2.9}$ $(+0.2\sigma)$	r_*	139.9	134.4 ± 6.7 (-0.5σ)	$f\sigma_8(0.61)$	0.4356	0.410 ± 0.026 (-0.7σ)
Ω_Λ	0.6549	$0.613^{+0.049}_{-0.043}$ (-1.0σ)	$100\theta_*$	1.0756	1.107 ± 0.034 $(+0.9\sigma)$	$\sigma_8(0.61)$	0.5299	$0.486^{+0.039}_{-0.048}$ (-0.9σ)
Ω_m	0.3451	$0.387^{+0.043}_{-0.049}$ $(+1.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.01	$12.16^{+0.92}_{-1.0}$ (-0.6σ)	$f\sigma_8(2.33)$	0.2706	$0.248^{+0.021}_{-0.025}$ (-0.6σ)
$\Omega_m h^2$	0.1660	$0.198^{+0.029}_{-0.042}$ $(+0.7\sigma)$	z_{drag}	1060.85	1062.8 ± 2.5 $(+0.4\sigma)$	$\sigma_8(2.33)$	0.2752	$0.251^{+0.022}_{-0.027}$ (-0.8σ)
$\Omega_\nu h^2$	0.0051	$0.0111^{+0.0036}_{-0.010}$	r_{drag}	142.5	136.9 ± 6.9 (-0.5σ)	$\chi_{6\text{DF}}^2$	0.072	0.36 ± 0.37 $(+0.8\sigma)$
$\Omega_m h^3$	0.1152	$0.142^{+0.023}_{-0.036}$ $(+0.6\sigma)$	k_D	0.1457	$0.1527^{+0.0076}_{-0.0091}$ $(+0.5\sigma)$	χ_{MGS}^2	1.039	0.77 ± 0.65 (-0.6σ)
σ_8	0.734	$0.681^{+0.047}_{-0.056}$ (-0.9σ)	$100\theta_D$	0.16576	0.1700 ± 0.0046 $(+0.9\sigma)$	χ_{DR12BAO}^2	2.27	3.6 ± 1.6 $(+0.1\sigma)$
S_8	0.7869	0.769 ± 0.027 (-0.4σ)	z_{eq}	3846	4473^{+600}_{-900} $(+0.4\sigma)$	χ_{DES}^2	229.02	233.7 ± 2.8 $(+0.0\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4310	0.421 ± 0.015 (-0.4σ)	k_{eq}	0.01174	$0.0137^{+0.0020}_{-0.0027}$ $(+0.4\sigma)$	χ_{prior}^2	0.45	9.4 ± 4.2 (-0.0σ)
$\sigma_8 \Omega_m^{0.25}$	0.5623	0.535 ± 0.027 (-0.8σ)	$100\theta_{\text{eq}}$	0.767	$0.721^{+0.063}_{-0.075}$ (-0.2σ)	χ_{BAO}^2	3.38	4.8 ± 1.7 (-0.1σ)
$\sigma_8/h^{0.5}$	0.881	$0.808^{+0.066}_{-0.078}$ (-0.8σ)	$100\theta_{s,\text{eq}}$	0.4262	$0.402^{+0.034}_{-0.039}$ (-0.2σ)			

Best-fit $\chi_{\text{eff}}^2 = 232.86$; $\Delta\chi_{\text{eff}}^2 = -0.55$; $\bar{\chi}_{\text{eff}}^2 = 247.92$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.18$; $R - 1 = 0.00929$

χ_{eff}^2 : BAO - 6DF: 0.07 (Δ 0.01) MGS: 1.04 (Δ -0.06) DR12BAO: 2.27 (Δ -0.04) WL - DES_1YR_final: 229.02 (Δ -0.43)

6.137 base_mnu_DES_lenspriors_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02222	0.02221 ± 0.00051 (+0.0 σ)	$\Omega_m h^3$	0.0984	$0.1022^{+0.0085}_{-0.013}$ (+3.4 σ)	$100\theta_{\text{eq}}$	0.8402	$0.833^{+0.031}_{-0.028}$ (−1.6 σ)
$\Omega_c h^2$	0.1165	$0.1199^{+0.0085}_{-0.012}$ (+2.6 σ)	σ_8	0.7567	0.748 ± 0.028 (−3.8 σ)	$100\theta_{\text{s,eq}}$	0.4639	$0.460^{+0.016}_{-0.014}$ (−1.6 σ)
$100\theta_{\text{MC}}$	1.0535	$1.059^{+0.020}_{-0.023}$ (+4.1 σ)	S_8	0.7783	0.776 ± 0.015 (−0.3 σ)	$H(0.15)$	73.07	$73.5^{+1.3}_{-1.7}$ (+1.5 σ)
Σm_ν [eV]	0.626	$0.75^{+0.33}_{-0.46}$	$\sigma_8 \Omega_m^{0.5}$	0.4263	0.4252 ± 0.0081 (−0.3 σ)	$D_{\text{M}}(0.15)$	640.1	637^{+13}_{-11} (−1.2 σ)
$\ln(10^{10} A_s)$	3.231	3.208 ± 0.070 (+0.4 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5680	0.564 ± 0.013 (−2.1 σ)	$H(0.38)$	83.37	$84.1^{+1.9}_{-2.5}$ (+2.3 σ)
n_s	0.9644	0.963 ± 0.020 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9197	0.908 ± 0.038 (−4.2 σ)	$D_{\text{M}}(0.38)$	1525.1	1516^{+34}_{-30} (−1.6 σ)
b_{DES}^1	1.573	1.589 ± 0.096 (+1.5 σ)	$r_{\text{drag}} h$	100.16	99.98 ± 1.3 (−1.4 σ)	$H(0.51)$	90.20	$91.0^{+2.2}_{-3.0}$ (+2.6 σ)
b_{DES}^2	1.787	1.802 ± 0.082 (+2.1 σ)	$\langle d^2 \rangle^{1/2}$	2.5609	2.552 ± 0.044 (+0.7 σ)	$D_{\text{M}}(0.51)$	1974.8	1962^{+48}_{-41} (−1.7 σ)
b_{DES}^3	1.765	1.779 ± 0.073 (+2.2 σ)	z_{re}	7.832	$7.92^{+0.24}_{-0.31}$ (+2.7 σ)	$H(0.61)$	95.90	$96.9^{+2.5}_{-3.5}$ (+2.8 σ)
b_{DES}^4	2.129	2.143 ± 0.084 (+2.1 σ)	$10^9 A_s$	2.531	$2.48^{+0.16}_{-0.18}$ (+0.4 σ)	$D_{\text{M}}(0.61)$	2297	2281^{+58}_{-49} (−1.9 σ)
b_{DES}^5	2.198	2.21 ± 0.10 (+1.4 σ)	$10^9 A_s e^{-2\tau}$	2.267	$2.22^{+0.14}_{-0.16}$ (+0.4 σ)	$H(2.33)$	238.4	$241.8^{+9.1}_{-13}$ (+3.6 σ)
m_{DES}^1	0.0127	0.011 ± 0.023 (−0.0 σ)	D_{40}	1488	1450 ± 100 (−0.2 σ)	$D_{\text{M}}(2.33)$	5725	5672^{+200}_{-170} (−2.7 σ)
m_{DES}^2	0.0154	0.013 ± 0.022 (−0.0 σ)	D_{220}	7020	6800 ± 640 (−0.4 σ)	$f\sigma_8(0.15)$	0.4355	0.4335 ± 0.0078 (−0.0 σ)
m_{DES}^3	0.0044	0.004 ± 0.020 (−0.2 σ)	D_{810}	3072	2960 ± 270 (+0.3 σ)	$\sigma_8(0.15)$	0.6995	0.691 ± 0.028 (−3.9 σ)
m_{DES}^4	0.0081	0.008 ± 0.021 (−0.1 σ)	D_{1420}	981	932^{+100}_{-90} (+0.2 σ)	$f\sigma_8(0.38)$	0.4526	0.4492 ± 0.0091 (−1.1 σ)
$A_{\text{IA,DES}}$	0.417	$0.42^{+0.15}_{-0.18}$ (−0.2 σ)	D_{2000}	277.7	266^{+29}_{-26} (+0.2 σ)	$\sigma_8(0.38)$	0.6205	0.613 ± 0.027 (−4.0 σ)
$\alpha_{\text{IA,DES}}$	−2.11	$−0.8^{+1.9}_{-3.0}$ (−0.2 σ)	$n_{\text{s},0.002}$	0.9644	0.963 ± 0.020 (+0.2 σ)	$f\sigma_8(0.51)$	0.4511	$0.447^{+0.011}_{-0.0098}$ (−1.6 σ)
$\Delta z_{\text{l,DES}}^1$	0.0034	0.0039 ± 0.0075 (−0.0 σ)	Y_{P}	0.245334	$0.24532^{+0.00023}_{-0.00020}$ (+0.0 σ)	$\sigma_8(0.51)$	0.5811	0.574 ± 0.026 (−4.0 σ)
$\Delta z_{\text{l,DES}}^2$	0.0011	0.0012 ± 0.0066 (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246660	$0.24664^{+0.00023}_{-0.00020}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4464	$0.442^{+0.012}_{-0.011}$ (−1.9 σ)
$\Delta z_{\text{l,DES}}^3$	0.0037	0.0036 ± 0.0066 (−0.0 σ)	10^5D/H	2.614	2.619 ± 0.096 (−0.0 σ)	$\sigma_8(0.61)$	0.5532	0.546 ± 0.025 (−4.0 σ)
$\Delta z_{\text{l,DES}}^4$	0.0014	0.0014 ± 0.0091 (−0.0 σ)	Age/Gyr	13.705	$13.58^{+0.49}_{-0.41}$ (−2.7 σ)	$f\sigma_8(2.33)$	0.2857	$0.282^{+0.013}_{-0.010}$ (−2.9 σ)
$\Delta z_{\text{l,DES}}^5$	0.0000	0.0001 ± 0.0098 (+0.0 σ)	z_*	1089.95	$1090.3^{+1.0}_{-1.4}$ (+2.0 σ)	$\sigma_8(2.33)$	0.2903	0.286 ± 0.014 (−3.7 σ)
$\Delta z_{\text{s,DES}}^1$	−0.0013	$−0.004 \pm 0.014$ (−0.0 σ)	r_*	145.24	$144.3^{+3.4}_{-2.6}$ (−2.5 σ)	χ_{lensing}^2	8.22	9.7 ± 1.8 (+0.7 σ)
$\Delta z_{\text{s,DES}}^2$	−0.0289	$−0.030 \pm 0.011$ (−0.1 σ)	$100\theta_*$	1.0539	$1.060^{+0.020}_{-0.023}$ (+4.1 σ)	$\chi_{6\text{DF}}^2$	0.0018	0.070 ± 0.098 (−0.1 σ)
$\Delta z_{\text{s,DES}}^3$	0.0059	0.0064 ± 0.0097 (−0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.78	$13.63^{+0.61}_{-0.51}$ (−3.1 σ)	χ_{MGS}^2	1.61	1.64 ± 0.71 (−0.9 σ)
$\Delta z_{\text{s,DES}}^4$	−0.0242	$−0.024 \pm 0.018$ (−0.0 σ)	z_{drag}	1059.44	1059.7 ± 1.5 (+0.9 σ)	χ_{DR12BAO}^2	2.79	3.7 ± 1.4 (−1.0 σ)
H_0	67.69	$68.0^{+1.1}_{-1.3}$ (+0.9 σ)	r_{drag}	147.97	$147.0^{+3.6}_{-2.7}$ (−2.4 σ)	χ_{DES}^2	501.86	512.2 ± 4.5 (−0.1 σ)
Ω_Λ	0.6826	$0.676^{+0.028}_{-0.021}$ (−4.3 σ)	k_{D}	0.13997	$0.1410^{+0.0030}_{-0.0041}$ (+2.3 σ)	χ_{prior}^2	1.23	14.3 ± 5.2 (+0.1 σ)
Ω_{m}	0.3174	$0.324^{+0.021}_{-0.028}$ (+4.3 σ)	$100\theta_{\text{D}}$	0.16287	0.1636 ± 0.0028 (+3.7 σ)	χ_{BAO}^2	4.40	5.4 ± 1.8 (−1.4 σ)
$\Omega_{\text{m}} h^2$	0.1454	$0.150^{+0.011}_{-0.017}$ (+3.9 σ)	z_{eq}	3314	3395^{+210}_{-300} (+2.5 σ)			
$\Omega_\nu h^2$	0.00673	$0.0080^{+0.0035}_{-0.0050}$	k_{eq}	0.01012	$0.01038^{+0.00063}_{-0.00092}$ (+2.6 σ)			

Best-fit $\chi_{\text{eff}}^2 = 515.71$; $\Delta\chi_{\text{eff}}^2 = -2.18$; $\bar{\chi}_{\text{eff}}^2 = 541.63$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.01$; $R - 1 = 0.00588$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.61 (Δ -0.51) DR12BAO: 2.79 (Δ -1.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8_CMBmarged: 8.22 (Δ 0.49) WL
- DES_1YR_final: 501.86 (Δ -0.78)

6.138 base_mnu_DESlens_lenspriors_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022223	0.02222 ± 0.00050 (+0.0 σ)	$r_{\mathrm{drag}} h$	99.73	99.5 ± 1.5 (−1.4 σ)	$H(0.15)$	73.71	$74.2^{+1.5}_{-2.0}$ (+1.4 σ)
$\Omega_{\mathrm{c}} h^2$	0.1227	$0.127^{+0.010}_{-0.016}$ (+2.1 σ)	$\langle d^2 \rangle^{1/2}$	2.5286	2.527 ± 0.048 (+0.7 σ)	$D_{\mathrm{M}}(0.15)$	635.1	631^{+15}_{-12} (−1.1 σ)
$100\theta_{\mathrm{MC}}$	1.0604	$1.067^{+0.021}_{-0.028}$ (+3.4 σ)	z_{re}	7.942	$8.04^{+0.26}_{-0.38}$ (+2.4 σ)	$H(0.38)$	84.33	$85.1^{+2.1}_{-3.1}$ (+2.0 σ)
Σm_{ν} [eV]	0.609	$0.78^{+0.27}_{-0.66}$	$10^9 A_{\mathrm{s}}$	2.373	$2.34^{+0.17}_{-0.20}$ (+0.4 σ)	$D_{\mathrm{M}}(0.38)$	1511.3	1501^{+41}_{-33} (−1.4 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.167	3.150 ± 0.080 (+0.4 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	2.126	$2.10^{+0.15}_{-0.18}$ (+0.4 σ)	$H(0.51)$	91.35	$92.3^{+2.5}_{-3.8}$ (+2.2 σ)
n_{s}	0.9617	0.961 ± 0.020 (+0.2 σ)	D_{40}	1390	1361 ± 120 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1956	1941^{+58}_{-45} (−1.6 σ)
m_{DES}^1	0.0140	0.013 ± 0.023 (−0.0 σ)	D_{220}	6422	6266 ± 700 (−0.3 σ)	$H(0.61)$	97.22	$98.3^{+2.8}_{-4.3}$ (+2.4 σ)
m_{DES}^2	0.0131	0.012 ± 0.022 (−0.0 σ)	D_{810}	2845	2747^{+300}_{-300} (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2274	2256^{+70}_{-54} (−1.7 σ)
m_{DES}^3	−0.0034	$−0.005 \pm 0.021$ (−0.2 σ)	D_{1420}	905	857^{+100}_{-100} (−0.2 σ)	$H(2.33)$	243.1	247^{+10}_{-16} (+3.0 σ)
m_{DES}^4	0.0148	0.013 ± 0.021 (−0.1 σ)	D_{2000}	258.2	245^{+40}_{-30} (−0.1 σ)	$D_{\mathrm{M}}(2.33)$	5644	5586^{+250}_{-190} (−2.3 σ)
$A_{\mathrm{IA,DES}}$	1.32	1.06 ± 0.52 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9617	0.961 ± 0.020 (+0.2 σ)	$f\sigma_8(0.15)$	0.4452	0.4423 ± 0.0097 (−0.1 σ)
$\alpha_{\mathrm{IA,DES}}$	2.60	$1.73^{+3.2}_{-0.80}$ (−0.1 σ)	Y_{P}	0.245335	$0.24532^{+0.00023}_{-0.00020}$ (+0.0 σ)	$\sigma_8(0.15)$	0.7064	$0.696^{+0.036}_{-0.031}$ (−3.7 σ)
$\Delta z_{\mathrm{s,DES}}^1$	0.0039	0.003 ± 0.015 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246662	$0.24665^{+0.00023}_{-0.00020}$ (+0.0 σ)	$f\sigma_8(0.38)$	0.4605	$0.456^{+0.012}_{-0.010}$ (−1.0 σ)
$\Delta z_{\mathrm{s,DES}}^2$	−0.0197	$−0.020 \pm 0.012$ (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.614	2.617 ± 0.094 (−0.0 σ)	$\sigma_8(0.38)$	0.6258	$0.616^{+0.035}_{-0.029}$ (−3.9 σ)
$\Delta z_{\mathrm{s,DES}}^3$	0.0060	0.006 ± 0.010 (−0.1 σ)	Age/Gyr	13.51	$13.37^{+0.59}_{-0.45}$ (−2.3 σ)	$f\sigma_8(0.51)$	0.4581	$0.453^{+0.014}_{-0.011}$ (−1.5 σ)
$\Delta z_{\mathrm{s,DES}}^4$	−0.0197	$−0.020 \pm 0.020$ (−0.1 σ)	z_*	1090.48	$1090.9^{+1.1}_{-1.7}$ (+1.8 σ)	$\sigma_8(0.51)$	0.5856	$0.576^{+0.034}_{-0.027}$ (−3.9 σ)
H_0	68.15	$68.5^{+1.2}_{-1.5}$ (+0.9 σ)	r_*	143.65	$142.6^{+4.2}_{-3.0}$ (−2.1 σ)	$f\sigma_8(0.61)$	0.4526	$0.447^{+0.015}_{-0.012}$ (−1.8 σ)
Ω_{Λ}	0.6739	$0.666^{+0.035}_{-0.022}$ (−3.6 σ)	$100\theta_*$	1.0609	$1.068^{+0.021}_{-0.029}$ (+3.4 σ)	$\sigma_8(0.61)$	0.5572	$0.548^{+0.033}_{-0.026}$ (−3.9 σ)
Ω_{m}	0.3261	$0.334^{+0.022}_{-0.035}$ (+3.6 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.54	$13.38^{+0.72}_{-0.56}$ (−2.6 σ)	$f\sigma_8(2.33)$	0.2870	$0.282^{+0.016}_{-0.011}$ (−3.0 σ)
$\Omega_{\mathrm{m}} h^2$	0.1514	$0.157^{+0.013}_{-0.022}$ (+3.2 σ)	z_{drag}	1059.89	1060.2 ± 1.7 (+1.0 σ)	$\sigma_8(2.33)$	0.2915	$0.286^{+0.019}_{-0.014}$ (−3.7 σ)
$\Omega_{\nu} h^2$	0.0065	$0.0084^{+0.0030}_{-0.0071}$	r_{drag}	146.34	$145.3^{+4.3}_{-3.1}$ (−2.0 σ)	$\chi^2_{\mathrm{lensing}}$	7.57	9.3 ± 1.7 (+0.2 σ)
$\Omega_{\mathrm{m}} h^3$	0.1032	$0.1079^{+0.0096}_{-0.017}$ (+2.9 σ)	k_{D}	0.14168	$0.1429^{+0.0034}_{-0.0050}$ (+2.1 σ)	$\chi^2_{6\mathrm{DF}}$	0.0139	0.09 ± 0.13 (+0.5 σ)
σ_8	0.7651	$0.755^{+0.037}_{-0.032}$ (−3.5 σ)	$100\theta_{\mathrm{D}}$	0.16375	$0.1646^{+0.0028}_{-0.0037}$ (+3.1 σ)	χ^2_{MGS}	1.41	1.45 ± 0.71 (−0.9 σ)
S_8	0.7977	0.794 ± 0.019 (−0.2 σ)	z_{eq}	3463	3555^{+240}_{-380} (+2.1 σ)	$\chi^2_{\mathrm{DR12BAO}}$	2.58	3.5 ± 1.4 (−0.8 σ)
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4369	0.435 ± 0.010 (−0.2 σ)	k_{eq}	0.01058	$0.01087^{+0.00074}_{-0.0012}$ (+2.1 σ)	χ^2_{DES}	229.15	232.7 ± 2.5 (+0.3 σ)
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.5782	0.573 ± 0.016 (−1.8 σ)	$100\theta_{\mathrm{eq}}$	0.8185	$0.812^{+0.036}_{-0.032}$ (−1.3 σ)	χ^2_{prior}	0.66	9.6 ± 4.3 (+0.1 σ)
$\sigma_8/h^{0.5}$	0.9268	$0.912^{+0.051}_{-0.041}$ (−4.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.4527	$0.449^{+0.019}_{-0.016}$ (−1.3 σ)	χ^2_{BAO}	4.00	5.1 ± 1.7 (−1.1 σ)

Best-fit $\chi^2_{\mathrm{eff}} = 241.37$; $\Delta\chi^2_{\mathrm{eff}} = -1.37$; $\bar{\chi}^2_{\mathrm{eff}} = 256.69$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = -0.42$; $R - 1 = 0.00980$
 χ^2_{eff} : BAO - 6DF: 0.01 (Δ 0.01) MGS: 1.41 (Δ -0.48) DR12BAO: 2.58 (Δ -1.13) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.57 (Δ -0.14) WL
- DES_1YR_final: 229.15 (Δ 0.20)

6.139 base_mnu_DES_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2575	$0.281^{+0.027}_{-0.039}$ (+0.9 σ)	m_{DES}^3	0.0072	0.009 ± 0.021 (+0.0 σ)	$\Omega_{\text{b}} h^2$	0.0540	$0.0295^{+0.0081}_{-0.015}$ (+0.0 σ)
Ω_{b}	0.0654	$0.0510^{+0.015}_{-0.0094}$ (−0.0 σ)	m_{DES}^4	0.0099	0.011 ± 0.021 (+0.0 σ)	$\Omega_{\text{c}} h^2$	0.1490	$0.121^{+0.022}_{-0.026}$ (+0.4 σ)
H_0	90.8	75^{+10}_{-8} (+0.0 σ)	$A_{\text{IA,DES}}$	0.506	$0.46^{+0.17}_{-0.21}$ (−0.2 σ)	Ω_{Λ}	0.7425	$0.719^{+0.039}_{-0.027}$ (−0.9 σ)
Σm_{ν} [eV]	0.877	—	$\alpha_{\text{IA,DES}}$	−1.32	$-0.4^{+2.2}_{-2.8}$ (−0.1 σ)	$\Omega_{\nu} h^2$	0.00943	$0.0057^{+0.0042}_{-0.0028}$
$10^9 A_{\text{s}}$	2.88	$2.81^{+0.45}_{-0.68}$ (−0.1 σ)	$\Delta z_{\text{l,DES}}^1$	0.0039	0.0043 ± 0.0075 (−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	3.362	3.32 ± 0.21 (−0.1 σ)
n_{s}	1.069	> 0.964 (+0.1 σ)	$\Delta z_{\text{l,DES}}^2$	0.0019	0.0018 ± 0.0066 (−0.0 σ)	σ_8	0.863	0.812 ± 0.065 (−0.8 σ)
b_{DES}^1	1.388	$1.46^{+0.12}_{-0.16}$ (+0.8 σ)	$\Delta z_{\text{l,DES}}^3$	0.0046	0.0042 ± 0.0065 (−0.0 σ)	S_8	0.8001	0.780 ± 0.025 (−0.5 σ)
b_{DES}^2	1.591	$1.67^{+0.12}_{-0.16}$ (+0.8 σ)	$\Delta z_{\text{l,DES}}^4$	0.0029	0.0023 ± 0.0091 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4382	0.427 ± 0.013 (−0.5 σ)
b_{DES}^3	1.580	$1.66^{+0.12}_{-0.15}$ (+0.8 σ)	$\Delta z_{\text{l,DES}}^5$	0.0010	0.0006 ± 0.0098 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6151	0.589 ± 0.031 (−0.8 σ)
b_{DES}^4	1.907	$2.00^{+0.14}_{-0.18}$ (+0.8 σ)	$\Delta z_{\text{s,DES}}^1$	−0.0013	-0.004 ± 0.014 (−0.0 σ)	χ_{DES}^2	498.18	511.6 ± 5.0 (+0.0 σ)
b_{DES}^5	1.969	$2.06^{+0.16}_{-0.20}$ (+0.7 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0292	-0.030 ± 0.011 (−0.0 σ)	χ_{prior}^2	1.30	12.2 ± 4.8 (−0.0 σ)
m_{DES}^1	0.0133	0.012 ± 0.023 (+0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0064	0.0072 ± 0.0098 (+0.1 σ)			
m_{DES}^2	0.0148	0.014 ± 0.022 (−0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0261	-0.023 ± 0.019 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 499.47$; $\Delta\chi_{\text{eff}}^2 = -0.45$; $\bar{\chi}_{\text{eff}}^2 = 523.87$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.12$; $R - 1 = 0.00686$
 χ_{eff}^2 : WL - DES_1YR_final: 498.18 (Δ -0.46)

6.140 base_mnu_DESlens_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.255	$0.306^{+0.042}_{-0.087}$ (+0.4 σ)	m_{DES}^4	0.0174	0.017 ± 0.021 (+0.0 σ)	Ω_{Λ}	0.745	$0.694^{+0.087}_{-0.042}$ (−0.4 σ)
Ω_{b}	0.0374	< 0.0544 (+0.0 σ)	$A_{\text{IA,DES}}$	1.36	$0.78^{+0.74}_{-0.60}$ (+0.0 σ)	$\Omega_{\nu} h^2$	0.00144	$0.0054^{+0.0028}_{-0.0045}$
H_0	73.6	74^{+20}_{-6} (+0.1 σ)	$\alpha_{\text{IA,DES}}$	3.51	> 1.01 (−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	3.196	$3.11^{+0.58}_{-0.34}$ (−0.1 σ)
Σm_{ν} [eV]	0.134	—	$\Delta z_{\text{s,DES}}^1$	0.0029	0.002 ± 0.015 (−0.0 σ)	σ_8	0.878	0.79 ± 0.10 (−0.4 σ)
$10^9 A_{\text{s}}$	2.44	$2.47^{+0.76}_{-1.4}$ (−0.1 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0192	-0.020 ± 0.012 (−0.0 σ)	S_8	0.8098	$0.780^{+0.033}_{-0.027}$ (−0.3 σ)
n_{s}	0.969	> 0.947 (+0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0079	0.008 ± 0.011 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4436	$0.427^{+0.018}_{-0.015}$ (−0.3 σ)
m_{DES}^1	0.0149	0.013 ± 0.023 (−0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0167	-0.016 ± 0.021 (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6241	$0.580^{+0.050}_{-0.043}$ (−0.4 σ)
m_{DES}^2	0.0139	0.013 ± 0.022 (+0.0 σ)	$\Omega_{\text{b}} h^2$	0.0203	$0.0270^{+0.0064}_{-0.012}$ (+0.0 σ)	χ_{DES}^2	228.70	233.4 ± 2.8 (+0.0 σ)
m_{DES}^3	0.0021	0.003 ± 0.021 (−0.0 σ)	$\Omega_{\text{c}} h^2$	0.1167	$0.133^{+0.022}_{-0.040}$ (+0.3 σ)	χ_{prior}^2	0.34	7.5 ± 3.7 (+0.0 σ)

Best-fit $\chi_{\text{eff}}^2 = 229.04$; $\Delta\chi_{\text{eff}}^2 = 0.00$; $\bar{\chi}_{\text{eff}}^2 = 240.82$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.09$; $R - 1 = 0.00860$
 χ_{eff}^2 : WL - DES_1YR_final: 228.71 (Δ -0.04)

6.141 base_mnu_DESwt_DESpriors

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3123	$0.315^{+0.038}_{-0.057}$ (+1.2 σ)	m_{DES}^3	0.0194	0.022 ± 0.022 (+0.0 σ)	$\Omega_{\text{b}} h^2$	0.0380	$0.0254^{+0.0057}_{-0.013}$ (−0.1 σ)
Ω_{b}	0.0580	$0.0514^{+0.015}_{-0.0087}$ (−0.0 σ)	m_{DES}^4	0.0059	0.008 ± 0.022 (+0.0 σ)	$\Omega_{\text{c}} h^2$	0.1563	$0.117^{+0.016}_{-0.026}$ (+0.4 σ)
H_0	80.9	< 73.6 (−0.1 σ)	$A_{\text{IA,DES}}$	0.323	$0.39^{+0.15}_{-0.19}$ (−0.2 σ)	Ω_{Λ}	0.6877	$0.685^{+0.057}_{-0.038}$ (−1.2 σ)
Σm_{ν} [eV]	0.936	> 0.478	$\alpha_{\text{IA,DES}}$	−3.51	$-0.8^{+1.8}_{-3.5}$ (−0.1 σ)	$\Omega_{\nu} h^2$	0.01007	$0.0065^{+0.0041}_{-0.0015}$
$10^9 A_{\text{s}}$	2.23	$2.70^{+0.43}_{-0.72}$ (−0.1 σ)	$\Delta z_{\text{l,DES}}^1$	0.0024	0.0034 ± 0.0077 (−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	3.106	3.27 ± 0.22 (−0.1 σ)
n_{s}	0.898	—	$\Delta z_{\text{l,DES}}^2$	0.0017	0.0020 ± 0.0067 (−0.0 σ)	σ_8	0.766	$0.760^{+0.072}_{-0.082}$ (−0.9 σ)
b_{DES}^1	1.495	$1.53^{+0.15}_{-0.19}$ (+0.9 σ)	$\Delta z_{\text{l,DES}}^3$	0.0050	0.0048 ± 0.0067 (−0.0 σ)	S_8	0.7813	0.771 ± 0.035 (−0.4 σ)
b_{DES}^2	1.739	$1.78^{+0.16}_{-0.20}$ (+1.0 σ)	$\Delta z_{\text{l,DES}}^4$	0.0036	0.0027 ± 0.0092 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4279	0.423 ± 0.019 (−0.4 σ)
b_{DES}^3	1.720	$1.76^{+0.16}_{-0.20}$ (+1.0 σ)	$\Delta z_{\text{l,DES}}^5$	0.0008	0.0003 ± 0.0098 (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5724	0.566 ± 0.038 (−0.8 σ)
b_{DES}^4	2.073	$2.12^{+0.19}_{-0.23}$ (+1.0 σ)	$\Delta z_{\text{s,DES}}^1$	0.0005	-0.004 ± 0.015 (−0.0 σ)	χ_{DES}^2	249.29	260.8 ± 4.9 (−0.1 σ)
b_{DES}^5	2.127	$2.17^{+0.20}_{-0.25}$ (+0.9 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0305	-0.031 ± 0.011 (−0.0 σ)	χ_{prior}^2	1.46	13.0 ± 5.0 (−0.0 σ)
m_{DES}^1	0.0127	0.011 ± 0.023 (−0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0067	0.0084 ± 0.0099 (+0.0 σ)			
m_{DES}^2	0.0096	0.009 ± 0.023 (−0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0244	-0.022 ± 0.019 (+0.1 σ)			

Best-fit $\chi^2_{\text{eff}} = 250.75$; $\Delta\chi^2_{\text{eff}} = -0.43$; $\bar{\chi}^2_{\text{eff}} = 273.76$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.49$; $R - 1 = 0.00693$
 χ^2_{eff} : WL - DES_1YR_final: 249.28 (Δ -0.33)

6.142 base_mnu_DES_DESpriors_lensing

Parameter	Best fit	68% limits		Parameter	Best fit	68% limits		Parameter	Best fit	68% limits	
Ω_{m}	0.2777	$0.284^{+0.021}_{-0.027}$	(+0.7 σ)	m_{DES}^3	0.0114	0.011 ± 0.021	(−0.1 σ)	$\Omega_{\text{b}}h^2$	0.0440	$0.0303^{+0.0093}_{-0.015}$	(+0.1 σ)
Ω_{b}	0.0621	$0.0513^{+0.014}_{-0.0094}$	(−0.1 σ)	m_{DES}^4	0.0128	0.013 ± 0.021	(−0.1 σ)	$\Omega_{\text{c}}h^2$	0.1422	0.126 ± 0.023	(+0.5 σ)
H_0	84.2	75^{+10}_{-8}	(+0.3 σ)	$A_{\text{IA,DES}}$	0.471	$0.45^{+0.17}_{-0.20}$	(−0.1 σ)	Ω_{Λ}	0.7223	$0.716^{+0.027}_{-0.021}$	(−0.7 σ)
Σm_{ν} [eV]	0.999	$0.57^{+0.42}_{-0.15}$		$\alpha_{\text{IA,DES}}$	−1.24	$−0.3^{+2.3}_{-2.8}$	(−0.1 σ)	$\Omega_{\nu}h^2$	0.01074	$0.0061^{+0.0041}_{-0.0019}$	
$10^9 A_{\text{s}}$	2.678	$2.60^{+0.36}_{-0.47}$	(+0.2 σ)	$\Delta z_{\text{l,DES}}^1$	0.0038	0.0043 ± 0.0075	(−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	3.288	3.24 ± 0.16	(+0.2 σ)
n_{s}	1.0699	> 0.973	(+0.2 σ)	$\Delta z_{\text{l,DES}}^2$	0.0018	0.0017 ± 0.0066	(−0.0 σ)	σ_8	0.8119	0.798 ± 0.034	(−0.8 σ)
b_{DES}^1	1.479	1.487 ± 0.098	(+0.6 σ)	$\Delta z_{\text{l,DES}}^3$	0.0040	0.0040 ± 0.0066	(−0.0 σ)	S_8	0.7811	0.774 ± 0.015	(−0.2 σ)
b_{DES}^2	1.693	$1.701^{+0.079}_{-0.088}$	(+0.7 σ)	$\Delta z_{\text{l,DES}}^4$	0.0021	0.0022 ± 0.0090	(+0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4278	0.4241 ± 0.0083	(−0.2 σ)
b_{DES}^3	1.681	1.687 ± 0.076	(+0.8 σ)	$\Delta z_{\text{l,DES}}^5$	0.0004	0.0004 ± 0.0099	(−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5894	0.582 ± 0.015	(−0.7 σ)
b_{DES}^4	2.029	2.036 ± 0.088	(+0.7 σ)	$\Delta z_{\text{s,DES}}^1$	−0.0016	$−0.004 \pm 0.014$	(−0.0 σ)	χ^2_{lensing}	7.44	9.0 ± 1.6	(−0.0 σ)
b_{DES}^5	2.105	2.11 ± 0.10	(+0.6 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0288	$−0.029 \pm 0.011$	(−0.0 σ)	χ^2_{DES}	499.50	511.3 ± 4.5	(−0.2 σ)
m_{DES}^1	0.0140	0.012 ± 0.023	(+0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0077	0.0077 ± 0.0097	(−0.0 σ)	χ^2_{prior}	0.98	12.0 ± 4.7	(−0.0 σ)
m_{DES}^2	0.0155	0.014 ± 0.022	(−0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0223	$−0.022 \pm 0.018$	(−0.0 σ)				

Best-fit $\chi^2_{\text{eff}} = 507.92$; $\Delta\chi^2_{\text{eff}} = -2.08$; $\bar{\chi}^2_{\text{eff}} = 532.21$; $\Delta\bar{\chi}^2_{\text{eff}} = -1.19$; $R - 1 = 0.00935$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8_CMBmarged: 7.44 (Δ -0.32) WL - DES_1YR_final: 499.50 (Δ -1.75)

6.143 base_mnu_DESlens_DESpriors_lensing

Parameter	Best fit	68% limits		Parameter	Best fit	68% limits		Parameter	Best fit	68% limits	
Ω_{m}	0.2908	$0.289^{+0.029}_{-0.033}$	(+0.4 σ)	$A_{\text{IA,DES}}$	1.30	0.82 ± 0.73	(+0.1 σ)	$\ln(10^{10} A_{\text{s}})$	3.381	3.20 ± 0.17	(+0.2 σ)
Ω_{b}	0.0565	$0.0488^{+0.0079}_{-0.017}$	(−0.1 σ)	$\alpha_{\text{IA,DES}}$	3.15	> 1.02	(−0.0 σ)	σ_8	0.8088	0.803 ± 0.038	(−0.6 σ)
H_0	71.1	74^{+10}_{-9}	(+0.2 σ)	$\Delta z_{\text{s,DES}}^1$	0.0027	0.002 ± 0.015	(+0.0 σ)	S_8	0.7963	$0.786^{+0.023}_{-0.019}$	(−0.2 σ)
Σm_{ν} [eV]	0.575	—		$\Delta z_{\text{s,DES}}^2$	−0.0196	$−0.020 \pm 0.012$	(−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4362	$0.430^{+0.013}_{-0.011}$	(−0.2 σ)
$10^9 A_{\text{s}}$	2.941	$2.49^{+0.35}_{-0.50}$	(+0.2 σ)	$\Delta z_{\text{s,DES}}^3$	0.0082	0.008 ± 0.011	(−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.5939	0.588 ± 0.017	(−0.6 σ)
n_{s}	1.069	> 0.957	(+0.1 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0165	$−0.016 \pm 0.021$	(+0.0 σ)	χ^2_{lensing}	7.09	9.1 ± 1.6	(−0.1 σ)
m_{DES}^1	0.0147	0.014 ± 0.023	(+0.0 σ)	$\Omega_{\text{b}}h^2$	0.0286	$0.0277^{+0.0071}_{-0.013}$	(+0.1 σ)	χ^2_{DES}	228.81	232.4 ± 2.4	(−0.1 σ)
m_{DES}^2	0.0137	0.013 ± 0.022	(−0.0 σ)	$\Omega_{\text{c}}h^2$	0.1124	$0.127^{+0.022}_{-0.028}$	(+0.4 σ)	χ^2_{prior}	0.35	7.4 ± 3.7	(+0.0 σ)
m_{DES}^3	0.0018	0.003 ± 0.021	(−0.1 σ)	Ω_{Λ}	0.7092	$0.711^{+0.033}_{-0.029}$	(−0.4 σ)				
m_{DES}^4	0.0181	0.017 ± 0.021	(−0.0 σ)	$\Omega_{\nu}h^2$	0.00618	$0.0054^{+0.0021}_{-0.0043}$					

Best-fit $\chi^2_{\text{eff}} = 236.25$; $\Delta\chi^2_{\text{eff}} = -0.37$; $\bar{\chi}^2_{\text{eff}} = 248.87$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.37$; $R - 1 = 0.00676$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8_CMBmarged: 7.09 (Δ -0.28) WL - DES_1YR_final: 228.81 (Δ -0.08)

6.144 base_mnu_DESwt_DESpriors_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.2905	$0.301^{+0.026}_{-0.040}$ $(+0.8\sigma)$	m_{DES}^3	0.0216	0.022 ± 0.021 (-0.1σ)	$\Omega_{\text{b}} h^2$	0.0352	$0.0274^{+0.0074}_{-0.015}$ (-0.0σ)
Ω_{b}	0.0578	$0.0508^{+0.015}_{-0.0096}$ (-0.1σ)	m_{DES}^4	0.0075	0.007 ± 0.022 (-0.1σ)	$\Omega_{\text{c}} h^2$	0.1311	$0.122^{+0.020}_{-0.028}$ $(+0.4\sigma)$
H_0	78.1	72^{+9}_{-10} $(+0.1\sigma)$	$A_{\text{IA,DES}}$	0.382	$0.41^{+0.15}_{-0.20}$ (-0.1σ)	Ω_{Λ}	0.7095	$0.699^{+0.040}_{-0.026}$ (-0.8σ)
Σm_{ν} [eV]	0.999	> 0.437	$\alpha_{\text{IA,DES}}$	-2.61	$-0.7^{+1.9}_{-3.5}$ (-0.1σ)	$\Omega_{\nu} h^2$	0.01074	$0.0062^{+0.0042}_{-0.0019}$
$10^9 A_{\text{s}}$	2.777	$2.58^{+0.32}_{-0.54}$ $(+0.3\sigma)$	$\Delta z_{\text{l,DES}}^1$	0.0026	0.0034 ± 0.0077 $(+0.0\sigma)$	$\ln(10^{10} A_{\text{s}})$	3.324	$3.24^{+0.16}_{-0.18}$ $(+0.3\sigma)$
n_{s}	1.057	> 0.949 $(+0.2\sigma)$	$\Delta z_{\text{l,DES}}^2$	0.0016	0.0019 ± 0.0067 $(+0.0\sigma)$	σ_8	0.7922	0.776 ± 0.039 (-0.8σ)
b_{DES}^1	1.478	$1.49^{+0.10}_{-0.11}$ $(+0.7\sigma)$	$\Delta z_{\text{l,DES}}^3$	0.0045	0.0047 ± 0.0066 $(+0.0\sigma)$	S_8	0.7795	0.774 ± 0.019 $(+0.1\sigma)$
b_{DES}^2	1.721	$1.740^{+0.087}_{-0.11}$ $(+0.8\sigma)$	$\Delta z_{\text{l,DES}}^4$	0.0029	0.0026 ± 0.0091 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4270	0.424 ± 0.011 $(+0.1\sigma)$
b_{DES}^3	1.712	$1.727^{+0.081}_{-0.095}$ $(+0.9\sigma)$	$\Delta z_{\text{l,DES}}^5$	0.0005	0.0003 ± 0.0098 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5816	0.573 ± 0.016 (-0.7σ)
b_{DES}^4	2.066	$2.084^{+0.092}_{-0.11}$ $(+0.9\sigma)$	$\Delta z_{\text{s,DES}}^1$	-0.0001	-0.004 ± 0.015 (-0.0σ)	χ_{lensing}^2	7.47	9.4 ± 1.8 $(+0.1\sigma)$
b_{DES}^5	2.135	2.15 ± 0.11 $(+0.7\sigma)$	$\Delta z_{\text{s,DES}}^2$	-0.0301	-0.031 ± 0.011 (-0.0σ)	χ_{DES}^2	250.04	260.4 ± 4.6 (-0.2σ)
m_{DES}^1	0.0120	0.011 ± 0.023 (-0.0σ)	$\Delta z_{\text{s,DES}}^3$	0.0081	0.0084 ± 0.0098 (-0.1σ)	χ_{prior}^2	1.33	12.8 ± 4.9 $(+0.0\sigma)$
m_{DES}^2	0.0103	0.009 ± 0.023 (-0.0σ)	$\Delta z_{\text{s,DES}}^4$	-0.0237	-0.022 ± 0.019 (-0.0σ)			

Best-fit $\chi_{\text{eff}}^2 = 258.84$; $\Delta\chi_{\text{eff}}^2 = -1.56$; $\bar{\chi}_{\text{eff}}^2 = 282.60$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.77$; $R - 1 = 0.00944$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.47 (Δ -0.40) WL - DES_1YR_final: 250.04 (Δ -1.20)

6.145 base_mnu_DES_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3153	0.315 ± 0.021 $(+1.9\sigma)$	m_{DES}^4	0.0098	0.011 ± 0.021 $(+0.0\sigma)$	Ω_{Λ}	0.6847	0.685 ± 0.021 (-1.9σ)
Ω_{b}	0.04988	0.0490 ± 0.0019 (-0.4σ)	$A_{\text{IA,DES}}$	0.423	$0.42^{+0.16}_{-0.19}$ (-0.2σ)	$\Omega_{\nu} h^2$	0.01061	$0.0071^{+0.0036}_{-0.0012}$
H_0	66.80	$67.4^{+1.2}_{-1.4}$ $(+0.4\sigma)$	$\alpha_{\text{IA,DES}}$	-1.89	$-0.6^{+2.1}_{-2.9}$ (-0.1σ)	$\ln(10^{10} A_{\text{s}})$	3.464	3.26 ± 0.19 $(+0.1\sigma)$
Σm_{ν} [eV]	0.987	> 0.561	$\Delta z_{\text{l,DES}}^1$	0.0037	0.0040 ± 0.0074 (-0.0σ)	σ_8	0.7587	$0.751^{+0.033}_{-0.040}$ (-1.4σ)
$10^9 A_{\text{s}}$	3.194	$2.65^{+0.40}_{-0.57}$ $(+0.1\sigma)$	$\Delta z_{\text{l,DES}}^2$	0.0014	0.0015 ± 0.0066 (-0.0σ)	S_8	0.7777	0.768 ± 0.022 (-0.6σ)
n_{s}	1.070	> 0.951 $(+0.4\sigma)$	$\Delta z_{\text{l,DES}}^3$	0.0038	0.0038 ± 0.0066 (-0.0σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4260	0.421 ± 0.012 (-0.6σ)
b_{DES}^1	1.578	1.58 ± 0.11 $(+1.2\sigma)$	$\Delta z_{\text{l,DES}}^4$	0.0016	0.0015 ± 0.0092 (-0.0σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5685	0.562 ± 0.021 (-1.2σ)
b_{DES}^2	1.797	1.80 ± 0.10 $(+1.4\sigma)$	$\Delta z_{\text{l,DES}}^5$	0.0000	0.0002 ± 0.0098 $(+0.0\sigma)$	$\chi_{6\text{DF}}^2$	0.0017	0.064 ± 0.089 (-0.2σ)
b_{DES}^3	1.773	1.778 ± 0.099 $(+1.4\sigma)$	$\Delta z_{\text{s,DES}}^1$	-0.0018	-0.004 ± 0.014 (-0.0σ)	χ_{MGS}^2	1.61	1.69 ± 0.71 (-0.8σ)
b_{DES}^4	2.134	2.14 ± 0.12 $(+1.3\sigma)$	$\Delta z_{\text{s,DES}}^2$	-0.0289	-0.030 ± 0.011 $(+0.0\sigma)$	χ_{DR12BAO}^2	2.90	4.0 ± 1.5 (-0.9σ)
b_{DES}^5	2.198	2.21 ± 0.14 $(+1.1\sigma)$	$\Delta z_{\text{s,DES}}^3$	0.0064	0.0073 ± 0.0099 $(+0.0\sigma)$	χ_{DES}^2	500.53	512.5 ± 4.8 (-0.0σ)
m_{DES}^1	0.0133	0.011 ± 0.023 (-0.0σ)	$\Delta z_{\text{s,DES}}^4$	-0.0234	-0.021 ± 0.019 $(+0.1\sigma)$	χ_{prior}^2	1.10	13.1 ± 5.0 (-0.0σ)
m_{DES}^2	0.0152	0.014 ± 0.022 (-0.0σ)	$\Omega_{\text{b}} h^2$	0.02226	0.02220 ± 0.00050 (-0.0σ)	χ_{BAO}^2	4.51	5.7 ± 1.7 (-1.1σ)
m_{DES}^3	0.0062	0.008 ± 0.021 (-0.0σ)	$\Omega_{\text{c}} h^2$	0.1078	$0.114^{+0.010}_{-0.013}$ $(+0.9\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 506.14$; $\Delta\chi_{\text{eff}}^2 = -3.36$; $\bar{\chi}_{\text{eff}}^2 = 531.37$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.40$; $R - 1 = 0.00865$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.61 (Δ -0.43) DR12BAO: 2.90 (Δ -0.93) WL - DES_1YR_final: 500.53 (Δ -1.92)

6.146 base_mnu_DESlens_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3535	$0.347^{+0.033}_{-0.040}$ (+0.5 σ)	$\alpha_{\text{IA,DES}}$	2.62	> 0.967 (−0.0 σ)	S_8	0.7856	$0.776^{+0.028}_{-0.024}$ (−0.4 σ)
Ω_b	0.04591	0.0462 ± 0.0031 (+0.1 σ)	$\Delta z_{\text{s,DES}}^1$	0.0034	0.002 ± 0.015 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4303	$0.425^{+0.015}_{-0.013}$ (−0.4 σ)
H_0	69.53	$69.5^{+2.0}_{-2.6}$ (−0.1 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0207	$−0.020 \pm 0.012$ (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5580	$0.554^{+0.027}_{-0.024}$ (−0.5 σ)
Σm_ν [eV]	0.739	—	$\Delta z_{\text{s,DES}}^3$	0.0074	0.008 ± 0.011 (+0.0 σ)	$\chi_{6\text{DF}}^2$	0.091	0.17 ± 0.23 (+0.3 σ)
$10^9 A_{\text{s}}$	1.79	$1.86^{+0.42}_{-0.89}$ (+0.3 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0163	$−0.016 \pm 0.021$ (+0.0 σ)	χ_{MGS}^2	0.98	1.19 ± 0.74 (−0.3 σ)
n_{s}	0.987	—	$\Omega_{\text{b}} h^2$	0.022197	0.02221 ± 0.00049 (+0.0 σ)	χ_{DR12BAO}^2	2.12	3.6 ± 1.6 (−0.2 σ)
m_{DES}^1	0.0138	0.014 ± 0.023 (−0.0 σ)	$\Omega_{\text{c}} h^2$	0.1408	$0.140^{+0.021}_{-0.032}$ (+0.1 σ)	χ_{DES}^2	228.96	233.2 ± 2.7 (−0.0 σ)
m_{DES}^2	0.0136	0.013 ± 0.022 (+0.0 σ)	Ω_{Λ}	0.6465	$0.653^{+0.040}_{-0.033}$ (−0.5 σ)	χ_{prior}^2	0.46	8.5 ± 4.0 (−0.0 σ)
m_{DES}^3	0.0004	0.001 ± 0.022 (−0.0 σ)	$\Omega_{\nu} h^2$	0.00795	$0.0061^{+0.0043}_{-0.0019}$	χ_{BAO}^2	3.19	4.9 ± 1.8 (−0.3 σ)
m_{DES}^4	0.0184	0.018 ± 0.021 (−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	2.882	2.85 ± 0.39 (+0.3 σ)			
$A_{\text{IA,DES}}$	1.29	0.94 ± 0.67 (−0.1 σ)	σ_8	0.7237	0.724 ± 0.050 (−0.5 σ)			

Best-fit $\chi_{\text{eff}}^2 = 232.61$; $\Delta\chi_{\text{eff}}^2 = -0.61$; $\bar{\chi}_{\text{eff}}^2 = 246.55$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.64$; $R - 1 = 0.00549$

χ_{eff}^2 : BAO - 6DF: 0.09 (Δ 0.03) MGS: 0.98 (Δ -0.11) DR12BAO: 2.12 (Δ -0.08) WL - DES_1YR_final: 228.96 (Δ -0.46)

6.147 base_mnu_DESwt_DESpriors_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3535	$0.322^{+0.022}_{-0.019}$ (+2.2 σ)	m_{DES}^4	0.0054	0.007 ± 0.022 (+0.0 σ)	Ω_{Λ}	0.6465	$0.678^{+0.019}_{-0.022}$ (−2.2 σ)
Ω_b	0.04657	0.0486 ± 0.0018 (−0.5 σ)	$A_{\text{IA,DES}}$	0.280	$0.38^{+0.15}_{-0.18}$ (−0.2 σ)	$\Omega_{\nu} h^2$	0.01074	$0.00761^{+0.0031}_{-0.00092}$
H_0	69.06	67.6 ± 1.3 (+0.5 σ)	$\alpha_{\text{IA,DES}}$	−4.10	$−0.8^{+1.7}_{-3.6}$ (−0.1 σ)	$\ln(10^{10} A_{\text{s}})$	3.097	3.23 ± 0.20 (+0.2 σ)
Σm_ν [eV]	0.999	> 0.633	$\Delta z_{\text{l,DES}}^1$	0.0026	0.0033 ± 0.0077 (−0.0 σ)	σ_8	0.7123	$0.742^{+0.041}_{-0.046}$ (−1.2 σ)
$10^9 A_{\text{s}}$	2.212	$2.57^{+0.39}_{-0.59}$ (+0.2 σ)	$\Delta z_{\text{l,DES}}^2$	0.0018	0.0021 ± 0.0067 (+0.0 σ)	S_8	0.7732	0.768 ± 0.034 (−0.3 σ)
n_{s}	0.878	< 0.980 (+0.4 σ)	$\Delta z_{\text{l,DES}}^3$	0.0046	0.0046 ± 0.0067 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4235	0.420 ± 0.018 (−0.3 σ)
b_{DES}^1	1.599	1.55 ± 0.12 (+1.0 σ)	$\Delta z_{\text{l,DES}}^4$	0.0032	0.0027 ± 0.0091 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5492	0.559 ± 0.028 (−0.8 σ)
b_{DES}^2	1.855	$1.80^{+0.11}_{-0.12}$ (+1.2 σ)	$\Delta z_{\text{l,DES}}^5$	0.0007	0.0004 ± 0.0098 (+0.0 σ)	$\chi_{6\text{DF}}^2$	0.0894	0.08 ± 0.11 (+0.0 σ)
b_{DES}^3	1.830	1.79 ± 0.11 (+1.1 σ)	$\Delta z_{\text{s,DES}}^1$	0.0014	$−0.004 \pm 0.015$ (−0.0 σ)	χ_{MGS}^2	0.98	1.51 ± 0.70 (−0.9 σ)
b_{DES}^4	2.200	2.15 ± 0.14 (+1.1 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0304	$−0.031 \pm 0.011$ (+0.0 σ)	χ_{DR12BAO}^2	2.11	3.8 ± 1.6 (−0.8 σ)
b_{DES}^5	2.253	$2.21^{+0.14}_{-0.16}$ (+0.9 σ)	$\Delta z_{\text{s,DES}}^3$	0.0070	0.0085 ± 0.0099 (+0.1 σ)	χ_{DES}^2	249.66	260.3 ± 4.8 (−0.2 σ)
m_{DES}^1	0.0127	0.011 ± 0.023 (+0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0229	$−0.022 \pm 0.019$ (+0.1 σ)	χ_{prior}^2	1.37	13.9 ± 5.2 (−0.0 σ)
m_{DES}^2	0.0094	0.009 ± 0.023 (−0.0 σ)	$\Omega_{\text{b}} h^2$	0.02221	0.02218 ± 0.00051 (−0.0 σ)	χ_{BAO}^2	3.19	5.4 ± 1.8 (−1.1 σ)
m_{DES}^3	0.0188	0.021 ± 0.022 (−0.0 σ)	$\Omega_{\text{c}} h^2$	0.1356	0.117 ± 0.012 (+1.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 254.22$; $\Delta\chi_{\text{eff}}^2 = -3.06$; $\bar{\chi}_{\text{eff}}^2 = 279.70$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.98$; $R - 1 = 0.00628$

χ_{eff}^2 : BAO - 6DF: 0.09 (Δ 0.09) MGS: 0.98 (Δ -0.84) DR12BAO: 2.12 (Δ -1.51) WL - DES_1YR_final: 249.66 (Δ -0.79)

6.148 base_mnu_DES_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3165	0.310 ± 0.018 (+1.8 σ)	m_{DES}^4	0.0083	0.0095 ± 0.021 (−0.1 σ)	Ω_{Λ}	0.6835	0.690 ± 0.018 (−1.8 σ)
Ω_b	0.04959	0.0491 ± 0.0017 (−0.2 σ)	$A_{\text{IA,DES}}$	0.421	$0.43^{+0.15}_{-0.18}$ (−0.1 σ)	$\Omega_{\nu} h^2$	0.01038	$0.0067^{+0.0037}_{-0.0016}$
H_0	66.94	67.3 ± 1.2 (+0.2 σ)	$\alpha_{\text{IA,DES}}$	−2.11	$−0.7^{+2.0}_{-2.9}$ (−0.1 σ)	$\ln(10^{10} A_{\text{s}})$	3.439	$3.29^{+0.16}_{-0.10}$ (+0.7 σ)
Σm_{ν} [eV]	0.965	> 0.508	$\Delta z_{\text{l,DES}}^1$	0.0037	0.0041 ± 0.0075 (−0.0 σ)	σ_8	0.7621	$0.765^{+0.022}_{-0.027}$ (−1.6 σ)
$10^9 A_{\text{s}}$	3.115	$2.72^{+0.40}_{-0.33}$ (+0.7 σ)	$\Delta z_{\text{l,DES}}^2$	0.00099	0.0014 ± 0.0066 (−0.0 σ)	S_8	0.7829	0.777 ± 0.015 (−0.2 σ)
n_{s}	1.070	> 0.970 (+0.5 σ)	$\Delta z_{\text{l,DES}}^3$	0.0038	0.0038 ± 0.0066 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4288	0.4254 ± 0.0081 (−0.2 σ)
b_{DES}^1	1.578	1.557 ± 0.087 (+1.1 σ)	$\Delta z_{\text{l,DES}}^4$	0.0015	0.0015 ± 0.0091 (−0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5717	0.570 ± 0.013 (−1.2 σ)
b_{DES}^2	1.793	1.771 ± 0.072 (+1.4 σ)	$\Delta z_{\text{l,DES}}^5$	0.0002	0.0002 ± 0.0098 (+0.0 σ)	χ_{lensing}^2	7.78	9.2 ± 1.6 (+0.2 σ)
b_{DES}^3	1.773	1.753 ± 0.063 (+1.5 σ)	$\Delta z_{\text{s,DES}}^1$	−0.0008	$−0.004 \pm 0.014$ (−0.0 σ)	χ_{6DF}^2	0.0017	0.057 ± 0.081 (−0.2 σ)
b_{DES}^4	2.135	2.113 ± 0.073 (+1.5 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0293	$−0.030 \pm 0.011$ (−0.0 σ)	χ_{MGS}^2	1.61	1.80 ± 0.70 (−0.6 σ)
b_{DES}^5	2.206	2.182 ± 0.092 (+1.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0057	0.0066 ± 0.0097 (−0.1 σ)	χ_{DR12BAO}^2	2.83	4.1 ± 1.5 (−0.8 σ)
m_{DES}^1	0.0124	0.011 ± 0.023 (−0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0242	$−0.023 \pm 0.018$ (−0.0 σ)	χ_{DES}^2	500.59	511.3 ± 4.4 (−0.2 σ)
m_{DES}^2	0.0150	0.014 ± 0.022 (−0.0 σ)	$\Omega_{\text{b}} h^2$	0.02222	0.02220 ± 0.00050 (+0.0 σ)	χ_{prior}^2	1.27	13.1 ± 4.9 (+0.0 σ)
m_{DES}^3	0.0045	0.006 ± 0.020 (−0.2 σ)	$\Omega_{\text{c}} h^2$	0.1093	$0.1117^{+0.0082}_{-0.011}$ (+0.7 σ)	χ_{BAO}^2	4.44	5.9 ± 1.7 (−1.0 σ)

Best-fit $\chi_{\text{eff}}^2 = 514.08$; $\Delta\chi_{\text{eff}}^2 = -3.79$; $\bar{\chi}_{\text{eff}}^2 = 539.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.41$; $R - 1 = 0.00724$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.61 (Δ -0.43) DR12BAO: 2.83 (Δ -1.11) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.78 (Δ -0.13)
WL - DES_1YR_final: 500.59 (Δ -2.31)

6.149 base_mnu_DESlens_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3271	0.318 ± 0.020 (+1.4 σ)	$\alpha_{\text{IA,DES}}$	2.56	> 0.966 (−0.0 σ)	S_8	0.7998	0.794 ± 0.019 (−0.2 σ)
Ω_b	0.04896	0.0484 ± 0.0019 (−0.1 σ)	$\Delta z_{\text{s,DES}}^1$	0.0035	0.003 ± 0.014 (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4380	0.435 ± 0.011 (−0.2 σ)
H_0	67.33	$67.7^{+1.2}_{-1.4}$ (+0.1 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0199	$−0.020 \pm 0.012$ (−0.1 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5792	0.579 ± 0.014 (−1.0 σ)
Σm_{ν} [eV]	0.991	> 0.424	$\Delta z_{\text{s,DES}}^3$	0.0062	0.006 ± 0.010 (−0.1 σ)	χ_{lensing}^2	7.38	9.0 ± 1.6 (−0.0 σ)
$10^9 A_{\text{s}}$	2.911	$2.51^{+0.33}_{-0.40}$ (+0.6 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0194	$−0.019 \pm 0.020$ (−0.1 σ)	χ_{6DF}^2	0.0199	0.064 ± 0.090 (−0.0 σ)
n_{s}	1.063	> 0.950 (+0.4 σ)	$\Omega_{\text{b}} h^2$	0.022193	0.02219 ± 0.00050 (−0.0 σ)	χ_{MGS}^2	1.34	1.62 ± 0.69 (−0.6 σ)
m_{DES}^1	0.0146	0.014 ± 0.023 (+0.0 σ)	$\Omega_{\text{c}} h^2$	0.1154	$0.118^{+0.010}_{-0.013}$ (+0.5 σ)	χ_{DR12BAO}^2	2.61	3.9 ± 1.6 (−0.6 σ)
m_{DES}^2	0.0130	0.012 ± 0.022 (−0.0 σ)	Ω_{Λ}	0.6729	0.682 ± 0.020 (−1.4 σ)	χ_{DES}^2	228.99	232.2 ± 2.4 (−0.0 σ)
m_{DES}^3	−0.0031	$−0.003 \pm 0.021$ (−0.1 σ)	$\Omega_{\nu} h^2$	0.01066	$0.0061^{+0.0042}_{-0.0019}$	χ_{prior}^2	0.61	8.5 ± 4.0 (+0.0 σ)
m_{DES}^4	0.0148	0.014 ± 0.021 (−0.0 σ)	$\ln(10^{10} A_{\text{s}})$	3.371	$3.21^{+0.16}_{-0.14}$ (+0.6 σ)	χ_{BAO}^2	3.97	5.6 ± 1.8 (−0.7 σ)
$A_{\text{IA,DES}}$	1.31	1.04 ± 0.55 (+0.1 σ)	σ_8	0.7659	$0.772^{+0.024}_{-0.028}$ (−1.4 σ)			

Best-fit $\chi_{\text{eff}}^2 = 240.95$; $\Delta\chi_{\text{eff}}^2 = -1.39$; $\bar{\chi}_{\text{eff}}^2 = 255.26$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.28$; $R - 1 = 0.00788$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 1.34 (Δ -0.33) DR12BAO: 2.61 (Δ -0.47) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.38 (Δ -0.41) WL
- DES_1YR_final: 228.99 (Δ -0.28)

6.150 base_mnu_DESw_t_DESpriors_lensing_BAO_CookeDH

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
Ω_{m}	0.3326	0.320 ± 0.020 $(+2.1\sigma)$	m_{DES}^4	0.0050	0.006 ± 0.021 (-0.1σ)	Ω_{Λ}	0.6674	0.680 ± 0.020 (-2.1σ)
Ω_b	0.04819	0.0486 ± 0.0018 (-0.3σ)	$A_{\text{IA,DES}}$	0.310	$0.39^{+0.14}_{-0.18}$ (-0.1σ)	$\Omega_{\nu}h^2$	0.01075	$0.0072^{+0.0034}_{-0.0011}$
H_0	67.85	67.6 ± 1.2 $(+0.3\sigma)$	$\alpha_{\text{IA,DES}}$	-3.69	$-0.9^{+1.6}_{-3.6}$ (-0.1σ)	$\ln(10^{10}A_{\text{s}})$	3.290	3.24 ± 0.13 $(+0.7\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	0.999	> 0.579	$\Delta z_{\text{l,DES}}^1$	0.0023	0.0034 ± 0.0077 $(+0.0\sigma)$	σ_8	0.7443	$0.755^{+0.022}_{-0.027}$ (-1.6σ)
$10^9 A_{\text{s}}$	2.685	$2.58^{+0.30}_{-0.43}$ $(+0.7\sigma)$	$\Delta z_{\text{l,DES}}^2$	0.0016	0.0020 ± 0.0067 $(+0.0\sigma)$	S_8	0.7838	0.778 ± 0.018 $(+0.1\sigma)$
n_{s}	1.003	—	$\Delta z_{\text{l,DES}}^3$	0.0046	0.0047 ± 0.0067 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4293	0.4261 ± 0.0098 $(+0.1\sigma)$
b_{DES}^1	1.564	1.535 ± 0.090 $(+1.0\sigma)$	$\Delta z_{\text{l,DES}}^4$	0.0029	0.0025 ± 0.0091 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5653	0.567 ± 0.013 (-1.0σ)
b_{DES}^2	1.814	1.783 ± 0.072 $(+1.4\sigma)$	$\Delta z_{\text{l,DES}}^5$	0.0004	0.0002 ± 0.0098 $(+0.0\sigma)$	χ_{lensing}^2	8.36	9.6 ± 1.8 $(+0.3\sigma)$
b_{DES}^3	1.797	1.769 ± 0.063 $(+1.6\sigma)$	$\Delta z_{\text{s,DES}}^1$	0.0009	-0.004 ± 0.015 (-0.0σ)	$\chi_{6\text{DF}}^2$	0.0216	0.066 ± 0.091 (-0.0σ)
b_{DES}^4	2.163	2.132 ± 0.074 $(+1.5\sigma)$	$\Delta z_{\text{s,DES}}^2$	-0.0304	-0.031 ± 0.011 (-0.0σ)	χ_{MGS}^2	1.34	1.58 ± 0.68 (-0.8σ)
b_{DES}^5	2.232	2.201 ± 0.092 $(+1.1\sigma)$	$\Delta z_{\text{s,DES}}^3$	0.0064	0.0077 ± 0.0097 (-0.1σ)	χ_{DR12BAO}^2	2.39	3.8 ± 1.5 (-0.8σ)
m_{DES}^1	0.0128	0.011 ± 0.023 (-0.0σ)	$\Delta z_{\text{s,DES}}^4$	-0.0245	-0.024 ± 0.018 (-0.1σ)	χ_{DES}^2	250.06	259.8 ± 4.5 (-0.2σ)
m_{DES}^2	0.0095	0.009 ± 0.023 (-0.0σ)	$\Omega_{\text{b}}h^2$	0.02218	0.02219 ± 0.00050 (-0.0σ)	χ_{prior}^2	1.43	13.8 ± 5.2 $(+0.0\sigma)$
m_{DES}^3	0.0190	0.020 ± 0.021 (-0.1σ)	$\Omega_{\text{c}}h^2$	0.1202	$0.117^{+0.010}_{-0.012}$ $(+0.9\sigma)$	χ_{BAO}^2	3.75	5.4 ± 1.7 (-1.1σ)

Best-fit $\chi_{\text{eff}}^2 = 263.60$; $\Delta\chi_{\text{eff}}^2 = -2.78$; $\bar{\chi}_{\text{eff}}^2 = 288.63$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.39$; $R - 1 = 0.00816$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 1.34 (Δ -0.48) DR12BAO: 2.39 (Δ -0.84) CMB - smicadx12_Dec5_ftl_mv2_ndclpp.p_teb_consext8_CMBmarged: 8.36 (Δ -0.19) WL
- DES_1YR_final: 250.06 (Δ -1.36)

6.151 base_mnu_plikHM_TTTEEE_lowl_lowE_DES

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022543	0.02251 ± 0.00015 (-0.1σ)	$\Delta z_{\text{l,DES}}^1$	0.0034	0.0035 ± 0.0075 (-0.0σ)	z_{drag}	1060.200	1060.12 ± 0.31 (-0.0σ)
$\Omega_c h^2$	0.11794	0.1180 ± 0.0011 $(+0.1\sigma)$	$\Delta z_{\text{l,DES}}^2$	0.0006	0.0008 ± 0.0066 (-0.0σ)	r_{drag}	147.452	147.47 ± 0.26 (-0.1σ)
$100\theta_{\text{MC}}$	1.041145	1.04110 ± 0.00031 (-0.1σ)	$\Delta z_{\text{l,DES}}^3$	0.0036	0.0034 ± 0.0065 $(+0.0\sigma)$	k_{D}	0.140609	0.14058 ± 0.00030 $(+0.1\sigma)$
τ	0.0554	0.0545 ± 0.0080 (-0.0σ)	$\Delta z_{\text{l,DES}}^4$	0.0007	0.0006 ± 0.0090 $(+0.0\sigma)$	$100\theta_{\text{D}}$	0.160625	0.16066 ± 0.00018 $(+0.0\sigma)$
Σm_ν [eV]	0.000	< 0.111	$\Delta z_{\text{l,DES}}^5$	-0.0007	-0.0006 ± 0.0098 $(+0.0\sigma)$	z_{eq}	3357.0	3357 ± 25 $(+0.1\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0423	3.040 ± 0.016 $(+0.0\sigma)$	$\Delta z_{\text{s,DES}}^1$	0.0000	-0.004 ± 0.014 (-0.0σ)	k_{eq}	0.010246	0.010245 ± 0.000078 $(+0.1\sigma)$
n_{s}	0.97063	0.9694 ± 0.0042 (-0.0σ)	$\Delta z_{\text{s,DES}}^2$	-0.0300	-0.031 ± 0.011 (-0.0σ)	$100\theta_{\text{eq}}$	0.82207	0.8221 ± 0.0049 (-0.1σ)
y_{cal}	1.00057	1.0005 ± 0.0024 $(+0.0\sigma)$	$\Delta z_{\text{s,DES}}^3$	0.0035	0.0042 ± 0.0096 $(+0.0\sigma)$	$100\theta_{\text{s,eq}}$	0.45383	0.4539 ± 0.0025 (-0.1σ)
A_{217}^{CIB}	46.5	47 ± 7 $(+0.0\sigma)$	$\Delta z_{\text{s,DES}}^4$	-0.0307	-0.029 ± 0.018 $(+0.0\sigma)$	$H(0.15)$	73.95	$73.1^{+1.2}_{-0.40}$ (-0.8σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.57	—	H_0	68.82	$67.9^{+1.4}_{-0.46}$ (-0.8σ)	$D_{\text{M}}(0.15)$	631.0	$638.9^{+3.6}_{-12}$ $(+0.8\sigma)$
A_{143}^{tSZ}	7.16	$5.5^{+2.2}_{-1.9}$ (-0.0σ)	Ω_{Λ}	0.7034	$0.692^{+0.017}_{-0.0054}$ (-0.8σ)	$H(0.38)$	83.81	$83.18^{+0.93}_{-0.30}$ (-0.8σ)
A_{100}^{PS}	248.5	259 ± 28 $(+0.0\sigma)$	Ω_{m}	0.2966	$0.3075^{+0.0054}_{-0.017}$ $(+0.8\sigma)$	$D_{\text{M}}(0.38)$	1508.4	$1524.7^{+7.4}_{-24}$ $(+0.8\sigma)$
A_{143}^{PS}	48.3	45 ± 8 (-0.0σ)	$\Omega_{\text{m}} h^2$	0.14048	$0.1416^{+0.0010}_{-0.0020}$ $(+0.5\sigma)$	$H(0.51)$	90.39	$89.85^{+0.78}_{-0.24}$ (-0.8σ)
$A_{143 \times 217}^{\text{PS}}$	50.1	41 ± 9 (-0.0σ)	$\Omega_{\nu} h^2$	0.00000	< 0.00120	$D_{\text{M}}(0.51)$	1956.4	$1975.7^{+8.7}_{-29}$ $(+0.8\sigma)$
A_{217}^{PS}	120.0	114 ± 10 (-0.0σ)	$\Omega_{\text{m}} h^3$	0.09668	$0.09614^{+0.00080}_{-0.00025}$ (-0.6σ)	$H(0.61)$	95.899	$95.44^{+0.66}_{-0.20}$ (-0.9σ)
A^{kSZ}	0.00	< 4.48 $(+0.0\sigma)$	σ_8	0.8176	$0.795^{+0.026}_{-0.0063}$ (-1.2σ)	$D_{\text{M}}(0.61)$	2278.5	$2299.5^{+9.5}_{-31}$ $(+0.8\sigma)$
A_{100}^{dustTT}	8.82	9.0 ± 1.8 $(+0.0\sigma)$	S_8	0.8129	$0.804^{+0.014}_{-0.013}$ (-0.2σ)	$H(2.33)$	235.07	$235.62^{+0.65}_{-1.1}$ $(+0.4\sigma)$
A_{143}^{dustTT}	11.07	11.0 ± 1.8 $(+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4453	$0.4403^{+0.0078}_{-0.0069}$ (-0.2σ)	$D_{\text{M}}(2.33)$	5735.7	$5758.6^{+8.5}_{-32}$ $(+0.9\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.00	18.7 ± 3.3 (-0.0σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6034	$0.591^{+0.014}_{-0.0064}$ (-0.6σ)	$f\sigma_8(0.15)$	0.4503	$0.4456^{+0.0075}_{-0.0065}$ (-0.2σ)
A_{217}^{dustTT}	95.2	93.6 ± 7.3 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9855	$0.964^{+0.025}_{-0.0091}$ (-0.8σ)	$\sigma_8(0.15)$	0.7568	$0.735^{+0.025}_{-0.0057}$ (-1.3σ)
A_{100}^{dustTE}	0.1127	0.114 ± 0.038 (-0.0σ)	$r_{\text{drag}} h$	101.48	$100.2^{+2.1}_{-0.81}$ (-0.7σ)	$f\sigma_8(0.38)$	0.4720	$0.4647^{+0.0094}_{-0.0052}$ (-0.4σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1337	0.135 ± 0.029 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4189	2.404 ± 0.024 (-0.2σ)	$\sigma_8(0.38)$	0.6723	$0.652^{+0.023}_{-0.0050}$ (-1.4σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.085 (-0.0σ)	z_{re}	7.72	7.63 ± 0.80 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4722	$0.464^{+0.010}_{-0.0045}$ (-0.6σ)
A_{143}^{dustTE}	0.222	0.223 ± 0.054 $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0953	2.090 ± 0.034 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6298	$0.611^{+0.022}_{-0.0046}$ (-1.4σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.661 ± 0.080 (-0.0σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8754	1.874 ± 0.011 $(+0.0\sigma)$	$f\sigma_8(0.61)$	0.4684	$0.459^{+0.011}_{-0.0040}$ (-0.7σ)
A_{217}^{dustTE}	2.064	2.06 ± 0.27 $(+0.0\sigma)$	D_{40}	1220.0	1221 ± 12 (-0.0σ)	$\sigma_8(0.61)$	0.5996	$0.581^{+0.021}_{-0.0044}$ (-1.4σ)
c_{100}	0.99972	0.99967 ± 0.00061 (-0.0σ)	D_{220}	5743.8	5745 ± 39 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.3019	$0.2939^{+0.0095}_{-0.0021}$ (-1.2σ)
c_{217}	0.99819	0.99819 ± 0.00062 $(+0.0\sigma)$	D_{810}	2539.2	2537 ± 13 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.3124	$0.303^{+0.011}_{-0.0023}$ (-1.4σ)
b_{DES}^1	1.484	$1.526^{+0.075}_{-0.093}$ $(+0.2\sigma)$	D_{1420}	819.17	818.2 ± 4.7 $(+0.1\sigma)$	f_{2000}^{143}	28.15	29.3 ± 2.8 $(+0.0\sigma)$
b_{DES}^2	1.682	$1.729^{+0.053}_{-0.081}$ $(+0.4\sigma)$	D_{2000}	231.80	231.2 ± 1.6 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	31.49	32.0 ± 1.9 $(+0.0\sigma)$
b_{DES}^3	1.671	$1.716^{+0.044}_{-0.074}$ $(+0.4\sigma)$	$n_{\text{s},0.002}$	0.97063	0.9694 ± 0.0042 (-0.0σ)	f_{2000}^{217}	106.03	106.8 ± 1.8 $(+0.0\sigma)$
b_{DES}^4	2.026	$2.080^{+0.051}_{-0.087}$ $(+0.4\sigma)$	Y_{P}	0.245460	0.245447 ± 0.000057 (-0.1σ)	χ_{simall}^2	396.08	397.0 ± 1.8 $(+0.0\sigma)$
b_{DES}^5	2.130	$2.182^{+0.079}_{-0.10}$ $(+0.3\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246786	0.246774 ± 0.000058 (-0.1σ)	χ_{lowl}^2	22.51	22.56 ± 0.78 (-0.0σ)
m_{DES}^1	0.0137	0.012 ± 0.023 $(+0.0\sigma)$	10^5D/H	2.5544	2.560 ± 0.027 $(+0.1\sigma)$	χ_{plik}^2	2346.9	2364.5 ± 6.9 $(+0.2\sigma)$
m_{DES}^2	0.0134	0.013 ± 0.022 $(+0.0\sigma)$	Age/Gyr	13.7357	$13.788^{+0.019}_{-0.073}$ $(+1.0\sigma)$	χ_{DES}^2	508.94	518.1 ± 4.9 $(+0.0\sigma)$
m_{DES}^3	-0.0026	-0.002 ± 0.020 $(+0.0\sigma)$	z_*	1089.518	1089.57 ± 0.26 $(+0.1\sigma)$	χ_{prior}^2	3.9	25 ± 7 (-0.0σ)
m_{DES}^4	0.0017	0.003 ± 0.021 $(+0.0\sigma)$	r_*	144.841	144.85 ± 0.26 (-0.1σ)	χ_{CMB}^2	2765.5	2784.0 ± 6.9 $(+0.2\sigma)$
$A_{\text{IA,DES}}$	0.454	$0.46^{+0.15}_{-0.19}$ (-0.0σ)	$100\theta_*$	1.041286	1.04129 ± 0.00029 $(+0.0\sigma)$			
$\alpha_{\text{IA,DES}}$	-2.29	$-1.1^{+1.7}_{-2.9}$ $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9098	13.910 ± 0.025 (-0.1σ)			

Best-fit $\chi_{\text{eff}}^2 = 3278.36$; $\Delta\chi_{\text{eff}}^2 = -1.33$; $\bar{\chi}_{\text{eff}}^2 = 3326.78$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.09$; $R - 1 = 0.00796$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.07 (Δ -0.00) commander_dx12_v3.2_29: 22.51 (Δ 0.02) plik_rd12_HM_v22b_TTTEEE: 2346.89 (Δ -1.11) WL - DES_1YR_final: 508.94 (Δ -0.21)

6.152 base_mnu_plikHM_TTTEE_lowl_lowE_DES_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022502	0.02252 ± 0.00013 (+0.1 σ)	$\Delta z_{\text{l,DES}}^2$	0.0005	0.0008 ± 0.0066 (−0.0 σ)	k_{D}	0.140653	0.14058 ± 0.00029 (+0.0 σ)
$\Omega_c h^2$	0.11837	0.11796 ± 0.00091 (−0.0 σ)	$\Delta z_{\text{l,DES}}^3$	0.0034	0.0034 ± 0.0066 (+0.0 σ)	$100\theta_{\text{D}}$	0.160663	0.16066 ± 0.00017 (−0.0 σ)
$100\theta_{\text{MC}}$	1.041136	1.04112 ± 0.00028 (+0.0 σ)	$\Delta z_{\text{l,DES}}^4$	0.0009	0.0006 ± 0.0090 (+0.0 σ)	z_{eq}	3366.3	3357 ± 21 (−0.0 σ)
τ	0.0538	0.0542 ± 0.0079 (−0.0 σ)	$\Delta z_{\text{l,DES}}^5$	−0.0008	$−0.0007 \pm 0.0097$ (−0.0 σ)	k_{eq}	0.010274	0.010246 ± 0.000063 (−0.0 σ)
Σm_ν [eV]	0.0002	< 0.0866	$\Delta z_{\text{s,DES}}^1$	0.0009	$−0.003 \pm 0.014$ (−0.0 σ)	$100\theta_{\text{eq}}$	0.82025	0.8220 ± 0.0040 (+0.0 σ)
$\ln(10^{10} A_{\text{s}})$	3.0387	3.039 ± 0.016 (−0.0 σ)	$\Delta z_{\text{s,DES}}^2$	−0.0303	$−0.031 \pm 0.011$ (−0.0 σ)	$100\theta_{\text{s,eq}}$	0.45291	0.4538 ± 0.0020 (+0.0 σ)
n_{s}	0.96915	0.9694 ± 0.0037 (+0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0025	0.0040 ± 0.0095 (+0.0 σ)	$H(0.15)$	73.782	$73.43^{+0.54}_{-0.41}$ (−0.0 σ)
y_{cal}	0.99999	1.0005 ± 0.0025 (+0.0 σ)	$\Delta z_{\text{s,DES}}^4$	−0.0314	$−0.030 \pm 0.018$ (+0.0 σ)	$D_{\text{M}}(0.15)$	632.60	$636.0^{+3.9}_{-5.3}$ (+0.0 σ)
A_{217}^{CIB}	47.7	47 ± 7 (−0.0 σ)	H_0	68.62	$68.23^{+0.62}_{-0.47}$ (−0.0 σ)	$H(0.38)$	83.692	$83.40^{+0.43}_{-0.31}$ (−0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.40	—	Ω_{Λ}	0.7009	$0.6965^{+0.0073}_{-0.0057}$ (−0.1 σ)	$D_{\text{M}}(0.38)$	1511.7	$1518.8^{+7.9}_{-11}$ (+0.0 σ)
A_{143}^{tSZ}	7.34	$5.5^{+2.2}_{-1.9}$ (−0.0 σ)	Ω_{m}	0.2991	$0.3035^{+0.0057}_{-0.0073}$ (+0.1 σ)	$H(0.51)$	90.293	$90.04^{+0.37}_{-0.26}$ (+0.0 σ)
A_{100}^{PS}	249.8	259 ± 28 (+0.0 σ)	$\Omega_{\text{m}} h^2$	0.14087	0.14123 ± 0.00091 (+0.1 σ)	$D_{\text{M}}(0.51)$	1960.2	$1968.7^{+9.3}_{-13}$ (+0.0 σ)
A_{143}^{PS}	46.2	45 ± 8 (−0.0 σ)	$\Omega_{\nu} h^2$	$0.2 \cdot 10^{-5}$	< 0.000931	$H(0.61)$	95.824	$95.60^{+0.32}_{-0.22}$ (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	46.2	41 ± 9 (−0.0 σ)	$\Omega_{\text{m}} h^3$	0.096672	$0.09636^{+0.00048}_{-0.00034}$ (+0.1 σ)	$D_{\text{M}}(0.61)$	2282.6	2292^{+10}_{-14} (+0.0 σ)
A_{217}^{PS}	118.3	114 ± 10 (−0.0 σ)	σ_8	0.8173	$0.802^{+0.016}_{-0.0089}$ (−0.1 σ)	$H(2.33)$	235.31	235.43 ± 0.56 (+0.1 σ)
A^{kSZ}	0.00	< 4.43 (+0.0 σ)	S_8	0.8161	0.807 ± 0.012 (−0.1 σ)	$D_{\text{M}}(2.33)$	5738.8	5750^{+10}_{-16} (−0.0 σ)
A_{100}^{dustTT}	8.87	8.9 ± 1.8 (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4470	0.4420 ± 0.0068 (−0.1 σ)	$f\sigma_8(0.15)$	0.4518	0.4473 ± 0.0064 (−0.0 σ)
A_{143}^{dustTT}	11.02	11.0 ± 1.8 (+0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6044	$0.596^{+0.010}_{-0.0072}$ (−0.1 σ)	$\sigma_8(0.15)$	0.7563	$0.742^{+0.015}_{-0.0083}$ (−0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.74	18.6 ± 3.3 (−0.0 σ)	$\sigma_8/h^{0.5}$	0.9866	$0.971^{+0.017}_{-0.011}$ (−0.1 σ)	$f\sigma_8(0.38)$	0.4729	$0.4673^{+0.0070}_{-0.0055}$ (−0.0 σ)
A_{217}^{dustTT}	94.6	93.6 ± 7.3 (−0.0 σ)	$r_{\text{drag}} h$	101.14	$100.62^{+0.94}_{-0.78}$ (−0.0 σ)	$\sigma_8(0.38)$	0.6716	$0.659^{+0.014}_{-0.0074}$ (−0.1 σ)
A_{100}^{dustTE}	0.1140	0.114 ± 0.038 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4220	2.408 ± 0.024 (−0.1 σ)	$f\sigma_8(0.51)$	0.4729	$0.4669^{+0.0072}_{-0.0052}$ (−0.0 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.135 ± 0.029 (−0.0 σ)	z_{re}	7.56	7.59 ± 0.79 (−0.0 σ)	$\sigma_8(0.51)$	0.6290	$0.617^{+0.013}_{-0.0069}$ (−0.1 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.481 ± 0.084 (−0.0 σ)	$10^9 A_{\text{s}}$	2.0877	2.089 ± 0.033 (−0.0 σ)	$f\sigma_8(0.61)$	0.4688	$0.4627^{+0.0073}_{-0.0050}$ (−0.0 σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.053 (+0.0 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8748	1.874 ± 0.011 (+0.0 σ)	$\sigma_8(0.61)$	0.5987	$0.587^{+0.013}_{-0.0066}$ (−0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.661 ± 0.080 (−0.0 σ)	D_{40}	1221.3	1222 ± 12 (+0.0 σ)	$f\sigma_8(2.33)$	0.30141	$0.2967^{+0.0055}_{-0.0031}$ (−0.0 σ)
A_{217}^{dustTE}	2.076	2.06 ± 0.27 (−0.0 σ)	D_{220}	5736.1	5744 ± 39 (+0.0 σ)	$\sigma_8(2.33)$	0.31176	$0.3061^{+0.0064}_{-0.0035}$ (−0.1 σ)
c_{100}	0.99974	0.99967 ± 0.00061 (+0.0 σ)	D_{810}	2536.1	2537 ± 13 (+0.0 σ)	f_{2000}^{143}	28.59	29.2 ± 2.7 (−0.0 σ)
c_{217}	0.99819	0.99820 ± 0.00062 (−0.0 σ)	D_{1420}	817.61	818.0 ± 4.7 (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.78	31.9 ± 1.8 (−0.0 σ)
b_{DES}^1	1.486	1.511 ± 0.076 (+0.0 σ)	D_{2000}	231.24	231.2 ± 1.6 (+0.0 σ)	f_{2000}^{217}	106.33	106.7 ± 1.8 (−0.0 σ)
b_{DES}^2	1.684	1.712 ± 0.058 (+0.0 σ)	$n_{\text{s},0.002}$	0.96915	0.9694 ± 0.0037 (+0.0 σ)	χ_{simall}^2	395.87	396.9 ± 1.7 (−0.0 σ)
b_{DES}^3	1.6722	1.700 ± 0.050 (+0.1 σ)	Y_{P}	0.2454450	0.245450 ± 0.000050 (+0.1 σ)	χ_{lowl}^2	22.73	22.63 ± 0.76 (−0.0 σ)
b_{DES}^4	2.029	2.061 ± 0.059 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.2467717	0.246776 ± 0.000050 (+0.1 σ)	χ_{plik}^2	2346.2	2363.3 ± 6.6 (+0.1 σ)
b_{DES}^5	2.133	2.163 ± 0.081 (+0.0 σ)	10^5D/H	2.5616	2.559 ± 0.024 (−0.1 σ)	$\chi_{6\text{DF}}^2$	0.0180	0.033 ± 0.047 (+0.4 σ)
m_{DES}^1	0.0138	0.012 ± 0.023 (+0.0 σ)	Age/Gyr	13.7422	$13.769^{+0.023}_{-0.037}$ (−0.0 σ)	χ_{MGS}^2	2.12	1.84 ± 0.54 (+0.0 σ)
m_{DES}^2	0.0134	0.013 ± 0.022 (+0.0 σ)	z_*	1089.610	1089.56 ± 0.21 (−0.1 σ)	χ_{DR12BAO}^2	3.423	3.93 ± 0.87 (+0.4 σ)
m_{DES}^3	−0.0046	$−0.003 \pm 0.020$ (+0.0 σ)	r_*	144.761	144.85 ± 0.22 (+0.0 σ)	χ_{DES}^2	509.52	518.3 ± 4.9 (+0.0 σ)
m_{DES}^4	0.0017	0.003 ± 0.021 (+0.0 σ)	$100\theta_*$	1.041274	1.04130 ± 0.00028 (+0.1 σ)	χ_{prior}^2	4.2	25 ± 7 (−0.0 σ)
$A_{\text{IA,DES}}$	0.444	$0.47^{+0.15}_{-0.18}$ (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9023	13.910 ± 0.021 (+0.0 σ)	χ_{BAO}^2	5.558	5.81 ± 0.83 (+0.4 σ)
$\alpha_{\text{IA,DES}}$	−2.56	$−1.1^{+1.8}_{-2.9}$ (+0.0 σ)	z_{drag}	1060.123	1060.13 ± 0.29 (+0.1 σ)	χ_{CMB}^2	2764.8	2782.8 ± 6.6 (+0.1 σ)
$\Delta z_{\text{l,DES}}^1$	0.0033	0.0036 ± 0.0075 (−0.0 σ)	r_{drag}	147.385	147.47 ± 0.23 (+0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 3284.12$; $\Delta\chi_{\text{eff}}^2 = -0.81$; $\bar{\chi}_{\text{eff}}^2 = 3331.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.52$; $R - 1 = 0.01000$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 2.12 (Δ 0.37) DR12BAO: 3.42 (Δ -0.04) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.21) commander_dx12_v3.2.29: 22.73 (Δ 0.23) plik_rd12_HM_v22b_TTTEE: 2346.19 (Δ -1.66) WL - DES_1YR_final: 509.52 (Δ 0.26)

6.153 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022566	0.02252 ± 0.00014 (+0.1 σ)	$\alpha_{\text{IA,DES}}$	-2.38	$-1.2^{+1.7}_{-2.9}$ (+0.0 σ)	$100\theta_*$	1.041310	1.04128 ± 0.00029 (+0.1 σ)
$\Omega_c h^2$	0.11794	0.1181 ± 0.0011 (-0.0 σ)	$\Delta z_{\text{l,DES}}^1$	0.0033	0.0035 ± 0.0075 (-0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9076	13.907 ± 0.023 (+0.0 σ)
$100\theta_{\text{MC}}$	1.041181	1.04111 ± 0.00030 (+0.0 σ)	$\Delta z_{\text{l,DES}}^2$	0.0007	0.0008 ± 0.0066 (-0.0 σ)	z_{drag}	1060.238	1060.15 ± 0.30 (+0.1 σ)
τ	0.0561	$0.0568^{+0.0070}_{-0.0080}$ (-0.0 σ)	$\Delta z_{\text{l,DES}}^3$	0.0035	0.0034 ± 0.0066 (+0.0 σ)	r_{drag}	147.426	147.43 ± 0.25 (+0.0 σ)
$\Sigma m_\nu [\text{eV}]$	0.0003	< 0.0705	$\Delta z_{\text{l,DES}}^4$	0.0008	0.0005 ± 0.0090 (+0.0 σ)	k_{D}	0.140656	0.14062 ± 0.00029 (+0.0 σ)
$\ln(10^{10} A_{\text{s}})$	3.0445	3.045 ± 0.015 (-0.0 σ)	$\Delta z_{\text{l,DES}}^5$	-0.0007	-0.0006 ± 0.0097 (-0.0 σ)	$100\theta_{\text{D}}$	0.160597	0.16064 ± 0.00017 (-0.0 σ)
n_{s}	0.97075	0.9690 ± 0.0040 (+0.0 σ)	$\Delta z_{\text{s,DES}}^1$	0.0009	-0.003 ± 0.014 (-0.0 σ)	z_{eq}	3357.7	3360 ± 24 (-0.0 σ)
y_{cal}	1.00084	1.0007 ± 0.0024 (-0.0 σ)	$\Delta z_{\text{s,DES}}^2$	-0.0303	-0.031 ± 0.011 (+0.0 σ)	k_{eq}	0.010248	0.010256 ± 0.000073 (-0.0 σ)
A_{217}^{CIB}	45.4	47 ± 7 (-0.0 σ)	$\Delta z_{\text{s,DES}}^3$	0.0033	0.0035 ± 0.0095 (+0.0 σ)	$100\theta_{\text{eq}}$	0.82202	0.8215 ± 0.0046 (+0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.69	—	$\Delta z_{\text{s,DES}}^4$	-0.0301	-0.031 ± 0.018 (+0.0 σ)	$100\theta_{\text{s,eq}}$	0.45379	0.4535 ± 0.0023 (+0.0 σ)
A_{143}^{tSZ}	7.15	$5.5^{+2.2}_{-1.9}$ (+0.0 σ)	H_0	68.84	$68.25^{+0.89}_{-0.50}$ (+0.1 σ)	$H(0.15)$	73.97	$73.45^{+0.78}_{-0.43}$ (+0.1 σ)
A_{100}^{PS}	246.8	258 ± 28 (-0.0 σ)	Ω_{Λ}	0.7035	$0.696^{+0.011}_{-0.0061}$ (+0.1 σ)	$D_{\text{M}}(0.15)$	630.8	$635.9^{+4.1}_{-7.6}$ (-0.1 σ)
A_{143}^{PS}	49.7	45 ± 8 (-0.0 σ)	Ω_{m}	0.2965	$0.3035^{+0.0061}_{-0.011}$ (-0.1 σ)	$H(0.38)$	83.837	$83.42^{+0.60}_{-0.33}$ (+0.2 σ)
$A_{143 \times 217}^{\text{PS}}$	53.2	42 ± 9 (-0.0 σ)	$\Omega_{\text{m}} h^2$	0.14051	$0.1413^{+0.0010}_{-0.0014}$ (-0.0 σ)	$D_{\text{M}}(0.38)$	1508.0	$1518.4^{+8.3}_{-15}$ (-0.1 σ)
A_{217}^{PS}	121.9	115 ± 10 (-0.0 σ)	$\Omega_{\nu} h^2$	$0.4 \cdot 10^{-5}$	< 0.000758	$H(0.51)$	90.412	$90.06^{+0.50}_{-0.26}$ (+0.2 σ)
A^{kSZ}	0.00	< 4.27 (+0.0 σ)	$\Omega_{\text{m}} h^3$	0.096736	$0.09642^{+0.00049}_{-0.00030}$ (+0.3 σ)	$D_{\text{M}}(0.51)$	1955.8	$1968.3^{+9.8}_{-18}$ (-0.1 σ)
A_{100}^{dustTT}	8.76	8.9 ± 1.8 (+0.0 σ)	σ_8	0.8185	$0.807^{+0.014}_{-0.0060}$ (+0.1 σ)	$H(0.61)$	95.922	$95.62^{+0.42}_{-0.22}$ (+0.2 σ)
A_{143}^{dustTT}	11.05	10.9 ± 1.8 (+0.0 σ)	S_8	0.8136	0.811 ± 0.011 (-0.0 σ)	$D_{\text{M}}(0.61)$	2277.8	2291^{+11}_{-20} (-0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.19	18.6 ± 3.3 (-0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4456	0.4443 ± 0.0058 (-0.0 σ)	$H(2.33)$	235.10	$235.48^{+0.64}_{-0.84}$ (-0.0 σ)
A_{217}^{dustTT}	95.8	93.7 ± 7.3 (-0.0 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6039	$0.5987^{+0.0078}_{-0.0057}$ (+0.0 σ)	$D_{\text{M}}(2.33)$	5734.4	$5749.0^{+9.9}_{-20}$ (-0.2 σ)
A_{100}^{dustTE}	0.1125	0.114 ± 0.038 (-0.0 σ)	$\sigma_8/h^{0.5}$	0.9864	$0.977^{+0.013}_{-0.0083}$ (+0.0 σ)	$f\sigma_8(0.15)$	0.4507	0.4496 ± 0.0054 (-0.0 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1334	0.134 ± 0.029 (-0.0 σ)	$r_{\text{drag}} h$	101.49	$100.6^{+1.4}_{-0.85}$ (+0.1 σ)	$\sigma_8(0.15)$	0.7577	$0.746^{+0.014}_{-0.0055}$ (+0.1 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.481 ± 0.084 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4212	2.419 ± 0.020 (-0.1 σ)	$f\sigma_8(0.38)$	0.47241	$0.4696^{+0.0053}_{-0.0046}$ (+0.0 σ)
A_{143}^{dustTE}	0.221	0.223 ± 0.053 (+0.0 σ)	z_{re}	7.78	7.85 ± 0.75 (-0.0 σ)	$\sigma_8(0.38)$	0.6731	$0.662^{+0.013}_{-0.0050}$ (+0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.661 ± 0.080 (-0.0 σ)	$10^9 A_{\text{s}}$	2.1000	$2.102^{+0.029}_{-0.033}$ (-0.0 σ)	$f\sigma_8(0.51)$	0.47272	$0.4692^{+0.0056}_{-0.0041}$ (+0.1 σ)
A_{217}^{dustTE}	2.059	2.06 ± 0.27 (-0.0 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8771	1.876 ± 0.010 (-0.0 σ)	$\sigma_8(0.51)$	0.6305	$0.620^{+0.012}_{-0.0047}$ (+0.1 σ)
c_{100}	0.99973	0.99969 ± 0.00061 (+0.0 σ)	D_{40}	1221.1	1225 ± 11 (+0.0 σ)	$f\sigma_8(0.61)$	0.46888	$0.4649^{+0.0058}_{-0.0038}$ (+0.1 σ)
c_{217}	0.99818	0.99819 ± 0.00062 (-0.0 σ)	D_{220}	5749.9	5750 ± 38 (+0.0 σ)	$\sigma_8(0.61)$	0.6003	$0.590^{+0.012}_{-0.0045}$ (+0.1 σ)
b_{DES}^1	1.483	1.504 ± 0.077 (-0.0 σ)	D_{810}	2541.4	2539 ± 13 (+0.0 σ)	$f\sigma_8(2.33)$	0.30231	$0.2981^{+0.0054}_{-0.0023}$ (+0.2 σ)
b_{DES}^2	1.680	1.703 ± 0.058 (-0.0 σ)	D_{1420}	820.03	818.4 ± 4.7 (+0.0 σ)	$\sigma_8(2.33)$	0.31282	$0.3077^{+0.0064}_{-0.0025}$ (+0.2 σ)
b_{DES}^3	1.6692	$1.691^{+0.045}_{-0.051}$ (-0.0 σ)	D_{2000}	232.12	231.4 ± 1.6 (+0.0 σ)	χ_{lensing}^2	8.81	9.5 ± 1.1 (+0.1 σ)
b_{DES}^4	2.025	$2.050^{+0.052}_{-0.061}$ (-0.0 σ)	$n_{\text{s},0.002}$	0.97075	0.9690 ± 0.0040 (+0.0 σ)	χ_{small}^2	396.20	397.3 ± 2.1 (-0.0 σ)
b_{DES}^5	2.128	2.153 ± 0.081 (+0.0 σ)	Y_{P}	0.245468	0.245452 ± 0.000054 (+0.1 σ)	χ_{lowl}^2	22.54	22.83 ± 0.77 (+0.0 σ)
m_{DES}^1	0.0133	0.012 ± 0.023 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246795	0.246779 ± 0.000054 (+0.1 σ)	χ_{plik}^2	2346.8	2362.1 ± 6.1 (+0.0 σ)
m_{DES}^2	0.0135	0.012 ± 0.022 (+0.0 σ)	10^5D/H	2.5503	2.558 ± 0.026 (-0.1 σ)	χ_{DES}^2	508.98	518.5 ± 5.0 (+0.0 σ)
m_{DES}^3	-0.0031	-0.004 ± 0.020 (+0.0 σ)	Age/Gyr	13.7326	$13.766^{+0.022}_{-0.045}$ (-0.2 σ)	χ_{prior}^2	3.9	25 ± 7 (-0.0 σ)
m_{DES}^4	0.0020	0.002 ± 0.021 (+0.0 σ)	z_*	1089.490	1089.56 ± 0.24 (-0.1 σ)	χ_{CMB}^2	2774.3	2791.8 ± 6.6 (+0.0 σ)
$A_{\text{IA,DES}}$	0.453	$0.47^{+0.15}_{-0.18}$ (+0.0 σ)	r_*	144.821	144.81 ± 0.24 (+0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 3287.27$; $\Delta\chi_{\text{eff}}^2 = -1.59$; $\bar{\chi}_{\text{eff}}^2 = 3335.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.21$; $R - 1 = 0.00852$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.81 (Δ -0.24) simall_100x143_offlike5_EE_Aplanck_B: 396.20 (Δ -0.02) commander_dx12_v3_2_29: 22.54 (Δ -0.16) plik_rd12_HM_v22b_TTTEEE: 2346.80 (Δ -0.37) WL - DES_1YR_final: 508.98 (Δ -0.53)

6.154 base_mnu_plikHM_TTTEEE_lowl_lowE_DES_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022515	0.02252 ± 0.00013 (+0.1 σ)	$\Delta z_{l,DES}^2$	0.0005	0.0007 ± 0.0066 (−0.0 σ)	k_D	0.140697	0.14063 ± 0.00028 (+0.0 σ)
$\Omega_c h^2$	0.11843	0.11818 ± 0.00085 (−0.0 σ)	$\Delta z_{l,DES}^3$	0.0034	0.0034 ± 0.0066 (+0.0 σ)	$100\theta_D$	0.160645	0.16065 ± 0.00017 (−0.0 σ)
$100\theta_{MC}$	1.041157	1.04110 ± 0.00028 (+0.0 σ)	$\Delta z_{l,DES}^4$	0.0008	0.0005 ± 0.0090 (+0.0 σ)	z_{eq}	3368.2	3362 ± 19 (+0.0 σ)
τ	0.0558	$0.0561^{+0.0068}_{-0.0078}$ (−0.1 σ)	$\Delta z_{l,DES}^5$	−0.0005	$−0.0007 \pm 0.0097$ (−0.0 σ)	k_{eq}	0.010280	0.010262 ± 0.000059 (+0.0 σ)
Σm_ν [eV]	0.0010	< 0.0661	$\Delta z_{s,DES}^1$	0.00097	$−0.003 \pm 0.014$ (−0.0 σ)	$100\theta_{eq}$	0.81995	0.8211 ± 0.0037 (−0.0 σ)
$\ln(10^{10} A_s)$	3.0430	3.044 ± 0.015 (−0.1 σ)	$\Delta z_{s,DES}^2$	−0.0303	$−0.031 \pm 0.011$ (−0.0 σ)	$100\theta_{s,eq}$	0.45275	0.4533 ± 0.0019 (−0.0 σ)
n_s	0.96861	0.9688 ± 0.0037 (+0.0 σ)	$\Delta z_{s,DES}^3$	0.0024	0.0034 ± 0.0095 (+0.0 σ)	$H(0.15)$	73.778	$73.48^{+0.48}_{-0.38}$ (+0.3 σ)
y_{cal}	0.99998	1.0007 ± 0.0024 (−0.0 σ)	$\Delta z_{s,DES}^4$	−0.0323	$−0.031 \pm 0.018$ (−0.0 σ)	$D_M(0.15)$	632.66	$635.5^{+3.7}_{-4.7}$ (−0.3 σ)
A_{217}^{CIB}	48.3	47 ± 7 (−0.0 σ)	H_0	68.618	$68.29^{+0.55}_{-0.44}$ (+0.3 σ)	$H(0.38)$	83.693	$83.45^{+0.38}_{-0.29}$ (+0.4 σ)
$\xi^{tSZ \times CIB}$	0.28	—	Ω_Λ	0.7006	$0.6970^{+0.0068}_{-0.0054}$ (+0.2 σ)	$D_M(0.38)$	1511.8	$1517.7^{+7.5}_{-9.6}$ (−0.3 σ)
A_{143}^{tSZ}	7.38	$5.5^{+2.2}_{-1.9}$ (−0.0 σ)	Ω_m	0.2994	$0.3030^{+0.0054}_{-0.0068}$ (−0.2 σ)	$H(0.51)$	90.298	$90.09^{+0.32}_{-0.24}$ (+0.4 σ)
A_{100}^{PS}	250.6	258 ± 28 (+0.0 σ)	$\Omega_m h^2$	0.14096	0.14128 ± 0.00089 (−0.1 σ)	$D_M(0.51)$	1960.3	$1967.3^{+8.8}_{-11}$ (−0.3 σ)
A_{143}^{PS}	44.5	45 ± 8 (−0.0 σ)	$\Omega_\nu h^2$	$1.1 \cdot 10^{-5}$	< 0.000711	$H(0.61)$	95.832	$95.65^{+0.27}_{-0.21}$ (+0.4 σ)
$A_{143 \times 217}^{PS}$	42.8	42 ± 9 (−0.0 σ)	$\Omega_m h^3$	0.096722	$0.09647^{+0.00040}_{-0.00032}$ (+0.4 σ)	$D_M(0.61)$	2282.6	$2290.4^{+9.6}_{-12}$ (−0.3 σ)
A_{217}^{PS}	117.0	115 ± 10 (−0.0 σ)	σ_8	0.8190	$0.809^{+0.012}_{-0.0069}$ (+0.4 σ)	$H(2.33)$	235.37	235.48 ± 0.55 (−0.1 σ)
A^{kSZ}	0.00	< 4.29 (+0.0 σ)	S_8	0.8182	0.8125 ± 0.0098 (+0.1 σ)	$D_M(2.33)$	5738.2	$5747.6^{+9.7}_{-13}$ (−0.4 σ)
A_{100}^{dustTT}	8.82	8.9 ± 1.8 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4481	0.4450 ± 0.0054 (+0.1 σ)	$f\sigma_8(0.15)$	0.4530	0.4502 ± 0.0050 (+0.1 σ)
A_{143}^{dustTT}	11.03	10.9 ± 1.8 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6058	$0.5998^{+0.0072}_{-0.0057}$ (+0.2 σ)	$\sigma_8(0.15)$	0.7579	$0.748^{+0.011}_{-0.0064}$ (+0.4 σ)
$A_{143 \times 217}^{dustTT}$	19.59	18.6 ± 3.3 (−0.0 σ)	$\sigma_8/h^{0.5}$	0.9887	$0.978^{+0.012}_{-0.0087}$ (+0.3 σ)	$f\sigma_8(0.38)$	0.47405	$0.4704^{+0.0050}_{-0.0044}$ (+0.2 σ)
A_{217}^{dustTT}	94.5	93.7 ± 7.3 (−0.0 σ)	$r_{drag} h$	101.11	$100.67^{+0.86}_{-0.74}$ (+0.3 σ)	$\sigma_8(0.38)$	0.6730	$0.664^{+0.010}_{-0.0058}$ (+0.5 σ)
A_{100}^{dustTE}	0.1141	0.114 ± 0.038 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4288	2.420 ± 0.019 (−0.0 σ)	$f\sigma_8(0.51)$	0.47400	$0.4700^{+0.0051}_{-0.0041}$ (+0.2 σ)
$A_{100 \times 143}^{dustTE}$	0.1343	0.135 ± 0.029 (+0.0 σ)	z_{re}	7.77	7.78 ± 0.74 (−0.1 σ)	$\sigma_8(0.51)$	0.6303	$0.6217^{+0.0095}_{-0.0055}$ (+0.5 σ)
$A_{100 \times 217}^{dustTE}$	0.482	0.481 ± 0.084 (+0.0 σ)	$10^9 A_s$	2.0968	$2.099^{+0.028}_{-0.032}$ (−0.1 σ)	$f\sigma_8(0.61)$	0.46992	$0.4658^{+0.0051}_{-0.0039}$ (+0.3 σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.053 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8753	1.876 ± 0.010 (+0.0 σ)	$\sigma_8(0.61)$	0.6000	$0.5918^{+0.0091}_{-0.0052}$ (+0.5 σ)
$A_{143 \times 217}^{dustTE}$	0.662	0.661 ± 0.080 (−0.0 σ)	D_{40}	1223.6	1225 ± 11 (+0.0 σ)	$f\sigma_8(2.33)$	0.30202	$0.2987^{+0.0040}_{-0.0025}$ (+0.5 σ)
A_{217}^{dustTE}	2.066	2.06 ± 0.27 (−0.0 σ)	D_{220}	5739.9	5749 ± 38 (+0.0 σ)	$\sigma_8(2.33)$	0.31238	$0.3083^{+0.0047}_{-0.0028}$ (+0.5 σ)
c_{100}	0.99970	0.99969 ± 0.00061 (+0.0 σ)	D_{810}	2535.9	2539 ± 13 (−0.0 σ)	f_{2000}^{143}	28.71	29.1 ± 2.7
c_{217}	0.99819	0.99819 ± 0.00062 (−0.0 σ)	D_{1420}	817.36	818.2 ± 4.7 (−0.0 σ)	$f_{2000}^{143 \times 217}$	31.75	31.8 ± 1.8
b_{DES}^1	1.485	1.502 ± 0.074 (−0.0 σ)	D_{2000}	231.20	231.3 ± 1.5 (+0.0 σ)	f_{2000}^{217}	106.37	106.7 ± 1.8
b_{DES}^2	1.680	1.700 ± 0.054 (−0.1 σ)	$n_{s,0.002}$	0.96861	0.9688 ± 0.0037 (+0.0 σ)	$\chi_{lensing}^2$	8.76	9.45 ± 0.97 (+0.0 σ)
b_{DES}^3	1.6688	1.688 ± 0.046 (−0.1 σ)	Y_P	0.2454499	0.245450 ± 0.000050 (+0.1 σ)	χ_{small}^2	396.19	397.2 ± 1.9 (−0.0 σ)
b_{DES}^4	2.025	2.046 ± 0.054 (−0.1 σ)	Y_P^{BBN}	0.2467766	0.246776 ± 0.000050 (+0.1 σ)	χ_{lowl}^2	22.92	22.86 ± 0.75 (+0.0 σ)
b_{DES}^5	2.127	2.149 ± 0.078 (−0.0 σ)	$10^5 D/H$	2.5592	2.559 ± 0.024 (−0.1 σ)	χ_{plik}^2	2345.5	2361.6 ± 6.0 (−0.0 σ)
m_{DES}^1	0.0137	0.012 ± 0.023 (−0.0 σ)	Age/Gyr	13.7407	$13.763^{+0.022}_{-0.031}$ (−0.4 σ)	χ_{6DF}^2	0.0162	0.029 ± 0.042 (+0.4 σ)
m_{DES}^2	0.0136	0.012 ± 0.022 (+0.0 σ)	z_*	1089.598	1089.58 ± 0.20 (−0.1 σ)	χ_{MGS}^2	2.12	1.87 ± 0.51 (+0.3 σ)
m_{DES}^3	−0.0050	$−0.005 \pm 0.020$ (−0.0 σ)	r_*	144.733	144.80 ± 0.21 (−0.0 σ)	$\chi_{DR12BAO}^2$	3.415	3.85 ± 0.75 (+0.1 σ)
m_{DES}^4	0.0006	0.001 ± 0.020 (−0.0 σ)	$100\theta_*$	1.041290	1.04127 ± 0.00028 (+0.0 σ)	χ_{DES}^2	509.67	518.6 ± 4.9 (+0.0 σ)
$A_{IA,DES}$	0.443	$0.48^{+0.15}_{-0.18}$ (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8994	13.906 ± 0.020 (−0.0 σ)	χ_{prior}^2	4.5	25 ± 7 (−0.0 σ)
$\alpha_{IA,DES}$	−2.62	$−1.2^{+1.7}_{-2.8}$ (+0.0 σ)	z_{drag}	1060.162	1060.14 ± 0.29 (+0.1 σ)	χ_{CMB}^2	2773.4	2791.0 ± 6.4 (−0.0 σ)
$\Delta z_{l,DES}^1$	0.0030	0.0034 ± 0.0075 (−0.0 σ)	r_{drag}	147.352	147.42 ± 0.22 (−0.0 σ)	χ_{BAO}^2	5.547	5.75 ± 0.74 (+0.4 σ)

Best-fit $\chi_{eff}^2 = 3293.06$; $\Delta\chi_{eff}^2 = -1.03$; $\bar{\chi}_{eff}^2 = 3340.25$; $\Delta\bar{\chi}_{eff}^2 = 0.08$; $R - 1 = 0.00952$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 2.12 (Δ 0.44) DR12BAO: 3.42 (Δ -0.11) CMB - smicadx12_Dec5_ftl_mv2.ndclpp_p-teb_consext8: 8.76 (Δ -0.32) small_100x143_offlike5_EE_Aplanck 396.19 (Δ -0.09) commander_dx12_v3.2.29: 22.92 (Δ 0.27) plik_rd12_HM_v22b.TTTEEE: 2345.49 (Δ -1.78) WL - DES_1YR_final: 509.67 (Δ 0.29)

6.155 base_mnu_plikHM_TTTEE_lowl_lowE_DES_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02251 \pm 0.00015 \quad (-0.1\sigma)$	$\Delta z_{\mathrm{l,DES}}^1$	$0.0035 \pm 0.0075 \quad (-0.0\sigma)$	z_{drag}	$1060.12 \pm 0.31 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1179 \pm 0.0011 \quad (+0.1\sigma)$	$\Delta z_{\mathrm{l,DES}}^2$	$0.0008 \pm 0.0066 \quad (-0.0\sigma)$	r_{drag}	$147.48 \pm 0.26 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00031 \quad (-0.1\sigma)$	$\Delta z_{\mathrm{l,DES}}^3$	$0.0034 \pm 0.0065 \quad (-0.0\sigma)$	k_{D}	$0.14057 \pm 0.00031 \quad (+0.1\sigma)$
τ	$0.0558^{+0.0051}_{-0.0085} \quad (-0.0\sigma)$	$\Delta z_{\mathrm{l,DES}}^4$	$0.0006 \pm 0.0090 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16065 \pm 0.00018 \quad (+0.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.112	$\Delta z_{\mathrm{l,DES}}^5$	$-0.0006 \pm 0.0098 \quad (-0.0\sigma)$	z_{eq}	$3356 \pm 25 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^1$	$-0.004 \pm 0.014 \quad (-0.0\sigma)$	k_{eq}	$0.010242 \pm 0.000077 \quad (+0.1\sigma)$
n_{s}	$0.9695 \pm 0.0042 \quad (-0.1\sigma)$	$\Delta z_{\mathrm{s,DES}}^2$	$-0.031 \pm 0.011 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8223 \pm 0.0048 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (+0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^3$	$0.0042 \pm 0.0096 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4540 \pm 0.0025 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^4$	$-0.029 \pm 0.018 \quad (+0.0\sigma)$	$H(0.15)$	$73.2^{+1.2}_{-0.39} \quad (-0.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	H_0	$67.9^{+1.4}_{-0.45} \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$638.8^{+3.6}_{-12} \quad (+0.9\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (-0.0\sigma)$	Ω_{Λ}	$0.693^{+0.017}_{-0.0053} \quad (-0.8\sigma)$	$H(0.38)$	$83.19^{+0.94}_{-0.30} \quad (-0.9\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	Ω_{m}	$0.3074^{+0.0053}_{-0.017} \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524.5^{+7.3}_{-24} \quad (+0.9\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}} h^2$	$0.14157^{+0.00099}_{-0.0020} \quad (+0.6\sigma)$	$H(0.51)$	$89.86^{+0.79}_{-0.24} \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	$\Omega_{\nu} h^2$	< 0.00121	$D_{\mathrm{M}}(0.51)$	$1975.5^{+8.6}_{-29} \quad (+0.9\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}} h^3$	$0.09613^{+0.00081}_{-0.00025} \quad (-0.7\sigma)$	$H(0.61)$	$95.44^{+0.67}_{-0.20} \quad (-0.9\sigma)$
A^{kSZ}	$< 4.44 \quad (+0.0\sigma)$	σ_8	$0.795^{+0.026}_{-0.0058} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2299.3^{+9.3}_{-31} \quad (+0.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	S_8	$0.804^{+0.014}_{-0.013} \quad (-0.2\sigma)$	$H(2.33)$	$235.60^{+0.64}_{-1.1} \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4405^{+0.0078}_{-0.0069} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5758.5^{+8.4}_{-33} \quad (+1.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.592^{+0.014}_{-0.0061} \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.4458^{+0.0075}_{-0.0064} \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.965^{+0.025}_{-0.0086} \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.025}_{-0.0053} \quad (-1.5\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$100.2^{+2.1}_{-0.79} \quad (-0.7\sigma)$	$f\sigma_8(0.38)$	$0.4650^{+0.0094}_{-0.0050} \quad (-0.5\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.406 \pm 0.024 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.653^{+0.023}_{-0.0046} \quad (-1.6\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	z_{re}	$7.76^{+0.57}_{-0.82} \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.464^{+0.010}_{-0.0043} \quad (-0.6\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.054 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.024}_{-0.034} \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.611^{+0.022}_{-0.0043} \quad (-1.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.080 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.874 \pm 0.011 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0038} \quad (-0.7\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.06 \pm 0.27 \quad (+0.0\sigma)$	D_{40}	$1221 \pm 12 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.582^{+0.021}_{-0.0041} \quad (-1.7\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	D_{220}	$5745 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2941^{+0.0095}_{-0.0019} \quad (-1.4\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.303^{+0.011}_{-0.0021} \quad (-1.6\sigma)$
b_{DES}^1	$1.525^{+0.075}_{-0.093} \quad (+0.3\sigma)$	D_{1420}	$818.2 \pm 4.7 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.2 \pm 2.8 \quad (+0.0\sigma)$
b_{DES}^2	$1.728^{+0.052}_{-0.082} \quad (+0.4\sigma)$	D_{2000}	$231.2 \pm 1.6 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.9 \quad (+0.0\sigma)$
b_{DES}^3	$1.715^{+0.043}_{-0.074} \quad (+0.4\sigma)$	$n_{\mathrm{s},0.002}$	$0.9695 \pm 0.0042 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (+0.0\sigma)$
b_{DES}^4	$2.079^{+0.050}_{-0.088} \quad (+0.4\sigma)$	Y_{P}	$0.245449 \pm 0.000057 \quad (-0.1\sigma)$	χ_{simall}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
b_{DES}^5	$2.180^{+0.079}_{-0.10} \quad (+0.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246775 \pm 0.000058 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.56 \pm 0.78 \quad (-0.0\sigma)$
m_{DES}^1	$0.012 \pm 0.023 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.560 \pm 0.027 \quad (+0.1\sigma)$	χ_{plik}^2	$2364.3 \pm 6.9 \quad (+0.2\sigma)$
m_{DES}^2	$0.013 \pm 0.022 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.788^{+0.018}_{-0.074} \quad (+1.0\sigma)$	χ_{DES}^2	$518.1 \pm 4.9 \quad (+0.0\sigma)$
m_{DES}^3	$-0.003 \pm 0.020 \quad (-0.0\sigma)$	z_*	$1089.56 \pm 0.26 \quad (+0.1\sigma)$	χ_{prior}^2	$25 \pm 7 \quad (-0.0\sigma)$
m_{DES}^4	$0.003 \pm 0.021 \quad (+0.0\sigma)$	r_*	$144.85 \pm 0.26 \quad (-0.1\sigma)$	χ_{CMB}^2	$2783.8 \pm 6.8 \quad (+0.2\sigma)$
$A_{\mathrm{IA,DES}}$	$0.46^{+0.15}_{-0.19} \quad (-0.0\sigma)$	$100\theta_*$	$1.04130 \pm 0.00029 \quad (+0.0\sigma)$		
$\alpha_{\mathrm{IA,DES}}$	$-1.1^{+1.7}_{-2.9} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.911 \pm 0.025 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 3326.52$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 1.08$; $R - 1 = 0.00752$

6.156 base_mnu_plikHM_TTTEE_lowl_lowE_DES_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02252 \pm 0.00013 \quad (+0.1\sigma)$	$\Delta z_{\text{l,DES}}^2$	$0.0007 \pm 0.0066 \quad (-0.0\sigma)$	k_{D}	$0.14057 \pm 0.00029 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.11793 \pm 0.00090 \quad (-0.1\sigma)$	$\Delta z_{\text{l,DES}}^3$	$0.0034 \pm 0.0066 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16065 \pm 0.00017 \quad (-0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04112 \pm 0.00028 \quad (+0.0\sigma)$	$\Delta z_{\text{l,DES}}^4$	$0.0006 \pm 0.0090 \quad (+0.0\sigma)$	z_{eq}	$3356 \pm 21 \quad (-0.0\sigma)$
τ	$0.0555^{+0.0051}_{-0.0082} \quad (-0.0\sigma)$	$\Delta z_{\text{l,DES}}^5$	$-0.0007 \pm 0.0097 \quad (-0.0\sigma)$	k_{eq}	$0.010244 \pm 0.000063 \quad (-0.0\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0881	$\Delta z_{\text{s,DES}}^1$	$-0.003 \pm 0.014 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8222 \pm 0.0039 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.041^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$\Delta z_{\text{s,DES}}^2$	$-0.031 \pm 0.011 \quad (-0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4539 \pm 0.0020 \quad (+0.0\sigma)$
n_{s}	$0.9695 \pm 0.0037 \quad (+0.0\sigma)$	$\Delta z_{\text{s,DES}}^3$	$0.0039 \pm 0.0095 \quad (+0.0\sigma)$	$H(0.15)$	$73.43^{+0.55}_{-0.41} \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$\Delta z_{\text{s,DES}}^4$	$-0.030 \pm 0.018 \quad (+0.0\sigma)$	$D_{\text{M}}(0.15)$	$636.0^{+3.9}_{-5.3} \quad (+0.0\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	H_0	$68.24^{+0.62}_{-0.47} \quad (-0.0\sigma)$	$H(0.38)$	$83.40^{+0.43}_{-0.31} \quad (-0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	$0.6966^{+0.0074}_{-0.0058} \quad (-0.1\sigma)$	$D_{\text{M}}(0.38)$	$1518.7^{+7.9}_{-11} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (-0.0\sigma)$	Ω_{m}	$0.3034^{+0.0058}_{-0.0074} \quad (+0.1\sigma)$	$H(0.51)$	$90.04^{+0.37}_{-0.26} \quad (-0.0\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (+0.0\sigma)$	$\Omega_{\text{m}} h^2$	$0.14121 \pm 0.00091 \quad (+0.1\sigma)$	$D_{\text{M}}(0.51)$	$1968.6^{+9.4}_{-13} \quad (+0.0\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\Omega_{\nu} h^2$	< 0.000947	$H(0.61)$	$95.60^{+0.32}_{-0.22} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	$\Omega_{\text{m}} h^3$	$0.09635^{+0.00048}_{-0.00034} \quad (+0.1\sigma)$	$D_{\text{M}}(0.61)$	$2292^{+10}_{-14} \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (+0.0\sigma)$	σ_8	$0.803^{+0.016}_{-0.0086} \quad (-0.2\sigma)$	$H(2.33)$	$235.42 \pm 0.56 \quad (+0.1\sigma)$
A^{kSZ}	$< 4.39 \quad (+0.0\sigma)$	S_8	$0.807 \pm 0.012 \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	$5750^{+10}_{-16} \quad (-0.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4423 \pm 0.0067 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4477 \pm 0.0063 \quad (-0.0\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.596^{+0.010}_{-0.0071} \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.743^{+0.015}_{-0.0080} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.972^{+0.017}_{-0.011} \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4677^{+0.0069}_{-0.0055} \quad (-0.1\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$100.63^{+0.94}_{-0.78} \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.660^{+0.014}_{-0.0071} \quad (-0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.410 \pm 0.023 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4673^{+0.0071}_{-0.0051} \quad (-0.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_{re}	$7.72^{+0.56}_{-0.80} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.618^{+0.013}_{-0.0067} \quad (-0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.084 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.094^{+0.024}_{-0.034} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4630^{+0.0073}_{-0.0049} \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.053 \quad (+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874 \pm 0.011 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.588^{+0.012}_{-0.0064} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.660 \pm 0.080 \quad (-0.0\sigma)$	D_{40}	$1222 \pm 12 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2970^{+0.0054}_{-0.0029} \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.0\sigma)$	D_{220}	$5744 \pm 39 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0064}_{-0.0033} \quad (-0.1\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (-0.0\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	D_{1420}	$818.0 \pm 4.7 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.8 \quad (-0.0\sigma)$
b_{DES}^1	$1.510 \pm 0.076 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 1.5 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.0\sigma)$
b_{DES}^2	$1.710 \pm 0.058 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9695 \pm 0.0037 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
b_{DES}^3	$1.698 \pm 0.050 \quad (+0.1\sigma)$	Y_{P}	$0.245451 \pm 0.000050 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.64 \pm 0.77 \quad (-0.0\sigma)$
b_{DES}^4	$2.059^{+0.055}_{-0.061} \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246778 \pm 0.000050 \quad (+0.1\sigma)$	χ_{plik}^2	$2363.1 \pm 6.6 \quad (+0.1\sigma)$
b_{DES}^5	$2.162 \pm 0.081 \quad (+0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.559 \pm 0.024 \quad (-0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.033 \pm 0.047 \quad (+0.4\sigma)$
m_{DES}^1	$0.012 \pm 0.023 \quad (+0.0\sigma)$	Age/Gyr	$13.769^{+0.023}_{-0.037} \quad (+0.0\sigma)$	χ_{MGS}^2	$1.85 \pm 0.54 \quad (+0.0\sigma)$
m_{DES}^2	$0.013 \pm 0.022 \quad (+0.0\sigma)$	z_*	$1089.55 \pm 0.21 \quad (-0.1\sigma)$	χ_{DR12BAO}^2	$3.93 \pm 0.87 \quad (+0.4\sigma)$
m_{DES}^3	$-0.003 \pm 0.020 \quad (+0.0\sigma)$	r_*	$144.86 \pm 0.22 \quad (+0.0\sigma)$	χ_{DES}^2	$518.3 \pm 4.9 \quad (+0.0\sigma)$
m_{DES}^4	$0.003 \pm 0.021 \quad (+0.0\sigma)$	$100\theta_*$	$1.04130 \pm 0.00028 \quad (+0.1\sigma)$	χ_{prior}^2	$25 \pm 7 \quad (-0.0\sigma)$
$A_{\text{IA,DES}}$	$0.47^{+0.15}_{-0.18} \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.911 \pm 0.021 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.81 \pm 0.83 \quad (+0.4\sigma)$
$\alpha_{\text{IA,DES}}$	$-1.1^{+1.7}_{-2.9} \quad (+0.0\sigma)$	z_{drag}	$1060.13 \pm 0.29 \quad (+0.1\sigma)$	χ_{CMB}^2	$2782.6 \pm 6.5 \quad (+0.1\sigma)$
$\Delta z_{\text{l,DES}}^1$	$0.0036 \pm 0.0075 \quad (-0.0\sigma)$	r_{drag}	$147.48 \pm 0.23 \quad (+0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 3331.28$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.53$; $R - 1 = 0.00944$

6.157 base_mnu_plikHM_TTTEE_lowl_lowE_DES_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02252 \pm 0.00014 \quad (+0.1\sigma)$	$\Delta z_{\mathrm{l,DES}}^1$	$0.0035 \pm 0.0075 \quad (-0.0\sigma)$	z_{drag}	$1060.15 \pm 0.30 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0011 \quad (-0.0\sigma)$	$\Delta z_{\mathrm{l,DES}}^2$	$0.0007 \pm 0.0066 \quad (-0.0\sigma)$	r_{drag}	$147.44 \pm 0.25 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04111 \pm 0.00030 \quad (+0.0\sigma)$	$\Delta z_{\mathrm{l,DES}}^3$	$0.0034 \pm 0.0066 \quad (+0.0\sigma)$	k_{D}	$0.14062 \pm 0.00029 \quad (+0.0\sigma)$
τ	$0.0573^{+0.0059}_{-0.0083} \quad (-0.0\sigma)$	$\Delta z_{\mathrm{l,DES}}^4$	$0.0005 \pm 0.0090 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16064 \pm 0.00017 \quad (-0.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0710	$\Delta z_{\mathrm{l,DES}}^5$	$-0.0007 \pm 0.0097 \quad (-0.0\sigma)$	z_{eq}	$3360 \pm 24 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^1$	$-0.003 \pm 0.014 \quad (-0.0\sigma)$	k_{eq}	$0.010254 \pm 0.000072 \quad (-0.0\sigma)$
n_{s}	$0.9691 \pm 0.0040 \quad (+0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^2$	$-0.031 \pm 0.011 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8216 \pm 0.0045 \quad (+0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (-0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^3$	$0.0035 \pm 0.0095 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4536 \pm 0.0023 \quad (+0.0\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^4$	$-0.031 \pm 0.018 \quad (+0.0\sigma)$	$H(0.15)$	$73.45^{+0.78}_{-0.43} \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	H_0	$68.26^{+0.90}_{-0.49} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.8^{+4.0}_{-7.6} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	Ω_{Λ}	$0.697^{+0.011}_{-0.0060} \quad (+0.1\sigma)$	$H(0.38)$	$83.43^{+0.60}_{-0.32} \quad (+0.2\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	Ω_{m}	$0.3034^{+0.0060}_{-0.011} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1518.3^{+8.2}_{-16} \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1413^{+0.0010}_{-0.0014} \quad (-0.0\sigma)$	$H(0.51)$	$90.07^{+0.50}_{-0.26} \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	$\Omega_{\nu}h^2$	< 0.000763	$D_{\mathrm{M}}(0.51)$	$1968.1^{+9.7}_{-18} \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09642^{+0.00050}_{-0.00030} \quad (+0.2\sigma)$	$H(0.61)$	$95.63^{+0.42}_{-0.22} \quad (+0.2\sigma)$
A^{kSZ}	$< 4.26 \quad (+0.0\sigma)$	σ_8	$0.807^{+0.014}_{-0.0058} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2291^{+11}_{-20} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	S_8	$0.811 \pm 0.011 \quad (-0.0\sigma)$	$H(2.33)$	$235.47^{+0.64}_{-0.84} \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4444 \pm 0.0058 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5748.9^{+9.8}_{-20} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5988^{+0.0078}_{-0.0057} \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4496 \pm 0.0054 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.977^{+0.013}_{-0.0081} \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.0053} \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$100.6^{+1.4}_{-0.85} \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4697^{+0.0053}_{-0.0046} \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.419 \pm 0.019 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.663^{+0.013}_{-0.0048} \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.084 \quad (+0.0\sigma)$	z_{re}	$7.91^{+0.62}_{-0.79} \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4693^{+0.0055}_{-0.0041} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.053 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.033} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.621^{+0.012}_{-0.0045} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.080 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.010 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4650^{+0.0058}_{-0.0037} \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.06 \pm 0.27 \quad (-0.0\sigma)$	D_{40}	$1225 \pm 11 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.591^{+0.012}_{-0.0043} \quad (+0.1\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	D_{220}	$5750 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2983^{+0.0053}_{-0.0022} \quad (+0.2\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3078^{+0.0064}_{-0.0024} \quad (+0.2\sigma)$
b_{DES}^1	$1.504 \pm 0.077 \quad (-0.0\sigma)$	D_{1420}	$818.4 \pm 4.7 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.0 \pm 2.8 \quad (-0.1\sigma)$
b_{DES}^2	$1.703 \pm 0.058 \quad (-0.0\sigma)$	D_{2000}	$231.4 \pm 1.6 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 1.9 \quad (-0.0\sigma)$
b_{DES}^3	$1.691^{+0.045}_{-0.051} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9691 \pm 0.0040 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.0\sigma)$
b_{DES}^4	$2.050^{+0.052}_{-0.061} \quad (-0.0\sigma)$	Y_{P}	$0.245453 \pm 0.000054 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.5 \pm 1.0 \quad (+0.1\sigma)$
b_{DES}^5	$2.152 \pm 0.081 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246779 \pm 0.000054 \quad (+0.1\sigma)$	χ_{simall}^2	$397.3 \pm 2.1 \quad (-0.0\sigma)$
m_{DES}^1	$0.012 \pm 0.023 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.558 \pm 0.026 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.82 \pm 0.77 \quad (+0.0\sigma)$
m_{DES}^2	$0.012 \pm 0.022 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.766^{+0.022}_{-0.046} \quad (-0.2\sigma)$	χ_{plik}^2	$2362.0 \pm 6.1 \quad (+0.0\sigma)$
m_{DES}^3	$-0.004 \pm 0.020 \quad (-0.0\sigma)$	z_*	$1089.56 \pm 0.24 \quad (-0.1\sigma)$	χ_{DES}^2	$518.5 \pm 5.0 \quad (+0.0\sigma)$
m_{DES}^4	$0.002 \pm 0.021 \quad (+0.0\sigma)$	r_*	$144.82 \pm 0.24 \quad (+0.0\sigma)$	χ_{prior}^2	$25 \pm 7 \quad (-0.0\sigma)$
$A_{\mathrm{IA,DES}}$	$0.47^{+0.15}_{-0.18} \quad (+0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00029 \quad (+0.1\sigma)$	χ_{CMB}^2	$2791.7 \pm 6.6 \quad (+0.0\sigma)$
$\alpha_{\mathrm{IA,DES}}$	$-1.2^{+1.7}_{-2.9} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.908 \pm 0.023 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 3334.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.24$; $R - 1 = 0.00823$

6.158 base_mnu_plikHM_TTTEE_lowl_lowE_DES_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02252 \pm 0.00013 \quad (+0.1\sigma)$	$\Delta z_{\text{l,DES}}^2$	$0.0007 \pm 0.0066 \quad (-0.0\sigma)$	k_{D}	$0.14063 \pm 0.00028 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.11815 \pm 0.00084 \quad (-0.0\sigma)$	$\Delta z_{\text{l,DES}}^3$	$0.0034 \pm 0.0066 \quad (+0.0\sigma)$	$100\theta_{\text{D}}$	$0.16065 \pm 0.00017 \quad (-0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04111 \pm 0.00028 \quad (+0.0\sigma)$	$\Delta z_{\text{l,DES}}^4$	$0.0005 \pm 0.0090 \quad (+0.0\sigma)$	z_{eq}	$3362 \pm 19 \quad (+0.0\sigma)$
τ	$0.0568^{+0.0056}_{-0.0080} \quad (-0.1\sigma)$	$\Delta z_{\text{l,DES}}^5$	$-0.0007 \pm 0.0097 \quad (-0.0\sigma)$	k_{eq}	$0.010260 \pm 0.000059 \quad (+0.0\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0670	$\Delta z_{\text{s,DES}}^1$	$-0.003 \pm 0.014 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8212 \pm 0.0037 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.045^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$\Delta z_{\text{s,DES}}^2$	$-0.031 \pm 0.011 \quad (-0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4534 \pm 0.0019 \quad (-0.0\sigma)$
n_{s}	$0.9688 \pm 0.0036 \quad (+0.0\sigma)$	$\Delta z_{\text{s,DES}}^3$	$0.0034 \pm 0.0095 \quad (+0.0\sigma)$	$H(0.15)$	$73.49^{+0.49}_{-0.38} \quad (+0.3\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (-0.0\sigma)$	$\Delta z_{\text{s,DES}}^4$	$-0.031 \pm 0.018 \quad (+0.0\sigma)$	$D_{\text{M}}(0.15)$	$635.4^{+3.6}_{-4.7} \quad (-0.3\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	H_0	$68.29^{+0.55}_{-0.44} \quad (+0.3\sigma)$	$H(0.38)$	$83.46^{+0.38}_{-0.29} \quad (+0.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Ω_{Λ}	$0.6971^{+0.0068}_{-0.0054} \quad (+0.2\sigma)$	$D_{\text{M}}(0.38)$	$1517.6^{+7.4}_{-9.7} \quad (-0.3\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (-0.0\sigma)$	Ω_{m}	$0.3029^{+0.0054}_{-0.0068} \quad (-0.2\sigma)$	$H(0.51)$	$90.09^{+0.32}_{-0.24} \quad (+0.4\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	$\Omega_{\text{m}} h^2$	$0.14126 \pm 0.00088 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1967.2^{+8.8}_{-11} \quad (-0.3\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\Omega_{\nu} h^2$	< 0.000720	$H(0.61)$	$95.65^{+0.28}_{-0.21} \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	$\Omega_{\text{m}} h^3$	$0.09647^{+0.00040}_{-0.00032} \quad (+0.4\sigma)$	$D_{\text{M}}(0.61)$	$2290.2^{+9.6}_{-13} \quad (-0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	σ_8	$0.809^{+0.012}_{-0.0067} \quad (+0.4\sigma)$	$H(2.33)$	$235.47 \pm 0.55 \quad (-0.1\sigma)$
A^{kSZ}	$< 4.28 \quad (+0.0\sigma)$	S_8	$0.8126 \pm 0.0098 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5747.6^{+9.7}_{-14} \quad (-0.4\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4451 \pm 0.0054 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4503 \pm 0.0050 \quad (+0.1\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6000^{+0.0072}_{-0.0056} \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.748^{+0.011}_{-0.0062} \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.979^{+0.012}_{-0.0085} \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4706^{+0.0050}_{-0.0044} \quad (+0.2\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$100.68^{+0.87}_{-0.73} \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.664^{+0.010}_{-0.0056} \quad (+0.5\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.420 \pm 0.019 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4702^{+0.0051}_{-0.0041} \quad (+0.3\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	z_{re}	$7.85^{+0.60}_{-0.77} \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6219^{+0.0095}_{-0.0053} \quad (+0.5\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.084 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.102^{+0.024}_{-0.032} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4659^{+0.0051}_{-0.0039} \quad (+0.3\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.053 \quad (+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.876 \pm 0.010 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5920^{+0.0091}_{-0.0051} \quad (+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.661 \pm 0.080 \quad (-0.0\sigma)$	D_{40}	$1225 \pm 11 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2988^{+0.0039}_{-0.0024} \quad (+0.5\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.0\sigma)$	D_{220}	$5749 \pm 38 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3084^{+0.0047}_{-0.0027} \quad (+0.5\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.1 \pm 2.7 \quad (-0.0\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	D_{1420}	$818.2 \pm 4.7 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 1.8 \quad (-0.0\sigma)$
b_{DES}^1	$1.501 \pm 0.073 \quad (-0.0\sigma)$	D_{2000}	$231.3 \pm 1.5 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.7 \quad (-0.0\sigma)$
b_{DES}^2	$1.699 \pm 0.054 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9688 \pm 0.0036 \quad (+0.0\sigma)$	χ_{lensing}^2	$9.40 \pm 0.92 \quad (+0.1\sigma)$
b_{DES}^3	$1.687 \pm 0.046 \quad (-0.1\sigma)$	Y_{P}	$0.245450 \pm 0.000050 \quad (+0.1\sigma)$	χ_{simall}^2	$397.2 \pm 2.0 \quad (-0.0\sigma)$
b_{DES}^4	$2.046 \pm 0.054 \quad (-0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246777 \pm 0.000050 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.86 \pm 0.75 \quad (+0.0\sigma)$
b_{DES}^5	$2.148 \pm 0.078 \quad (-0.0\sigma)$	10^5D/H	$2.559 \pm 0.024 \quad (-0.1\sigma)$	χ_{plik}^2	$2361.5 \pm 6.0 \quad (-0.0\sigma)$
m_{DES}^1	$0.012 \pm 0.023 \quad (-0.0\sigma)$	Age/Gyr	$13.763^{+0.022}_{-0.031} \quad (-0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.030 \pm 0.042 \quad (+0.5\sigma)$
m_{DES}^2	$0.012 \pm 0.022 \quad (+0.0\sigma)$	z_*	$1089.57 \pm 0.20 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.88 \pm 0.51 \quad (+0.3\sigma)$
m_{DES}^3	$-0.005 \pm 0.020 \quad (-0.0\sigma)$	r_*	$144.80 \pm 0.21 \quad (-0.0\sigma)$	χ_{DR12BAO}^2	$3.85 \pm 0.74 \quad (+0.2\sigma)$
m_{DES}^4	$0.001 \pm 0.020 \quad (-0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00028 \quad (+0.0\sigma)$	χ_{DES}^2	$518.6 \pm 4.9 \quad (+0.0\sigma)$
$A_{\text{IA,DES}}$	$0.48^{+0.15}_{-0.18} \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.906 \pm 0.020 \quad (-0.0\sigma)$	χ_{prior}^2	$25 \pm 7 \quad (-0.0\sigma)$
$\alpha_{\text{IA,DES}}$	$-1.2^{+1.7}_{-2.8} \quad (+0.0\sigma)$	z_{drag}	$1060.14 \pm 0.29 \quad (+0.1\sigma)$	χ_{CMB}^2	$2790.9 \pm 6.4 \quad (-0.0\sigma)$
$\Delta z_{\text{l,DES}}^1$	$0.0035 \pm 0.0075 \quad (-0.0\sigma)$	r_{drag}	$147.42 \pm 0.22 \quad (-0.0\sigma)$	χ_{BAO}^2	$5.76 \pm 0.74 \quad (+0.5\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 3340.12$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.09$; $R - 1 = 0.00912$

6.159 base_mnu_plikHM_TTTEE_lowl_lowE_DESlens

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022462	0.02243 ± 0.00014 (-0.0σ)	$\Delta z_{s,\text{DES}}^2$	-0.0205	-0.021 ± 0.012 $(+0.0\sigma)$	k_D	0.140762	0.14072 ± 0.00030 $(+0.0\sigma)$
$\Omega_c h^2$	0.11903	0.1190 ± 0.0011 $(+0.0\sigma)$	$\Delta z_{s,\text{DES}}^3$	0.0047	0.004 ± 0.010 (-0.0σ)	$100\theta_D$	0.160687	0.16072 ± 0.00017 $(+0.0\sigma)$
$100\theta_{\text{MC}}$	1.041074	1.04100 ± 0.00031 (-0.1σ)	$\Delta z_{s,\text{DES}}^4$	-0.0213	-0.022 ± 0.020 (-0.0σ)	z_{eq}	3381.2	3381 ± 26 $(+0.0\sigma)$
τ	0.0535	0.0536 ± 0.0079 $(+0.0\sigma)$	H_0	68.33	$67.6^{+1.1}_{-0.57}$ (-0.4σ)	k_{eq}	0.010320	0.010318 ± 0.000079 $(+0.0\sigma)$
Σm_ν [eV]	0.002	< 0.100	Ω_Λ	0.6969	$0.688^{+0.014}_{-0.0071}$ (-0.4σ)	$100\theta_{\text{eq}}$	0.81738	0.8175 ± 0.0049 (-0.0σ)
$\ln(10^{10} A_s)$	3.0406	3.040 ± 0.016 $(+0.0\sigma)$	Ω_m	0.3031	$0.3119^{+0.0071}_{-0.014}$ $(+0.4\sigma)$	$100\theta_{s,\text{eq}}$	0.45144	0.4515 ± 0.0025 (-0.0σ)
n_s	0.96824	0.9672 ± 0.0041 (-0.0σ)	$\Omega_m h^2$	0.14152	$0.1424^{+0.0012}_{-0.0016}$ $(+0.3\sigma)$	$H(0.15)$	73.53	$72.88^{+0.94}_{-0.49}$ (-0.4σ)
y_{cal}	1.00044	1.0004 ± 0.0025 (-0.1σ)	$\Omega_\nu h^2$	0.00003	< 0.00108	$D_M(0.15)$	635.1	$641.5^{+4.7}_{-9.4}$ $(+0.4\sigma)$
A_{217}^{CIB}	47.0	47 ± 7 $(+0.0\sigma)$	$\Omega_m h^3$	0.096698	$0.09624^{+0.00062}_{-0.00031}$ (-0.3σ)	$H(0.38)$	83.51	$83.00^{+0.72}_{-0.37}$ (-0.4σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	σ_8	0.8200	$0.802^{+0.021}_{-0.0081}$ (-0.6σ)	$D_M(0.38)$	1516.6	$1529.7^{+9.5}_{-19}$ $(+0.4\sigma)$
A_{143}^{tSZ}	7.21	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	S_8	0.8243	0.818 ± 0.014 (-0.1σ)	$H(0.51)$	90.154	$89.72^{+0.60}_{-0.30}$ (-0.4σ)
A_{100}^{PS}	249.1	258 ± 28 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4515	0.4479 ± 0.0074 (-0.1σ)	$D_M(0.51)$	1966.0	1982^{+11}_{-23} $(+0.4\sigma)$
A_{143}^{PS}	47.2	45 ± 8 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6085	$0.599^{+0.012}_{-0.0074}$ (-0.3σ)	$H(0.61)$	95.717	$95.34^{+0.51}_{-0.25}$ (-0.4σ)
$A_{143 \times 217}^{\text{PS}}$	47.9	42 ± 9 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9921	$0.976^{+0.020}_{-0.011}$ (-0.4σ)	$D_M(0.61)$	2288.8	2306^{+12}_{-24} $(+0.4\sigma)$
A_{217}^{PS}	119.5	114 ± 10 (-0.0σ)	$r_{\text{drag}} h$	100.61	$99.6^{+1.7}_{-0.98}$ (-0.3σ)	$H(2.33)$	235.70	$236.13^{+0.72}_{-0.94}$ $(+0.2\sigma)$
A^{kSZ}	0.00	< 4.31 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4331	2.423 ± 0.025 (-0.1σ)	$D_M(2.33)$	5743.1	5762^{+11}_{-25} $(+0.5\sigma)$
A_{100}^{dustTT}	8.86	8.9 ± 1.8 $(+0.0\sigma)$	z_{re}	7.55	7.56 ± 0.80 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4560	0.4528 ± 0.0070 (-0.1σ)
A_{143}^{dustTT}	11.01	11.0 ± 1.8 $(+0.0\sigma)$	$10^9 A_s$	2.0918	2.091 ± 0.033 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7585	$0.741^{+0.020}_{-0.0075}$ (-0.7σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.82	18.7 ± 3.2 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8796	1.878 ± 0.011 (-0.1σ)	$f\sigma_8(0.38)$	0.4763	$0.4709^{+0.0079}_{-0.0058}$ (-0.2σ)
A_{217}^{dustTT}	95.0	93.7 ± 7.2 $(+0.0\sigma)$	D_{40}	1224.2	1226 ± 12 (-0.0σ)	$\sigma_8(0.38)$	0.6731	$0.657^{+0.018}_{-0.0066}$ (-0.7σ)
A_{100}^{dustTE}	0.1134	0.114 ± 0.038 $(+0.0\sigma)$	D_{220}	5735.6	5736 ± 39 (-0.0σ)	$f\sigma_8(0.51)$	0.4758	$0.4696^{+0.0084}_{-0.0052}$ (-0.3σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.135 ± 0.030 (-0.0σ)	D_{810}	2539.5	2537 ± 13 (-0.1σ)	$\sigma_8(0.51)$	0.6302	$0.615^{+0.017}_{-0.0063}$ (-0.7σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.481 ± 0.085 (-0.0σ)	D_{1420}	818.48	817.4 ± 4.7 (-0.1σ)	$f\sigma_8(0.61)$	0.4714	$0.4647^{+0.0088}_{-0.0049}$ (-0.3σ)
A_{143}^{dustTE}	0.226	0.224 ± 0.054 (-0.0σ)	D_{2000}	231.50	230.9 ± 1.6 (-0.1σ)	$\sigma_8(0.61)$	0.5998	$0.585^{+0.017}_{-0.0060}$ (-0.8σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.663 ± 0.080 (-0.0σ)	$n_{s,0.002}$	0.96824	0.9672 ± 0.0041 (-0.0σ)	$f\sigma_8(2.33)$	0.3018	$0.2956^{+0.0075}_{-0.0028}$ (-0.6σ)
A_{217}^{dustTE}	2.087	2.07 ± 0.27 (-0.0σ)	Y_P	0.245431	$0.245418^{+0.000057}_{-0.000052}$ (-0.0σ)	$\sigma_8(2.33)$	0.3120	$0.3045^{+0.0089}_{-0.0032}$ (-0.7σ)
c_{100}	0.99972	0.99967 ± 0.00061 $(+0.0\sigma)$	Y_P^{BBN}	0.246757	$0.246744^{+0.000057}_{-0.000052}$ (-0.0σ)	f_{2000}^{143}	28.43	29.4 ± 2.7 $(+0.0\sigma)$
c_{217}	0.99818	0.99820 ± 0.00062 (-0.0σ)	$10^5 D/H$	2.5686	2.575 ± 0.026 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	31.67	32.1 ± 1.9 $(+0.0\sigma)$
m_{DES}^1	0.0144	0.014 ± 0.023 (-0.0σ)	Age/Gyr	13.7513	$13.794^{+0.025}_{-0.056}$ $(+0.5\sigma)$	f_{2000}^{217}	106.30	106.9 ± 1.8 $(+0.0\sigma)$
m_{DES}^2	0.0124	0.012 ± 0.022 (-0.0σ)	z_*	1089.714	1089.76 ± 0.25 $(+0.0\sigma)$	χ_{small}^2	395.86	397.0 ± 1.7 $(+0.0\sigma)$
m_{DES}^3	-0.0067	-0.008 ± 0.020 $(+0.0\sigma)$	r_*	144.618	144.63 ± 0.26 (-0.0σ)	χ_{lowl}^2	22.90	22.99 ± 0.82 $(+0.0\sigma)$
m_{DES}^4	0.0119	0.011 ± 0.021 $(+0.0\sigma)$	$100\theta_*$	1.041214	1.04119 ± 0.00030 (-0.1σ)	χ_{plik}^2	2344.9	2361.4 ± 6.3 $(+0.1\sigma)$
$A_{\text{IA,DES}}$	1.43	1.24 ± 0.50 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8894	13.891 ± 0.024 (-0.0σ)	χ_{DES}^2	229.21	232.0 ± 2.5 (-0.0σ)
$\alpha_{\text{IA,DES}}$	2.44	$1.8^{+2.8}_{-1.1}$ (-0.0σ)	z_{drag}	1060.085	1060.01 ± 0.30 (-0.0σ)	χ_{prior}^2	2.7	19.6 ± 6.0 $(+0.0\sigma)$
$\Delta z_{s,\text{DES}}^1$	0.0045	0.005 ± 0.014 $(+0.0\sigma)$	r_{drag}	147.251	147.28 ± 0.26 (-0.0σ)	χ_{CMB}^2	2763.6	2781.4 ± 6.2 $(+0.1\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 2995.54$; $\Delta\chi_{\text{eff}}^2 = -1.13$; $\bar{\chi}_{\text{eff}}^2 = 3033.01$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.68$; $R - 1 = 0.00759$
 χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.00) commander_dx12_v3.2.29: 22.90 (Δ 0.07) plik_rd12_HM_v22b_TTTEE: 2344.87 (Δ -1.15) WL - DES_1YR_final: 229.21 (Δ 0.02)

6.160 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022444	0.02246 ± 0.00013 (+0.0 σ)	$\Delta z_{s,DES}^4$	-0.0221	-0.022 ± 0.020 (-0.0 σ)	$100\theta_{eq}$	0.81725	0.8186 ± 0.0040 (-0.0 σ)
$\Omega_c h^2$	0.11906	0.11876 ± 0.00093 (+0.0 σ)	H_0	68.29	$67.99^{+0.53}_{-0.47}$ (+0.2 σ)	$100\theta_{s,eq}$	0.45139	0.4521 ± 0.0021 (-0.0 σ)
$100\theta_{MC}$	1.041040	1.04105 ± 0.00029 (-0.1 σ)	Ω_Λ	0.6965	$0.6931^{+0.0067}_{-0.0059}$ (+0.1 σ)	$H(0.15)$	73.495	$73.23^{+0.47}_{-0.41}$ (+0.2 σ)
τ	0.0532	0.0540 ± 0.0078 (-0.0 σ)	Ω_m	0.3035	$0.3069^{+0.0059}_{-0.0067}$ (-0.1 σ)	$D_M(0.15)$	635.39	$638.0^{+4.0}_{-4.6}$ (-0.2 σ)
Σm_ν [eV]	0.0025	< 0.0693	$\Omega_m h^2$	0.14153	0.14183 ± 0.00091 (-0.0 σ)	$H(0.38)$	83.481	$83.27^{+0.36}_{-0.31}$ (+0.2 σ)
$\ln(10^{10} A_s)$	3.0387	3.040 ± 0.016 (-0.0 σ)	$\Omega_\nu h^2$	0.000027	< 0.000745	$D_M(0.38)$	1517.3	$1522.6^{+8.1}_{-9.3}$ (-0.2 σ)
n_s	0.96835	0.9680 ± 0.0037 (-0.0 σ)	$\Omega_m h^3$	0.096654	$0.09643^{+0.00040}_{-0.00032}$ (+0.3 σ)	$H(0.51)$	90.128	$89.94^{+0.30}_{-0.26}$ (+0.3 σ)
y_{cal}	0.99984	1.0004 ± 0.0025 (-0.1 σ)	σ_8	0.8194	$0.808^{+0.014}_{-0.0081}$ (+0.3 σ)	$D_M(0.51)$	1966.8	$1973.2^{+9.5}_{-11}$ (-0.2 σ)
A_{217}^{CIB}	46.8	47 ± 7 (-0.0 σ)	S_8	0.8242	0.818 ± 0.012 (+0.1 σ)	$H(0.61)$	95.693	$95.53^{+0.26}_{-0.21}$ (+0.3 σ)
$\xi^{tSZ \times CIB}$	0.48	—	$\sigma_8 \Omega_m^{0.5}$	0.4514	0.4478 ± 0.0067 (+0.1 σ)	$D_M(0.61)$	2289.7	2297^{+10}_{-12} (-0.2 σ)
A_{143}^{tSZ}	7.30	$5.6^{+2.2}_{-1.9}$ (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6082	$0.6017^{+0.0091}_{-0.0070}$ (+0.2 σ)	$H(2.33)$	235.70	235.82 ± 0.57 (-0.0 σ)
A_{100}^{PS}	247.7	258 ± 28 (-0.0 σ)	$\sigma_8/h^{0.5}$	0.9916	$0.980^{+0.015}_{-0.011}$ (+0.2 σ)	$D_M(2.33)$	5744.3	5753^{+10}_{-13} (-0.3 σ)
A_{143}^{PS}	47.3	45 ± 8 (-0.0 σ)	$r_{drag} h$	100.57	100.17 ± 0.82 (+0.2 σ)	$f\sigma_8(0.15)$	0.4559	0.4527 ± 0.0063 (+0.1 σ)
$A_{143 \times 217}^{PS}$	48.3	42 ± 9 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4310	2.423 ± 0.024 (+0.0 σ)	$\sigma_8(0.15)$	0.7579	$0.748^{+0.013}_{-0.0074}$ (+0.4 σ)
A_{217}^{PS}	119.7	115 ± 10 (+0.0 σ)	z_{re}	7.53	7.59 ± 0.79 (-0.0 σ)	$f\sigma_8(0.38)$	0.4761	$0.4721^{+0.0064}_{-0.0055}$ (+0.2 σ)
A^{kSZ}	0.00	< 4.20 (-0.0 σ)	$10^9 A_s$	2.0877	2.091 ± 0.033 (-0.0 σ)	$\sigma_8(0.38)$	0.6725	$0.663^{+0.012}_{-0.0066}$ (+0.4 σ)
A_{100}^{dustTT}	8.89	8.9 ± 1.9 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8769	1.877 ± 0.011 (-0.1 σ)	$f\sigma_8(0.51)$	0.4756	$0.4712^{+0.0064}_{-0.0051}$ (+0.2 σ)
A_{143}^{dustTT}	11.07	10.9 ± 1.8 (+0.0 σ)	D_{40}	1221.9	1225 ± 12 (-0.0 σ)	$\sigma_8(0.51)$	0.6296	$0.621^{+0.011}_{-0.0062}$ (+0.4 σ)
$A_{143 \times 217}^{dustTT}$	19.89	18.6 ± 3.2 (+0.0 σ)	D_{220}	5724.8	5736 ± 38 (-0.1 σ)	$f\sigma_8(0.61)$	0.4712	$0.4667^{+0.0064}_{-0.0049}$ (+0.3 σ)
A_{217}^{dustTT}	95.0	93.8 ± 7.2 (+0.0 σ)	D_{810}	2536.0	2537 ± 13 (-0.1 σ)	$\sigma_8(0.61)$	0.5992	$0.591^{+0.010}_{-0.0059}$ (+0.4 σ)
A_{100}^{dustTE}	0.1147	0.114 ± 0.038 (+0.0 σ)	D_{1420}	817.36	817.6 ± 4.7 (-0.1 σ)	$f\sigma_8(2.33)$	0.30150	$0.2981^{+0.0046}_{-0.0028}$ (+0.4 σ)
$A_{100 \times 143}^{dustTE}$	0.1345	0.134 ± 0.030 (-0.0 σ)	D_{2000}	231.15	231.1 ± 1.6 (-0.0 σ)	$\sigma_8(2.33)$	0.31164	$0.3075^{+0.0053}_{-0.0031}$ (+0.4 σ)
$A_{100 \times 217}^{dustTE}$	0.480	0.479 ± 0.085 (-0.0 σ)	$n_{s,0.002}$	0.96835	0.9680 ± 0.0037 (-0.0 σ)	f_{2000}^{143}	28.47	29.2 ± 2.7 (-0.1 σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.054 (-0.0 σ)	Y_P	0.2454240	0.245428 ± 0.000050 (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.74	31.9 ± 1.8 (-0.0 σ)
$A_{143 \times 217}^{dustTE}$	0.663	0.662 ± 0.079 (-0.0 σ)	Y_P^{BBN}	0.2467506	0.246754 ± 0.000050 (+0.0 σ)	f_{2000}^{217}	106.27	106.7 ± 1.8 (-0.1 σ)
A_{217}^{dustTE}	2.072	2.07 ± 0.27 (-0.0 σ)	$10^5 D/H$	2.5719	2.570 ± 0.024 (-0.0 σ)	χ_{simall}^2	395.84	397.0 ± 1.7 (+0.0 σ)
c_{100}	0.99970	0.99968 ± 0.00061 (+0.0 σ)	Age/Gyr	13.7542	$13.774^{+0.023}_{-0.030}$ (-0.3 σ)	χ_{lowl}^2	22.84	22.92 ± 0.78 (+0.1 σ)
c_{217}	0.99817	0.99818 ± 0.00063 (-0.0 σ)	z_*	1089.740	1089.70 ± 0.21 (-0.0 σ)	χ_{plik}^2	2345.0	2360.9 ± 6.1 (-0.0 σ)
m_{DES}^1	0.0155	0.014 ± 0.023 (+0.0 σ)	r_*	144.625	144.69 ± 0.22 (-0.0 σ)	χ_{6DF}^2	0.0003	0.033 ± 0.048 (+0.1 σ)
m_{DES}^2	0.0116	0.012 ± 0.022 (-0.0 σ)	$100\theta_*$	1.041185	1.04123 ± 0.00029 (-0.1 σ)	χ_{MGS}^2	1.748	1.57 ± 0.48 (+0.2 σ)
m_{DES}^3	-0.0071	-0.007 ± 0.020 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8904	13.896 ± 0.021 (-0.0 σ)	$\chi_{DR12BAO}^2$	3.47	4.2 ± 1.1 (-0.0 σ)
m_{DES}^4	0.0121	0.011 ± 0.021 (-0.0 σ)	z_{drag}	1060.047	1060.05 ± 0.29 (+0.0 σ)	χ_{DES}^2	229.17	231.9 ± 2.4 (+0.0 σ)
$A_{IA,DES}$	1.45	1.23 ± 0.51 (+0.0 σ)	r_{drag}	147.264	147.33 ± 0.23 (-0.0 σ)	χ_{prior}^2	2.8	19.4 ± 6.0 (+0.0 σ)
$\alpha_{IA,DES}$	2.51	$1.86^{+2.9}_{-0.94}$ (+0.0 σ)	k_D	0.140734	0.14068 ± 0.00029 (+0.0 σ)	χ_{BAO}^2	5.218	5.78 ± 0.83 (+0.1 σ)
$\Delta z_{s,DES}^1$	0.0044	0.004 ± 0.014 (-0.0 σ)	$100\theta_D$	0.160707	0.16070 ± 0.00017 (-0.0 σ)	χ_{CMB}^2	2763.7	2780.8 ± 6.0 (-0.0 σ)
$\Delta z_{s,DES}^2$	-0.0207	-0.021 ± 0.012 (+0.0 σ)	z_{eq}	3381.5	3375 ± 21 (+0.0 σ)			
$\Delta z_{s,DES}^3$	0.0050	0.005 ± 0.010 (-0.0 σ)	k_{eq}	0.010320	0.010300 ± 0.000064 (+0.0 σ)			

Best-fit $\chi_{eff}^2 = 3000.82$; $\Delta\chi_{eff}^2 = -1.30$; $\bar{\chi}_{eff}^2 = 3037.89$; $\Delta\bar{\chi}_{eff}^2 = 0.12$; $R - 1 = 0.00772$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.75 (Δ 0.34) DR12BAO: 3.47 (Δ -0.47) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.84 (Δ -0.21) commander_dx12.v3.2.29: 22.84 (Δ 0.17) plik_rd12_HM_v22b_TTTEEE: 2344.98 (Δ -1.38) WL - DES_1YR_final: 229.17 (Δ 0.11)

6.161 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022472	0.02244 ± 0.00014 (+0.0 σ)	$\Delta z_{s,\text{DES}}^3$	0.0048	0.004 ± 0.010 (−0.0 σ)	z_{eq}	3380.6	3382 ± 24 (−0.0 σ)
$\Omega_c h^2$	0.11899	0.1191 ± 0.0011 (−0.0 σ)	$\Delta z_{s,\text{DES}}^4$	−0.0223	$−0.023 \pm 0.020$ (+0.0 σ)	k_{eq}	0.010318	0.010323 ± 0.000075 (−0.0 σ)
$100\theta_{\text{MC}}$	1.041036	1.04100 ± 0.00031 (−0.1 σ)	H_0	68.34	$67.71^{+0.94}_{-0.56}$ (−0.1 σ)	$100\theta_{\text{eq}}$	0.81750	0.8172 ± 0.0047 (+0.0 σ)
τ	0.0540	0.0549 ± 0.0076 (+0.0 σ)	Ω_Λ	0.6971	$0.689^{+0.012}_{-0.0071}$ (−0.1 σ)	$100\theta_{s,\text{eq}}$	0.45150	0.4513 ± 0.0024 (+0.0 σ)
Σm_ν [eV]	0.0011	< 0.0846	Ω_m	0.3029	$0.3106^{+0.0071}_{-0.012}$ (+0.1 σ)	$H(0.15)$	73.54	$72.99^{+0.82}_{-0.49}$ (−0.1 σ)
$\ln(10^{10} A_s)$	3.0418	3.043 ± 0.015 (+0.0 σ)	$\Omega_m h^2$	0.14148	$0.1423^{+0.0011}_{-0.0015}$ (+0.1 σ)	$D_M(0.15)$	635.0	$640.4^{+4.7}_{-8.2}$ (+0.1 σ)
n_s	0.96887	0.9670 ± 0.0040 (+0.0 σ)	$\Omega_\nu h^2$	0.000012	< 0.000910	$H(0.38)$	83.52	$83.09^{+0.63}_{-0.37}$ (−0.1 σ)
y_{cal}	1.00052	1.0006 ± 0.0024 (−0.0 σ)	$\Omega_m h^3$	0.096690	$0.09635^{+0.00051}_{-0.00031}$ (+0.0 σ)	$D_M(0.38)$	1516.4	$1527.6^{+9.4}_{-17}$ (+0.1 σ)
A_{217}^{CIB}	45.1	47 ± 7 (−0.0 σ)	σ_8	0.8206	$0.807^{+0.015}_{-0.0068}$ (−0.2 σ)	$H(0.51)$	90.160	$89.80^{+0.52}_{-0.30}$ (−0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.80	—	S_8	0.8246	0.821 ± 0.011 (−0.0 σ)	$D_M(0.51)$	1965.7	1979^{+11}_{-20} (+0.1 σ)
A_{143}^{tSZ}	7.09	$5.5^{+2.1}_{-1.9}$ (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4517	0.4497 ± 0.0060 (−0.0 σ)	$H(0.61)$	95.722	$95.41^{+0.44}_{-0.25}$ (−0.1 σ)
A_{100}^{PS}	245.9	258 ± 28 (−0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.6024^{+0.0082}_{-0.0061}$ (−0.1 σ)	$D_M(0.61)$	2288.5	2303^{+12}_{-21} (+0.1 σ)
A_{143}^{PS}	51.7	45 ± 8 (−0.0 σ)	$\sigma_8/h^{0.5}$	0.9927	$0.981^{+0.014}_{-0.0091}$ (−0.1 σ)	$H(2.33)$	235.68	$236.10^{+0.70}_{-0.86}$ (+0.1 σ)
$A_{143 \times 217}^{\text{PS}}$	56.4	42 ± 9 (+0.0 σ)	$r_{\text{drag}} h$	100.64	$99.7^{+1.5}_{-0.96}$ (−0.1 σ)	$D_M(2.33)$	5742.9	5758^{+11}_{-21} (+0.1 σ)
A_{217}^{PS}	122.9	115 ± 10 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4330	2.430 ± 0.020 (−0.1 σ)	$f\sigma_8(0.15)$	0.4562	0.4545 ± 0.0056 (−0.0 σ)
A^{kSZ}	0.00	< 4.21 (−0.0 σ)	z_{re}	7.60	7.69 ± 0.76 (+0.0 σ)	$\sigma_8(0.15)$	0.7590	$0.746^{+0.015}_{-0.0063}$ (−0.2 σ)
A_{100}^{dustTT}	8.85	8.9 ± 1.8 (+0.0 σ)	$10^9 A_s$	2.0944	2.098 ± 0.031 (+0.0 σ)	$f\sigma_8(0.38)$	0.4765	$0.4730^{+0.0055}_{-0.0048}$ (−0.0 σ)
A_{143}^{dustTT}	10.99	10.9 ± 1.8 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8801	1.879 ± 0.011 (−0.1 σ)	$\sigma_8(0.38)$	0.6736	$0.661^{+0.014}_{-0.0058}$ (−0.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.32	18.6 ± 3.2 (+0.0 σ)	D_{40}	1223.3	1228 ± 11 (−0.0 σ)	$f\sigma_8(0.51)$	0.4761	$0.4718^{+0.0058}_{-0.0044}$ (−0.0 σ)
A_{217}^{dustTT}	95.8	93.8 ± 7.2 (+0.0 σ)	D_{220}	5735.5	5740 ± 38 (−0.0 σ)	$\sigma_8(0.51)$	0.6307	$0.619^{+0.013}_{-0.0055}$ (−0.2 σ)
A_{100}^{dustTE}	0.1141	0.114 ± 0.038 (+0.0 σ)	D_{810}	2540.7	2539 ± 13 (−0.0 σ)	$f\sigma_8(0.61)$	0.4717	$0.4669^{+0.0061}_{-0.0041}$ (−0.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.134 ± 0.029 (−0.0 σ)	D_{1420}	819.16	817.7 ± 4.7 (−0.0 σ)	$\sigma_8(0.61)$	0.6002	$0.589^{+0.013}_{-0.0053}$ (−0.2 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.480 ± 0.085 (−0.0 σ)	D_{2000}	231.77	231.1 ± 1.5 (−0.0 σ)	$f\sigma_8(2.33)$	0.30202	$0.2973^{+0.0057}_{-0.0026}$ (−0.1 σ)
A_{143}^{dustTE}	0.224	0.223 ± 0.054 (−0.0 σ)	$n_{s,0.002}$	0.96887	0.9670 ± 0.0040 (+0.0 σ)	$\sigma_8(2.33)$	0.31221	$0.3064^{+0.0070}_{-0.0030}$ (−0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.663 ± 0.079 (−0.0 σ)	Y_{P}	0.245434	$0.245421^{+0.000056}_{-0.000050}$ (+0.0 σ)	f_{2000}^{143}	28.08	29.3 ± 2.7 (−0.0 σ)
A_{217}^{dustTE}	2.067	2.07 ± 0.27 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246761	$0.246747^{+0.000056}_{-0.000051}$ (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.64	32.0 ± 1.8 (−0.0 σ)
c_{100}	0.99977	0.99968 ± 0.00061 (+0.0 σ)	10^5D/H	2.5668	2.573 ± 0.026 (−0.0 σ)	f_{2000}^{217}	106.07	106.8 ± 1.8 (−0.0 σ)
c_{217}	0.99818	0.99819 ± 0.00064 (−0.0 σ)	Age/Gyr	13.7509	$13.786^{+0.025}_{-0.048}$ (+0.1 σ)	χ_{lensing}^2	8.835	9.29 ± 0.76 (+0.2 σ)
m_{DES}^1	0.0151	0.014 ± 0.023 (−0.0 σ)	z_*	1089.699	1089.75 ± 0.24 (−0.0 σ)	χ_{small}^2	395.92	397.1 ± 1.8 (+0.1 σ)
m_{DES}^2	0.0128	0.011 ± 0.022 (−0.0 σ)	r_*	144.620	144.61 ± 0.25 (+0.0 σ)	χ_{lowl}^2	22.80	23.13 ± 0.79 (+0.0 σ)
m_{DES}^3	−0.0069	$−0.009 \pm 0.020$ (+0.0 σ)	$100\theta_*$	1.041183	1.04118 ± 0.00030 (−0.1 σ)	χ_{plik}^2	2345.2	2360.4 ± 5.8 (+0.0 σ)
m_{DES}^4	0.0129	0.010 ± 0.021 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8900	13.889 ± 0.023 (+0.0 σ)	χ_{DES}^2	229.17	232.1 ± 2.6 (+0.0 σ)
$A_{\text{IA,DES}}$	1.46	1.26 ± 0.49 (+0.0 σ)	z_{drag}	1060.085	1060.03 ± 0.29 (+0.0 σ)	χ_{prior}^2	2.5	19.6 ± 6.0 (−0.0 σ)
$\alpha_{\text{IA,DES}}$	2.50	$1.8^{+2.7}_{-1.1}$ (−0.0 σ)	r_{drag}	147.252	147.25 ± 0.25 (+0.0 σ)	χ_{CMB}^2	2772.7	2789.9 ± 6.0 (+0.1 σ)
$\Delta z_{s,\text{DES}}^1$	0.0050	0.005 ± 0.015 (−0.0 σ)	k_{D}	0.140771	0.14075 ± 0.00029 (−0.0 σ)			
$\Delta z_{s,\text{DES}}^2$	−0.0205	$−0.021 \pm 0.011$ (+0.0 σ)	$100\theta_{\text{D}}$	0.160670	0.16071 ± 0.00017 (−0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 3004.39$; $\Delta\chi_{\text{eff}}^2 = -1.10$; $\bar{\chi}_{\text{eff}}^2 = 3041.59$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.43$; $R - 1 = 0.00745$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.84 (Δ 0.07) simall_100x143_offlike5_EE_Aplanck.B: 395.92 (Δ -0.29) commander_dx12.v3.2.29: 22.80 (Δ -0.04) plik_rd12_HM.v22b_TTTEEE: 2345.16 (Δ -0.59) WL - DES.1YR_final: 229.17 (Δ -0.13)

6.162 base_mnu_plikHM_TTTEEE_lowl_lowE_DESlens_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022459	0.02246 ± 0.00013 (+0.0 σ)	$\Delta z_{s,\text{DES}}^4$	-0.0219	-0.022 ± 0.020 (-0.0 σ)	$100\theta_{\text{eq}}$	0.81709	0.8182 ± 0.0037 (-0.0 σ)
$\Omega_c h^2$	0.11909	0.11885 ± 0.00087 (+0.0 σ)	H_0	68.299	68.01 ± 0.50 (+0.3 σ)	$100\theta_{s,\text{eq}}$	0.45130	0.4519 ± 0.0019 (-0.0 σ)
$100\theta_{\text{MC}}$	1.041046	1.04104 ± 0.00029 (-0.1 σ)	Ω_Λ	0.6965	$0.6933^{+0.0065}_{-0.0058}$ (+0.3 σ)	$H(0.15)$	73.504	$73.25^{+0.45}_{-0.40}$ (+0.4 σ)
τ	0.0539	0.0551 ± 0.0074 (-0.1 σ)	Ω_m	0.3035	$0.3067^{+0.0058}_{-0.0065}$ (-0.3 σ)	$D_{\text{M}}(0.15)$	635.32	$637.8^{+3.9}_{-4.4}$ (-0.3 σ)
Σm_ν [eV]	0.0003	< 0.0619	$\Omega_m h^2$	0.14156	0.14185 ± 0.00089 (-0.1 σ)	$H(0.38)$	83.492	$83.29^{+0.34}_{-0.30}$ (+0.4 σ)
$\ln(10^{10} A_s)$	3.0415	3.043 ± 0.015 (-0.1 σ)	$\Omega_\nu h^2$	$0.4 \cdot 10^{-5}$	< 0.000665	$D_{\text{M}}(0.38)$	1517.1	$1522.2^{+7.9}_{-9.0}$ (-0.4 σ)
n_s	0.96838	0.9676 ± 0.0036 (+0.0 σ)	$\Omega_m h^3$	0.096682	$0.09647^{+0.00036}_{-0.00031}$ (+0.4 σ)	$H(0.51)$	90.139	$89.96^{+0.29}_{-0.25}$ (+0.4 σ)
y_{cal}	1.00034	1.0005 ± 0.0024 (-0.1 σ)	σ_8	0.8208	$0.811^{+0.011}_{-0.0069}$ (+0.6 σ)	$D_{\text{M}}(0.51)$	1966.6	$1972.7^{+9.3}_{-11}$ (-0.4 σ)
A_{217}^{CIB}	45.6	47 ± 7 (-0.0 σ)	S_8	0.8255	0.820 ± 0.010 (+0.1 σ)	$H(0.61)$	95.705	$95.55^{+0.25}_{-0.21}$ (+0.4 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.71	—	$\sigma_8 \Omega_m^{0.5}$	0.4522	0.4492 ± 0.0055 (+0.1 σ)	$D_{\text{M}}(0.61)$	2289.4	2296^{+10}_{-12} (-0.4 σ)
A_{143}^{tSZ}	7.08	$5.6^{+2.1}_{-1.9}$ (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6092	$0.6036^{+0.0069}_{-0.0058}$ (+0.3 σ)	$H(2.33)$	235.73	235.84 ± 0.55 (-0.1 σ)
A_{100}^{PS}	246.5	257 ± 28 (-0.0 σ)	$\sigma_8/h^{0.5}$	0.9932	$0.984^{+0.011}_{-0.0088}$ (+0.4 σ)	$D_{\text{M}}(2.33)$	5743.6	5752^{+10}_{-12} (-0.4 σ)
A_{143}^{PS}	50.7	45 ± 8 (-0.0 σ)	$r_{\text{drag}} h$	100.56	100.19 ± 0.80 (+0.3 σ)	$f\sigma_8(0.15)$	0.4567	0.4541 ± 0.0051 (+0.2 σ)
$A_{143 \times 217}^{\text{PS}}$	54.0	42 ± 9 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4346	2.429 ± 0.019 (+0.0 σ)	$\sigma_8(0.15)$	0.7591	$0.750^{+0.010}_{-0.0064}$ (+0.6 σ)
A_{217}^{PS}	122.1	115 ± 10 (+0.0 σ)	z_{re}	7.59	7.71 ± 0.74 (-0.1 σ)	$f\sigma_8(0.38)$	0.47687	0.4735 ± 0.0048 (+0.3 σ)
A^{kSZ}	0.00	< 4.14 (-0.0 σ)	$10^9 A_s$	2.0936	2.097 ± 0.031 (-0.1 σ)	$\sigma_8(0.38)$	0.6736	$0.6653^{+0.0092}_{-0.0057}$ (+0.6 σ)
A_{100}^{dustTT}	8.80	8.9 ± 1.8 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8798	1.878 ± 0.010 (-0.1 σ)	$f\sigma_8(0.51)$	0.47633	$0.4727^{+0.0049}_{-0.0042}$ (+0.3 σ)
A_{143}^{dustTT}	11.06	10.9 ± 1.8 (+0.0 σ)	D_{40}	1223.9	1226 ± 11 (-0.0 σ)	$\sigma_8(0.51)$	0.6306	$0.6229^{+0.0087}_{-0.0054}$ (+0.6 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.23	18.6 ± 3.2 (+0.0 σ)	D_{220}	5733.8	5740 ± 38 (-0.1 σ)	$f\sigma_8(0.61)$	0.47190	$0.4681^{+0.0049}_{-0.0040}$ (+0.4 σ)
A_{217}^{dustTT}	95.5	93.8 ± 7.2 (+0.0 σ)	D_{810}	2539.7	2538 ± 13 (-0.1 σ)	$\sigma_8(0.61)$	0.6002	$0.5928^{+0.0084}_{-0.0052}$ (+0.6 σ)
A_{100}^{dustTE}	0.1158	0.114 ± 0.038 (+0.0 σ)	D_{1420}	818.61	817.8 ± 4.7 (-0.1 σ)	$f\sigma_8(2.33)$	0.30197	$0.2990^{+0.0037}_{-0.0025}$ (+0.6 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1341	0.134 ± 0.030 (-0.0 σ)	D_{2000}	231.57	231.2 ± 1.5 (-0.1 σ)	$\sigma_8(2.33)$	0.31213	$0.3085^{+0.0044}_{-0.0028}$ (+0.6 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.479 ± 0.085 (-0.0 σ)	$n_{s,0.002}$	0.96838	0.9676 ± 0.0036 (+0.0 σ)	f_{2000}^{143}	28.26	29.1 ± 2.7 (-0.1 σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.055 (-0.0 σ)	Y_{P}	0.2454297	0.245428 ± 0.000050 (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.66	31.9 ± 1.8 (-0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.662 ± 0.079 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.2467563	0.246755 ± 0.000050 (+0.0 σ)	f_{2000}^{217}	106.16	106.7 ± 1.8 (-0.1 σ)
A_{217}^{dustTE}	2.066	2.07 ± 0.27 (-0.0 σ)	$10^5 \text{D}/\text{H}$	2.5692	2.569 ± 0.024 (-0.0 σ)	χ_{lensing}^2	8.846	9.24 ± 0.68 (+0.1 σ)
c_{100}	0.99972	0.99968 ± 0.00061 (+0.0 σ)	Age/Gyr	13.7524	$13.771^{+0.023}_{-0.028}$ (-0.4 σ)	χ_{small}^2	395.93	397.0 ± 1.7 (-0.0 σ)
c_{217}	0.99818	0.99818 ± 0.00064 (-0.0 σ)	z_*	1089.724	1089.71 ± 0.21 (-0.0 σ)	χ_{lowl}^2	22.90	23.04 ± 0.75 (+0.0 σ)
m_{DES}^1	0.0150	0.014 ± 0.023 (+0.0 σ)	r_*	144.604	144.66 ± 0.21 (-0.0 σ)	χ_{plik}^2	2344.9	2360.1 ± 5.7 (-0.0 σ)
m_{DES}^2	0.0128	0.011 ± 0.022 (-0.0 σ)	$100\theta_*$	1.041192	1.04121 ± 0.00029 (-0.1 σ)	$\chi_{6\text{DF}}^2$	0.0002	0.031 ± 0.045 (+0.0 σ)
m_{DES}^3	-0.0081	-0.008 ± 0.020 (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8883	13.894 ± 0.020 (+0.0 σ)	χ_{MGS}^2	1.748	1.58 ± 0.47 (+0.3 σ)
m_{DES}^4	0.0117	0.011 ± 0.021 (-0.0 σ)	z_{drag}	1060.085	1060.06 ± 0.29 (+0.0 σ)	χ_{DR12BAO}^2	3.476	4.1 ± 1.0 (-0.1 σ)
$A_{\text{IA,DES}}$	1.46	1.25 ± 0.50 (+0.0 σ)	r_{drag}	147.238	147.30 ± 0.22 (-0.0 σ)	χ_{DES}^2	229.18	232.0 ± 2.5 (+0.0 σ)
$\alpha_{\text{IA,DES}}$	2.52	$1.9^{+2.8}_{-1.0}$ (+0.0 σ)	k_{D}	0.140774	0.14071 ± 0.00028 (+0.0 σ)	χ_{prior}^2	2.6	19.4 ± 6.0 (-0.0 σ)
$\Delta z_{s,\text{DES}}^1$	0.0049	0.004 ± 0.015 (-0.0 σ)	$100\theta_{\text{D}}$	0.160686	0.16069 ± 0.00017 (-0.0 σ)	χ_{CMB}^2	2772.6	2789.4 ± 5.9 (-0.0 σ)
$\Delta z_{s,\text{DES}}^2$	-0.0209	-0.021 ± 0.011 (+0.0 σ)	z_{eq}	3382.7	3377 ± 20 (+0.0 σ)	χ_{BAO}^2	5.224	5.75 ± 0.78 (+0.0 σ)
$\Delta z_{s,\text{DES}}^3$	0.0049	0.004 ± 0.010 (-0.0 σ)	k_{eq}	0.010324	0.010307 ± 0.000060 (+0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 3009.63$; $\Delta\chi_{\text{eff}}^2 = -1.38$; $\bar{\chi}_{\text{eff}}^2 = 3046.60$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.08$; $R - 1 = 0.00939$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.75 (Δ 0.34) DR12BAO: 3.48 (Δ -0.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p_teb_consext8: 8.85 (Δ -0.01) small_100x143.offlike5_EE_Aplanc
395.93 (Δ -0.27) commander_dx12_v3.2_29: 22.90 (Δ 0.16) plik_rd12_HM_v22b.TTTEEE: 2344.91 (Δ -1.24) WL - DES_1YR_final: 229.18 (Δ 0.12)

6.163 base_mnu_plikHM_TTTEE_lowl_lowE_DESlens_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02244 \pm 0.00014 \quad (-0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^2$	$-0.021 \pm 0.012 \quad (+0.0\sigma)$	k_{D}	$0.14071 \pm 0.00030 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1190 \pm 0.0011 \quad (+0.0\sigma)$	$\Delta z_{\mathrm{s,DES}}^3$	$0.004 \pm 0.010 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16071 \pm 0.00017 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04101 \pm 0.00031 \quad (-0.1\sigma)$	$\Delta z_{\mathrm{s,DES}}^4$	$-0.023 \pm 0.020 \quad (-0.0\sigma)$	z_{eq}	$3379 \pm 26 \quad (+0.0\sigma)$
τ	$0.0550^{+0.0052}_{-0.0083} \quad (+0.0\sigma)$	H_0	$67.6^{+1.1}_{-0.56} \quad (-0.4\sigma)$	k_{eq}	$0.010314 \pm 0.000078 \quad (+0.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.101	Ω_{Λ}	$0.688^{+0.014}_{-0.0071} \quad (-0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8177 \pm 0.0049 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016} \quad (+0.0\sigma)$	Ω_{m}	$0.3117^{+0.0071}_{-0.014} \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0025 \quad (-0.0\sigma)$
n_{s}	$0.9674 \pm 0.0041 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1424^{+0.0011}_{-0.0016} \quad (+0.3\sigma)$	$H(0.15)$	$72.90^{+0.95}_{-0.49} \quad (-0.4\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	$\Omega_{\nu}h^2$	< 0.00109	$D_{\mathrm{M}}(0.15)$	$641.3^{+4.6}_{-9.4} \quad (+0.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09624^{+0.00063}_{-0.00031} \quad (-0.3\sigma)$	$H(0.38)$	$83.01^{+0.73}_{-0.36} \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	σ_8	$0.803^{+0.021}_{-0.0076} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.4^{+9.4}_{-19} \quad (+0.4\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	S_8	$0.818 \pm 0.014 \quad (-0.1\sigma)$	$H(0.51)$	$89.73^{+0.61}_{-0.30} \quad (-0.5\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4481 \pm 0.0074 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981^{+11}_{-23} \quad (+0.5\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.600^{+0.012}_{-0.0072} \quad (-0.3\sigma)$	$H(0.61)$	$95.35^{+0.51}_{-0.24} \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.977^{+0.020}_{-0.010} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305^{+12}_{-25} \quad (+0.5\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.6^{+1.7}_{-0.97} \quad (-0.4\sigma)$	$H(2.33)$	$236.11^{+0.72}_{-0.95} \quad (+0.2\sigma)$
A^{kSZ}	$< 4.27 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.024 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761^{+11}_{-25} \quad (+0.5\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	z_{re}	$7.71^{+0.57}_{-0.81} \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4530 \pm 0.0070 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.025}_{-0.033} \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.742^{+0.020}_{-0.0070} \quad (-0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.7 \pm 3.2 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.011 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4713^{+0.0079}_{-0.0057} \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.2 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 12 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.658^{+0.018}_{-0.0063} \quad (-0.8\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{220}	$5735 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4699^{+0.0084}_{-0.0051} \quad (-0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.616^{+0.017}_{-0.0059} \quad (-0.9\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	D_{1420}	$817.4 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4650^{+0.0087}_{-0.0047} \quad (-0.4\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.586^{+0.017}_{-0.0056} \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.663 \pm 0.080 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9674 \pm 0.0041 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0074}_{-0.0026} \quad (-0.7\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.07 \pm 0.27 \quad (-0.0\sigma)$	Y_{P}	$0.245419 \pm 0.000055 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3048^{+0.0088}_{-0.0030} \quad (-0.8\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246746 \pm 0.000055 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.0\sigma)$
c_{217}	$0.99820 \pm 0.00063 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.574 \pm 0.026 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.9 \quad (+0.0\sigma)$
m_{DES}^1	$0.014 \pm 0.023 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.794^{+0.025}_{-0.057} \quad (+0.5\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (+0.0\sigma)$
m_{DES}^2	$0.012 \pm 0.022 \quad (-0.0\sigma)$	z_*	$1089.75 \pm 0.25 \quad (+0.0\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
m_{DES}^3	$-0.008 \pm 0.020 \quad (-0.0\sigma)$	r_*	$144.64 \pm 0.26 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.99 \pm 0.83 \quad (+0.0\sigma)$
m_{DES}^4	$0.011 \pm 0.021 \quad (+0.0\sigma)$	$100\theta_*$	$1.04120 \pm 0.00030 \quad (-0.1\sigma)$	χ_{plik}^2	$2361.2 \pm 6.2 \quad (+0.1\sigma)$
$A_{\mathrm{IA,DES}}$	$1.25 \pm 0.50 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.024 \quad (-0.0\sigma)$	χ_{DES}^2	$232.1 \pm 2.5 \quad (-0.0\sigma)$
$\alpha_{\mathrm{IA,DES}}$	$1.8^{+2.8}_{-1.1} \quad (-0.0\sigma)$	z_{drag}	$1060.02 \pm 0.30 \quad (-0.0\sigma)$	χ_{prior}^2	$19.6 \pm 6.0 \quad (+0.0\sigma)$
$\Delta z_{\mathrm{s,DES}}^1$	$0.005 \pm 0.014 \quad (+0.0\sigma)$	r_{drag}	$147.29 \pm 0.26 \quad (-0.0\sigma)$	χ_{CMB}^2	$2781.1 \pm 6.1 \quad (+0.1\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 3032.75$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68$; $R - 1 = 0.00988$

6.164 base_mnu_plikHM_TTTEE_lowl_lowE_DESlens_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02246 \pm 0.00013 \quad (+0.0\sigma)$	$\Delta z_{s,\text{DES}}^4$	$-0.022 \pm 0.020 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8187 \pm 0.0040 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.11873 \pm 0.00092 \quad (+0.0\sigma)$	H_0	$68.00^{+0.54}_{-0.47} \quad (+0.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4522 \pm 0.0020 \quad (-0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04106 \pm 0.00029 \quad (-0.1\sigma)$	Ω_Λ	$0.6933^{+0.0068}_{-0.0059} \quad (+0.1\sigma)$	$H(0.15)$	$73.24^{+0.47}_{-0.41} \quad (+0.2\sigma)$
τ	$0.0553^{+0.0052}_{-0.0079} \quad (+0.0\sigma)$	Ω_m	$0.3067^{+0.0059}_{-0.0068} \quad (-0.1\sigma)$	$D_{\text{M}}(0.15)$	$637.9^{+4.0}_{-4.6} \quad (-0.2\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0703	$\Omega_m h^2$	$0.14180 \pm 0.00091 \quad (-0.0\sigma)$	$H(0.38)$	$83.27^{+0.36}_{-0.31} \quad (+0.2\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$\Omega_\nu h^2$	< 0.000755	$D_{\text{M}}(0.38)$	$1522.5^{+8.1}_{-9.4} \quad (-0.2\sigma)$
n_s	$0.9681 \pm 0.0037 \quad (+0.0\sigma)$	$\Omega_m h^3$	$0.09643^{+0.00041}_{-0.00032} \quad (+0.3\sigma)$	$H(0.51)$	$89.95^{+0.31}_{-0.26} \quad (+0.2\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	σ_8	$0.809^{+0.014}_{-0.0077} \quad (+0.4\sigma)$	$D_{\text{M}}(0.51)$	$1973.0^{+9.5}_{-11} \quad (-0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	S_8	$0.818 \pm 0.012 \quad (+0.1\sigma)$	$H(0.61)$	$95.53^{+0.26}_{-0.22} \quad (+0.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4481 \pm 0.0066 \quad (+0.1\sigma)$	$D_{\text{M}}(0.61)$	$2296^{+10}_{-12} \quad (-0.2\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6021^{+0.0090}_{-0.0069} \quad (+0.2\sigma)$	$H(2.33)$	$235.80 \pm 0.57 \quad (-0.0\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.981^{+0.015}_{-0.010} \quad (+0.2\sigma)$	$D_{\text{M}}(2.33)$	$5753^{+10}_{-13} \quad (-0.3\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$100.19 \pm 0.83 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4531 \pm 0.0062 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.023 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.748^{+0.013}_{-0.0070} \quad (+0.4\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	z_{re}	$7.72^{+0.56}_{-0.79} \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4724^{+0.0063}_{-0.0054} \quad (+0.2\sigma)$
A^{kSZ}	$< 4.16 \quad (-0.0\sigma)$	$10^9 A_s$	$2.096^{+0.025}_{-0.033} \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.664^{+0.011}_{-0.0062} \quad (+0.4\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4716^{+0.0063}_{-0.0050} \quad (+0.2\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	D_{40}	$1224 \pm 12 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.621^{+0.011}_{-0.0058} \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7 \pm 3.2 \quad (+0.0\sigma)$	D_{220}	$5736 \pm 38 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4670^{+0.0063}_{-0.0047} \quad (+0.3\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.2 \quad (+0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.591^{+0.010}_{-0.0055} \quad (+0.4\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{1420}	$817.6 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2984^{+0.0045}_{-0.0026} \quad (+0.4\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	D_{2000}	$231.1 \pm 1.5 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3078^{+0.0053}_{-0.0028} \quad (+0.4\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9681 \pm 0.0037 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.1 \pm 2.7 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.055 \quad (-0.0\sigma)$	Y_{P}	$0.245429 \pm 0.000050 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.8 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.662 \pm 0.079 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246755 \pm 0.000050 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.569 \pm 0.024 \quad (-0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	Age/Gyr	$13.774^{+0.023}_{-0.030} \quad (-0.3\sigma)$	χ_{lowl}^2	$22.92 \pm 0.78 \quad (+0.1\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (-0.0\sigma)$	z_*	$1089.69 \pm 0.21 \quad (-0.0\sigma)$	χ_{plik}^2	$2360.7 \pm 6.0 \quad (-0.0\sigma)$
m_{DES}^1	$0.014 \pm 0.023 \quad (-0.0\sigma)$	r_*	$144.70 \pm 0.22 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.032 \pm 0.047 \quad (+0.1\sigma)$
m_{DES}^2	$0.011 \pm 0.022 \quad (-0.0\sigma)$	$100\theta_*$	$1.04123 \pm 0.00029 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.58 \pm 0.49 \quad (+0.2\sigma)$
m_{DES}^3	$-0.007 \pm 0.020 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.897 \pm 0.021 \quad (+0.0\sigma)$	χ_{DR12BAO}^2	$4.2 \pm 1.1 \quad (+0.0\sigma)$
m_{DES}^4	$0.011 \pm 0.021 \quad (-0.0\sigma)$	z_{drag}	$1060.05 \pm 0.29 \quad (+0.0\sigma)$	χ_{DES}^2	$231.9 \pm 2.5 \quad (+0.0\sigma)$
$A_{\text{IA,DES}}$	$1.24 \pm 0.50 \quad (+0.0\sigma)$	r_{drag}	$147.33 \pm 0.23 \quad (-0.0\sigma)$	χ_{prior}^2	$19.4 \pm 6.0 \quad (-0.0\sigma)$
$\alpha_{\text{IA,DES}}$	$1.85^{+2.9}_{-0.96} \quad (+0.0\sigma)$	k_{D}	$0.14068 \pm 0.00029 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.77 \pm 0.82 \quad (+0.1\sigma)$
$\Delta z_{s,\text{DES}}^1$	$0.004 \pm 0.014 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16070 \pm 0.00017 \quad (-0.0\sigma)$	χ_{CMB}^2	$2780.5 \pm 5.9 \quad (-0.0\sigma)$
$\Delta z_{s,\text{DES}}^2$	$-0.021 \pm 0.012 \quad (+0.0\sigma)$	z_{eq}	$3374 \pm 21 \quad (+0.0\sigma)$		
$\Delta z_{s,\text{DES}}^3$	$0.005 \pm 0.010 \quad (-0.0\sigma)$	k_{eq}	$0.010297 \pm 0.000064 \quad (+0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 3037.64$; $\Delta \bar{\chi}_{\text{eff}}^2 = 0.11$; $R - 1 = 0.00834$

6.165 base_mnu_plikHM_TTTEE_lowl_lowE_DESlens_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02244 \pm 0.00014 \quad (+0.0\sigma)$	$\Delta z_{s,\text{DES}}^3$	$0.004 \pm 0.010 \quad (-0.0\sigma)$	z_{eq}	$3381 \pm 24 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.1190 \pm 0.0011 \quad (-0.0\sigma)$	$\Delta z_{s,\text{DES}}^4$	$-0.023 \pm 0.020 \quad (+0.0\sigma)$	k_{eq}	$0.010319 \pm 0.000074 \quad (-0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04100 \pm 0.00031 \quad (-0.1\sigma)$	H_0	$67.73_{-0.56}^{+0.95} \quad (-0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8174 \pm 0.0046 \quad (+0.0\sigma)$
τ	$0.0558_{-0.0080}^{+0.0055} \quad (+0.1\sigma)$	Ω_{Λ}	$0.690_{-0.0070}^{+0.012} \quad (-0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4515 \pm 0.0023 \quad (+0.0\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.0857	Ω_{m}	$0.3103_{-0.012}^{+0.0070} \quad (+0.1\sigma)$	$H(0.15)$	$73.00_{-0.49}^{+0.83} \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.045_{-0.015}^{+0.012} \quad (+0.0\sigma)$	$\Omega_{\text{m}} h^2$	$0.1423_{-0.0015}^{+0.0011} \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$640.3_{-8.2}^{+4.6} \quad (+0.1\sigma)$
n_s	$0.9671 \pm 0.0040 \quad (+0.0\sigma)$	$\Omega_{\nu} h^2$	< 0.000922	$H(0.38)$	$83.09_{-0.36}^{+0.63} \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$\Omega_{\text{m}} h^3$	$0.09634_{-0.00031}^{+0.00052} \quad (-0.0\sigma)$	$D_{\text{M}}(0.38)$	$1527.3_{-17}^{+9.4} \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	σ_8	$0.808_{-0.0066}^{+0.015} \quad (-0.2\sigma)$	$H(0.51)$	$89.80_{-0.30}^{+0.53} \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	S_8	$0.821 \pm 0.011 \quad (-0.0\sigma)$	$D_{\text{M}}(0.51)$	$1979_{-20}^{+11} \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.5_{-1.9}^{+2.1} \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4497 \pm 0.0060 \quad (-0.0\sigma)$	$H(0.61)$	$95.41_{-0.25}^{+0.44} \quad (-0.1\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6026_{-0.0061}^{+0.0082} \quad (-0.1\sigma)$	$D_{\text{M}}(0.61)$	$2303_{-21}^{+12} \quad (+0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.981_{-0.0090}^{+0.014} \quad (-0.1\sigma)$	$H(2.33)$	$236.07_{-0.86}^{+0.69} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$r_{\text{drag}} h$	$99.7_{-0.95}^{+1.5} \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	$5758_{-21}^{+11} \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.019 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4546 \pm 0.0056 \quad (-0.0\sigma)$
A^{kSZ}	$< 4.18 \quad (-0.0\sigma)$	z_{re}	$7.79_{-0.77}^{+0.59} \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.746_{-0.0061}^{+0.015} \quad (-0.2\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$10^9 A_s$	$2.101_{-0.032}^{+0.024} \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4732_{-0.0048}^{+0.0055} \quad (-0.0\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.879 \pm 0.010 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.662_{-0.0056}^{+0.014} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	D_{40}	$1227 \pm 11 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4719_{-0.0044}^{+0.0058} \quad (-0.1\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.2 \quad (+0.0\sigma)$	D_{220}	$5740 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.619_{-0.0053}^{+0.013} \quad (-0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4671_{-0.0040}^{+0.0061} \quad (-0.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	D_{1420}	$817.7 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.589_{-0.0051}^{+0.013} \quad (-0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	D_{2000}	$231.1 \pm 1.5 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2975_{-0.0025}^{+0.0058} \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9671 \pm 0.0040 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3066_{-0.0028}^{+0.0070} \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.663 \pm 0.079 \quad (-0.0\sigma)$	Y_{P}	$0.245422_{-0.000050}^{+0.000056} \quad (+0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.7 \quad (-0.0\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246749_{-0.000050}^{+0.000056} \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (-0.0\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.572 \pm 0.026 \quad (-0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 1.8 \quad (-0.0\sigma)$
c_{217}	$0.99819 \pm 0.00064 \quad (-0.0\sigma)$	Age/Gyr	$13.786_{-0.049}^{+0.025} \quad (+0.1\sigma)$	χ_{lensing}^2	$9.25 \pm 0.72 \quad (+0.2\sigma)$
m_{DES}^1	$0.014 \pm 0.023 \quad (-0.0\sigma)$	z_*	$1089.74 \pm 0.24 \quad (-0.0\sigma)$	χ_{simall}^2	$397.0 \pm 1.8 \quad (+0.1\sigma)$
m_{DES}^2	$0.011 \pm 0.022 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.24 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.12 \pm 0.80 \quad (+0.0\sigma)$
m_{DES}^3	$-0.009 \pm 0.020 \quad (+0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00030 \quad (-0.1\sigma)$	χ_{plik}^2	$2360.3 \pm 5.8 \quad (+0.1\sigma)$
m_{DES}^4	$0.010 \pm 0.021 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.890 \pm 0.023 \quad (+0.0\sigma)$	χ_{DES}^2	$232.1 \pm 2.6 \quad (+0.0\sigma)$
$A_{\text{IA,DES}}$	$1.26 \pm 0.50 \quad (+0.0\sigma)$	z_{drag}	$1060.04 \pm 0.30 \quad (+0.0\sigma)$	χ_{prior}^2	$19.5 \pm 6.0 \quad (-0.0\sigma)$
$\alpha_{\text{IA,DES}}$	$1.8_{-1.1}^{+2.7} \quad (+0.0\sigma)$	r_{drag}	$147.26 \pm 0.25 \quad (+0.0\sigma)$	χ_{CMB}^2	$2789.7 \pm 6.0 \quad (+0.1\sigma)$
$\Delta z_{s,\text{DES}}^1$	$0.005 \pm 0.015 \quad (-0.0\sigma)$	k_{D}	$0.14074 \pm 0.00029 \quad (-0.0\sigma)$		
$\Delta z_{s,\text{DES}}^2$	$-0.021 \pm 0.011 \quad (+0.0\sigma)$	$100\theta_{\text{D}}$	$0.16070 \pm 0.00017 \quad (-0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 3041.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.47$; $R - 1 = 0.00879$

6.166 base_mnu_plikHM_TTTEE_lowl_lowE_DESlens_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02246 \pm 0.00013 \quad (+0.0\sigma)$	$\Delta z_{s,\text{DES}}^4$	$-0.023 \pm 0.020 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8183 \pm 0.0037 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.11881 \pm 0.00086 \quad (-0.0\sigma)$	H_0	$68.02^{+0.52}_{-0.46} \quad (+0.3\sigma)$	$100\theta_{s,\text{eq}}$	$0.4519 \pm 0.0019 \quad (-0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04104 \pm 0.00029 \quad (-0.1\sigma)$	Ω_Λ	$0.6934^{+0.0066}_{-0.0058} \quad (+0.3\sigma)$	$H(0.15)$	$73.26^{+0.45}_{-0.40} \quad (+0.4\sigma)$
τ	$0.0559^{+0.0055}_{-0.0077} \quad (-0.0\sigma)$	Ω_m	$0.3066^{+0.0058}_{-0.0066} \quad (-0.3\sigma)$	$D_M(0.15)$	$637.7^{+3.9}_{-4.5} \quad (-0.3\sigma)$
$\Sigma m_\nu [\text{eV}]$	< 0.0628	$\Omega_m h^2$	$0.14182 \pm 0.00088 \quad (-0.1\sigma)$	$H(0.38)$	$83.29^{+0.35}_{-0.30} \quad (+0.4\sigma)$
$\ln(10^{10} A_s)$	$3.045^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$\Omega_\nu h^2$	< 0.000675	$D_M(0.38)$	$1522.1^{+7.8}_{-9.1} \quad (-0.4\sigma)$
n_s	$0.9678 \pm 0.0036 \quad (+0.0\sigma)$	$\Omega_m h^3$	$0.09647^{+0.00037}_{-0.00031} \quad (+0.4\sigma)$	$H(0.51)$	$89.96^{+0.29}_{-0.25} \quad (+0.4\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (-0.1\sigma)$	σ_8	$0.812^{+0.011}_{-0.0067} \quad (+0.6\sigma)$	$D_M(0.51)$	$1972.5^{+9.3}_{-11} \quad (-0.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	S_8	$0.820 \pm 0.010 \quad (+0.1\sigma)$	$H(0.61)$	$95.55^{+0.25}_{-0.21} \quad (+0.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$\sigma_8 \Omega_m^{0.5}$	$0.4493 \pm 0.0055 \quad (+0.1\sigma)$	$D_M(0.61)$	$2296^{+10}_{-12} \quad (-0.4\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.9} \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6038^{+0.0070}_{-0.0058} \quad (+0.3\sigma)$	$H(2.33)$	$235.82 \pm 0.55 \quad (-0.1\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.984^{+0.011}_{-0.0087} \quad (+0.4\sigma)$	$D_M(2.33)$	$5752^{+10}_{-12} \quad (-0.4\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$100.20 \pm 0.80 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4542 \pm 0.0051 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.019 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.750^{+0.010}_{-0.0061} \quad (+0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	z_{re}	$7.79^{+0.58}_{-0.75} \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4737^{+0.0050}_{-0.0045} \quad (+0.3\sigma)$
A^{kSZ}	$< 4.12 \quad (-0.0\sigma)$	$10^9 A_s$	$2.101^{+0.024}_{-0.031} \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6657^{+0.0092}_{-0.0055} \quad (+0.6\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.878 \pm 0.010 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4728^{+0.0049}_{-0.0042} \quad (+0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 11 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6232^{+0.0087}_{-0.0052} \quad (+0.7\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	D_{220}	$5740 \pm 38 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4682^{+0.0049}_{-0.0039} \quad (+0.4\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.2 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5931^{+0.0084}_{-0.0049} \quad (+0.7\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{1420}	$817.7 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2991^{+0.0037}_{-0.0024} \quad (+0.6\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	D_{2000}	$231.2 \pm 1.5 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3086^{+0.0043}_{-0.0026} \quad (+0.6\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9678 \pm 0.0036 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.1 \pm 2.7 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.055 \quad (-0.0\sigma)$	Y_{P}	$0.245429 \pm 0.000050 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 1.8 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.662 \pm 0.079 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246756 \pm 0.000050 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.569 \pm 0.024 \quad (-0.0\sigma)$	χ_{lensing}^2	$9.21 \pm 0.63 \quad (+0.1\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	Age/Gyr	$13.771^{+0.023}_{-0.028} \quad (-0.4\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
c_{217}	$0.99818 \pm 0.00064 \quad (-0.0\sigma)$	z_*	$1089.70 \pm 0.20 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.04 \pm 0.75 \quad (+0.0\sigma)$
m_{DES}^1	$0.014 \pm 0.023 \quad (+0.0\sigma)$	r_*	$144.67 \pm 0.21 \quad (+0.0\sigma)$	χ_{plik}^2	$2360.0 \pm 5.7 \quad (-0.0\sigma)$
m_{DES}^2	$0.011 \pm 0.022 \quad (-0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00029 \quad (-0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.030 \pm 0.045 \quad (+0.1\sigma)$
m_{DES}^3	$-0.008 \pm 0.020 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.895 \pm 0.020 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.59 \pm 0.47 \quad (+0.3\sigma)$
m_{DES}^4	$0.011 \pm 0.021 \quad (-0.0\sigma)$	z_{drag}	$1060.06 \pm 0.29 \quad (+0.0\sigma)$	χ_{DR12BAO}^2	$4.1 \pm 1.0 \quad (-0.1\sigma)$
$A_{\text{IA,DES}}$	$1.25 \pm 0.50 \quad (+0.0\sigma)$	r_{drag}	$147.31 \pm 0.22 \quad (+0.0\sigma)$	χ_{DES}^2	$232.0 \pm 2.5 \quad (+0.0\sigma)$
$\alpha_{\text{IA,DES}}$	$1.8^{+2.8}_{-1.0} \quad (+0.0\sigma)$	k_{D}	$0.14071 \pm 0.00027 \quad (+0.0\sigma)$	χ_{prior}^2	$19.4 \pm 6.0 \quad (-0.0\sigma)$
$\Delta z_{s,\text{DES}}^1$	$0.004 \pm 0.014 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16069 \pm 0.00017 \quad (-0.0\sigma)$	χ_{CMB}^2	$2789.3 \pm 5.8 \quad (-0.0\sigma)$
$\Delta z_{s,\text{DES}}^2$	$-0.021 \pm 0.011 \quad (+0.0\sigma)$	z_{eq}	$3376 \pm 20 \quad (-0.0\sigma)$	χ_{BAO}^2	$5.74 \pm 0.78 \quad (+0.1\sigma)$
$\Delta z_{s,\text{DES}}^3$	$0.004 \pm 0.010 \quad (-0.0\sigma)$	k_{eq}	$0.010304 \pm 0.000060 \quad (-0.0\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 3046.43$; $\Delta \bar{\chi}_{\text{eff}}^2 = -0.06$; $R - 1 = 0.00976$

6.167 base_mnu_BAO_Cooke17

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathbf{b}}h^2$	0.022172	0.02223 ± 0.00050 (-0.0σ)	Age/Gyr	12.18	$12.7^{+1.0}_{-1.3}$ $(+0.8\sigma)$	$D_{\mathbf{M}}(0.15)$	594.2	620 ± 39 $(+1.2\sigma)$
$\Omega_{\mathbf{c}}h^2$	0.1755	$0.143^{+0.042}_{-0.057}$ (-1.1σ)	z_*	1094.65	$1093.2^{+3.3}_{-3.9}$ (-0.7σ)	$H(0.38)$	92.1	$89.0^{+6.5}_{-7.7}$ (-0.8σ)
$100\theta_{\mathbf{MC}}$	1.1021	$1.107^{+0.042}_{-0.035}$ (-0.1σ)	r_*	132.3	138 ± 10 $(+1.0\sigma)$	$D_{\mathbf{M}}(0.38)$	1403	1462 ± 100 $(+1.0\sigma)$
Σm_{ν} [eV]	0.06	—	$100\theta_*$	1.1023	$1.108^{+0.042}_{-0.035}$ (-0.1σ)	$H(0.51)$	100.5	$97.3^{+7.6}_{-9.1}$ (-0.7σ)
H_0	72.43	$69.6^{+3.6}_{-4.3}$ (-1.2σ)	$D_{\mathbf{M}}(z_*)/\text{Gpc}$	12.00	$12.5^{+1.2}_{-1.5}$ $(+0.7\sigma)$	$D_{\mathbf{M}}(0.51)$	1808	1884 ± 140 $(+1.0\sigma)$
Ω_{Λ}	0.622	0.611 ± 0.053 $(+0.1\sigma)$	z_{drag}	1063.14	1062.1 ± 3.2 (-0.7σ)	$H(0.61)$	107.4	$104.2^{+8.5}_{-10}$ (-0.7σ)
Ω_{m}	0.378	0.389 ± 0.053 (-0.1σ)	r_{drag}	134.8	140 ± 10 $(+1.0\sigma)$	$D_{\mathbf{M}}(0.61)$	2097	2184 ± 160 $(+1.0\sigma)$
$\Omega_{\text{m}}h^2$	0.1983	$0.192^{+0.036}_{-0.052}$ (-0.5σ)	k_{D}	0.1546	$0.150^{+0.011}_{-0.012}$ (-0.8σ)	$H(2.33)$	276.6	270^{+28}_{-33} (-0.6σ)
$\Omega_{\nu}h^2$	0.0007	< 0.0359	$100\theta_{\text{D}}$	0.1693	0.1695 ± 0.0054 (-0.2σ)	$D_{\mathbf{M}}(2.33)$	5093	5299^{+440}_{-530} $(+0.8\sigma)$
$\Omega_{\text{m}}h^3$	0.1436	$0.135^{+0.028}_{-0.046}$ (-0.6σ)	z_{eq}	4724	3943^{+1000}_{-1000} (-1.1σ)	χ^2_{Cooke17}	0.003	1.0 ± 1.4 $(+0.0\sigma)$
$r_{\text{drag}}h$	97.60	97.3 ± 2.2 $(+0.1\sigma)$	k_{eq}	0.01442	$0.0122^{+0.0029}_{-0.0041}$ (-1.0σ)	$\chi^2_{6\text{DF}}$	0.225	0.41 ± 0.42 (-0.0σ)
Y_{P}	0.245314	0.24533 ± 0.00021 (-0.0σ)	$100\theta_{\text{eq}}$	0.677	$0.842^{+0.096}_{-0.22}$ $(+2.2\sigma)$	χ^2_{MGS}	0.625	0.74 ± 0.70 $(+0.1\sigma)$
$Y_{\text{P}}^{\text{BBN}}$	0.246640	0.24665 ± 0.00022 (-0.0σ)	$100\theta_{\text{s,eq}}$	0.379	$0.464^{+0.053}_{-0.11}$ $(+2.2\sigma)$	χ^2_{DR12BAO}	2.13	3.9 ± 1.8 $(+0.0\sigma)$
10^5D/H	2.623	2.614 ± 0.094 $(+0.0\sigma)$	$H(0.15)$	79.2	$76.3^{+4.6}_{-5.5}$ (-1.0σ)	χ^2_{BAO}	2.98	5.1 ± 2.0 $(+0.0\sigma)$

Best-fit $\chi^2_{\text{eff}} = 2.98$; $\Delta\chi^2_{\text{eff}} = -0.32$; $\bar{\chi}^2_{\text{eff}} = 6.05$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.08$; $R - 1 = 0.01904$

χ^2_{eff} : Abund - D.Cooke2017: 0.00 (Δ -0.04) BAO - 6DF: 0.23 (Δ 0.13) MGS: 0.62 (Δ -0.36) DR12BAO: 2.13 (Δ -0.05)

6.168 base_mnu_BAO_Cooke17_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathbf{b}}h^2$	0.02218	0.02223 ± 0.00050 $(+0.0\sigma)$	z_*	1089.93	$1088.4^{+1.6}_{-1.9}$ (-1.7σ)	$D_{\mathbf{M}}(0.38)$	1526	1593 ± 65 $(+2.2\sigma)$
$\Omega_{\mathbf{c}}h^2$	0.1168	$0.084^{+0.026}_{-0.031}$ (-2.9σ)	r_*	145.3	151.8 ± 6.1 $(+2.3\sigma)$	$H(0.51)$	89.94	$86.4^{+3.7}_{-4.4}$ (-1.7σ)
$100\theta_{\mathbf{MC}}$	1.0478	1.050 ± 0.020 (-0.1σ)	$100\theta_*$	1.0481	1.051 ± 0.020 (-0.1σ)	$D_{\mathbf{M}}(0.51)$	1976	2064 ± 86 $(+2.1\sigma)$
Σm_{ν} [eV]	0.38	—	$D_{\mathbf{M}}(z_*)/\text{Gpc}$	13.87	14.46 ± 0.80 $(+1.4\sigma)$	$H(0.61)$	95.57	$91.8^{+4.1}_{-4.8}$ (-1.6σ)
H_0	67.77	$65.0^{+2.2}_{-2.8}$ (-2.4σ)	z_{drag}	1059.32	$1058.2^{+1.8}_{-2.0}$ (-1.1σ)	$D_{\mathbf{M}}(0.61)$	2300	2401 ± 100 $(+2.1\sigma)$
Ω_{Λ}	0.6885	0.686 ± 0.020 $(+0.0\sigma)$	r_{drag}	148.1	154.7 ± 6.3 $(+2.3\sigma)$	$H(2.33)$	236.7	228^{+12}_{-14} (-1.2σ)
Ω_{m}	0.3115	0.314 ± 0.020 (-0.0σ)	k_{D}	0.1397	$0.1345^{+0.0052}_{-0.0062}$ (-1.8σ)	$D_{\mathbf{M}}(2.33)$	5748	5997 ± 290 $(+1.6\sigma)$
$\Omega_{\text{m}}h^2$	0.1431	$0.133^{+0.014}_{-0.018}$ (-1.1σ)	$100\theta_{\text{D}}$	0.16213	0.1619 ± 0.0026 (-0.2σ)	χ^2_{Cooke17}	0.00	1.0 ± 1.4 $(+0.0\sigma)$
$\Omega_{\nu}h^2$	0.0041	0.027 ± 0.015	z_{eq}	3321	2534^{+600}_{-700} (-2.9σ)	χ^2_{JLA}	1035.06	1036.0 ± 1.7 $(+0.0\sigma)$
$\Omega_{\text{m}}h^3$	0.0969	$0.087^{+0.011}_{-0.016}$ (-1.3σ)	k_{eq}	0.01014	$0.0079^{+0.0016}_{-0.0021}$ (-2.7σ)	$\chi^2_{6\text{DF}}$	0.0002	0.052 ± 0.076 $(+0.0\sigma)$
$r_{\text{drag}}h$	100.34	100.3 ± 1.2 $(+0.0\sigma)$	$100\theta_{\text{eq}}$	0.834	$1.09^{+0.13}_{-0.30}$ $(+6.4\sigma)$	χ^2_{MGS}	1.68	1.75 ± 0.67 $(+0.0\sigma)$
Y_{P}	0.245318	0.24533 ± 0.00022 $(+0.0\sigma)$	$100\theta_{\text{s,eq}}$	0.460	$0.592^{+0.071}_{-0.15}$ $(+6.4\sigma)$	χ^2_{DR12BAO}	3.03	4.0 ± 1.5 $(+0.0\sigma)$
$Y_{\text{P}}^{\text{BBN}}$	0.246644	0.24665 ± 0.00022 $(+0.0\sigma)$	$H(0.15)$	73.06	$70.1^{+2.6}_{-3.2}$ (-2.1σ)	χ^2_{BAO}	4.71	5.8 ± 1.8 $(+0.0\sigma)$
10^5D/H	2.622	2.614 ± 0.095 (-0.0σ)	$D_{\mathbf{M}}(0.15)$	639.8	668 ± 26 $(+2.4\sigma)$			
Age/Gyr	13.76	14.36 ± 0.71 $(+1.6\sigma)$	$H(0.38)$	83.20	$79.9^{+3.3}_{-3.9}$ (-1.8σ)			

Best-fit $\chi^2_{\text{eff}} = 1039.77$; $\Delta\chi^2_{\text{eff}} = 0.00$; $\bar{\chi}^2_{\text{eff}} = 1042.80$; $\Delta\bar{\chi}^2_{\text{eff}} = 0.09$; $R - 1 = 0.00676$

χ^2_{eff} : Abund - D.Cooke2017: 0.00 (Δ 0.00) BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.68 (Δ 0.00) DR12BAO: 3.03 (Δ 0.08) SN - JLA Pantheon18: 1035.06 (Δ -0.08)

6.169 base_mnu_BAO_Cooke17_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022192	$0.02226^{+0.00046}_{-0.00052}$ (+0.1 σ)	z_*	1089.37	$1087.77^{+0.90}_{-1.4}$ (−3.5 σ)	$D_{\text{M}}(0.38)$	1544.4	1611^{+64}_{-35} (+7.9 σ)
$\Omega_{\text{c}}h^2$	0.1104	0.078 ± 0.023 (−24.1 σ)	r_*	147.00	$153.5^{+6.2}_{-3.0}$ (+13.5 σ)	$H(0.51)$	88.63	$85.0^{+1.6}_{-3.4}$ (−11.6 σ)
$100\theta_{\text{MC}}$	1.04093	1.04090 ± 0.00062 (−0.0 σ)	$100\theta_*$	1.04134	1.04165 ± 0.00066 (+0.9 σ)	$D_{\text{M}}(0.51)$	2002	2088^{+83}_{-45} (+8.5 σ)
Σm_ν [eV]	0.46	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.12	14.73 ± 0.42 (+12.9 σ)	$H(0.61)$	94.13	$90.3^{+1.6}_{-3.6}$ (−13.0 σ)
H_0	67.05	$64.3^{+1.4}_{-2.6}$ (−5.8 σ)	z_{drag}	1058.90	1057.8 ± 1.4 (−1.4 σ)	$D_{\text{M}}(0.61)$	2330	2431^{+97}_{-51} (+9.0 σ)
Ω_{Λ}	0.6941	0.6944 ± 0.0082 (−0.1 σ)	r_{drag}	149.78	$156.4^{+6.3}_{-3.2}$ (+11.1 σ)	$H(2.33)$	232.2	$222.7^{+4.3}_{-8.9}$ (−9.5 σ)
Ω_{m}	0.3059	0.3056 ± 0.0082 (+0.1 σ)	k_{D}	0.13801	$0.1327^{+0.0024}_{-0.0049}$ (−6.4 σ)	$D_{\text{M}}(2.33)$	5838	6092 ± 170 (+14.9 σ)
$\Omega_{\text{m}}h^2$	0.1375	$0.1265^{+0.0049}_{-0.010}$ (−7.9 σ)	$100\theta_{\text{D}}$	0.16125	0.16076 ± 0.00079 (−0.4 σ)	χ^2_{Cooke17}	0.000	0.99 ± 1.4 (−0.0 σ)
$\Omega_\nu h^2$	0.0050	< 0.0359	z_{eq}	3168	2397 ± 500 (−22.1 σ)	χ^2_{JLA}	1034.833	1034.96 ± 0.30 (+0.1 σ)
$\Omega_{\text{m}}h^3$	0.0922	$0.0815^{+0.0042}_{-0.0097}$ (−13.2 σ)	k_{eq}	0.00967	0.0075 ± 0.0015 (−20.5 σ)	$\chi^2_{6\text{DF}}$	0.0001	0.048 ± 0.071 (−0.0 σ)
$r_{\text{drag}}h$	100.43	100.5 ± 1.1 (−0.0 σ)	$100\theta_{\text{eq}}$	0.858	$1.12^{+0.18}_{-0.30}$ (+40.8 σ)	χ^2_{MGS}	1.68	1.80 ± 0.66 (−0.0 σ)
Y_{P}	0.245323	0.24534 ± 0.00021 (+0.1 σ)	$100\theta_{\text{s,eq}}$	0.473	$0.606^{+0.091}_{-0.15}$ (+38.6 σ)	χ^2_{DR12BAO}	3.416	4.1 ± 1.2 (−0.1 σ)
$Y_{\text{P}}^{\text{BBN}}$	0.246649	0.24667 ± 0.00021 (+0.1 σ)	$H(0.15)$	72.20	$69.3^{+1.4}_{-2.8}$ (−7.0 σ)	χ^2_{prior}	0.00	1.1 ± 1.5 (+0.0 σ)
$10^5\text{D}/\text{H}$	2.619	2.609 ± 0.093 (−0.1 σ)	$D_{\text{M}}(0.15)$	647.0	675^{+27}_{-15} (+6.8 σ)	χ^2_{BAO}	5.09	6.0 ± 1.3 (−0.1 σ)
Age/Gyr	13.98	14.59 ± 0.42 (+15.1 σ)	$H(0.38)$	82.07	$78.7^{+1.5}_{-3.2}$ (−9.8 σ)			

Best-fit $\chi^2_{\text{eff}} = 1039.93$; $\Delta\chi^2_{\text{eff}} = -0.03$; $\bar{\chi}^2_{\text{eff}} = 1042.99$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.12$; $R - 1 = 0.01446$
 χ^2_{eff} : Abund - D.Cooke2017: 0.00 (Δ 0.00) BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.68 (Δ -0.07) DR12BAO: 3.42 (Δ -0.01) SN - JLA Pantheon18: 1034.83 (Δ 0.04)

6.170 base_mnu_BAO_Cooke17_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022191	0.02221 ± 0.00050 (−0.1 σ)	z_*	1089.18	$1087.77^{+0.93}_{-1.3}$ (−3.4 σ)	$D_{\text{M}}(0.38)$	1553.1	1616^{+60}_{-34} (+7.8 σ)
$\Omega_{\text{c}}h^2$	0.1075	$0.077^{+0.020}_{-0.028}$ (−24.1 σ)	r_*	147.69	$153.8^{+5.6}_{-3.1}$ (+13.8 σ)	$H(0.51)$	88.18	$84.8^{+1.6}_{-3.1}$ (−11.8 σ)
$100\theta_{\text{MC}}$	1.04093	1.04092 ± 0.00060 (+0.0 σ)	$100\theta_*$	1.04139	1.04170 ± 0.00063 (+1.0 σ)	$D_{\text{M}}(0.51)$	2013	2095^{+78}_{-44} (+8.5 σ)
Σm_ν [eV]	0.62	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.182	$14.76^{+0.53}_{-0.30}$ (+13.4 σ)	$H(0.61)$	93.66	$90.1^{+1.7}_{-3.3}$ (−13.3 σ)
H_0	66.66	$64.1^{+1.4}_{-2.4}$ (−5.7 σ)	z_{drag}	1058.71	$1057.6^{+1.3}_{-1.5}$ (−1.5 σ)	$D_{\text{M}}(0.61)$	2343	2438^{+90}_{-50} (+9.0 σ)
Ω_{Λ}	0.6931	0.6931 ± 0.0088 (−0.2 σ)	r_{drag}	150.49	$156.7^{+5.7}_{-3.3}$ (+11.5 σ)	$H(2.33)$	231.2	$222.3^{+4.4}_{-8.1}$ (−9.8 σ)
Ω_{m}	0.3069	0.3069 ± 0.0088 (+0.2 σ)	k_{D}	0.13735	$0.1324^{+0.0024}_{-0.0045}$ (−6.6 σ)	$D_{\text{M}}(2.33)$	5868	6107^{+220}_{-120} (+15.4 σ)
$\Omega_{\text{m}}h^2$	0.1363	$0.1261^{+0.0050}_{-0.0093}$ (−8.0 σ)	$100\theta_{\text{D}}$	0.16128	0.16081 ± 0.00082 (−0.3 σ)	χ^2_{Cooke17}	0.000	1.0 ± 1.5 (−0.0 σ)
$\Omega_\nu h^2$	0.0067	0.027 ± 0.015	z_{eq}	3099	2363^{+500}_{-700} (−22.4 σ)	$\chi^2_{6\text{DF}}$	0.0011	0.055 ± 0.077 (−0.0 σ)
$\Omega_{\text{m}}h^3$	0.0909	$0.0810^{+0.0043}_{-0.0089}$ (−13.8 σ)	k_{eq}	0.00947	$0.0074^{+0.0012}_{-0.0019}$ (−20.7 σ)	χ^2_{MGS}	1.61	1.72 ± 0.69 (−0.0 σ)
$r_{\text{drag}}h$	100.31	100.4 ± 1.1 (−0.0 σ)	$100\theta_{\text{eq}}$	0.873	$1.13^{+0.22}_{-0.29}$ (+41.0 σ)	χ^2_{DR12BAO}	3.47	4.3 ± 1.4 (−0.1 σ)
Y_{P}	0.245322	$0.24532^{+0.00023}_{-0.00019}$ (−0.1 σ)	$100\theta_{\text{s,eq}}$	0.481	$0.61^{+0.11}_{-0.14}$ (+39.0 σ)	χ^2_{prior}	0.002	0.99 ± 1.4 (+0.0 σ)
$Y_{\text{P}}^{\text{BBN}}$	0.246648	$0.24665^{+0.00023}_{-0.00020}$ (−0.1 σ)	$H(0.15)$	71.79	$69.0^{+1.4}_{-2.6}$ (−7.0 σ)	χ^2_{BAO}	5.08	6.1 ± 1.4 (−0.1 σ)
$10^5\text{D}/\text{H}$	2.620	2.618 ± 0.094 (+0.1 σ)	$D_{\text{M}}(0.15)$	650.7	677^{+25}_{-15} (+6.8 σ)			
Age/Gyr	14.049	$14.62^{+0.53}_{-0.29}$ (+15.6 σ)	$H(0.38)$	81.63	$78.5^{+1.5}_{-2.9}$ (−9.8 σ)			

Best-fit $\chi^2_{\text{eff}} = 5.08$; $\Delta\chi^2_{\text{eff}} = -0.08$; $\bar{\chi}^2_{\text{eff}} = 8.05$; $\Delta\bar{\chi}^2_{\text{eff}} = -0.15$; $R - 1 = 0.07129$
 χ^2_{eff} : Abund - D.Cooke2017: 0.00 (Δ -0.01) BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.61 (Δ -0.07) DR12BAO: 3.47 (Δ -0.01)

7 nnu

7.1 base_nnu_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022023	0.02207 ± 0.00031 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4621	0.460 ± 0.013 $(+0.0\sigma)$	$100\theta_{s,eq}$	0.4460	0.4476 ± 0.0061 (-0.2σ)
$\Omega_c h^2$	0.11884	0.1200 ± 0.0040 (-0.3σ)	$\sigma_8 \Omega_m^{0.25}$	0.6108	0.610 ± 0.012 (-0.1σ)	$H(0.15)$	71.12	71.9 ± 2.2 (-0.4σ)
$100\theta_{MC}$	1.04093	1.04086 ± 0.00058 $(+0.2\sigma)$	$\sigma_8/h^{0.5}$	0.9958	0.993 ± 0.016 $(+0.0\sigma)$	$D_M(0.15)$	658.4	652 ± 21 $(+0.5\sigma)$
τ	0.0519	0.0514 ± 0.0080 (-0.1σ)	$r_{drag}h$	97.65	98.2 ± 2.1 (-0.2σ)	$H(0.38)$	81.40	82.2 ± 2.2 (-0.6σ)
N_{eff}	2.895	3.00 ± 0.28	$\langle d^2 \rangle^{1/2}$	2.4673	2.457 ± 0.045 $(+0.1\sigma)$	$D_M(0.38)$	1566.3	1551 ± 47 $(+0.5\sigma)$
$\ln(10^{10} A_s)$	3.0355	3.037 ± 0.021 (-0.2σ)	z_{re}	7.47	7.41 ± 0.84 (-0.1σ)	$H(0.51)$	88.20	89.0 ± 2.1 (-0.8σ)
n_s	0.9575	0.961 ± 0.013 (-0.4σ)	$10^9 A_s$	2.0811	2.085 ± 0.043 (-0.2σ)	$D_M(0.51)$	2026	2007 ± 59 $(+0.6\sigma)$
y_{cal}	1.00046	1.0005 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8760	1.881 ± 0.022 (-0.2σ)	$H(0.61)$	93.88	94.7 ± 2.1 (-1.0σ)
A_{217}^{CIB}	46.8	48 ± 7 (-0.0σ)	D_{40}	1239.8	1237 ± 22 $(+0.2\sigma)$	$D_M(0.61)$	2356	2334 ± 66 $(+0.6\sigma)$
$\xi^{tSZ \times CIB}$	0.55	—	D_{220}	5710.2	5713 ± 41 $(+0.0\sigma)$	$H(2.33)$	234.95	236.1 ± 3.6 (-0.5σ)
A_{143}^{tSZ}	6.95	5.1 ± 2.0 $(+0.0\sigma)$	D_{810}	2536.8	2536 ± 14 (-0.0σ)	$D_M(2.33)$	5844	5801 ± 120 $(+1.5\sigma)$
A_{100}^{PS}	249.8	262 ± 29 (-0.0σ)	D_{1420}	816.5	814.8 ± 5.2 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4653	0.464 ± 0.012 $(+0.0\sigma)$
A_{143}^{PS}	50.6	49 ± 9 (-0.1σ)	D_{2000}	230.89	229.9 ± 2.3 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7445	0.747 ± 0.013 (-0.3σ)
$A_{143 \times 217}^{PS}$	51.5	44 ± 9 $(+0.0\sigma)$	$n_{s,0.002}$	0.9575	0.961 ± 0.013 (-0.4σ)	$f\sigma_8(0.38)$	0.4800	0.4793 ± 0.0095 (-0.1σ)
A_{217}^{PS}	121.2	115 ± 10 $(+0.0\sigma)$	Y_P	0.24321	0.2446 ± 0.0039 (-7.4σ)	$\sigma_8(0.38)$	0.6582	0.661 ± 0.012 (-0.4σ)
A^{kSZ}	0.00	< 4.72 (-0.0σ)	Y_P^{BBN}	0.24453	0.2459 ± 0.0039 (-7.4σ)	$f\sigma_8(0.51)$	0.4767	0.4766 ± 0.0084 (-0.1σ)
A_{100}^{dustTT}	8.77	8.9 ± 1.8 (-0.0σ)	$10^5 D/H$	2.599	2.625 ± 0.069 (-0.2σ)	$\sigma_8(0.51)$	0.6153	0.618 ± 0.012 (-0.4σ)
A_{143}^{dustTT}	10.74	10.7 ± 1.8 (-0.0σ)	Age/Gyr	13.986	13.89 ± 0.30 $(+1.5\sigma)$	$f\sigma_8(0.61)$	0.4705	0.4707 ± 0.0079 (-0.1σ)
$A_{143 \times 217}^{dustTT}$	19.66	18.2 ± 3.3 (-0.0σ)	z_*	1090.110	1090.25 ± 0.49 (-0.1σ)	$\sigma_8(0.61)$	0.5850	0.588 ± 0.012 (-0.4σ)
A_{217}^{dustTT}	95.2	93.3 ± 7.4 $(+0.0\sigma)$	r_*	145.76	144.9 ± 2.5 $(+1.0\sigma)$	$f\sigma_8(2.33)$	0.2944	0.2959 ± 0.0062 (-0.4σ)
c_{100}	0.99966	0.99960 ± 0.00062 (-0.0σ)	$100\theta_*$	1.04126	1.04110 ± 0.00072 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.3028	0.3047 ± 0.0069 (-0.5σ)
c_{217}	0.99824	0.99825 ± 0.00062 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.999	13.92 ± 0.23 $(+1.0\sigma)$	f_{2000}^{143}	29.17	31 ± 4 (-0.1σ)
H_0	65.73	66.5 ± 2.3 (-0.4σ)	z_{drag}	1058.94	1059.2 ± 1.1 (-0.4σ)	$f_{2000}^{143 \times 217}$	32.43	33.3 ± 2.6 (-0.1σ)
Ω_Λ	0.6725	$0.677^{+0.019}_{-0.017}$ (-0.2σ)	r_{drag}	148.56	147.7 ± 2.6 $(+1.0\sigma)$	f_{2000}^{217}	106.89	107.9 ± 2.3 (-0.1σ)
Ω_m	0.3275	$0.323^{+0.017}_{-0.019}$ $(+0.2\sigma)$	k_D	0.13965	0.1402 ± 0.0019 (-0.6σ)	χ_{small}^2	395.85	396.9 ± 1.6 (-0.1σ)
$\Omega_m h^2$	0.14151	0.1428 ± 0.0041 (-0.3σ)	$100\theta_D$	0.16071	0.16097 ± 0.00065 (-0.4σ)	χ_{lowl}^2	24.50	24.4 ± 2.2 $(+0.4\sigma)$
$\Omega_m h^3$	0.0930	$0.0950^{+0.0051}_{-0.0058}$ (-1.9σ)	z_{eq}	3436	3419 ± 63 $(+0.2\sigma)$	χ_{plik}^2	757.7	771.7 ± 5.8 $(+0.1\sigma)$
σ_8	0.8074	0.810 ± 0.014 (-0.2σ)	k_{eq}	0.010379	0.01040 ± 0.00016 (-0.1σ)	χ_{prior}^2	1.26	7.3 ± 3.6 (-0.0σ)
S_8	0.8436	0.840 ± 0.024 $(+0.0\sigma)$	$100\theta_{eq}$	0.8063	0.810 ± 0.012 (-0.2σ)	χ_{CMB}^2	1178.0	1192.9 ± 5.6 $(+0.1\sigma)$

Best-fit $\chi_{eff}^2 = 1179.27$; $\Delta\chi_{eff}^2 = -0.31$; $\bar{\chi}_{eff}^2 = 1200.18$; $\Delta\bar{\chi}_{eff}^2 = 0.61$; $R - 1 = 0.00449$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 (Δ -0.02) commander_dx12_v3.2.29: 24.50 (Δ 0.89) plik_rd12_HM_v22_TT: 757.66 (Δ -1.09)

7.2 base_nnu_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022013	0.02206 ± 0.00029 (-0.4σ)	$\sigma_8 \Omega_m^{0.25}$	0.6060	0.6073 ± 0.0084 (-0.2σ)	$D_M(0.15)$	660.8	653 ± 20 $(+1.2\sigma)$
$\Omega_c h^2$	0.11746	0.1190 ± 0.0038 (-0.8σ)	$\sigma_8/h^{0.5}$	0.9906	0.990 ± 0.010 $(+0.0\sigma)$	$H(0.38)$	81.07	81.9 ± 2.0 (-1.6σ)
$100\theta_{MC}$	1.04110	1.04096 ± 0.00058 $(+0.3\sigma)$	$r_{drag}h$	97.78	98.3 ± 1.7 (-0.4σ)	$D_M(0.38)$	1572.1	1555 ± 44 $(+1.3\sigma)$
τ	0.0503	0.0512 ± 0.0079 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4593	2.454 ± 0.031 $(+0.3\sigma)$	$H(0.51)$	87.84	88.7 ± 2.0 (-2.0σ)
N_{eff}	2.831	2.95 ± 0.27	z_{re}	7.28	7.38 ± 0.82 (-0.2σ)	$D_M(0.51)$	2034	2013 ± 54 $(+1.4\sigma)$
$\ln(10^{10} A_s)$	3.0283	3.034 ± 0.020 (-0.4σ)	$10^9 A_s$	2.0663	2.078 ± 0.042 (-0.4σ)	$H(0.61)$	93.48	94.3 ± 2.0 (-2.5σ)
n_s	0.9559	0.959 ± 0.012 (-0.8σ)	$10^9 A_s e^{-2\tau}$	1.8685	1.876 ± 0.022 (-0.6σ)	$D_M(0.61)$	2365	2341 ± 62 $(+1.5\sigma)$
y_{cal}	1.00025	1.0005 ± 0.0025 (-0.0σ)	D_{40}	1240.1	1237 ± 19 $(+0.4\sigma)$	$H(2.33)$	233.82	235.2 ± 3.5 (-1.3σ)
A_{217}^{CIB}	46.8	47 ± 7 (-0.1σ)	D_{220}	5711.8	5715 ± 41 (-0.0σ)	$D_M(2.33)$	5869	5821 ± 120 $(+3.2\sigma)$
$\xi^{tSZ \times CIB}$	0.53	—	D_{810}	2534.5	2535 ± 14 (-0.1σ)	$f\sigma_8(0.15)$	0.4615	0.4612 ± 0.0081 $(+0.0\sigma)$
A_{143}^{tSZ}	6.99	$5.2_{-2.0}^{+2.2}$ $(+0.1\sigma)$	D_{1420}	816.7	815.1 ± 5.2 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7393	0.744 ± 0.013 (-0.8σ)
A_{100}^{PS}	248.4	261 ± 28 (-0.1σ)	D_{2000}	231.20	230.1 ± 2.3 $(+0.3\sigma)$	$f\sigma_8(0.38)$	0.4762	0.4770 ± 0.0066 (-0.1σ)
A_{143}^{PS}	49.2	48 ± 9 (-0.1σ)	$n_{s,0.002}$	0.9559	0.959 ± 0.012 (-0.8σ)	$\sigma_8(0.38)$	0.6538	0.658 ± 0.012 (-0.9σ)
$A_{143 \times 217}^{PS}$	50.2	43 ± 9 (-0.0σ)	Y_P	0.24233	0.2439 ± 0.0038 (-15.7σ)	$f\sigma_8(0.51)$	0.4731	0.4744 ± 0.0064 (-0.3σ)
A_{217}^{PS}	120.4	115 ± 10 $(+0.0\sigma)$	Y_P^{BBN}	0.24364	0.2452 ± 0.0038 (-15.7σ)	$\sigma_8(0.51)$	0.6112	0.616 ± 0.012 (-0.9σ)
A^{kSZ}	0.01	< 4.66 (-0.1σ)	$10^5 D/H$	2.578	2.609 ± 0.068 (-0.5σ)	$f\sigma_8(0.61)$	0.4670	0.4686 ± 0.0063 (-0.4σ)
A_{100}^{dustTT}	8.82	9.0 ± 1.8 $(+0.0\sigma)$	Age/Gyr	14.047	13.93 ± 0.29 $(+3.4\sigma)$	$\sigma_8(0.61)$	0.5812	0.585 ± 0.011 (-0.9σ)
A_{143}^{dustTT}	10.70	10.7 ± 1.8 (-0.0σ)	z_*	1089.935	1090.12 ± 0.47 (-0.3σ)	$f\sigma_8(2.33)$	0.2925	0.2948 ± 0.0062 (-0.9σ)
$A_{143 \times 217}^{dustTT}$	19.43	18.2 ± 3.3 (-0.0σ)	r_*	146.47	145.5 ± 2.5 $(+2.5\sigma)$	$\sigma_8(2.33)$	0.3009	0.3035 ± 0.0068 (-0.9σ)
A_{217}^{dustTT}	94.7	93.4 ± 7.4 $(+0.0\sigma)$	$100\theta_*$	1.04145	1.04124 ± 0.00072 $(+0.5\sigma)$	f_{2000}^{143}	28.72	30 ± 4 (-0.3σ)
c_{100}	0.99964	0.99960 ± 0.00063 (-0.0σ)	$D_M(z_*)/Gpc$	14.064	13.97 ± 0.23 $(+2.5\sigma)$	$f_{2000}^{143 \times 217}$	31.99	33.0 ± 2.5 (-0.3σ)
c_{217}	0.99821	0.99824 ± 0.00061 (-0.0σ)	z_{drag}	1058.75	1059.1 ± 1.1 (-0.8σ)	f_{2000}^{217}	106.46	107.6 ± 2.3 (-0.3σ)
H_0	65.50	66.3 ± 2.1 (-1.0σ)	r_{drag}	149.28	148.3 ± 2.6 $(+2.5\sigma)$	$\chi_{lensing}^2$	8.61	9.37 ± 0.98 (-0.1σ)
Ω_Λ	0.6734	0.678 ± 0.015 (-0.4σ)	k_D	0.13915	0.1398 ± 0.0018 (-1.4σ)	χ_{small}^2	395.69	396.8 ± 1.5 (-0.1σ)
Ω_m	0.3266	0.322 ± 0.015 $(+0.4\sigma)$	$100\theta_D$	0.16054	0.16084 ± 0.00064 (-0.8σ)	χ_{lowl}^2	24.61	24.4 ± 1.9 $(+0.7\sigma)$
$\Omega_m h^2$	0.14012	0.1417 ± 0.0040 (-0.9σ)	z_{eq}	3432	3416 ± 50 $(+0.4\sigma)$	χ_{plik}^2	757.8	771.1 ± 5.5 $(+0.0\sigma)$
$\Omega_m h^3$	0.0918	$0.0941_{-0.0056}^{+0.0049}$ (-4.0σ)	k_{eq}	0.010323	0.01035 ± 0.00014 (-0.2σ)	χ_{prior}^2	1.28	7.3 ± 3.6 (-0.0σ)
σ_8	0.8017	0.806 ± 0.013 (-0.7σ)	$100\theta_{eq}$	0.8070	0.8101 ± 0.0095 (-0.4σ)	χ_{CMB}^2	1186.7	1201.7 ± 5.6 $(+0.1\sigma)$
S_8	0.8365	0.835 ± 0.016 $(+0.1\sigma)$	$100\theta_{s,eq}$	0.44635	0.4479 ± 0.0048 (-0.4σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4582	0.4576 ± 0.0089 $(+0.1\sigma)$	$H(0.15)$	70.86	71.7 ± 2.1 (-1.2σ)			

Best-fit $\chi_{eff}^2 = 1188.03$; $\Delta\chi_{eff}^2 = -0.54$; $\bar{\chi}_{eff}^2 = 1208.98$; $\Delta\bar{\chi}_{eff}^2 = 0.57$; $R - 1 = 0.00963$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.62 (Δ -0.29) simall_100x143_offlike5_EE_Aplanck_B: 395.69 (Δ -0.17) commander_dx12_v3_2_29: 24.61 (Δ 1.37) plik_rd12_HM_v22_TT: 757.83 (Δ -1.49)

7.3 base_nnu_plikHM_TT_lowl_lowE_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022020	0.02205 ± 0.00026	$\sigma_8 \Omega_m^{0.5}$	0.4611	0.461 ± 0.013	$100\theta_{s,eq}$	0.4464	0.4470 ± 0.0053
$\Omega_c h^2$	0.11889	0.1196 ± 0.0029	$\sigma_8 \Omega_m^{0.25}$	0.6101	0.610 ± 0.011	$H(0.15)$	71.24	71.6 ± 1.6
$100\theta_{MC}$	1.04095	1.04089 ± 0.00051	$\sigma_8/h^{0.5}$	0.9947	0.994 ± 0.016	$D_M(0.15)$	657.2	654 ± 16
τ	0.0518	0.0511 ± 0.0079	$r_{drag}h$	97.79	98.0 ± 1.9	$H(0.38)$	81.50	81.9 ± 1.5
N_{eff}	2.908	2.96 ± 0.19	$\langle d^2 \rangle^{1/2}$	2.4642	2.461 ± 0.041	$D_M(0.38)$	1563.7	1557 ± 35
$\ln(10^{10} A_s)$	3.0351	3.035 ± 0.018	z_{re}	7.47	7.38 ± 0.82	$H(0.51)$	88.30	88.7 ± 1.5
n_s	0.9580	0.9590 ± 0.0099	$10^9 A_s$	2.0803	2.081 ± 0.038	$D_M(0.51)$	2023.3	2015 ± 43
y_{cal}	1.00035	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8756	1.879 ± 0.018	$H(0.61)$	93.98	94.4 ± 1.5
A_{217}^{CIB}	48.1	47 ± 7	D_{40}	1238.6	1239 ± 19	$D_M(0.61)$	2352.5	2342 ± 48
$\xi^{tSZ \times CIB}$	0.38	—	D_{220}	5708.1	5713 ± 40	$H(2.33)$	235.02	235.7 ± 2.5
A_{143}^{tSZ}	7.04	$5.2_{-2.0}^{+2.2}$	D_{810}	2535.6	2536 ± 14	$D_M(2.33)$	5838	5817 ± 86
A_{100}^{PS}	252.2	261 ± 28	D_{1420}	815.9	815.0 ± 5.0	$f\sigma_8(0.15)$	0.4645	0.464 ± 0.012
A_{143}^{PS}	48.6	48 ± 8	D_{2000}	230.61	230.0 ± 1.9	$\sigma_8(0.15)$	0.7444	0.746 ± 0.010
$A_{143 \times 217}^{PS}$	47.2	44 ± 9	$n_{s,0.002}$	0.9580	0.9590 ± 0.0099	$f\sigma_8(0.38)$	0.4794	0.4793 ± 0.0093
A_{217}^{PS}	119.1	115 ± 10	Y_P	0.24338	0.2440 ± 0.0026	$\sigma_8(0.38)$	0.6583	0.6595 ± 0.0093
A^{kSZ}	0.00	< 4.60	Y_P^{BBN}	0.24470	0.2454 ± 0.0026	$f\sigma_8(0.51)$	0.4763	0.4764 ± 0.0080
A_{100}^{dustTT}	8.79	9.0 ± 1.8	$10^5 D/H$	2.6035	2.617 ± 0.049	$\sigma_8(0.51)$	0.6154	0.6166 ± 0.0089
A_{143}^{dustTT}	10.80	10.7 ± 1.8	Age/Gyr	13.973	13.92 ± 0.20	$f\sigma_8(0.61)$	0.4701	0.4704 ± 0.0073
$A_{143 \times 217}^{dustTT}$	19.45	18.3 ± 3.3	z_*	1090.130	1090.21 ± 0.40	$\sigma_8(0.61)$	0.5852	0.5864 ± 0.0086
A_{217}^{dustTT}	94.7	93.5 ± 7.4	r_*	145.69	145.3 ± 1.7	$f\sigma_8(2.33)$	0.29450	0.2952 ± 0.0046
c_{100}	0.99964	0.99960 ± 0.00063	$100\theta_*$	1.04126	1.04116 ± 0.00057	$\sigma_8(2.33)$	0.3030	0.3038 ± 0.0051
c_{217}	0.99825	0.99824 ± 0.00061	$D_M(z_*)/\text{Gpc}$	13.992	13.95 ± 0.16	χ_{small}^2	395.84	396.8 ± 1.6
H_0	65.86	66.2 ± 1.7	z_{drag}	1058.94	1059.08 ± 0.83	χ_{lowl}^2	24.40	24.5 ± 1.9
Ω_Λ	0.6736	0.675 ± 0.016	r_{drag}	148.48	148.0 ± 1.8	χ_{plik}^2	757.7	770.9 ± 5.5
Ω_m	0.3264	0.325 ± 0.016	k_D	0.13967	0.1400 ± 0.0013	χ_{Aver15}^2	0.002	0.44 ± 0.62
$\Omega_m h^2$	0.14156	0.1423 ± 0.0030	$100\theta_D$	0.160758	0.16089 ± 0.00044	$\chi_{Cooke17}^2$	0.024	0.27 ± 0.39
$\Omega_m h^3$	0.09322	0.0942 ± 0.0037	z_{eq}	3431	3425 ± 56	χ_{prior}^2	1.37	7.2 ± 3.6
σ_8	0.8072	0.808 ± 0.011	k_{eq}	0.010374	0.01039 ± 0.00015	χ_{CMB}^2	1177.9	1192.2 ± 5.4
S_8	0.8419	0.841 ± 0.024	$100\theta_{eq}$	0.8072	0.808 ± 0.010	χ_{Abund}^2	0.026	0.71 ± 0.84

Best-fit $\chi_{eff}^2 = 1179.31$; $\bar{\chi}_{eff}^2 = 1200.19$; $R - 1 = 0.00823$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.02 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.84 commander_dx12_v3.2_29: 24.40 plik_rd12_HM_v22_TT: 757.67

7.4 base_nnu_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02210 \pm 0.00030 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.460 \pm 0.013 \quad (+0.0\sigma)$	$100\theta_{s,eq}$	$0.4480 \pm 0.0060 \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.1202 \pm 0.0040 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.611 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.1 \pm 2.2 \quad (-0.3\sigma)$
$100\theta_{MC}$	$1.04084 \pm 0.00058 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.016 \quad (+0.0\sigma)$	$D_M(0.15)$	$650 \pm 21 \quad (+0.3\sigma)$
τ	$0.0533^{+0.0044}_{-0.0082} \quad (-0.1\sigma)$	$r_{drag} h$	$98.4 \pm 2.1 \quad (-0.1\sigma)$	$H(0.38)$	$82.3 \pm 2.1 \quad (-0.4\sigma)$
N_{eff}	3.02 ± 0.28	$\langle d^2 \rangle^{1/2}$	$2.459 \pm 0.044 \quad (+0.1\sigma)$	$D_M(0.38)$	$1548 \pm 47 \quad (+0.4\sigma)$
$\ln(10^{10} A_s)$	$3.041^{+0.016}_{-0.019} \quad (-0.2\sigma)$	z_{re}	$7.63^{+0.48}_{-0.86} \quad (-0.1\sigma)$	$H(0.51)$	$89.1 \pm 2.1 \quad (-0.5\sigma)$
n_s	$0.962 \pm 0.013 \quad (-0.2\sigma)$	$10^9 A_s$	$2.094^{+0.033}_{-0.041} \quad (-0.2\sigma)$	$D_M(0.51)$	$2003 \pm 58 \quad (+0.4\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.022 \quad (-0.2\sigma)$	$H(0.61)$	$94.8 \pm 2.1 \quad (-0.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{40}	$1235 \pm 22 \quad (+0.1\sigma)$	$D_M(0.61)$	$2330 \pm 65 \quad (+0.4\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5713 \pm 41 \quad (+0.0\sigma)$	$H(2.33)$	$236.3 \pm 3.6 \quad (-0.3\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$D_M(2.33)$	$5793 \pm 120 \quad (+1.0\sigma)$
A_{100}^{PS}	$262 \pm 29 \quad (-0.0\sigma)$	D_{1420}	$814.8 \pm 5.2 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.464 \pm 0.012 \quad (+0.0\sigma)$
A_{143}^{PS}	$49 \pm 9 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 2.3 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.749 \pm 0.012 \quad (-0.2\sigma)$
$A_{143 \times 217}^{PS}$	$44 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.962 \pm 0.013 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4799 \pm 0.0094 \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_P	$0.2448 \pm 0.0038 \quad (-5.0\sigma)$	$\sigma_8(0.38)$	$0.663 \pm 0.012 \quad (-0.3\sigma)$
A^{kSZ}	$< 4.73 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.2461 \pm 0.0038 \quad (-5.0\sigma)$	$f\sigma_8(0.51)$	$0.4773 \pm 0.0083 \quad (-0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.626 \pm 0.069 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.620 \pm 0.011 \quad (-0.3\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	$13.87 \pm 0.29 \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.4715 \pm 0.0077 \quad (-0.1\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	z_*	$1090.25 \pm 0.49 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.589 \pm 0.011 \quad (-0.3\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.4 \quad (+0.0\sigma)$	r_*	$144.8 \pm 2.5 \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0059 \quad (-0.3\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00071 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3056 \pm 0.0066 \quad (-0.3\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.91 \pm 0.23 \quad (+0.7\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (-0.1\sigma)$
H_0	$66.7 \pm 2.3 \quad (-0.2\sigma)$	z_{drag}	$1059.3 \pm 1.1 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.6 \quad (-0.1\sigma)$
Ω_Λ	$0.678^{+0.019}_{-0.017} \quad (-0.1\sigma)$	r_{drag}	$147.6 \pm 2.6 \quad (+0.7\sigma)$	f_{2000}^{217}	$107.9 \pm 2.4 \quad (-0.1\sigma)$
Ω_m	$0.322^{+0.017}_{-0.019} \quad (+0.1\sigma)$	k_D	$0.1403 \pm 0.0018 \quad (-0.4\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.1429 \pm 0.0041 \quad (-0.2\sigma)$	$100\theta_D$	$0.16100 \pm 0.00065 \quad (-0.3\sigma)$	χ_{lowl}^2	$24.2 \pm 2.2 \quad (+0.3\sigma)$
$\Omega_m h^3$	$0.0954^{+0.0051}_{-0.0057} \quad (-1.1\sigma)$	z_{eq}	$3415 \pm 63 \quad (+0.1\sigma)$	χ_{plik}^2	$771.7 \pm 5.8 \quad (+0.1\sigma)$
σ_8	$0.811 \pm 0.013 \quad (-0.2\sigma)$	k_{eq}	$0.01040 \pm 0.00016 \quad (-0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.840 \pm 0.024 \quad (+0.0\sigma)$	$100\theta_{eq}$	$0.810 \pm 0.012 \quad (-0.1\sigma)$	χ_{CMB}^2	$1192.7 \pm 5.5 \quad (+0.1\sigma)$

$\bar{\chi}_{eff}^2 = 1199.93$; $\Delta\bar{\chi}_{eff}^2 = 0.61$; $R - 1 = 0.00341$

7.5 base_nnu_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02209 \pm 0.00029 \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6077 \pm 0.0083 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$651 \pm 19 \quad (+1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0038 \quad (-0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.010 \quad (+0.0\sigma)$	$H(0.38)$	$82.1 \pm 2.0 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00058 \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$98.5 \pm 1.7 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1551 \pm 43 \quad (+1.1\sigma)$
τ	$0.0532^{+0.0043}_{-0.0081} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.454 \pm 0.031 \quad (+0.2\sigma)$	$H(0.51)$	$88.9 \pm 2.0 \quad (-1.6\sigma)$
N_{eff}	2.97 ± 0.27	z_{re}	$7.59^{+0.45}_{-0.86} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2008 \pm 53 \quad (+1.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.016}_{-0.019} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.087^{+0.033}_{-0.040} \quad (-0.3\sigma)$	$H(0.61)$	$94.5 \pm 2.0 \quad (-2.0\sigma)$
n_{s}	$0.961 \pm 0.012 \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.022 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2335 \pm 60 \quad (+1.2\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1236 \pm 18 \quad (+0.3\sigma)$	$H(2.33)$	$235.4 \pm 3.5 \quad (-1.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5716 \pm 41 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5811 \pm 120 \quad (+2.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2535 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4610 \pm 0.0081 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (+0.1\sigma)$	D_{1420}	$815.0 \pm 5.3 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.746 \pm 0.012 \quad (-0.7\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (-0.1\sigma)$	D_{2000}	$230.1 \pm 2.3 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4773 \pm 0.0066 \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 9 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.961 \pm 0.012 \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.660 \pm 0.012 \quad (-0.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	Y_{P}	$0.2442 \pm 0.0037 \quad (-12.8\sigma)$	$f\sigma_8(0.51)$	$0.4748 \pm 0.0063 \quad (-0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2455 \pm 0.0037 \quad (-12.8\sigma)$	$\sigma_8(0.51)$	$0.617 \pm 0.011 \quad (-0.8\sigma)$
A^{kSZ}	$< 4.66 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.611 \pm 0.069 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4692 \pm 0.0062 \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.91 \pm 0.28 \quad (+2.7\sigma)$	$\sigma_8(0.61)$	$0.587 \pm 0.011 \quad (-0.8\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.11 \pm 0.47 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2957 \pm 0.0059 \quad (-0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	r_*	$145.3 \pm 2.5 \quad (+2.1\sigma)$	$\sigma_8(2.33)$	$0.3045 \pm 0.0065 \quad (-0.8\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00071 \quad (+0.4\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (-0.2\sigma)$
c_{100}	$0.99960 \pm 0.00063 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.23 \quad (+2.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 2.5 \quad (-0.3\sigma)$
c_{217}	$0.99825 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.2 \pm 1.0 \quad (-0.6\sigma)$	f_{2000}^{217}	$107.7 \pm 2.3 \quad (-0.2\sigma)$
H_0	$66.6 \pm 2.0 \quad (-0.8\sigma)$	r_{drag}	$148.1 \pm 2.6 \quad (+2.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.38 \pm 0.99 \quad (-0.1\sigma)$
Ω_{Λ}	$0.679 \pm 0.014 \quad (-0.4\sigma)$	k_{D}	$0.1399 \pm 0.0018 \quad (-1.1\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.1\sigma)$
Ω_{m}	$0.321 \pm 0.014 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16088 \pm 0.00064 \quad (-0.7\sigma)$	χ_{lowl}^2	$24.2 \pm 1.9 \quad (+0.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0040 \quad (-0.7\sigma)$	z_{eq}	$3410 \pm 48 \quad (+0.3\sigma)$	χ_{plik}^2	$771.2 \pm 5.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0944^{+0.0049}_{-0.0055} \quad (-3.2\sigma)$	k_{eq}	$0.01035 \pm 0.00013 \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.808 \pm 0.012 \quad (-0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8113 \pm 0.0091 \quad (-0.3\sigma)$	χ_{CMB}^2	$1201.4 \pm 5.6 \quad (+0.1\sigma)$
S_8	$0.835 \pm 0.016 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4485 \pm 0.0046 \quad (-0.3\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4572 \pm 0.0089 \quad (+0.0\sigma)$	$H(0.15)$	$71.9 \pm 2.0 \quad (-1.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1208.73$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.57$; $R - 1 = 0.01118$

7.6 base_nnu_plikHM_TT_lowl_lowE_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02206 ± 0.00026	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.611 ± 0.011	$D_{\mathrm{M}}(0.15)$	653 ± 16
$\Omega_{\mathrm{c}}h^2$	0.1196 ± 0.0029	$\sigma_8/h^{0.5}$	0.995 ± 0.016	$H(0.38)$	82.0 ± 1.5
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00051	$r_{\mathrm{drag}}h$	98.1 ± 1.9	$D_{\mathrm{M}}(0.38)$	1555 ± 34
τ	$0.0531^{+0.0043}_{-0.0081}$	$\langle d^2 \rangle^{1/2}$	2.463 ± 0.041	$H(0.51)$	88.8 ± 1.5
N_{eff}	2.97 ± 0.19	z_{re}	$7.59^{+0.45}_{-0.86}$	$D_{\mathrm{M}}(0.51)$	2012 ± 42
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.014}_{-0.017}$	$10^9 A_{\mathrm{s}}$	$2.090^{+0.028}_{-0.037}$	$H(0.61)$	94.4 ± 1.5
n_{s}	0.9596 ± 0.0098	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.879 ± 0.018	$D_{\mathrm{M}}(0.61)$	2339 ± 48
y_{cal}	1.0005 ± 0.0025	D_{40}	1238 ± 19	$H(2.33)$	235.7 ± 2.5
A_{217}^{CIB}	47 ± 7	D_{220}	5713 ± 40	$D_{\mathrm{M}}(2.33)$	5812 ± 85
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2536 ± 14	$f\sigma_8(0.15)$	0.464 ± 0.012
A_{143}^{tSZ}	5.2 ± 2.0	D_{1420}	815.0 ± 5.0	$\sigma_8(0.15)$	0.7471 ± 0.0095
A_{100}^{PS}	261 ± 28	D_{2000}	230.1 ± 1.9	$f\sigma_8(0.38)$	0.4799 ± 0.0092
A_{143}^{PS}	48 ± 8	$n_{\mathrm{s},0.002}$	0.9596 ± 0.0098	$\sigma_8(0.38)$	0.6610 ± 0.0087
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	Y_{P}	0.2442 ± 0.0026	$f\sigma_8(0.51)$	0.4770 ± 0.0079
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2455 ± 0.0026	$\sigma_8(0.51)$	$0.6180^{+0.0078}_{-0.0087}$
A^{kSZ}	< 4.56	$10^5 \mathrm{D}/\mathrm{H}$	2.617 ± 0.049	$f\sigma_8(0.61)$	0.4711 ± 0.0071
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	$\mathrm{Age}/\mathrm{Gyr}$	13.91 ± 0.20	$\sigma_8(0.61)$	$0.5878^{+0.0075}_{-0.0085}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_*	1090.20 ± 0.40	$f\sigma_8(2.33)$	$0.2959^{+0.0040}_{-0.0045}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	r_*	145.2 ± 1.7	$\sigma_8(2.33)$	$0.3046^{+0.0044}_{-0.0050}$
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	$100\theta_*$	1.04115 ± 0.00057	f_{2000}^{143}	30.5 ± 3.1
c_{100}	0.99961 ± 0.00063	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.94 ± 0.16	$f_{2000}^{143 \times 217}$	33.1 ± 2.2
c_{217}	0.99825 ± 0.00061	z_{drag}	1059.13 ± 0.82	f_{2000}^{217}	107.7 ± 2.1
H_0	66.3 ± 1.7	r_{drag}	148.0 ± 1.8	χ_{simall}^2	396.7 ± 1.5
Ω_{Λ}	0.676 ± 0.016	k_{D}	0.1400 ± 0.0013	χ_{lowl}^2	24.5 ± 1.9
Ω_{m}	0.324 ± 0.016	$100\theta_{\mathrm{D}}$	0.16090 ± 0.00044	χ_{plik}^2	770.8 ± 5.5
$\Omega_{\mathrm{m}}h^2$	0.1423 ± 0.0030	z_{eq}	3422 ± 56	χ_{Aver15}^2	0.44 ± 0.62
$\Omega_{\mathrm{m}}h^3$	0.0944 ± 0.0037	k_{eq}	0.01039 ± 0.00015	$\chi_{\mathrm{Cooke17}}^2$	0.28 ± 0.39
σ_8	0.810 ± 0.010	$100\theta_{\mathrm{eq}}$	0.809 ± 0.010	χ_{prior}^2	7.2 ± 3.6
S_8	0.842 ± 0.024	$100\theta_{\mathrm{s,eq}}$	0.4473 ± 0.0053	χ_{CMB}^2	1191.9 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.461 ± 0.013	$H(0.15)$	71.7 ± 1.6	χ_{Abund}^2	0.72 ± 0.85

$$\bar{\chi}_{\mathrm{eff}}^2 = 1199.89; R - 1 = 0.00918$$

7.7 base_nnu_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022194	0.02225 ± 0.00022 (-0.8σ)	$\Omega_m h^2$	0.14008	0.1413 ± 0.0030 (-1.5σ)	k_{eq}	0.010317	0.01035 ± 0.00012 (-0.6σ)
$\Omega_c h^2$	0.11725	0.1184 ± 0.0029 (-1.3σ)	$\Omega_m h^3$	0.09221	0.0938 ± 0.0037 (-8.7σ)	$100\theta_{\text{eq}}$	0.8082	0.8099 ± 0.0068 (-0.4σ)
$100\theta_{\text{MC}}$	1.041225	1.04111 ± 0.00043 $(+0.7\sigma)$	σ_8	0.8040	0.806 ± 0.011 (-0.8σ)	$100\theta_{\text{s,eq}}$	0.44683	0.4477 ± 0.0034 (-0.4σ)
τ	0.0538	0.0532 ± 0.0077 (-0.2σ)	S_8	0.8347	0.833 ± 0.016 (-0.0σ)	$H(0.15)$	71.15	71.7 ± 1.4 (-1.7σ)
N_{eff}	2.836	2.92 ± 0.19	$\sigma_8 \Omega_m^{0.5}$	0.4572	0.4565 ± 0.0086 (-0.0σ)	$D_{\text{M}}(0.15)$	657.8	653 ± 13 $(+1.6\sigma)$
$\ln(10^{10} A_s)$	3.0365	3.038 ± 0.018 (-0.4σ)	$\sigma_8 \Omega_m^{0.25}$	0.6063	0.6066 ± 0.0087 (-0.3σ)	$H(0.38)$	81.33	81.9 ± 1.4 (-2.4σ)
n_s	0.9579	0.9597 ± 0.0085 (-1.2σ)	$\sigma_8/h^{0.5}$	0.9910	0.989 ± 0.012 (-0.0σ)	$D_{\text{M}}(0.38)$	1565.8	1554 ± 30 $(+1.9\sigma)$
y_{cal}	1.00052	1.0008 ± 0.0025 $(+0.1\sigma)$	$r_{\text{drag}} h$	98.15	98.5 ± 1.2 (-0.4σ)	$H(0.51)$	88.07	88.7 ± 1.4 (-3.2σ)
A_{217}^{CIB}	43.5	46 ± 7 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4604	2.456 ± 0.030 $(+0.3\sigma)$	$D_{\text{M}}(0.51)$	2026.5	2012 ± 37 $(+2.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.962	> 0.385 $(+0.1\sigma)$	z_{re}	7.60	7.54 ± 0.79 (-0.2σ)	$H(0.61)$	93.70	94.3 ± 1.4 (-4.0σ)
A_{143}^{tSZ}	6.85	$5.6_{-1.9}^{+2.1}$ $(+0.0\sigma)$	$10^9 A_s$	2.0831	2.086 ± 0.038 (-0.4σ)	$D_{\text{M}}(0.61)$	2356.6	2340 ± 42 $(+2.1\sigma)$
A_{100}^{PS}	243.7	256 ± 28 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8707	1.876 ± 0.018 (-0.7σ)	$H(2.33)$	233.89	234.9 ± 2.6 (-2.1σ)
A_{143}^{PS}	52.4	45 ± 8 (-0.1σ)	D_{40}	1239.7	1239 ± 16 $(+0.6\sigma)$	$D_{\text{M}}(2.33)$	5857	5822 ± 84 $(+5.3\sigma)$
$A_{143 \times 217}^{\text{PS}}$	58.7	42 ± 9 (-0.0σ)	D_{220}	5729.7	5734 ± 38 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4608	0.4603 ± 0.0081 (-0.1σ)
A_{217}^{PS}	124.4	115 ± 10 (-0.0σ)	D_{810}	2539.3	2539 ± 14 (-0.0σ)	$\sigma_8(0.15)$	0.7418	0.744 ± 0.010 (-0.9σ)
A^{kSZ}	0.00	< 3.89 (-0.1σ)	D_{1420}	819.67	818.0 ± 4.8 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4763	0.4764 ± 0.0069 (-0.3σ)
A_{100}^{dustTT}	8.70	8.9 ± 1.8 $(+0.0\sigma)$	D_{2000}	232.48	231.6 ± 1.8 $(+0.4\sigma)$	$\sigma_8(0.38)$	0.6563	0.6585 ± 0.0096 (-1.0σ)
A_{143}^{dustTT}	10.90	10.8 ± 1.8 (-0.0σ)	$n_{\text{s},0.002}$	0.9579	0.9597 ± 0.0085 (-1.2σ)	$f\sigma_8(0.51)$	0.4736	0.4740 ± 0.0065 (-0.4σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.22	18.4 ± 3.3 (-0.0σ)	Y_{P}	0.24247	0.2436 ± 0.0026 (-30.9σ)	$\sigma_8(0.51)$	0.6137	0.6159 ± 0.0091 (-1.1σ)
A_{217}^{dustTT}	96.0	93.6 ± 7.4 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24378	0.2449 ± 0.0026 (-30.9σ)	$f\sigma_8(0.61)$	0.4677	0.4683 ± 0.0063 (-0.5σ)
A_{100}^{dustTE}	0.1143	0.114 ± 0.038 (-0.0σ)	10^5D/H	2.5456	2.564 ± 0.044 (-0.9σ)	$\sigma_8(0.61)$	0.5836	0.5858 ± 0.0088 (-1.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.135 ± 0.030 (-0.0σ)	Age/Gyr	14.018	13.94 ± 0.20 $(+5.7\sigma)$	$f\sigma_8(2.33)$	0.29383	0.2950 ± 0.0046 (-1.1σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.085 $(+0.0\sigma)$	z_*	1089.693	1089.81 ± 0.34 (-0.5σ)	$\sigma_8(2.33)$	0.30242	0.3038 ± 0.0050 (-1.2σ)
A_{143}^{dustTE}	0.225	0.225 ± 0.053 (-0.0σ)	r_*	146.36	145.6 ± 1.8 $(+4.1\sigma)$	f_{2000}^{143}	27.19	28.7 ± 3.0 (-0.3σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.668	0.666 ± 0.080 (-0.0σ)	$100\theta_*$	1.04156	1.04139 ± 0.00054 $(+1.0\sigma)$	$f_{2000}^{143 \times 217}$	30.88	31.6 ± 2.1 (-0.3σ)
A_{217}^{dustTE}	2.087	2.09 ± 0.27 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	14.052	13.98 ± 0.17 $(+4.1\sigma)$	f_{2000}^{217}	105.44	106.5 ± 1.9 (-0.3σ)
c_{100}	0.99976	0.99968 ± 0.00061 $(+0.0\sigma)$	z_{drag}	1059.17	1059.42 ± 0.78 (-1.7σ)	χ_{small}^2	396.03	397.0 ± 1.7 (-0.1σ)
c_{217}	0.99816	0.99817 ± 0.00062 (-0.0σ)	r_{drag}	149.11	148.3 ± 1.9 $(+4.4\sigma)$	χ_{lowl}^2	24.41	24.3 ± 1.5 $(+0.8\sigma)$
H_0	65.82	66.4 ± 1.4 (-1.5σ)	k_{D}	0.13944	0.1400 ± 0.0014 (-2.9σ)	χ_{plik}^2	2343.0	2359.2 ± 6.0 (-0.0σ)
Ω_{Λ}	0.6767	0.679 ± 0.010 (-0.5σ)	$100\theta_{\text{D}}$	0.160328	0.16052 ± 0.00040 (-1.4σ)	χ_{prior}^2	1.33	11.6 ± 4.6 (-0.0σ)
Ω_{m}	0.3233	0.321 ± 0.010 $(+0.5\sigma)$	z_{eq}	3428.9	3420 ± 36 $(+0.4\sigma)$	χ_{CMB}^2	2763.4	2780.5 ± 6.0 $(+0.1\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 2764.72$; $\Delta\chi_{\text{eff}}^2 = -1.05$; $\bar{\chi}_{\text{eff}}^2 = 2792.10$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.33$; $R - 1 = 0.01315$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3.2.29: 24.41 (Δ 1.15) plik_rd12_HM_v22b_TTTEEE: 2342.95 (Δ -1.69)

7.8 base_nnu_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022195	0.02224 ± 0.00022 (-0.9σ)	$\Omega_m h^3$	0.09181	0.0933 ± 0.0037 (-10.0σ)	$100\theta_{s,eq}$	0.44715	0.4478 ± 0.0031 (-0.6σ)
$\Omega_c h^2$	0.11671	0.1179 ± 0.0028 (-1.8σ)	σ_8	0.8018	0.8044 ± 0.0099 (-1.1σ)	$H(0.15)$	71.10	71.6 ± 1.4 (-2.3σ)
$100\theta_{MC}$	1.041296	1.04116 ± 0.00043 $(+0.8\sigma)$	S_8	0.8312	0.831 ± 0.013 (-0.0σ)	$D_M(0.15)$	658.2	654 ± 13 $(+2.2\sigma)$
τ	0.0533	0.0530 ± 0.0072 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4553	0.4554 ± 0.0069 (-0.0σ)	$H(0.38)$	81.25	81.8 ± 1.4 (-3.2σ)
N_{eff}	2.815	2.89 ± 0.19	$\sigma_8 \Omega_m^{0.25}$	0.6042	0.6052 ± 0.0070 (-0.4σ)	$D_M(0.38)$	1567.0	1557 ± 29 $(+2.5\sigma)$
$\ln(10^{10} A_s)$	3.0339	3.036 ± 0.017 (-0.6σ)	$\sigma_8/h^{0.5}$	0.9885	0.9880 ± 0.0089 (-0.0σ)	$H(0.51)$	87.97	88.5 ± 1.4 (-4.1σ)
n_s	0.9577	0.9589 ± 0.0084 (-1.4σ)	$r_{drag} h$	98.27	98.5 ± 1.1 (-0.6σ)	$D_M(0.51)$	2028.1	2015 ± 37 $(+2.7\sigma)$
y_{cal}	1.00049	1.0007 ± 0.0025 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4559	2.454 ± 0.024 $(+0.4\sigma)$	$H(0.61)$	93.59	94.1 ± 1.4 (-5.1σ)
A_{217}^{CIB}	43.4	46 ± 7 (-0.1σ)	z_{re}	7.53	7.50 ± 0.74 (-0.2σ)	$D_M(0.61)$	2358.6	2344 ± 42 $(+2.9\sigma)$
$\xi^{tSZ \times CIB}$	0.984	> 0.391 $(+0.1\sigma)$	$10^9 A_s$	2.0778	2.083 ± 0.035 (-0.6σ)	$H(2.33)$	233.46	234.5 ± 2.6 (-2.9σ)
A_{143}^{tSZ}	6.95	$5.6_{-1.9}^{+2.2}$ $(+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8679	1.873 ± 0.017 (-1.0σ)	$D_M(2.33)$	5864	5832 ± 84 $(+6.6\sigma)$
A_{100}^{PS}	242.3	256 ± 28 (-0.1σ)	D_{40}	1239.1	1240 ± 15 $(+0.6\sigma)$	$f\sigma_8(0.15)$	0.4589	0.4592 ± 0.0064 (-0.1σ)
A_{143}^{PS}	52.0	44 ± 8 (-0.2σ)	D_{220}	5730.4	5736 ± 38 (-0.0σ)	$\sigma_8(0.15)$	0.7399	0.7424 ± 0.0095 (-1.3σ)
$A_{143 \times 217}^{PS}$	59.1	42 ± 9 (-0.0σ)	D_{810}	2538.8	2538 ± 13 (-0.1σ)	$f\sigma_8(0.38)$	0.4747	0.4753 ± 0.0055 (-0.4σ)
A_{217}^{PS}	124.4	115 ± 10 $(+0.0\sigma)$	D_{1420}	819.91	818.1 ± 4.8 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6547	0.6571 ± 0.0090 (-1.4σ)
A^{kSZ}	0.01	< 3.94 (-0.1σ)	D_{2000}	232.64	231.7 ± 1.8 $(+0.5\sigma)$	$f\sigma_8(0.51)$	0.4720	0.4729 ± 0.0053 (-0.5σ)
A_{100}^{dustTT}	8.69	8.9 ± 1.8 $(+0.0\sigma)$	$n_{s,0.002}$	0.9577	0.9589 ± 0.0084 (-1.4σ)	$\sigma_8(0.51)$	0.6122	0.6146 ± 0.0087 (-1.4σ)
A_{143}^{dustTT}	10.89	10.8 ± 1.8 (-0.1σ)	Y_P	0.24218	0.2433 ± 0.0026 (-37.6σ)	$f\sigma_8(0.61)$	0.4662	0.4673 ± 0.0052 (-0.7σ)
$A_{143 \times 217}^{dustTT}$	20.32	18.4 ± 3.3 (-0.0σ)	Y_P^{BBN}	0.24349	0.2446 ± 0.0026 (-37.6σ)	$\sigma_8(0.61)$	0.5822	0.5845 ± 0.0084 (-1.5σ)
A_{217}^{dustTT}	96.1	93.6 ± 7.4 $(+0.0\sigma)$	$10^5 D/H$	2.5380	2.558 ± 0.043 (-1.0σ)	$f\sigma_8(2.33)$	0.29318	0.2944 ± 0.0044 (-1.5σ)
A_{100}^{dustTE}	0.1135	0.114 ± 0.038 (-0.0σ)	Age/Gyr	14.036	13.96 ± 0.20 $(+7.0\sigma)$	$\sigma_8(2.33)$	0.30178	0.3031 ± 0.0049 (-1.5σ)
$A_{100 \times 143}^{dustTE}$	0.1357	0.135 ± 0.029 (-0.0σ)	z_*	1089.620	1089.75 ± 0.32 (-0.6σ)	f_{2000}^{143}	26.90	28.6 ± 3.0 (-0.4σ)
$A_{100 \times 217}^{dustTE}$	0.482	0.480 ± 0.086 (-0.0σ)	r_*	146.61	145.9 ± 1.8 $(+5.5\sigma)$	$f_{2000}^{143 \times 217}$	30.75	31.5 ± 2.0 (-0.4σ)
A_{143}^{dustTE}	0.228	0.225 ± 0.053 (-0.0σ)	$100\theta_*$	1.04165	1.04145 ± 0.00053 $(+1.2\sigma)$	f_{2000}^{217}	105.29	106.4 ± 1.9 (-0.4σ)
$A_{143 \times 217}^{dustTE}$	0.669	0.667 ± 0.081 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.075	14.01 ± 0.17 $(+5.5\sigma)$	$\chi_{lensing}^2$	8.501	9.02 ± 0.70 (-0.3σ)
A_{217}^{dustTE}	2.090	2.08 ± 0.27 (-0.0σ)	z_{drag}	1059.09	1059.35 ± 0.79 (-2.0σ)	χ_{small}^2	395.95	396.8 ± 1.5 (-0.1σ)
c_{100}	0.99976	0.99969 ± 0.00061 $(+0.0\sigma)$	r_{drag}	149.36	148.6 ± 1.9 $(+5.7\sigma)$	χ_{lowl}^2	24.36	24.4 ± 1.5 $(+1.0\sigma)$
c_{217}	0.99816	0.99817 ± 0.00062 (-0.0σ)	k_D	0.13926	0.1398 ± 0.0014 (-3.6σ)	χ_{plik}^2	2343.0	2359.1 ± 5.9 (-0.1σ)
H_0	65.79	66.3 ± 1.4 (-2.0σ)	$100\theta_D$	0.160274	0.16046 ± 0.00040 (-1.7σ)	χ_{prior}^2	1.43	11.6 ± 4.6 $(+0.0\sigma)$
Ω_Λ	0.6776	0.6794 ± 0.0097 (-0.7σ)	z_{eq}	3425.7	3419 ± 33 $(+0.6\sigma)$	χ_{CMB}^2	2771.9	2789.3 ± 6.0 $(+0.0\sigma)$
Ω_m	0.3224	0.3206 ± 0.0097 $(+0.7\sigma)$	k_{eq}	0.010292	0.01033 ± 0.00011 (-0.7σ)			
$\Omega_m h^2$	0.13955	0.1408 ± 0.0030 (-2.0σ)	$100\theta_{eq}$	0.8088	0.8101 ± 0.0062 (-0.7σ)			

Best-fit $\chi_{eff}^2 = 2773.28$; $\Delta\chi_{eff}^2 = -1.35$; $\bar{\chi}_{eff}^2 = 2800.86$; $\Delta\bar{\chi}_{eff}^2 = 0.17$; $R - 1 = 0.01957$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.50 (Δ -0.37) small_100x143_offlike5_EE_Aplanck_B: 395.95 (Δ -0.10) commander_dx12_v3.2.29: 24.36 (Δ 1.11) plik_rd12_HM_v22b_TTTEEE: 2343.04 (Δ -1.89)

7.9 base_nnu_plikHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022210	$0.02225^{+0.00019}_{-0.00021}$	$\Omega_m h^2$	0.14107	0.1417 ± 0.0025	k_{eq}	0.010350	0.01036 ± 0.00011
$\Omega_c h^2$	0.11821	0.1188 ± 0.0024	$\Omega_m h^3$	0.09326	0.0943 ± 0.0030	$100\theta_{\text{eq}}$	0.8085	0.8100 ± 0.0065
$100\theta_{\text{MC}}$	1.041133	1.04105 ± 0.00039	σ_8	0.8069	0.8074 ± 0.0096	$100\theta_{\text{s,eq}}$	0.44698	0.4478 ± 0.0033
τ	0.0538	0.0531 ± 0.0075	S_8	0.8371	0.835 ± 0.016	$H(0.15)$	71.45	71.8 ± 1.2
N_{eff}	2.891	2.94 ± 0.15	$\sigma_8 \Omega_m^{0.5}$	0.4585	0.4572 ± 0.0086	$D_{\text{M}}(0.15)$	655.0	651 ± 11
$\ln(10^{10} A_s)$	3.0389	3.039 ± 0.017	$\sigma_8 \Omega_m^{0.25}$	0.6082	0.6075 ± 0.0083	$H(0.38)$	81.66	82.0 ± 1.1
n_s	0.9596	0.9604 ± 0.0073	$\sigma_8/h^{0.5}$	0.9925	0.990 ± 0.011	$D_{\text{M}}(0.38)$	1559.3	1551 ± 25
y_{cal}	1.00050	1.0008 ± 0.0025	$r_{\text{drag}} h$	98.19	98.5 ± 1.2	$H(0.51)$	88.42	88.8 ± 1.1
A_{217}^{CIB}	44.2	46 ± 7	$\langle d^2 \rangle^{1/2}$	2.4600	2.455 ± 0.029	$D_{\text{M}}(0.51)$	2018.2	2008 ± 31
$\xi^{\text{tSZ} \times \text{CIB}}$	0.88	—	z_{re}	7.62	7.53 ± 0.77	$H(0.61)$	94.07	94.5 ± 1.1
A_{143}^{tSZ}	6.95	$5.5^{+2.1}_{-1.9}$	$10^9 A_s$	2.0882	2.088 ± 0.036	$D_{\text{M}}(0.61)$	2346.9	2336 ± 35
A_{100}^{PS}	244.8	257 ± 28	$10^9 A_s e^{-2\tau}$	1.8752	1.878 ± 0.015	$H(2.33)$	234.72	235.3 ± 2.1
A_{143}^{PS}	52.2	45 ± 8	D_{40}	1237.6	1238 ± 15	$D_{\text{M}}(2.33)$	5834	5812 ± 67
$A_{143 \times 217}^{\text{PS}}$	57.6	42 ± 9	D_{220}	5726.5	5733 ± 38	$f\sigma_8(0.15)$	0.4621	0.4610 ± 0.0080
A_{217}^{PS}	124.0	115 ± 10	D_{810}	2539.8	2539 ± 14	$\sigma_8(0.15)$	0.7446	0.7452 ± 0.0090
A^{kSZ}	0.01	< 4.00	D_{1420}	819.10	817.8 ± 4.8	$f\sigma_8(0.38)$	0.4778	0.4772 ± 0.0067
A_{100}^{dustTT}	8.70	8.9 ± 1.8	D_{2000}	232.06	231.4 ± 1.7	$\sigma_8(0.38)$	0.6588	0.6596 ± 0.0082
A_{143}^{dustTT}	10.89	10.8 ± 1.8	$n_{\text{s},0.002}$	0.9596	0.9604 ± 0.0073	$f\sigma_8(0.51)$	0.4751	0.4747 ± 0.0061
$A_{143 \times 217}^{\text{dustTT}}$	20.25	18.5 ± 3.3	Y_{P}	0.24323	0.2439 ± 0.0021	$\sigma_8(0.51)$	0.6160	0.6169 ± 0.0078
A_{217}^{dustTT}	96.0	93.7 ± 7.4	$Y_{\text{P}}^{\text{BBN}}$	0.24455	0.2452 ± 0.0021	$f\sigma_8(0.61)$	0.4693	0.4690 ± 0.0058
A_{100}^{dustTE}	0.1156	0.114 ± 0.039	$10^5 \text{D}/\text{H}$	2.5618	2.573 ± 0.037	$\sigma_8(0.61)$	0.5859	0.5867 ± 0.0075
$A_{100 \times 143}^{\text{dustTE}}$	0.1356	0.135 ± 0.029	Age/Gyr	13.964	13.91 ± 0.16	$f\sigma_8(2.33)$	0.29497	0.2955 ± 0.0039
$A_{100 \times 217}^{\text{dustTE}}$	0.485	0.480 ± 0.085	z_*	1089.811	1089.87 ± 0.30	$\sigma_8(2.33)$	0.30362	0.3043 ± 0.0042
A_{143}^{dustTE}	0.227	0.225 ± 0.053	r_*	145.81	145.4 ± 1.4	χ_{simall}^2	396.04	396.9 ± 1.7
$A_{143 \times 217}^{\text{dustTE}}$	0.668	0.667 ± 0.080	$100\theta_*$	1.041426	1.04132 ± 0.00046	χ_{lowl}^2	24.18	24.2 ± 1.4
A_{217}^{dustTE}	2.087	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	14.001	13.96 ± 0.13	χ_{plik}^2	2343.2	2359.2 ± 5.9
c_{100}	0.99974	0.99968 ± 0.00061	z_{drag}	1059.32	1059.48 ± 0.67	χ_{Aver15}^2	0.008	0.28 ± 0.40
c_{217}	0.99817	0.99818 ± 0.00062	r_{drag}	148.54	148.1 ± 1.5	χ_{Cooke17}^2	0.359	0.38 ± 0.43
H_0	66.11	66.5 ± 1.2	k_{D}	0.13983	0.1401 ± 0.0011	χ_{prior}^2	1.43	11.6 ± 4.6
Ω_{Λ}	0.6772	0.6793 ± 0.0098	$100\theta_{\text{D}}$	0.160473	0.16059 ± 0.00032	χ_{CMB}^2	2763.4	2780.3 ± 5.8
Ω_{m}	0.3228	0.3207 ± 0.0098	z_{eq}	3427.1	3419 ± 34	χ_{Abund}^2	0.366	0.67 ± 0.62

Best-fit $\chi_{\text{eff}}^2 = 2765.22$; $\bar{\chi}_{\text{eff}}^2 = 2792.58$; $R - 1 = 0.01890$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 D_Cooke2017: 0.36 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.04 commander_dx12_v3_2_29: 24.18 plik_rd12_HM_v22b_TTTEEE: 2343.20

7.10 base_nnu_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02225 \pm 0.00022 \quad (-0.7\sigma)$	$\Omega_{\text{m}}h^2$	$0.1413 \pm 0.0030 \quad (-1.5\sigma)$	k_{eq}	$0.01035 \pm 0.00012 \quad (-0.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1184 \pm 0.0029 \quad (-1.3\sigma)$	$\Omega_{\text{m}}h^3$	$0.0939 \pm 0.0037 \quad (-8.3\sigma)$	$100\theta_{\text{eq}}$	$0.8102 \pm 0.0068 \quad (-0.4\sigma)$
$100\theta_{\text{MC}}$	$1.04111 \pm 0.00043 \quad (+0.7\sigma)$	σ_8	$0.807 \pm 0.010 \quad (-0.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4479 \pm 0.0034 \quad (-0.4\sigma)$
τ	$0.0546^{+0.0049}_{-0.0079} \quad (-0.1\sigma)$	S_8	$0.834 \pm 0.016 \quad (-0.0\sigma)$	$H(0.15)$	$71.8 \pm 1.4 \quad (-1.7\sigma)$
N_{eff}	2.92 ± 0.19	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4569 \pm 0.0086 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$652 \pm 13 \quad (+1.6\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.041^{+0.014}_{-0.018} \quad (-0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6073 \pm 0.0085 \quad (-0.3\sigma)$	$H(0.38)$	$82.0 \pm 1.4 \quad (-2.3\sigma)$
n_{s}	$0.9600 \pm 0.0085 \quad (-1.1\sigma)$	$\sigma_8/h^{0.5}$	$0.991 \pm 0.011 \quad (-0.0\sigma)$	$D_{\text{M}}(0.38)$	$1553 \pm 30 \quad (+1.8\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	$r_{\text{drag}}h$	$98.5 \pm 1.2 \quad (-0.4\sigma)$	$H(0.51)$	$88.7 \pm 1.4 \quad (-3.0\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.458 \pm 0.029 \quad (+0.3\sigma)$	$D_{\text{M}}(0.51)$	$2011 \pm 37 \quad (+1.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.385 \quad (+0.1\sigma)$	z_{re}	$7.69^{+0.55}_{-0.78} \quad (-0.1\sigma)$	$H(0.61)$	$94.3 \pm 1.4 \quad (-3.9\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.8} \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.092^{+0.030}_{-0.038} \quad (-0.4\sigma)$	$D_{\text{M}}(0.61)$	$2338 \pm 42 \quad (+2.0\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.876 \pm 0.018 \quad (-0.7\sigma)$	$H(2.33)$	$235.0 \pm 2.6 \quad (-2.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1239 \pm 16 \quad (+0.6\sigma)$	$D_{\text{M}}(2.33)$	$5819 \pm 83 \quad (+5.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{220}	$5734 \pm 38 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4607 \pm 0.0080 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7451 \pm 0.0099 \quad (-0.9\sigma)$
A^{kSZ}	$< 3.87 \quad (-0.1\sigma)$	D_{1420}	$818.0 \pm 4.8 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4770 \pm 0.0068 \quad (-0.2\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	D_{2000}	$231.6 \pm 1.8 \quad (+0.4\sigma)$	$\sigma_8(0.38)$	$0.6596 \pm 0.0091 \quad (-1.0\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9600 \pm 0.0085 \quad (-1.1\sigma)$	$f\sigma_8(0.51)$	$0.4746 \pm 0.0063 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.2437 \pm 0.0026 \quad (-29.8\sigma)$	$\sigma_8(0.51)$	$0.6169 \pm 0.0087 \quad (-1.1\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2450 \pm 0.0026 \quad (-29.8\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0060 \quad (-0.4\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	10^5D/H	$2.565 \pm 0.044 \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.5867 \pm 0.0084 \quad (-1.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	Age/Gyr	$13.93 \pm 0.20 \quad (+5.5\sigma)$	$f\sigma_8(2.33)$	$0.2955 \pm 0.0044 \quad (-1.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	z_*	$1089.81 \pm 0.34 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3043 \pm 0.0048 \quad (-1.2\sigma)$
A_{143}^{dustTE}	$0.225 \pm 0.053 \quad (-0.0\sigma)$	r_*	$145.6 \pm 1.8 \quad (+4.0\sigma)$	f_{2000}^{143}	$28.7 \pm 3.0 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.666 \pm 0.080 \quad (-0.0\sigma)$	$100\theta_*$	$1.04138 \pm 0.00054 \quad (+1.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.1 \quad (-0.3\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.98 \pm 0.17 \quad (+3.9\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (-0.3\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.45 \pm 0.78 \quad (-1.6\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99817 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$148.3 \pm 1.9 \quad (+4.2\sigma)$	χ_{lowl}^2	$24.3 \pm 1.5 \quad (+0.8\sigma)$
H_0	$66.4 \pm 1.4 \quad (-1.4\sigma)$	k_{D}	$0.1400 \pm 0.0014 \quad (-2.8\sigma)$	χ_{plik}^2	$2359.1 \pm 6.0 \quad (-0.0\sigma)$
Ω_{Λ}	$0.680 \pm 0.010 \quad (-0.5\sigma)$	$100\theta_{\text{D}}$	$0.16053 \pm 0.00040 \quad (-1.4\sigma)$	χ_{prior}^2	$11.5 \pm 4.6 \quad (-0.0\sigma)$
Ω_{m}	$0.320 \pm 0.010 \quad (+0.5\sigma)$	z_{eq}	$3418 \pm 36 \quad (+0.4\sigma)$	χ_{CMB}^2	$2780.3 \pm 5.9 \quad (+0.1\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 2791.81; \Delta\bar{\chi}_{\text{eff}}^2 = 0.28; R - 1 = 0.01491$$

7.11 base_nnu_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02224 \pm 0.00022 \quad (-0.9\sigma)$	$\Omega_m h^3$	$0.0934 \pm 0.0037 \quad (-9.7\sigma)$	$100\theta_{s,eq}$	$0.4480 \pm 0.0031 \quad (-0.6\sigma)$
$\Omega_c h^2$	$0.1179 \pm 0.0028 \quad (-1.8\sigma)$	σ_8	$0.8052 \pm 0.0096 \quad (-1.1\sigma)$	$H(0.15)$	$71.7 \pm 1.4 \quad (-2.3\sigma)$
$100\theta_{MC}$	$1.04116 \pm 0.00043 \quad (+0.8\sigma)$	S_8	$0.831 \pm 0.013 \quad (-0.0\sigma)$	$D_M(0.15)$	$653 \pm 13 \quad (+2.2\sigma)$
τ	$0.0542^{+0.0048}_{-0.0074} \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4554 \pm 0.0069 \quad (-0.0\sigma)$	$H(0.38)$	$81.8 \pm 1.4 \quad (-3.2\sigma)$
N_{eff}	2.90 ± 0.19	$\sigma_8 \Omega_m^{0.25}$	$0.6056 \pm 0.0069 \quad (-0.4\sigma)$	$D_M(0.38)$	$1555 \pm 29 \quad (+2.5\sigma)$
$\ln(10^{10} A_s)$	$3.038^{+0.014}_{-0.017} \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.9886 \pm 0.0088 \quad (-0.0\sigma)$	$H(0.51)$	$88.6 \pm 1.4 \quad (-4.0\sigma)$
n_s	$0.9593 \pm 0.0084 \quad (-1.4\sigma)$	$r_{drag} h$	$98.6 \pm 1.1 \quad (-0.6\sigma)$	$D_M(0.51)$	$2014 \pm 37 \quad (+2.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.024 \quad (+0.4\sigma)$	$H(0.61)$	$94.2 \pm 1.4 \quad (-5.0\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	z_{re}	$7.63^{+0.53}_{-0.74} \quad (-0.2\sigma)$	$D_M(0.61)$	$2342 \pm 42 \quad (+2.8\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.391 \quad (+0.1\sigma)$	$10^9 A_s$	$2.087^{+0.028}_{-0.035} \quad (-0.6\sigma)$	$H(2.33)$	$234.6 \pm 2.6 \quad (-2.8\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9} \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.873 \pm 0.017 \quad (-1.0\sigma)$	$D_M(2.33)$	$5829 \pm 83 \quad (+6.5\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	D_{40}	$1239 \pm 15 \quad (+0.6\sigma)$	$f\sigma_8(0.15)$	$0.4593 \pm 0.0064 \quad (-0.1\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.2\sigma)$	D_{220}	$5735 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7433 \pm 0.0092 \quad (-1.3\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4756 \pm 0.0055 \quad (-0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$818.0 \pm 4.8 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6580 \pm 0.0087 \quad (-1.4\sigma)$
A^{kSZ}	$< 3.91 \quad (-0.1\sigma)$	D_{2000}	$231.6 \pm 1.8 \quad (+0.5\sigma)$	$f\sigma_8(0.51)$	$0.4732 \pm 0.0052 \quad (-0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9593 \pm 0.0084 \quad (-1.4\sigma)$	$\sigma_8(0.51)$	$0.6154 \pm 0.0083 \quad (-1.5\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (-0.1\sigma)$	Y_P	$0.2433 \pm 0.0026 \quad (-36.7\sigma)$	$f\sigma_8(0.61)$	$0.4676 \pm 0.0051 \quad (-0.6\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.4 \pm 3.3 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.2446 \pm 0.0026 \quad (-36.7\sigma)$	$\sigma_8(0.61)$	$0.5853 \pm 0.0081 \quad (-1.5\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$10^5 D/H$	$2.558 \pm 0.043 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2948 \pm 0.0043 \quad (-1.5\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.039 \quad (-0.0\sigma)$	Age/Gyr	$13.95 \pm 0.20 \quad (+6.8\sigma)$	$\sigma_8(2.33)$	$0.3036 \pm 0.0047 \quad (-1.6\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.75 \pm 0.32 \quad (-0.6\sigma)$	f_{2000}^{143}	$28.6 \pm 3.0 \quad (-0.4\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.480 \pm 0.087 \quad (-0.0\sigma)$	r_*	$145.9 \pm 1.8 \quad (+5.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.5 \pm 2.0 \quad (-0.4\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04145 \pm 0.00053 \quad (+1.1\sigma)$	f_{2000}^{217}	$106.4 \pm 1.9 \quad (-0.4\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.666 \pm 0.081 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.01 \pm 0.17 \quad (+5.4\sigma)$	$\chi_{lensing}^2$	$9.01 \pm 0.70 \quad (-0.3\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.37 \pm 0.79 \quad (-1.9\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$148.6 \pm 1.9 \quad (+5.6\sigma)$	χ_{lowl}^2	$24.4 \pm 1.5 \quad (+0.9\sigma)$
c_{217}	$0.99817 \pm 0.00062 \quad (-0.0\sigma)$	k_D	$0.1398 \pm 0.0014 \quad (-3.5\sigma)$	χ_{plik}^2	$2358.9 \pm 5.9 \quad (-0.1\sigma)$
H_0	$66.3 \pm 1.4 \quad (-2.0\sigma)$	$100\theta_D$	$0.16047 \pm 0.00040 \quad (-1.6\sigma)$	χ_{prior}^2	$11.5 \pm 4.6 \quad (+0.0\sigma)$
Ω_Λ	$0.6800 \pm 0.0095 \quad (-0.7\sigma)$	z_{eq}	$3417 \pm 32 \quad (+0.6\sigma)$	χ_{CMB}^2	$2789.1 \pm 5.9 \quad (+0.0\sigma)$
Ω_m	$0.3200 \pm 0.0095 \quad (+0.7\sigma)$	k_{eq}	$0.01032 \pm 0.00011 \quad (-0.7\sigma)$		
$\Omega_m h^2$	$0.1408 \pm 0.0029 \quad (-2.0\sigma)$	$100\theta_{eq}$	$0.8105 \pm 0.0062 \quad (-0.6\sigma)$		

$$\bar{\chi}_{eff}^2 = 2800.61; \Delta\bar{\chi}_{eff}^2 = 0.11; R - 1 = 0.02136$$

7.12 base_nnu_plikHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02225 ± 0.00020	$\Omega_m h^3$	0.0943 ± 0.0030	$100\theta_{s,eq}$	0.4479 ± 0.0033
$\Omega_c h^2$	0.1188 ± 0.0024	σ_8	0.8084 ± 0.0092	$H(0.15)$	71.9 ± 1.2
$100\theta_{MC}$	1.04105 ± 0.00039	S_8	0.835 ± 0.016	$D_M(0.15)$	651 ± 11
τ	$0.0544^{+0.0050}_{-0.0075}$	$\sigma_8 \Omega_m^{0.5}$	0.4575 ± 0.0086	$H(0.38)$	82.1 ± 1.1
N_{eff}	2.94 ± 0.15	$\sigma_8 \Omega_m^{0.25}$	0.6081 ± 0.0082	$D_M(0.38)$	1551 ± 25
$\ln(10^{10} A_s)$	$3.041^{+0.013}_{-0.017}$	$\sigma_8/h^{0.5}$	0.991 ± 0.011	$H(0.51)$	88.8 ± 1.1
n_s	0.9606 ± 0.0074	$r_{drag} h$	98.5 ± 1.2	$D_M(0.51)$	2007 ± 31
y_{cal}	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.458 ± 0.029	$H(0.61)$	94.5 ± 1.1
A_{217}^{CIB}	46 ± 7	z_{re}	$7.68^{+0.54}_{-0.77}$	$D_M(0.61)$	2335 ± 35
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.094^{+0.028}_{-0.036}$	$H(2.33)$	235.3 ± 2.1
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_s e^{-2\tau}$	1.878 ± 0.015	$D_M(2.33)$	5811 ± 67
A_{100}^{PS}	257 ± 28	D_{40}	1238 ± 15	$f\sigma_8(0.15)$	0.4613 ± 0.0079
A_{143}^{PS}	45 ± 8	D_{220}	5732 ± 38	$\sigma_8(0.15)$	0.7462 ± 0.0085
$A_{143 \times 217}^{PS}$	42 ± 9	D_{810}	2539 ± 14	$f\sigma_8(0.38)$	0.4776 ± 0.0066
A_{217}^{PS}	115 ± 10	D_{1420}	817.7 ± 4.8	$\sigma_8(0.38)$	0.6605 ± 0.0078
A^{kSZ}	< 3.98	D_{2000}	231.4 ± 1.7	$f\sigma_8(0.51)$	0.4752 ± 0.0060
A_{100}^{dustTT}	8.9 ± 1.9	$n_{s,0.002}$	0.9606 ± 0.0074	$\sigma_8(0.51)$	0.6177 ± 0.0074
A_{143}^{dustTT}	10.8 ± 1.8	Y_P	0.2440 ± 0.0021	$f\sigma_8(0.61)$	0.4696 ± 0.0056
$A_{143 \times 217}^{dustTT}$	18.5 ± 3.3	Y_P^{BBN}	0.2453 ± 0.0021	$\sigma_8(0.61)$	$0.5875^{+0.0066}_{-0.0074}$
A_{217}^{dustTT}	93.7 ± 7.4	$10^5 D/H$	2.573 ± 0.037	$f\sigma_8(2.33)$	0.2959 ± 0.0037
A_{100}^{dustTE}	0.114 ± 0.039	Age/Gyr	13.91 ± 0.16	$\sigma_8(2.33)$	0.3047 ± 0.0040
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029	z_*	1089.86 ± 0.30	f_{2000}^{143}	29.0 ± 2.9
$A_{100 \times 217}^{dustTE}$	0.479 ± 0.086	r_*	145.4 ± 1.4	$f_{2000}^{143 \times 217}$	31.8 ± 1.9
A_{143}^{dustTE}	0.225 ± 0.053	$100\theta_*$	1.04132 ± 0.00046	f_{2000}^{217}	106.6 ± 1.9
$A_{143 \times 217}^{dustTE}$	0.667 ± 0.080	$D_M(z_*)/\text{Gpc}$	13.96 ± 0.13	χ_{simall}^2	396.9 ± 1.7
A_{217}^{dustTE}	2.08 ± 0.27	z_{drag}	1059.49 ± 0.67	χ_{lowl}^2	24.2 ± 1.4
c_{100}	0.99968 ± 0.00061	r_{drag}	148.1 ± 1.5	χ_{plik}^2	2359.0 ± 5.9
c_{217}	0.99818 ± 0.00062	k_D	0.1402 ± 0.0011	χ_{Aver15}^2	0.28 ± 0.40
H_0	66.5 ± 1.2	$100\theta_D$	0.16059 ± 0.00032	$\chi_{Cooke17}^2$	0.39 ± 0.43
Ω_Λ	0.6796 ± 0.0098	z_{eq}	3418 ± 34	χ_{prior}^2	11.6 ± 4.6
Ω_m	0.3204 ± 0.0098	k_{eq}	0.01036 ± 0.00011	χ_{CMB}^2	2780.1 ± 5.8
$\Omega_m h^2$	0.1417 ± 0.0025	$100\theta_{eq}$	0.8102 ± 0.0065	χ_{Abund}^2	0.67 ± 0.61

$$\bar{\chi}_{eff}^2 = 2792.34; R - 1 = 0.02177$$

7.13 base_nnu_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.021990	0.02204 ± 0.00032 (-0.4σ)	$\sigma_8 \Omega_m^{0.5}$	0.4606	0.460 ± 0.014 $(+0.1\sigma)$	$H(0.15)$	71.08	71.5 ± 2.3 (-1.0σ)
$\Omega_c h^2$	0.11868	0.1192 ± 0.0041 (-0.6σ)	$\sigma_8 \Omega_m^{0.25}$	0.6089	0.609 ± 0.012 (-0.1σ)	$D_M(0.15)$	658.8	655 ± 23 $(+1.0\sigma)$
$100\theta_{MC}$	1.04101	1.04099 ± 0.00059 $(+0.3\sigma)$	$\sigma_8/h^{0.5}$	0.9931	0.992 ± 0.017 $(+0.1\sigma)$	$H(0.38)$	81.35	81.8 ± 2.3 (-1.4σ)
τ	0.0502	0.0514 ± 0.0082 (-0.1σ)	$r_{drag}h$	97.67	98.1 ± 2.2 (-0.3σ)	$D_M(0.38)$	1567.2	1559 ± 50 $(+1.2\sigma)$
N_{eff}	2.888	2.94 ± 0.29	$\langle d^2 \rangle^{1/2}$	2.4615	2.457 ± 0.046 $(+0.3\sigma)$	$H(0.51)$	88.14	88.6 ± 2.2 (-1.8σ)
$\ln(10^{10} A_s)$	3.0298	3.033 ± 0.021 (-0.3σ)	z_{re}	7.30	7.40 ± 0.85 (-0.1σ)	$D_M(0.51)$	2028	2017 ± 62 $(+1.2\sigma)$
n_s	0.9569	0.959 ± 0.014 (-0.8σ)	$10^9 A_s$	2.0694	2.077 ± 0.044 (-0.3σ)	$H(0.61)$	93.82	94.3 ± 2.2 (-2.3σ)
y_{cal}	1.00028	1.0004 ± 0.0025 (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8717	1.874 ± 0.023 (-0.6σ)	$D_M(0.61)$	2357	2346 ± 70 $(+1.3\sigma)$
A_{100}^{PS}	234.0	240 ± 26 (-0.1σ)	D_{40}	1238.2	1236 ± 23 $(+0.4\sigma)$	$H(2.33)$	234.79	235.3 ± 3.7 (-1.0σ)
A_{143}^{PS}	39.3	40 ± 9 (-0.1σ)	D_{220}	5699.7	5702 ± 42 (-0.1σ)	$D_M(2.33)$	5848	5826 ± 130 $(+3.1\sigma)$
A_{217}^{PS}	101.3	102 ± 10 $(+0.0\sigma)$	D_{810}	2531.6	2532 ± 14 (-0.1σ)	$f\sigma_8(0.15)$	0.4638	0.463 ± 0.013 $(+0.1\sigma)$
A_{217}^{CIB}	45.0	40 ± 8 (-0.1σ)	D_{1420}	814.7	814.6 ± 5.2 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7422	0.744 ± 0.013 (-0.6σ)
A_{143}^{tSZ}	6.61	$3.8_{-2.6}^{+1.9}$ $(+0.0\sigma)$	D_{2000}	230.25	230.1 ± 2.3 $(+0.3\sigma)$	$f\sigma_8(0.38)$	0.4785	0.4783 ± 0.0097 (-0.1σ)
$r_{143 \times 217}^{PS}$	0.592	0.65 ± 0.13 $(+0.0\sigma)$	$n_{s,0.002}$	0.9569	0.959 ± 0.014 (-0.8σ)	$\sigma_8(0.38)$	0.6562	0.658 ± 0.013 (-0.7σ)
$r_{143 \times 217}^{CIB}$	0.780	$0.57_{-0.15}^{+0.41}$ (-0.0σ)	Y_P	0.24309	0.2438 ± 0.0041 (-16.1σ)	$f\sigma_8(0.51)$	0.4752	0.4754 ± 0.0086 (-0.1σ)
$\xi^{tSZ \times CIB}$	0.08	—	Y_P^{BBN}	0.24441	0.2451 ± 0.0041 (-16.1σ)	$\sigma_8(0.51)$	0.6134	0.616 ± 0.012 (-0.8σ)
A^{kSZ}	0.00	$4.8_{-3.6}^{+2.7}$ (-0.1σ)	$10^5 D/H$	2.602	2.611 ± 0.071 (-0.5σ)	$f\sigma_8(0.61)$	0.4690	0.4694 ± 0.0080 (-0.2σ)
A_{100}^{dust}	1.006	1.01 ± 0.20 (-0.0σ)	Age/Gyr	13.995	13.94 ± 0.31 $(+3.3\sigma)$	$\sigma_8(0.61)$	0.5833	0.585 ± 0.012 (-0.8σ)
A_{143}^{dust}	0.989	0.97 ± 0.18 (-0.0σ)	z_*	1090.13	1090.16 ± 0.50 (-0.2σ)	$f\sigma_8(2.33)$	0.2935	0.2947 ± 0.0064 (-0.9σ)
A_{217}^{dust}	0.967	0.97 ± 0.10 $(+0.1\sigma)$	r_*	145.87	145.5 ± 2.6 $(+2.1\sigma)$	$\sigma_8(2.33)$	0.3019	0.3034 ± 0.0072 (-0.9σ)
$A_{143 \times 217}^{dust}$	1.011	1.03 ± 0.16 $(+0.0\sigma)$	$100\theta_*$	1.04133	1.04127 ± 0.00074 $(+0.5\sigma)$	f_{2000}^{143}	30.05	30 ± 4 (-0.2σ)
c_{100}	0.99758	0.9975 ± 0.0010 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.008	13.97 ± 0.24 $(+2.1\sigma)$	f_{2000}^{217}	106.85	107.1 ± 2.5 (-0.2σ)
c_{217}	1.00132	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1058.83	1059.0 ± 1.1 (-0.9σ)	$f_{2000}^{143 \times 217}$	32.18	32.4 ± 2.7 (-0.3σ)
H_0	65.69	66.2 ± 2.4 (-0.9σ)	r_{drag}	148.68	148.3 ± 2.7 $(+2.2\sigma)$	χ_{small}^2	395.70	396.9 ± 1.7 (-0.0σ)
Ω_Λ	0.6725	$0.675_{-0.018}^{+0.020}$ (-0.4σ)	k_D	0.13952	0.1398 ± 0.0019 (-1.4σ)	χ_{lowl}^2	24.43	24.4 ± 2.3 $(+0.7\sigma)$
Ω_m	0.3275	0.325 ± 0.019 $(+0.4\sigma)$	$100\theta_D$	0.16074	0.16084 ± 0.00068 (-0.8σ)	$\chi_{CamSpec}^2$	7049.2	7063.3 ± 5.7 (-0.0σ)
$\Omega_m h^2$	0.14132	0.1419 ± 0.0042 (-0.7σ)	z_{eq}	3435	3425 ± 67 $(+0.4\sigma)$	χ_{prior}^2	2.08	7.6 ± 3.4 (-0.0σ)
$\Omega_m h^3$	0.0928	$0.0939_{-0.0059}^{+0.0053}$ (-4.4σ)	k_{eq}	0.010371	0.01037 ± 0.00016 (-0.2σ)	χ_{CMB}^2	7469.3	7484.6 ± 5.6 $(+0.1\sigma)$
σ_8	0.8049	0.807 ± 0.014 (-0.5σ)	$100\theta_{eq}$	0.8065	0.809 ± 0.012 (-0.4σ)			
S_8	0.8410	0.839 ± 0.025 $(+0.1\sigma)$	$100\theta_{s,eq}$	0.4461	0.4472 ± 0.0063 (-0.3σ)			

Best-fit $\chi_{eff}^2 = 7471.42$; $\Delta\chi_{eff}^2 = -0.31$; $\bar{\chi}_{eff}^2 = 7492.17$; $\Delta\bar{\chi}_{eff}^2 = 0.63$; $R - 1 = 0.00609$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ -0.14) commander_dx12_v3.2.29: 24.43 (Δ 1.04) CamSpec like_10.7HM: 7049.22 (Δ -1.12)

7.14 base_nnu_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02202 \pm 0.00030 \quad (-0.6\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4580 \pm 0.0092 \quad (+0.1\sigma)$	$H(0.15)$	$71.3 \pm 2.1 \quad (-1.9\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1182 \pm 0.0039 \quad (-1.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6067 \pm 0.0084 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$658 \pm 21 \quad (+1.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04108 \pm 0.00058 \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.1\sigma)$	$H(0.38)$	$81.5 \pm 2.1 \quad (-2.6\sigma)$
τ	$0.0514 \pm 0.0081 \quad (-0.2\sigma)$	$r_{\mathrm{drag}} h$	$98.0 \pm 1.8 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1565 \pm 46 \quad (+2.1\sigma)$
N_{eff}	2.89 ± 0.28	$\langle d^2 \rangle^{1/2}$	$2.457 \pm 0.032 \quad (+0.4\sigma)$	$H(0.51)$	$88.2 \pm 2.1 \quad (-3.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.031 \pm 0.021 \quad (-0.6\sigma)$	z_{re}	$7.38 \pm 0.84 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$2025 \pm 57 \quad (+2.3\sigma)$
n_{s}	$0.958 \pm 0.012 \quad (-1.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.072 \pm 0.043 \quad (-0.6\sigma)$	$H(0.61)$	$93.9 \pm 2.1 \quad (-4.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.869 \pm 0.023 \quad (-1.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2355 \pm 65 \quad (+2.4\sigma)$
A_{100}^{PS}	$239 \pm 26 \quad (-0.2\sigma)$	D_{40}	$1237 \pm 19 \quad (+0.6\sigma)$	$H(2.33)$	$234.5 \pm 3.6 \quad (-2.1\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.2\sigma)$	D_{220}	$5705 \pm 41 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5848 \pm 130 \quad (+5.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.1\sigma)$	D_{810}	$2532 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4614 \pm 0.0083 \quad (+0.0\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.2\sigma)$	D_{1420}	$815.0 \pm 5.2 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.013 \quad (-1.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6} \quad (+0.1\sigma)$	D_{2000}	$230.4 \pm 2.3 \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.4766 \pm 0.0067 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.958 \pm 0.012 \quad (-1.3\sigma)$	$\sigma_8(0.38)$	$0.656 \pm 0.012 \quad (-1.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.16} \quad (-0.1\sigma)$	Y_{P}	$0.2430 \pm 0.0039 \quad (-25.7\sigma)$	$f\sigma_8(0.51)$	$0.4737 \pm 0.0064 \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2443 \pm 0.0039 \quad (-25.7\sigma)$	$\sigma_8(0.51)$	$0.613 \pm 0.012 \quad (-1.4\sigma)$
A^{kSZ}	$4.7^{+2.1}_{-4.2} \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.596 \pm 0.069 \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4678 \pm 0.0064 \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.00 \pm 0.30 \quad (+5.4\sigma)$	$\sigma_8(0.61)$	$0.583 \pm 0.012 \quad (-1.4\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1090.04 \pm 0.47 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2936 \pm 0.0063 \quad (-1.5\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.1\sigma)$	r_*	$146.0 \pm 2.6 \quad (+4.2\sigma)$	$\sigma_8(2.33)$	$0.3022 \pm 0.0070 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04141 \pm 0.00073 \quad (+0.8\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.02 \pm 0.24 \quad (+4.1\sigma)$	f_{2000}^{217}	$106.8 \pm 2.5 \quad (-0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.1\sigma)$	z_{drag}	$1058.9 \pm 1.1 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.7 \quad (-0.5\sigma)$
H_0	$65.9 \pm 2.2 \quad (-1.6\sigma)$	r_{drag}	$148.8 \pm 2.7 \quad (+4.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.33 \pm 0.99 \quad (-0.2\sigma)$
Ω_{Λ}	$0.675 \pm 0.015 \quad (-0.7\sigma)$	k_{D}	$0.1394 \pm 0.0019 \quad (-2.4\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_{m}	$0.325 \pm 0.015 \quad (+0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16071 \pm 0.00066 \quad (-1.3\sigma)$	χ_{lowl}^2	$24.5 \pm 2.0 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1408 \pm 0.0041 \quad (-1.5\sigma)$	z_{eq}	$3425 \pm 53 \quad (+0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.7 \pm 5.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0929 \pm 0.0054 \quad (-6.9\sigma)$	k_{eq}	$0.01034 \pm 0.00014 \quad (-0.5\sigma)$	χ_{prior}^2	$7.5 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.804 \pm 0.013 \quad (-1.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.808 \pm 0.010 \quad (-0.6\sigma)$	χ_{CMB}^2	$7493.4 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.836 \pm 0.017 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4471 \pm 0.0051 \quad (-0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7500.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.75$; $R - 1 = 0.00870$

7.15 base_nnu_CamSpecHM_TT_lowl_lowE_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02203 ± 0.00027	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.609 ± 0.012	$H(0.38)$	81.8 ± 1.6
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0030	$\sigma_8/h^{0.5}$	0.993 ± 0.016	$D_{\mathrm{M}}(0.38)$	1559 ± 36
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00052	$r_{\mathrm{drag}}h$	98.0 ± 2.0	$H(0.51)$	88.6 ± 1.5
τ	0.0513 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.458 ± 0.042	$D_{\mathrm{M}}(0.51)$	2017 ± 44
N_{eff}	2.94 ± 0.19	z_{re}	7.39 ± 0.83	$H(0.61)$	94.2 ± 1.5
$\ln(10^{10}A_{\mathrm{s}})$	3.033 ± 0.018	$10^9 A_{\mathrm{s}}$	2.077 ± 0.038	$D_{\mathrm{M}}(0.61)$	2346 ± 50
n_{s}	0.959 ± 0.010	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.874 ± 0.018	$H(2.33)$	235.3 ± 2.5
y_{cal}	1.0004 ± 0.0025	D_{40}	1236 ± 19	$D_{\mathrm{M}}(2.33)$	5826 ± 88
A_{100}^{PS}	240 ± 25	D_{220}	5701 ± 41	$f\sigma_8(0.15)$	0.463 ± 0.012
A_{143}^{PS}	40 ± 9	D_{810}	2532 ± 14	$\sigma_8(0.15)$	0.744 ± 0.010
A_{217}^{PS}	102 ± 10	D_{1420}	814.5 ± 5.0	$f\sigma_8(0.38)$	0.4785 ± 0.0094
A_{217}^{CIB}	40 ± 7	D_{2000}	230.0 ± 1.9	$\sigma_8(0.38)$	0.6584 ± 0.0093
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.959 ± 0.010	$f\sigma_8(0.51)$	0.4756 ± 0.0081
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	0.2438 ± 0.0027	$\sigma_8(0.51)$	0.6156 ± 0.0089
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2451 ± 0.0027	$f\sigma_8(0.61)$	0.4696 ± 0.0074
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.611 ± 0.049	$\sigma_8(0.61)$	0.5854 ± 0.0086
A^{kSZ}	$4.8^{+2.5}_{-3.8}$	$\mathrm{Age}/\mathrm{Gyr}$	13.94 ± 0.21	$f\sigma_8(2.33)$	0.2947 ± 0.0046
A_{100}^{dust}	1.01 ± 0.20	z_*	1090.17 ± 0.40	$\sigma_8(2.33)$	0.3033 ± 0.0051
A_{143}^{dust}	0.97 ± 0.17	r_*	145.5 ± 1.7	f_{2000}^{143}	30.1 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04126 ± 0.00058	f_{2000}^{217}	107.1 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.97 ± 0.16	$f_{2000}^{143 \times 217}$	32.4 ± 2.3
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.00 ± 0.84	χ_{simall}^2	396.9 ± 1.6
c_{217}	1.0011 ± 0.0016	r_{drag}	148.3 ± 1.8	χ_{lowl}^2	24.3 ± 1.9
H_0	66.1 ± 1.8	k_{D}	0.1398 ± 0.0013	$\chi_{\mathrm{CamSpec}}^2$	7062.8 ± 5.4
Ω_{Λ}	$0.675^{+0.017}_{-0.016}$	$100\theta_{\mathrm{D}}$	0.16085 ± 0.00044	χ_{Aver15}^2	0.45 ± 0.63
Ω_{m}	0.325 ± 0.017	z_{eq}	3426 ± 58	$\chi_{\mathrm{Cooke17}}^2$	0.28 ± 0.39
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0030	k_{eq}	0.01038 ± 0.00015	χ_{prior}^2	7.6 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.0938 ± 0.0037	$100\theta_{\mathrm{eq}}$	0.808 ± 0.011	χ_{CMB}^2	7484.0 ± 5.4
σ_8	0.807 ± 0.011	$100\theta_{\mathrm{s,eq}}$	0.4470 ± 0.0055	χ_{Abund}^2	0.73 ± 0.85
S_8	0.840 ± 0.025	$H(0.15)$	71.5 ± 1.7		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.460 ± 0.014	$D_{\mathrm{M}}(0.15)$	655 ± 17		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7492.26; R - 1 = 0.00836$$

7.16 base_nnu_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02206 \pm 0.00031 \quad (-0.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.460 \pm 0.014 \quad (+0.1\sigma)$	$H(0.15)$	$71.7 \pm 2.3 \quad (-0.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1193 \pm 0.0041 \quad (-0.5\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.610 \pm 0.012 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$653 \pm 22 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04098 \pm 0.00059 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.993 \pm 0.017 \quad (+0.1\sigma)$	$H(0.38)$	$82.0 \pm 2.2 \quad (-1.2\sigma)$
τ	$0.0534^{+0.0044}_{-0.0084} \quad (-0.1\sigma)$	$r_{\mathrm{drag}} h$	$98.2 \pm 2.2 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1555 \pm 49 \quad (+1.0\sigma)$
N_{eff}	2.96 ± 0.29	$\langle d^2 \rangle^{1/2}$	$2.458 \pm 0.046 \quad (+0.2\sigma)$	$H(0.51)$	$88.7 \pm 2.2 \quad (-1.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.038^{+0.016}_{-0.020} \quad (-0.3\sigma)$	z_{re}	$7.62^{+0.48}_{-0.87} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2013 \pm 61 \quad (+1.0\sigma)$
n_{s}	$0.960 \pm 0.013 \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}$	$2.086^{+0.033}_{-0.041} \quad (-0.3\sigma)$	$H(0.61)$	$94.4 \pm 2.2 \quad (-1.9\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.875 \pm 0.023 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2340 \pm 69 \quad (+1.1\sigma)$
A_{100}^{PS}	$240 \pm 26 \quad (-0.1\sigma)$	D_{40}	$1234 \pm 22 \quad (+0.3\sigma)$	$H(2.33)$	$235.5 \pm 3.7 \quad (-0.9\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5702 \pm 41 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5817 \pm 130 \quad (+2.6\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2532 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.463 \pm 0.013 \quad (+0.0\sigma)$
A_{217}^{CIB}	$40 \pm 8 \quad (-0.1\sigma)$	D_{1420}	$814.5 \pm 5.2 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.746 \pm 0.013 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 2.3 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4788 \pm 0.0097 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.013 \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.660 \pm 0.012 \quad (-0.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15} \quad (-0.0\sigma)$	Y_{P}	$0.2440 \pm 0.0040 \quad (-13.5\sigma)$	$f\sigma_8(0.51)$	$0.4760 \pm 0.0085 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2453 \pm 0.0040 \quad (-13.5\sigma)$	$\sigma_8(0.51)$	$0.617 \pm 0.012 \quad (-0.7\sigma)$
A^{kSZ}	$4.8^{+2.7}_{-3.6} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.613 \pm 0.071 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4702 \pm 0.0079 \quad (-0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.92 \pm 0.31 \quad (+2.7\sigma)$	$\sigma_8(0.61)$	$0.587 \pm 0.011 \quad (-0.7\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1090.16 \pm 0.50 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2956 \pm 0.0061 \quad (-0.8\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.1\sigma)$	r_*	$145.3 \pm 2.6 \quad (+1.8\sigma)$	$\sigma_8(2.33)$	$0.3043 \pm 0.0068 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00073 \quad (+0.4\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.24 \quad (+1.8\sigma)$	f_{2000}^{217}	$107.1 \pm 2.5 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.1 \pm 1.1 \quad (-0.8\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.7 \quad (-0.2\sigma)$
H_0	$66.4 \pm 2.4 \quad (-0.7\sigma)$	r_{drag}	$148.1 \pm 2.7 \quad (+1.9\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_{Λ}	$0.677 \pm 0.019 \quad (-0.3\sigma)$	k_{D}	$0.1399 \pm 0.0019 \quad (-1.2\sigma)$	χ_{lowl}^2	$24.3 \pm 2.3 \quad (+0.6\sigma)$
Ω_{m}	$0.323 \pm 0.019 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00067 \quad (-0.7\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.2 \pm 5.7 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1420 \pm 0.0042 \quad (-0.6\sigma)$	z_{eq}	$3420 \pm 65 \quad (+0.3\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0943^{+0.0053}_{-0.0059} \quad (-3.7\sigma)$	k_{eq}	$0.01037 \pm 0.00016 \quad (-0.2\sigma)$	χ_{CMB}^2	$7484.3 \pm 5.5 \quad (+0.1\sigma)$
σ_8	$0.809 \pm 0.013 \quad (-0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.810 \pm 0.012 \quad (-0.3\sigma)$		
S_8	$0.839 \pm 0.025 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4477 \pm 0.0062 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7491.86; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60; R - 1 = 0.00538$$

7.17 base_nnu_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02205 \pm 0.00029 \quad (-0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4575 \pm 0.0092 \quad (+0.0\sigma)$	$H(0.15)$	$71.5 \pm 2.1 \quad (-1.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1183 \pm 0.0039 \quad (-1.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6071 \pm 0.0084 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$655 \pm 20 \quad (+1.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04108 \pm 0.00058 \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.991 \pm 0.011 \quad (+0.0\sigma)$	$H(0.38)$	$81.7 \pm 2.1 \quad (-2.2\sigma)$
τ	$0.0535^{+0.0045}_{-0.0081} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.3 \pm 1.7 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1560 \pm 45 \quad (+1.8\sigma)$
N_{eff}	2.91 ± 0.28	$\langle d^2 \rangle^{1/2}$	$2.456 \pm 0.032 \quad (+0.4\sigma)$	$H(0.51)$	$88.4 \pm 2.1 \quad (-2.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.035^{+0.016}_{-0.019} \quad (-0.5\sigma)$	z_{re}	$7.61^{+0.48}_{-0.85} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2019 \pm 56 \quad (+1.9\sigma)$
n_{s}	$0.959 \pm 0.012 \quad (-1.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.081^{+0.033}_{-0.040} \quad (-0.5\sigma)$	$H(0.61)$	$94.1 \pm 2.1 \quad (-3.5\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.870 \pm 0.022 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2348 \pm 63 \quad (+2.0\sigma)$
A_{100}^{PS}	$239 \pm 26 \quad (-0.1\sigma)$	D_{40}	$1236 \pm 19 \quad (+0.5\sigma)$	$H(2.33)$	$234.6 \pm 3.6 \quad (-1.9\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.2\sigma)$	D_{220}	$5705 \pm 41 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5837 \pm 120 \quad (+4.5\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.1\sigma)$	D_{810}	$2532 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4611 \pm 0.0083 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40 \pm 8 \quad (-0.1\sigma)$	D_{1420}	$814.9 \pm 5.2 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.743 \pm 0.012 \quad (-1.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6} \quad (+0.1\sigma)$	D_{2000}	$230.4 \pm 2.3 \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.4768 \pm 0.0067 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.959 \pm 0.012 \quad (-1.1\sigma)$	$\sigma_8(0.38)$	$0.658 \pm 0.012 \quad (-1.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.42}_{-0.15} \quad (-0.1\sigma)$	Y_{P}	$0.2433 \pm 0.0039 \quad (-22.5\sigma)$	$f\sigma_8(0.51)$	$0.4742 \pm 0.0063 \quad (-0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2446 \pm 0.0039 \quad (-22.5\sigma)$	$\sigma_8(0.51)$	$0.615 \pm 0.011 \quad (-1.3\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.1} \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.598 \pm 0.069 \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.4684 \pm 0.0063 \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.97 \pm 0.29 \quad (+4.7\sigma)$	$\sigma_8(0.61)$	$0.585 \pm 0.011 \quad (-1.3\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1090.03 \pm 0.47 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2946 \pm 0.0060 \quad (-1.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.1\sigma)$	r_*	$145.9 \pm 2.6 \quad (+3.7\sigma)$	$\sigma_8(2.33)$	$0.3033 \pm 0.0066 \quad (-1.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04139 \pm 0.00072 \quad (+0.7\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.01 \pm 0.24 \quad (+3.7\sigma)$	f_{2000}^{217}	$106.8 \pm 2.4 \quad (-0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.1\sigma)$	z_{drag}	$1058.9 \pm 1.1 \quad (-1.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.7 \quad (-0.4\sigma)$
H_0	$66.1 \pm 2.1 \quad (-1.4\sigma)$	r_{drag}	$148.7 \pm 2.7 \quad (+3.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.34 \pm 0.99 \quad (-0.2\sigma)$
Ω_{Λ}	$0.677 \pm 0.015 \quad (-0.5\sigma)$	k_{D}	$0.1395 \pm 0.0019 \quad (-2.1\sigma)$	χ_{small}^2	$396.7 \pm 1.6 \quad (-0.1\sigma)$
Ω_{m}	$0.323 \pm 0.015 \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00065 \quad (-1.2\sigma)$	χ_{lowl}^2	$24.3 \pm 1.9 \quad (+0.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0041 \quad (-1.4\sigma)$	z_{eq}	$3418 \pm 51 \quad (+0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.7 \pm 5.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0933 \pm 0.0054 \quad (-5.9\sigma)$	k_{eq}	$0.01033 \pm 0.00014 \quad (-0.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.806 \pm 0.012 \quad (-0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8098 \pm 0.0095 \quad (-0.5\sigma)$	χ_{CMB}^2	$7493.2 \pm 5.5 \quad (+0.1\sigma)$
S_8	$0.835 \pm 0.017 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4478 \pm 0.0048 \quad (-0.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7500.70$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.69$; $R - 1 = 0.00702$

7.18 base_nnu_CamSpecHM_TT_lowl_lowE_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02205 ± 0.00027	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.610 ± 0.011	$H(0.38)$	81.9 ± 1.6
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0030	$\sigma_8/h^{0.5}$	0.994 ± 0.016	$D_{\mathrm{M}}(0.38)$	1557 ± 36
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00052	$r_{\mathrm{drag}}h$	98.1 ± 1.9	$H(0.51)$	88.6 ± 1.5
τ	$0.0532^{+0.0044}_{-0.0080}$	$\langle d^2 \rangle^{1/2}$	2.460 ± 0.042	$D_{\mathrm{M}}(0.51)$	2014 ± 44
N_{eff}	2.95 ± 0.19	z_{re}	$7.60^{+0.48}_{-0.84}$	$H(0.61)$	94.3 ± 1.5
$\ln(10^{10}A_{\mathrm{s}})$	$3.037^{+0.013}_{-0.017}$	$10^9 A_{\mathrm{s}}$	$2.085^{+0.027}_{-0.036}$	$D_{\mathrm{M}}(0.61)$	2342 ± 49
n_{s}	0.960 ± 0.010	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.018	$H(2.33)$	235.4 ± 2.5
y_{cal}	1.0004 ± 0.0025	D_{40}	1235 ± 19	$D_{\mathrm{M}}(2.33)$	5820 ± 88
A_{100}^{PS}	240 ± 25	D_{220}	5701 ± 41	$f\sigma_8(0.15)$	0.464 ± 0.012
A_{143}^{PS}	40 ± 9	D_{810}	2532 ± 14	$\sigma_8(0.15)$	0.7459 ± 0.0095
A_{217}^{PS}	102 ± 10	D_{1420}	814.6 ± 5.0	$f\sigma_8(0.38)$	0.4790 ± 0.0094
A_{217}^{CIB}	40 ± 7	D_{2000}	230.1 ± 1.9	$\sigma_8(0.38)$	0.6599 ± 0.0087
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.960 ± 0.010	$f\sigma_8(0.51)$	0.4762 ± 0.0080
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	0.2439 ± 0.0026	$\sigma_8(0.51)$	0.6170 ± 0.0083
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0027	$f\sigma_8(0.61)$	0.4702 ± 0.0072
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.612 ± 0.049	$\sigma_8(0.61)$	0.5868 ± 0.0081
A^{kSZ}	$4.8^{+2.4}_{-3.9}$	$\mathrm{Age}/\mathrm{Gyr}$	13.93 ± 0.21	$f\sigma_8(2.33)$	0.2954 ± 0.0043
A_{100}^{dust}	1.01 ± 0.20	z_*	1090.16 ± 0.40	$\sigma_8(2.33)$	0.3041 ± 0.0048
A_{143}^{dust}	0.97 ± 0.18	r_*	145.4 ± 1.7	f_{2000}^{143}	30.0 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04126 ± 0.00058	f_{2000}^{217}	107.1 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.96 ± 0.16	$f_{2000}^{143 \times 217}$	32.4 ± 2.3
c_{100}	0.9975 ± 0.0010	z_{drag}	1059.05 ± 0.84	χ_{simall}^2	396.7 ± 1.6
c_{217}	1.0011 ± 0.0015	r_{drag}	148.2 ± 1.8	χ_{lowl}^2	24.2 ± 1.9
H_0	66.2 ± 1.8	k_{D}	0.1399 ± 0.0013	$\chi_{\mathrm{CamSpec}}^2$	7062.7 ± 5.4
Ω_{Λ}	$0.676^{+0.017}_{-0.015}$	$100\theta_{\mathrm{D}}$	0.16086 ± 0.00044	χ_{Aver15}^2	0.45 ± 0.62
Ω_{m}	$0.324^{+0.015}_{-0.017}$	z_{eq}	3422 ± 57	$\chi_{\mathrm{Cooke17}}^2$	0.28 ± 0.39
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0030	k_{eq}	0.01037 ± 0.00015	χ_{prior}^2	7.6 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.0940 ± 0.0037	$100\theta_{\mathrm{eq}}$	0.809 ± 0.011	χ_{CMB}^2	7483.7 ± 5.3
σ_8	0.808 ± 0.010	$100\theta_{\mathrm{s,eq}}$	0.4474 ± 0.0055	χ_{Abund}^2	0.73 ± 0.85
S_8	0.840 ± 0.025	$H(0.15)$	71.6 ± 1.7		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.460 ± 0.013	$D_{\mathrm{M}}(0.15)$	654 ± 16		

$\bar{\chi}_{\mathrm{eff}}^2 = 7491.99$; $R - 1 = 0.00722$

7.19 base_nnu_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022177	0.02220 ± 0.00023 (-0.6σ)	σ_8	0.8020	0.803 ± 0.012 (-0.7σ)	$100\theta_{\mathrm{eq}}$	0.8118	0.8124 ± 0.0077 (-0.4σ)
$\Omega_{\mathrm{c}}h^2$	0.11735	0.1179 ± 0.0034 (-1.3σ)	S_8	0.8267	0.826 ± 0.016 (-0.0σ)	$100\theta_{\mathrm{s,eq}}$	0.44874	0.4490 ± 0.0039 (-0.4σ)
$100\theta_{\mathrm{MC}}$	1.041117	1.04108 ± 0.00047 $(+0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4528	0.4527 ± 0.0090 (-0.0σ)	$H(0.15)$	71.61	71.8 ± 1.6 (-1.6σ)
τ	0.0527	0.0520 ± 0.0079 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6026	0.6028 ± 0.0091 (-0.3σ)	$D_{\mathrm{M}}(0.15)$	653.2	651 ± 16 $(+1.6\sigma)$
N_{eff}	2.885	2.92 ± 0.22	$\sigma_8/h^{0.5}$	0.9848	0.984 ± 0.012 (-0.0σ)	$H(0.38)$	81.74	82.0 ± 1.6 (-2.3σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0322	3.032 ± 0.019 (-0.4σ)	$r_{\mathrm{drag}}h$	98.70	98.8 ± 1.4 (-0.4σ)	$D_{\mathrm{M}}(0.38)$	1556.1	1552 ± 35 $(+1.8\sigma)$
n_{s}	0.9607	0.9613 ± 0.0095 (-1.0σ)	$\langle d^2 \rangle^{1/2}$	2.4422	2.440 ± 0.031 $(+0.2\sigma)$	$H(0.51)$	88.45	88.7 ± 1.6 (-3.0σ)
y_{cal}	1.00022	1.0005 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.50	7.41 ± 0.82 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	2014.6	2009 ± 44 $(+1.9\sigma)$
A_{100}^{PS}	230.1	236 ± 25 (-0.2σ)	$10^9 A_{\mathrm{s}}$	2.0743	2.074 ± 0.040 (-0.4σ)	$H(0.61)$	94.07	94.3 ± 1.7 (-3.8σ)
A_{143}^{PS}	42.7	38 ± 9 (-0.2σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8666	1.869 ± 0.020 (-0.8σ)	$D_{\mathrm{M}}(0.61)$	2343.3	2337 ± 50 $(+2.0\sigma)$
A_{217}^{PS}	105.0	103 ± 10 $(+0.1\sigma)$	D_{40}	1230.9	1231 ± 16 $(+0.4\sigma)$	$H(2.33)$	234.09	234.6 ± 3.1 (-2.0σ)
A_{217}^{CIB}	41.1	39 ± 7 (-0.1σ)	D_{220}	5711.7	5715 ± 38 (-0.1σ)	$D_{\mathrm{M}}(2.33)$	5836	5823 ± 99 $(+5.0\sigma)$
A_{143}^{tSZ}	5.90	$3.9^{+1.9}_{-2.5}$ $(+0.0\sigma)$	D_{810}	2532.6	2533 ± 14 (-0.1σ)	$f\sigma_8(0.15)$	0.4568	0.4567 ± 0.0084 (-0.1σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.687	0.66 ± 0.13 $(+0.1\sigma)$	D_{1420}	816.89	816.4 ± 5.0 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7404	0.741 ± 0.011 (-0.8σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.754	$0.54^{+0.38}_{-0.21}$ (-0.1σ)	D_{2000}	231.28	230.9 ± 2.1 $(+0.4\sigma)$	$f\sigma_8(0.38)$	0.4733	0.4733 ± 0.0073 (-0.2σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.51	—	$n_{\mathrm{s},0.002}$	0.9607	0.9613 ± 0.0095 (-1.0σ)	$\sigma_8(0.38)$	0.6555	0.656 ± 0.011 (-0.9σ)
A^{kSZ}	0.80	< 5.98 (-0.1σ)	Y_{P}	0.24314	0.2436 ± 0.0031 (-27.7σ)	$f\sigma_8(0.51)$	0.4711	0.4712 ± 0.0069 (-0.3σ)
A_{100}^{dust}	1.017	1.01 ± 0.20 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24446	0.2449 ± 0.0031 (-27.7σ)	$\sigma_8(0.51)$	0.6132	0.614 ± 0.010 (-1.0σ)
A_{143}^{dust}	0.973	0.96 ± 0.18 (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.566	2.575 ± 0.057 (-0.9σ)	$f\sigma_8(0.61)$	0.4656	0.4658 ± 0.0067 (-0.4σ)
A_{217}^{dust}	0.979	0.98 ± 0.10 $(+0.1\sigma)$	Age/Gyr	13.970	13.94 ± 0.23 $(+5.3\sigma)$	$\sigma_8(0.61)$	0.5832	0.5840 ± 0.0099 (-1.0σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.011	1.02 ± 0.16 (-0.0σ)	z_*	1089.771	1089.83 ± 0.41 (-0.6σ)	$f\sigma_8(2.33)$	0.2938	0.2942 ± 0.0052 (-1.1σ)
c_{100}	0.99769	0.9975 ± 0.0011 (-0.0σ)	r_*	146.09	145.8 ± 2.1 $(+3.9\sigma)$	$\sigma_8(2.33)$	0.3026	0.3031 ± 0.0057 (-1.1σ)
c_{217}	1.00117	1.0011 ± 0.0016 (-0.0σ)	$100\theta_*$	1.04143	1.04137 ± 0.00060 $(+0.9\sigma)$	f_{2000}^{143}	28.51	29 ± 3 (-0.4σ)
c_{TE}	0.9956	0.9959 ± 0.0052 (-0.2σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.028	14.00 ± 0.20 $(+3.8\sigma)$	f_{2000}^{217}	105.81	106.2 ± 2.3 (-0.4σ)
c_{EE}	0.9902	0.9906 ± 0.0057 (-0.3σ)	z_{drag}	1059.17	1059.27 ± 0.85 (-1.4σ)	$f_{2000}^{143 \times 217}$	31.09	31.4 ± 2.5 (-0.4σ)
H_0	66.32	66.5 ± 1.7 (-1.4σ)	r_{drag}	148.84	148.5 ± 2.2 $(+4.0\sigma)$	χ_{small}^2	395.87	396.8 ± 1.6 (-0.1σ)
Ω_{Λ}	0.6813	0.682 ± 0.011 (-0.5σ)	k_{D}	0.13951	0.1397 ± 0.0016 (-2.5σ)	χ_{lowl}^2	23.68	23.8 ± 1.5 $(+0.7\sigma)$
Ω_{m}	0.3187	0.318 ± 0.011 $(+0.5\sigma)$	$100\theta_{\mathrm{D}}$	0.16053	0.16061 ± 0.00053 (-1.4σ)	$\chi_{\mathrm{CamSpec}}^2$	11498.6	11514.5 ± 5.9 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14017	0.1407 ± 0.0035 (-1.4σ)	z_{eq}	3407.9	3405 ± 41 $(+0.4\sigma)$	χ_{prior}^2	2.07	7.9 ± 3.4 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09296	$0.0937^{+0.0041}_{-0.0046}$ (-7.7σ)	k_{eq}	0.010288	0.01030 ± 0.00013 (-0.5σ)	χ_{CMB}^2	11918.2	11935.2 ± 5.9 $(+0.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.27$; $\Delta\chi_{\mathrm{eff}}^2 = -0.49$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.05$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.59$; $R - 1 = 0.00888$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.03) commander_dx12.v3.2.29: 23.68 (Δ 0.68) CamSpec like_10.7HM_1400_unified: 11498.65 (Δ -0.99)

7.20 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02217 \pm 0.00022 \quad (-0.8\sigma)$	S_8	$0.828 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$71.5 \pm 1.6 \quad (-2.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1175 \pm 0.0033 \quad (-1.8\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4537 \pm 0.0070 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$654 \pm 15 \quad (+2.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04113 \pm 0.00047 \quad (+0.8\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6033 \pm 0.0073 \quad (-0.4\sigma)$	$H(0.38)$	$81.7 \pm 1.6 \quad (-3.4\sigma)$
τ	$0.0527 \pm 0.0074 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9859 \pm 0.0091 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1558 \pm 34 \quad (+2.7\sigma)$
N_{eff}	2.88 ± 0.22	$r_{\mathrm{drag}} h$	$98.6 \pm 1.3 \quad (-0.7\sigma)$	$H(0.51)$	$88.4 \pm 1.6 \quad (-4.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.033 \pm 0.018 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.025 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2017 \pm 43 \quad (+2.9\sigma)$
n_{s}	$0.9595 \pm 0.0093 \quad (-1.5\sigma)$	z_{re}	$7.48 \pm 0.76 \quad (-0.2\sigma)$	$H(0.61)$	$94.0 \pm 1.6 \quad (-5.4\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.075 \pm 0.037 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2346 \pm 49 \quad (+3.0\sigma)$
A_{100}^{PS}	$236 \pm 25 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.868 \pm 0.019 \quad (-1.1\sigma)$	$H(2.33)$	$234.1 \pm 3.0 \quad (-2.9\sigma)$
A_{143}^{PS}	$37 \pm 9 \quad (-0.2\sigma)$	D_{40}	$1235 \pm 16 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5840 \pm 98 \quad (+7.0\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5718 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4576 \pm 0.0065 \quad (-0.0\sigma)$
A_{217}^{CIB}	$38 \pm 7 \quad (-0.2\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.741 \pm 0.011 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$3.9_{-2.5}^{+1.9} \quad (+0.0\sigma)$	D_{1420}	$816.8 \pm 5.0 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4739 \pm 0.0057 \quad (-0.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.67 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 2.1 \quad (+0.6\sigma)$	$\sigma_8(0.38)$	$0.656 \pm 0.010 \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54_{-0.21}^{+0.39} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9595 \pm 0.0093 \quad (-1.5\sigma)$	$f\sigma_8(0.51)$	$0.4715 \pm 0.0056 \quad (-0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.2431 \pm 0.0031 \quad (-37.1\sigma)$	$\sigma_8(0.51)$	$0.6132 \pm 0.0098 \quad (-1.4\sigma)$
A^{kSZ}	$< 5.88 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2444 \pm 0.0031 \quad (-37.1\sigma)$	$f\sigma_8(0.61)$	$0.4659 \pm 0.0056 \quad (-0.7\sigma)$
A_{100}^{dust}	$1.00 \pm 0.20 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.567 \pm 0.055 \quad (-1.2\sigma)$	$\sigma_8(0.61)$	$0.5832 \pm 0.0095 \quad (-1.5\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.98 \pm 0.23 \quad (+7.4\sigma)$	$f\sigma_8(2.33)$	$0.2938 \pm 0.0050 \quad (-1.5\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	z_*	$1089.79 \pm 0.39 \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3025 \pm 0.0055 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$146.1 \pm 2.1 \quad (+5.6\sigma)$	f_{2000}^{143}	$28 \pm 3 \quad (-0.5\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04144 \pm 0.00060 \quad (+1.2\sigma)$	f_{2000}^{217}	$106.1 \pm 2.3 \quad (-0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.03 \pm 0.19 \quad (+5.5\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 2.4 \quad (-0.5\sigma)$
c_{TE}	$0.9956 \pm 0.0051 \quad (-0.2\sigma)$	z_{drag}	$1059.14 \pm 0.84 \quad (-1.8\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.08 \pm 0.76 \quad (-0.3\sigma)$
c_{EE}	$0.9902 \pm 0.0056 \quad (-0.4\sigma)$	r_{drag}	$148.9 \pm 2.2 \quad (+5.7\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
H_0	$66.2 \pm 1.6 \quad (-2.1\sigma)$	k_{D}	$0.1395 \pm 0.0015 \quad (-3.4\sigma)$	χ_{lowl}^2	$24.1 \pm 1.5 \quad (+1.0\sigma)$
Ω_{Λ}	$0.680 \pm 0.011 \quad (-0.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16052 \pm 0.00052 \quad (-1.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.8 \pm 5.7 \quad (-0.1\sigma)$
Ω_{m}	$0.320 \pm 0.011 \quad (+0.8\sigma)$	z_{eq}	$3412 \pm 37 \quad (+0.7\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1403 \pm 0.0034 \quad (-2.1\sigma)$	k_{eq}	$0.01030 \pm 0.00011 \quad (-0.7\sigma)$	χ_{CMB}^2	$11943.8 \pm 6.0 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0930_{-0.0045}^{+0.0040} \quad (-10.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8111 \pm 0.0070 \quad (-0.7\sigma)$		
σ_8	$0.802 \pm 0.011 \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4484 \pm 0.0035 \quad (-0.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11951.65; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.20; R - 1 = 0.01144$$

7.21 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00020	S_8	0.827 ± 0.016	$H(0.15)$	72.0 ± 1.3
$\Omega_{\mathrm{c}}h^2$	0.1183 ± 0.0026	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4532 ± 0.0089	$D_{\mathrm{M}}(0.15)$	650 ± 12
$100\theta_{\mathrm{MC}}$	1.04103 ± 0.00040	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6036 ± 0.0086	$H(0.38)$	82.1 ± 1.3
τ	0.0519 ± 0.0079	$\sigma_8/h^{0.5}$	0.985 ± 0.012	$D_{\mathrm{M}}(0.38)$	1549 ± 27
N_{eff}	2.95 ± 0.17	$r_{\mathrm{drag}}h$	98.8 ± 1.3	$H(0.51)$	88.8 ± 1.3
$\ln(10^{10}A_{\mathrm{s}})$	3.033 ± 0.018	$\langle d^2 \rangle^{1/2}$	2.440 ± 0.030	$D_{\mathrm{M}}(0.51)$	2005 ± 34
n_{s}	0.9620 ± 0.0078	z_{re}	7.42 ± 0.82	$H(0.61)$	94.5 ± 1.3
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.076 ± 0.037	$D_{\mathrm{M}}(0.61)$	2333 ± 39
A_{100}^{PS}	237 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.016	$H(2.33)$	234.9 ± 2.3
A_{143}^{PS}	39 ± 8	D_{40}	1230 ± 15	$D_{\mathrm{M}}(2.33)$	5813 ± 74
A_{217}^{PS}	103 ± 10	D_{220}	5714 ± 38	$f\sigma_8(0.15)$	0.4572 ± 0.0083
A_{217}^{CIB}	39 ± 7	D_{810}	2533 ± 14	$\sigma_8(0.15)$	0.7423 ± 0.0095
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	D_{1420}	816.1 ± 4.8	$f\sigma_8(0.38)$	0.4740 ± 0.0069
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.7 ± 1.8	$\sigma_8(0.38)$	0.6573 ± 0.0088
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.42}_{-0.17}$	$n_{\mathrm{s},0.002}$	0.9620 ± 0.0078	$f\sigma_8(0.51)$	0.4719 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.2439 ± 0.0023	$\sigma_8(0.51)$	0.6149 ± 0.0083
A^{kSZ}	< 6.01	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0023	$f\sigma_8(0.61)$	0.4664 ± 0.0061
A_{100}^{dust}	1.00 ± 0.20	$10^5 \mathrm{D}/\mathrm{H}$	2.583 ± 0.043	$\sigma_8(0.61)$	0.5849 ± 0.0081
A_{143}^{dust}	0.96 ± 0.18	$\mathrm{Age}/\mathrm{Gyr}$	13.91 ± 0.18	$f\sigma_8(2.33)$	0.2947 ± 0.0042
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.89 ± 0.33	$\sigma_8(2.33)$	0.3036 ± 0.0046
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	145.5 ± 1.6	f_{2000}^{143}	29.1 ± 3.1
c_{100}	0.9975 ± 0.0011	$100\theta_*$	1.04129 ± 0.00048	f_{2000}^{217}	106.4 ± 2.1
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.98 ± 0.15	$f_{2000}^{143 \times 217}$	31.6 ± 2.2
c_{TE}	0.9962 ± 0.0050	z_{drag}	1059.32 ± 0.69	χ_{simall}^2	396.8 ± 1.6
c_{EE}	0.9911 ± 0.0053	r_{drag}	148.3 ± 1.6	χ_{lowl}^2	23.7 ± 1.3
H_0	66.7 ± 1.3	k_{D}	0.1399 ± 0.0012	$\chi_{\mathrm{CamSpec}}^2$	11514.2 ± 5.8
Ω_{Λ}	0.682 ± 0.010	$100\theta_{\mathrm{D}}$	0.16068 ± 0.00039	χ_{Aver15}^2	0.35 ± 0.48
Ω_{m}	0.318 ± 0.010	z_{eq}	3404 ± 37	$\chi_{\mathrm{Cooke17}}^2$	0.35 ± 0.45
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0027	k_{eq}	0.01032 ± 0.00011	χ_{prior}^2	7.9 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.0941 ± 0.0033	$100\theta_{\mathrm{eq}}$	0.8126 ± 0.0070	χ_{CMB}^2	11934.7 ± 5.9
σ_8	0.804 ± 0.010	$100\theta_{\mathrm{s,eq}}$	0.4491 ± 0.0036	χ_{Abund}^2	0.69 ± 0.73

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.28; R - 1 = 0.01315$$

7.22 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02221 \pm 0.00023 \quad (-0.6\sigma)$	σ_8	$0.804 \pm 0.011 \quad (-0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8127 \pm 0.0076 \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1179 \pm 0.0034 \quad (-1.2\sigma)$	S_8	$0.827 \pm 0.016 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4492 \pm 0.0039 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04108 \pm 0.00047 \quad (+0.6\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4531 \pm 0.0089 \quad (-0.0\sigma)$	$H(0.15)$	$71.9 \pm 1.6 \quad (-1.5\sigma)$
τ	$0.0538^{+0.0043}_{-0.0082} \quad (-0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6036 \pm 0.0089 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$651 \pm 16 \quad (+1.5\sigma)$
N_{eff}	2.93 ± 0.22	$\sigma_8/h^{0.5}$	$0.985 \pm 0.012 \quad (-0.0\sigma)$	$H(0.38)$	$82.1 \pm 1.6 \quad (-2.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.036^{+0.014}_{-0.019} \quad (-0.4\sigma)$	$r_{\mathrm{drag}} h$	$98.9 \pm 1.4 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1550 \pm 35 \quad (+1.7\sigma)$
n_{s}	$0.9618 \pm 0.0094 \quad (-0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.443 \pm 0.031 \quad (+0.2\sigma)$	$H(0.51)$	$88.8 \pm 1.6 \quad (-2.8\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.60^{+0.47}_{-0.85} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2007 \pm 43 \quad (+1.8\sigma)$
A_{100}^{PS}	$236 \pm 25 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.082^{+0.029}_{-0.039} \quad (-0.4\sigma)$	$H(0.61)$	$94.4 \pm 1.7 \quad (-3.5\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.869 \pm 0.020 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2335 \pm 49 \quad (+1.9\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.1\sigma)$	D_{40}	$1231 \pm 16 \quad (+0.4\sigma)$	$H(2.33)$	$234.6 \pm 3.0 \quad (-1.9\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5715 \pm 38 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5819 \pm 98 \quad (+4.7\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4571 \pm 0.0083 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.1\sigma)$	D_{1420}	$816.4 \pm 5.0 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.743 \pm 0.011 \quad (-0.9\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.38}_{-0.21} \quad (-0.1\sigma)$	D_{2000}	$230.9 \pm 2.1 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.4740 \pm 0.0071 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9618 \pm 0.0094 \quad (-0.9\sigma)$	$\sigma_8(0.38)$	$0.658 \pm 0.010 \quad (-1.0\sigma)$
A^{kSZ}	$< 5.97 \quad (-0.1\sigma)$	Y_{P}	$0.2437 \pm 0.0031 \quad (-26.1\sigma)$	$f\sigma_8(0.51)$	$0.4719 \pm 0.0066 \quad (-0.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2450 \pm 0.0031 \quad (-26.1\sigma)$	$\sigma_8(0.51)$	$0.6152 \pm 0.0097 \quad (-1.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.576 \pm 0.057 \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4665 \pm 0.0064 \quad (-0.4\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.93 \pm 0.23 \quad (+5.0\sigma)$	$\sigma_8(0.61)$	$0.5852 \pm 0.0094 \quad (-1.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	z_*	$1089.83 \pm 0.41 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2949 \pm 0.0049 \quad (-1.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_*	$145.7 \pm 2.1 \quad (+3.6\sigma)$	$\sigma_8(2.33)$	$0.3038 \pm 0.0054 \quad (-1.2\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$100\theta_*$	$1.04136 \pm 0.00060 \quad (+0.9\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.3\sigma)$
c_{TE}	$0.9959 \pm 0.0051 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.99 \pm 0.20 \quad (+3.6\sigma)$	f_{2000}^{217}	$106.2 \pm 2.3 \quad (-0.3\sigma)$
c_{EE}	$0.9906 \pm 0.0057 \quad (-0.3\sigma)$	z_{drag}	$1059.31 \pm 0.84 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.3 \pm 2.5 \quad (-0.4\sigma)$
H_0	$66.6 \pm 1.7 \quad (-1.3\sigma)$	r_{drag}	$148.5 \pm 2.2 \quad (+3.8\sigma)$	χ_{small}^2	$396.7 \pm 1.6 \quad (-0.1\sigma)$
Ω_{Λ}	$0.682 \pm 0.011 \quad (-0.5\sigma)$	k_{D}	$0.1398 \pm 0.0015 \quad (-2.4\sigma)$	χ_{lowl}^2	$23.7 \pm 1.5 \quad (+0.6\sigma)$
Ω_{m}	$0.318 \pm 0.011 \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16062 \pm 0.00053 \quad (-1.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.4 \pm 5.9 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1408 \pm 0.0035 \quad (-1.3\sigma)$	z_{eq}	$3403 \pm 40 \quad (+0.4\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0938 \pm 0.0044 \quad (-7.2\sigma)$	k_{eq}	$0.01030 \pm 0.00013 \quad (-0.5\sigma)$	χ_{CMB}^2	$11934.9 \pm 5.8 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11942.78; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60; R - 1 = 0.01065$$

7.23 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00022 \quad (-0.8\sigma)$	S_8	$0.828 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$71.6 \pm 1.6 \quad (-2.4\sigma)$
$\Omega_c h^2$	$0.1175 \pm 0.0033 \quad (-1.8\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4538 \pm 0.0070 \quad (+0.0\sigma)$	$D_M(0.15)$	$653 \pm 15 \quad (+2.3\sigma)$
$100\theta_{MC}$	$1.04113 \pm 0.00047 \quad (+0.8\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6038 \pm 0.0072 \quad (-0.3\sigma)$	$H(0.38)$	$81.8 \pm 1.6 \quad (-3.3\sigma)$
τ	$0.0540^{+0.0047}_{-0.0077} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9865 \pm 0.0089 \quad (+0.0\sigma)$	$D_M(0.38)$	$1556 \pm 34 \quad (+2.6\sigma)$
N_{eff}	2.89 ± 0.22	$r_{\text{drag}} h$	$98.7 \pm 1.2 \quad (-0.7\sigma)$	$H(0.51)$	$88.5 \pm 1.6 \quad (-4.2\sigma)$
$\ln(10^{10} A_s)$	$3.035^{+0.014}_{-0.018} \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.025 \quad (+0.4\sigma)$	$D_M(0.51)$	$2015 \pm 43 \quad (+2.8\sigma)$
n_s	$0.9601 \pm 0.0092 \quad (-1.4\sigma)$	z_{re}	$7.62^{+0.50}_{-0.79} \quad (-0.1\sigma)$	$H(0.61)$	$94.1 \pm 1.6 \quad (-5.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s$	$2.081^{+0.028}_{-0.037} \quad (-0.6\sigma)$	$D_M(0.61)$	$2344 \pm 48 \quad (+2.9\sigma)$
A_{100}^{PS}	$236 \pm 25 \quad (-0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.868 \pm 0.019 \quad (-1.0\sigma)$	$H(2.33)$	$234.2 \pm 3.0 \quad (-2.8\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.2\sigma)$	D_{40}	$1234 \pm 15 \quad (+0.6\sigma)$	$D_M(2.33)$	$5836 \pm 97 \quad (+6.7\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5718 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4577 \pm 0.0065 \quad (-0.0\sigma)$
A_{217}^{CIB}	$38 \pm 7 \quad (-0.2\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.010 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$816.8 \pm 5.0 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4742 \pm 0.0057 \quad (-0.3\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.67 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 2.1 \quad (+0.6\sigma)$	$\sigma_8(0.38)$	$0.6566^{+0.0091}_{-0.010} \quad (-1.4\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.54^{+0.38}_{-0.21} \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9601 \pm 0.0092 \quad (-1.4\sigma)$	$f\sigma_8(0.51)$	$0.4719 \pm 0.0055 \quad (-0.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.2432 \pm 0.0031 \quad (-35.5\sigma)$	$\sigma_8(0.51)$	$0.6141^{+0.0088}_{-0.0099} \quad (-1.5\sigma)$
A^{kSZ}	$< 5.90 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.2445 \pm 0.0031 \quad (-35.5\sigma)$	$f\sigma_8(0.61)$	$0.4664 \pm 0.0055 \quad (-0.6\sigma)$
A_{100}^{dust}	$1.00 \pm 0.20 \quad (-0.0\sigma)$	10^5D/H	$2.567 \pm 0.056 \quad (-1.1\sigma)$	$\sigma_8(0.61)$	$0.5842^{+0.0085}_{-0.0096} \quad (-1.5\sigma)$
A_{143}^{dust}	$0.95 \pm 0.18 \quad (-0.1\sigma)$	Age/Gyr	$13.97 \pm 0.23 \quad (+7.1\sigma)$	$f\sigma_8(2.33)$	$0.2943^{+0.0045}_{-0.0051} \quad (-1.6\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.1\sigma)$	z_*	$1089.79 \pm 0.39 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3031^{+0.0050}_{-0.0056} \quad (-1.6\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$146.1 \pm 2.1 \quad (+5.4\sigma)$	f_{2000}^{143}	$28 \pm 3 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04144 \pm 0.00060 \quad (+1.2\sigma)$	f_{2000}^{217}	$106.1 \pm 2.3 \quad (-0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$14.03 \pm 0.19 \quad (+5.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.1 \pm 2.4 \quad (-0.5\sigma)$
c_{TE}	$0.9956 \pm 0.0051 \quad (-0.2\sigma)$	z_{drag}	$1059.18 \pm 0.84 \quad (-1.7\sigma)$	χ_{lensing}^2	$9.05 \pm 0.72 \quad (-0.3\sigma)$
c_{EE}	$0.9902 \pm 0.0056 \quad (-0.4\sigma)$	r_{drag}	$148.8 \pm 2.2 \quad (+5.5\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.1\sigma)$
H_0	$66.3 \pm 1.6 \quad (-2.0\sigma)$	k_D	$0.1396 \pm 0.0015 \quad (-3.3\sigma)$	χ_{lowl}^2	$24.0 \pm 1.5 \quad (+0.9\sigma)$
Ω_Λ	$0.681 \pm 0.010 \quad (-0.7\sigma)$	$100\theta_D$	$0.16054 \pm 0.00052 \quad (-1.7\sigma)$	χ_{CamSpec}^2	$11513.8 \pm 5.7 \quad (-0.0\sigma)$
Ω_m	$0.319 \pm 0.010 \quad (+0.7\sigma)$	z_{eq}	$3409 \pm 36 \quad (+0.7\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1403 \pm 0.0034 \quad (-2.0\sigma)$	k_{eq}	$0.01029 \pm 0.00011 \quad (-0.7\sigma)$	χ_{CMB}^2	$11943.5 \pm 5.9 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.0931^{+0.0040}_{-0.0045} \quad (-9.6\sigma)$	$100\theta_{\text{eq}}$	$0.8116 \pm 0.0069 \quad (-0.7\sigma)$		
σ_8	$0.803 \pm 0.011 \quad (-1.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4486 \pm 0.0035 \quad (-0.7\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 11951.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.16$; $R - 1 = 0.01353$

7.24 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02220 ± 0.00020	S_8	0.828 ± 0.016	$H(0.15)$	72.0 ± 1.3
$\Omega_c h^2$	0.1183 ± 0.0026	$\sigma_8 \Omega_m^{0.5}$	0.4536 ± 0.0088	$D_M(0.15)$	650 ± 12
$100\theta_{MC}$	1.04103 ± 0.00040	$\sigma_8 \Omega_m^{0.25}$	0.6044 ± 0.0084	$H(0.38)$	82.2 ± 1.3
τ	$0.0537^{+0.0043}_{-0.0081}$	$\sigma_8/h^{0.5}$	0.986 ± 0.011	$D_M(0.38)$	1548 ± 27
N_{eff}	2.95 ± 0.17	$r_{\text{drag}} h$	98.9 ± 1.3	$H(0.51)$	88.9 ± 1.3
$\ln(10^{10} A_s)$	$3.037^{+0.013}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.443 ± 0.030	$D_M(0.51)$	2004 ± 34
n_s	0.9625 ± 0.0078	z_{re}	$7.60^{+0.46}_{-0.84}$	$H(0.61)$	94.5 ± 1.3
y_{cal}	1.0004 ± 0.0024	$10^9 A_s$	$2.084^{+0.026}_{-0.037}$	$D_M(0.61)$	2331 ± 38
A_{100}^{PS}	237 ± 25	$10^9 A_s e^{-2\tau}$	1.871 ± 0.016	$H(2.33)$	235.0 ± 2.3
A_{143}^{PS}	39 ± 8	D_{40}	1230 ± 15	$D_M(2.33)$	5810 ± 74
A_{217}^{PS}	103 ± 10	D_{220}	5713 ± 38	$f\sigma_8(0.15)$	0.4577 ± 0.0082
A_{217}^{CIB}	39 ± 7	D_{810}	2533 ± 13	$\sigma_8(0.15)$	$0.7437^{+0.0082}_{-0.0093}$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	D_{1420}	816.1 ± 4.8	$f\sigma_8(0.38)$	0.4746 ± 0.0068
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.13	D_{2000}	230.7 ± 1.8	$\sigma_8(0.38)$	$0.6586^{+0.0075}_{-0.0086}$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.41}_{-0.19}$	$n_{s,0.002}$	0.9625 ± 0.0078	$f\sigma_8(0.51)$	0.4725 ± 0.0061
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	0.2440 ± 0.0023	$\sigma_8(0.51)$	$0.6161^{+0.0072}_{-0.0082}$
A^{kSZ}	< 6.01	Y_P^{BBN}	0.2453 ± 0.0023	$f\sigma_8(0.61)$	0.4672 ± 0.0058
A_{100}^{dust}	1.00 ± 0.20	10^5D/H	2.584 ± 0.043	$\sigma_8(0.61)$	$0.5861^{+0.0069}_{-0.0079}$
A_{143}^{dust}	0.95 ± 0.18	Age/Gyr	13.91 ± 0.18	$f\sigma_8(2.33)$	$0.2953^{+0.0037}_{-0.0041}$
A_{217}^{dust}	0.98 ± 0.10	z_*	1089.89 ± 0.33	$\sigma_8(2.33)$	$0.3042^{+0.0040}_{-0.0045}$
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	r_*	145.5 ± 1.6	f_{2000}^{143}	29.0 ± 3.1
c_{100}	0.9975 ± 0.0010	$100\theta_*$	1.04129 ± 0.00048	f_{2000}^{217}	106.4 ± 2.1
c_{217}	1.0011 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.97 ± 0.15	$f_{2000}^{143 \times 217}$	31.5 ± 2.2
c_{TE}	0.9961 ± 0.0050	z_{drag}	1059.35 ± 0.69	χ_{simall}^2	396.7 ± 1.6
c_{EE}	0.9911 ± 0.0052	r_{drag}	148.2 ± 1.6	χ_{lowl}^2	23.6 ± 1.3
H_0	66.7 ± 1.3	k_D	0.1399 ± 0.0012	χ_{CamSpec}^2	11514.1 ± 5.8
Ω_Λ	0.683 ± 0.010	$100\theta_D$	0.16069 ± 0.00039	χ_{Aver15}^2	0.35 ± 0.49
Ω_m	0.317 ± 0.010	z_{eq}	3402 ± 37	χ_{Cooke17}^2	0.35 ± 0.45
$\Omega_m h^2$	0.1412 ± 0.0027	k_{eq}	0.01032 ± 0.00011	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^3$	0.0942 ± 0.0033	$100\theta_{\text{eq}}$	0.8129 ± 0.0070	χ_{CMB}^2	11934.5 ± 5.8
σ_8	$0.8054^{+0.0088}_{-0.0099}$	$100\theta_{s,\text{eq}}$	0.4493 ± 0.0036	χ_{Abund}^2	0.70 ± 0.72

$$\bar{\chi}_{\text{eff}}^2 = 11943.02; R - 1 = 0.01235$$

7.25 base_nnu_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022426	0.02247 ± 0.00040 (-0.0σ)	$r_{\text{drag}} h$	100.71	100.9 ± 2.4 (-0.1σ)	$100\theta_{\text{s,eq}}$	0.4539	0.4543 ± 0.0070 (-0.1σ)
$\Omega_c h^2$	0.1162	$0.1175^{+0.0064}_{-0.0075}$ (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.390	2.387 ± 0.054 $(+0.1\sigma)$	$H(0.15)$	72.96	$73.5^{+3.2}_{-3.7}$ (-0.2σ)
$100\theta_{\text{MC}}$	1.04154	1.04149 ± 0.00097 $(+0.2\sigma)$	z_{re}	7.07	$7.10^{+0.93}_{-0.74}$ (-0.0σ)	$D_{\text{M}}(0.15)$	640.0	637 ± 32 $(+0.4\sigma)$
τ	0.0491	$0.0495^{+0.0085}_{-0.0075}$ (-0.0σ)	$10^9 A_{\text{s}}$	2.0369	2.042 ± 0.050 (-0.1σ)	$H(0.38)$	82.86	$83.4^{+3.2}_{-3.8}$ (-0.2σ)
N_{eff}	2.949	$3.03^{+0.45}_{-0.54}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8463	1.849 ± 0.030 (-0.1σ)	$D_{\text{M}}(0.38)$	1528	1521 ± 71 $(+0.4\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0140	3.016 ± 0.024 (-0.1σ)	D_{40}	1218.2	1214 ± 33 $(+0.0\sigma)$	$H(0.51)$	89.45	$90.0^{+3.3}_{-3.8}$ (-0.3σ)
n_{s}	0.9633	0.966 ± 0.019 (-0.1σ)	D_{220}	5701	5693 ± 58 $(+0.0\sigma)$	$D_{\text{M}}(0.51)$	1981	1972 ± 90 $(+0.4\sigma)$
A_{100}^{dustTE}	0.1144	0.113 ± 0.038 (-0.0σ)	D_{810}	2507.7	2507 ± 26 $(+0.0\sigma)$	$H(0.61)$	94.97	$95.5^{+3.3}_{-3.9}$ (-0.4σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1350	0.136 ± 0.029 (-0.0σ)	D_{1420}	808.3	808 ± 15 $(+0.1\sigma)$	$D_{\text{M}}(0.61)$	2307	2296 ± 100 $(+0.4\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.475	0.477 ± 0.085 (-0.0σ)	D_{2000}	228.4	228.1 ± 6.6 $(+0.1\sigma)$	$H(2.33)$	233.9	$234.9^{+6.1}_{-6.9}$ (-0.2σ)
A_{143}^{dustTE}	0.220	0.221 ± 0.054 (-0.0σ)	$n_{\text{s},0.002}$	0.9633	0.966 ± 0.019 (-0.1σ)	$D_{\text{M}}(2.33)$	5788	5763 ± 210 $(+1.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.657 ± 0.080 (-0.0σ)	Y_{P}	0.2441	0.2450 ± 0.0068 (-4.5σ)	$f\sigma_8(0.15)$	0.4395	0.440 ± 0.012 $(+0.0\sigma)$
A_{217}^{dustTE}	2.042	2.04 ± 0.27 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.2454	0.2463 ± 0.0068 (-4.5σ)	$\sigma_8(0.15)$	0.7300	0.733 ± 0.019 (-0.1σ)
c_{100}	1.00017	1.00017 ± 0.00069 (-0.0σ)	10^5D/H	2.542	$2.56^{+0.11}_{-0.13}$ (-0.1σ)	$f\sigma_8(0.38)$	0.4592	0.460 ± 0.011 (-0.0σ)
c_{217}	0.99800	0.99800 ± 0.00065 $(+0.0\sigma)$	Age/Gyr	13.86	13.80 ± 0.50 $(+1.0\sigma)$	$\sigma_8(0.38)$	0.6480	0.651 ± 0.018 (-0.1σ)
y_{cal}	0.99998	0.99997 ± 0.0025 (-0.0σ)	z_*	1089.42	$1089.54^{+0.75}_{-0.84}$ (-0.1σ)	$f\sigma_8(0.51)$	0.4588	0.460 ± 0.010 (-0.0σ)
H_0	67.80	$68.3^{+3.2}_{-3.8}$ (-0.2σ)	r_*	145.87	145.3 ± 4.5 $(+0.7\sigma)$	$\sigma_8(0.51)$	0.6068	0.610 ± 0.017 (-0.1σ)
Ω_{Λ}	0.6970	$0.698^{+0.020}_{-0.018}$ (-0.1σ)	$100\theta_*$	1.04178	1.0417 ± 0.0013 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.4547	0.456 ± 0.010 (-0.0σ)
Ω_{m}	0.3030	$0.302^{+0.018}_{-0.020}$ $(+0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.002	13.95 ± 0.42 $(+0.7\sigma)$	$\sigma_8(0.61)$	0.5776	0.580 ± 0.017 (-0.1σ)
$\Omega_{\text{m}} h^2$	0.1393	$0.1406^{+0.0067}_{-0.0078}$ (-0.1σ)	z_{drag}	1059.70	1060.0 ± 1.7 (-0.1σ)	$f\sigma_8(2.33)$	0.2916	$0.2930^{+0.0084}_{-0.0093}$ (-0.1σ)
$\Omega_{\text{m}} h^3$	0.0944	$0.0962^{+0.0083}_{-0.011}$ (-0.2σ)	r_{drag}	148.54	147.9 ± 4.7 $(+0.7\sigma)$	$\sigma_8(2.33)$	0.3010	$0.3025^{+0.0093}_{-0.010}$ (-0.1σ)
σ_8	0.7891	0.792 ± 0.019 (-0.1σ)	k_{D}	0.13977	0.1403 ± 0.0033 (-0.3σ)	χ_{small}^2	395.65	396.8 ± 1.6 (-0.0σ)
S_8	0.7931	0.795 ± 0.024 $(+0.0\sigma)$	$100\theta_{\text{D}}$	0.16053	$0.1607^{+0.0011}_{-0.0012}$ (-0.2σ)	χ_{plikTE}^2	852.89	860.8 ± 3.9 $(+0.3\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4344	0.435 ± 0.013 $(+0.0\sigma)$	z_{eq}	3357	3355 ± 72 $(+0.1\sigma)$	χ_{prior}^2	0.36	7.4 ± 3.6 (-0.0σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5855	0.587 ± 0.013 (-0.0σ)	k_{eq}	0.010180	0.01022 ± 0.00022 (-0.0σ)	χ_{CMB}^2	1248.54	1257.6 ± 4.2 $(+0.3\sigma)$
$\sigma_8/h^{0.5}$	0.9583	0.959 ± 0.018 $(+0.0\sigma)$	$100\theta_{\text{eq}}$	0.8220	0.823 ± 0.014 (-0.1σ)			

Best-fit $\chi_{\text{eff}}^2 = 1248.90$; $\Delta\chi_{\text{eff}}^2 = -0.08$; $\bar{\chi}_{\text{eff}}^2 = 1264.95$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.95$; $R - 1 = 0.00876$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.04) plik_r12_HM_v22_TE: 852.89 (Δ 0.04)

7.26 base_nnu_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02249 \pm 0.00040 \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$101.0 \pm 2.4 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4547 \pm 0.0070 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1177^{+0.0065}_{-0.0076} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.391 \pm 0.053 \quad (+0.0\sigma)$	$H(0.15)$	$73.7^{+3.2}_{-3.8} \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04146^{+0.00091}_{-0.0010} \quad (+0.1\sigma)$	z_{re}	$7.46^{+0.33}_{-0.85} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$635 \pm 32 \quad (+0.2\sigma)$
τ	$0.0528^{+0.0038}_{-0.0075} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.057^{+0.038}_{-0.044} \quad (-0.0\sigma)$	$H(0.38)$	$83.6^{+3.3}_{-3.8} \quad (+0.0\sigma)$
N_{eff}	$3.06^{+0.45}_{-0.54}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.850^{+0.031}_{-0.028} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517 \pm 71 \quad (+0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.024^{+0.019}_{-0.021} \quad (-0.0\sigma)$	D_{40}	$1212 \pm 33 \quad (+0.0\sigma)$	$H(0.51)$	$90.2^{+3.3}_{-3.9} \quad (+0.1\sigma)$
n_{s}	$0.968 \pm 0.018 \quad (-0.0\sigma)$	D_{220}	$5691 \pm 58 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1967 \pm 89 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	D_{810}	$2508 \pm 26 \quad (+0.0\sigma)$	$H(0.61)$	$95.7^{+3.4}_{-3.9} \quad (+0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.029 \quad (-0.0\sigma)$	D_{1420}	$808 \pm 15 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2290 \pm 100 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.477 \pm 0.085 \quad (-0.0\sigma)$	D_{2000}	$228.1 \pm 6.6 \quad (+0.0\sigma)$	$H(2.33)$	$235.2^{+6.1}_{-6.9} \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.055 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.018 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5752 \pm 210 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.657 \pm 0.080 \quad (-0.0\sigma)$	Y_{P}	$0.2453 \pm 0.0068 \quad (-1.1\sigma)$	$f\sigma_8(0.15)$	$0.442 \pm 0.012 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2467 \pm 0.0068 \quad (-1.2\sigma)$	$\sigma_8(0.15)$	$0.736 \pm 0.018 \quad (+0.0\sigma)$
c_{100}	$1.00017 \pm 0.00069 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.56^{+0.11}_{-0.13} \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.462 \pm 0.010 \quad (+0.0\sigma)$
c_{217}	$0.99800 \pm 0.00065 \quad (+0.0\sigma)$	Age/Gyr	$13.77 \pm 0.50 \quad (+0.4\sigma)$	$\sigma_8(0.38)$	$0.654 \pm 0.017 \quad (+0.0\sigma)$
y_{cal}	$0.99997 \pm 0.0025 \quad (-0.0\sigma)$	z_*	$1089.56 \pm 0.81 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4618 \pm 0.0098 \quad (+0.0\sigma)$
H_0	$68.5^{+3.3}_{-3.8} \quad (+0.0\sigma)$	r_*	$145.1 \pm 4.5 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.613 \pm 0.017 \quad (+0.0\sigma)$
Ω_{Λ}	$0.699^{+0.020}_{-0.018} \quad (-0.1\sigma)$	$100\theta_*$	$1.0416 \pm 0.0013 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4578 \pm 0.0096 \quad (+0.0\sigma)$
Ω_{m}	$0.301^{+0.018}_{-0.020} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.93 \pm 0.42 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.583 \pm 0.016 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1409^{+0.0068}_{-0.0079} \quad (+0.1\sigma)$	z_{drag}	$1060.0 \pm 1.7 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2945^{+0.0082}_{-0.0091} \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0967^{+0.0084}_{-0.011} \quad (+0.7\sigma)$	r_{drag}	$147.7 \pm 4.7 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3041^{+0.0090}_{-0.010} \quad (+0.0\sigma)$
σ_8	$0.796 \pm 0.019 \quad (+0.0\sigma)$	k_{D}	$0.1404 \pm 0.0033 \quad (+0.0\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.0\sigma)$
S_8	$0.797 \pm 0.024 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.1607^{+0.0011}_{-0.0012} \quad (-0.0\sigma)$	χ_{plikTE}^2	$860.9 \pm 3.9 \quad (+0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.436 \pm 0.013 \quad (+0.0\sigma)$	z_{eq}	$3351 \pm 72 \quad (+0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.589 \pm 0.013 \quad (+0.0\sigma)$	k_{eq}	$0.01022 \pm 0.00022 \quad (+0.0\sigma)$	χ_{CMB}^2	$1257.2 \pm 4.1 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.962 \pm 0.018 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.824 \pm 0.014 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1264.59$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.94$; $R - 1 = 0.01129$

7.27 base_nnu_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02145	$0.0228^{+0.0025}_{-0.0030} \quad (-1.0\sigma)$	D_{40}	1247.8	$1234^{+38}_{-33} \quad (+0.2\sigma)$	$D_M(0.15)$	740	$684^{+100}_{-100} \quad (+2.8\sigma)$
$\Omega_c h^2$	0.0958	$0.108^{+0.014}_{-0.025} \quad (-1.7\sigma)$	D_{220}	5741	$5844 \pm 280 \quad (-0.6\sigma)$	$H(0.38)$	73.0	$80.0^{+8.4}_{-15} \quad (-2.4\sigma)$
$100\theta_{MC}$	1.04375	$1.0421^{+0.0031}_{-0.0047} \quad (+2.4\sigma)$	D_{810}	2585.1	$2583 \pm 39 \quad (-0.2\sigma)$	$D_M(0.38)$	1755	$1627^{+200}_{-300} \quad (+3.0\sigma)$
τ	0.0511	$0.0512 \pm 0.0092 \quad (-0.2\sigma)$	D_{1420}	861.7	$850 \pm 25 \quad (+0.3\sigma)$	$H(0.51)$	79.3	$86.4^{+8.4}_{-15} \quad (-2.9\sigma)$
N_{eff}	1.57	$2.47^{+0.90}_{-2.1}$	D_{2000}	252.6	$246^{+14}_{-12} \quad (+0.6\sigma)$	$D_M(0.51)$	2268	$2105^{+300}_{-400} \quad (+3.1\sigma)$
$\ln(10^{10} A_s)$	2.982	$3.010^{+0.089}_{-0.060} \quad (-1.9\sigma)$	$n_{s,0.002}$	0.9366	$0.960^{+0.042}_{-0.050} \quad (-1.4\sigma)$	$H(0.61)$	84.6	$91.8^{+8.6}_{-15} \quad (-3.4\sigma)$
n_s	0.9366	$0.960^{+0.042}_{-0.050} \quad (-1.4\sigma)$	Y_P	0.2228	$0.235 \pm 0.022 \quad (-23.3\sigma)$	$D_M(0.61)$	2634	$2447^{+400}_{-400} \quad (+3.2\sigma)$
y_{cal}	1.00000	$0.9999 \pm 0.0025 \quad (-0.0\sigma)$	Y_P^{BBN}	0.2240	$0.236 \pm 0.023 \quad (-23.3\sigma)$	$H(2.33)$	214.0	$226^{+17}_{-26} \quad (-4.4\sigma)$
H_0	58.4	$65^{+9}_{-10} \quad (-1.7\sigma)$	$10^5 D/H$	2.220	$2.29^{+0.19}_{-0.23} \quad (-0.1\sigma)$	$D_M(2.33)$	6480	$6088^{+700}_{-800} \quad (+5.9\sigma)$
Ω_Λ	0.654	$0.680^{+0.077}_{-0.055} \quad (-1.1\sigma)$	Age/Gyr	15.51	$14.6^{+1.8}_{-2.0} \quad (+6.2\sigma)$	$f\sigma_8(0.15)$	0.4406	$0.436 \pm 0.030 \quad (+0.1\sigma)$
Ω_m	0.346	$0.320^{+0.055}_{-0.077} \quad (+1.1\sigma)$	z_*	1087.27	$1087.7^{+1.6}_{-1.8} \quad (-0.0\sigma)$	$\sigma_8(0.15)$	0.686	$0.714^{+0.047}_{-0.062} \quad (-1.7\sigma)$
$\Omega_m h^2$	0.1179	$0.131^{+0.016}_{-0.028} \quad (-2.5\sigma)$	r_*	161.1	$153^{+16}_{-18} \quad (+13.1\sigma)$	$f\sigma_8(0.38)$	0.4503	$0.452 \pm 0.024 \quad (-0.2\sigma)$
$\Omega_m h^3$	0.0688	$0.088^{+0.014}_{-0.040} \quad (-5.6\sigma)$	$100\theta_*$	1.0451	$1.0428^{+0.0042}_{-0.0061} \quad (+3.2\sigma)$	$\sigma_8(0.38)$	0.605	$0.633^{+0.045}_{-0.062} \quad (-2.3\sigma)$
σ_8	0.746	$0.773^{+0.048}_{-0.061} \quad (-1.3\sigma)$	$D_M(z_*)/\text{Gpc}$	15.42	$14.6 \pm 1.5 \quad (+12.7\sigma)$	$f\sigma_8(0.51)$	0.4453	$0.450 \pm 0.023 \quad (-0.4\sigma)$
S_8	0.801	$0.791^{+0.056}_{-0.066} \quad (+0.2\sigma)$	z_{drag}	1054.7	$1059.1 \pm 8.6 \quad (-1.7\sigma)$	$\sigma_8(0.51)$	0.565	$0.592^{+0.043}_{-0.061} \quad (-2.6\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4390	$0.433^{+0.031}_{-0.036} \quad (+0.2\sigma)$	r_{drag}	164.4	$155^{+17}_{-19} \quad (+13.0\sigma)$	$f\sigma_8(0.61)$	0.4383	$0.446 \pm 0.024 \quad (-0.5\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5723	$0.578 \pm 0.030 \quad (-0.2\sigma)$	k_D	0.1296	$0.137^{+0.011}_{-0.015} \quad (-4.6\sigma)$	$\sigma_8(0.61)$	0.537	$0.564^{+0.042}_{-0.061} \quad (-2.9\sigma)$
$\sigma_8/h^{0.5}$	0.9766	$0.963^{+0.043}_{-0.049} \quad (+0.3\sigma)$	$100\theta_D$	0.15718	$0.1583^{+0.0018}_{-0.0023} \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	0.2697	$0.284^{+0.022}_{-0.033} \quad (-3.4\sigma)$
$r_{\text{drag}} h$	95.9	$99.6^{+6.7}_{-8.3} \quad (-0.7\sigma)$	z_{eq}	3496	$3420 \pm 180 \quad (+0.9\sigma)$	$\sigma_8(2.33)$	0.2767	$0.294^{+0.024}_{-0.038} \quad (-3.6\sigma)$
$\langle d^2 \rangle^{1/2}$	2.456	$2.41 \pm 0.11 \quad (+0.5\sigma)$	k_{eq}	0.00955	$0.00992^{+0.00058}_{-0.00077} \quad (-1.0\sigma)$	χ_{simall}^2	395.57	$396.7 \pm 1.5 \quad (+0.0\sigma)$
z_{re}	6.96	$6.97 \pm 0.90 \quad (-0.2\sigma)$	$100\theta_{\text{eq}}$	0.7954	$0.814^{+0.035}_{-0.041} \quad (-0.8\sigma)$	χ_{plikEE}^2	737.95	$744.0 \pm 3.5 \quad (+0.0\sigma)$
$10^9 A_s$	1.973	$2.03^{+0.17}_{-0.14} \quad (-1.7\sigma)$	$100\theta_{s,\text{eq}}$	0.4407	$0.449^{+0.017}_{-0.019} \quad (-0.8\sigma)$	χ_{prior}^2	0.000	$0.99 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_s e^{-2\tau}$	1.781	$1.84^{+0.15}_{-0.094} \quad (-2.9\sigma)$	$H(0.15)$	63.4	$70^{+8}_{-10} \quad (-1.9\sigma)$	χ_{CMB}^2	1133.52	$1140.8 \pm 3.8 \quad (+0.0\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 1133.52$; $\Delta\chi_{\text{eff}}^2 = -1.03$; $\bar{\chi}_{\text{eff}}^2 = 1141.76$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.14$; $R - 1 = 0.00807$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.57 (Δ -0.03) plik_rd12_HM_v22_EE: 737.95 (Δ -1.00)

7.28 base_nnu_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.0231 \pm 0.0027 \quad (-0.7\sigma)$	D_{40}	$1231^{+39}_{-33} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$669^{+100}_{-100} \quad (+2.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.111^{+0.016}_{-0.025} \quad (-1.1\sigma)$	D_{220}	$5861^{+300}_{-270} \quad (-0.5\sigma)$	$H(0.38)$	$82^{+10}_{-10} \quad (-1.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0416^{+0.0028}_{-0.0046} \quad (+1.8\sigma)$	D_{810}	$2583 \pm 39 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1593^{+200}_{-300} \quad (+2.2\sigma)$
τ	$0.0553^{+0.0047}_{-0.0082} \quad (-0.1\sigma)$	D_{1420}	$847 \pm 25 \quad (+0.2\sigma)$	$H(0.51)$	$88.0^{+9.7}_{-15} \quad (-1.9\sigma)$
N_{eff}	$2.7^{+1.1}_{-2.0}$	D_{2000}	$244 \pm 13 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2062^{+300}_{-400} \quad (+2.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.026^{+0.085}_{-0.052} \quad (-1.6\sigma)$	$n_{\mathrm{s},0.002}$	$0.966 \pm 0.045 \quad (-1.0\sigma)$	$H(0.61)$	$93.4^{+9.9}_{-15} \quad (-2.3\sigma)$
n_{s}	$0.966 \pm 0.045 \quad (-1.0\sigma)$	Y_{P}	$0.238 \pm 0.023 \quad (-16.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2399^{+300}_{-400} \quad (+2.4\sigma)$
y_{cal}	$0.9999 \pm 0.0025 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.239 \pm 0.023 \quad (-16.6\sigma)$	$H(2.33)$	$229^{+19}_{-25} \quad (-2.9\sigma)$
H_0	$67^{+10}_{-10} \quad (-1.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.32^{+0.20}_{-0.23} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5987^{+700}_{-900} \quad (+4.3\sigma)$
Ω_{Λ}	$0.687^{+0.078}_{-0.051} \quad (-0.8\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.3^{+1.6}_{-2.1} \quad (+4.6\sigma)$	$f\sigma_8(0.15)$	$0.438 \pm 0.030 \quad (+0.1\sigma)$
Ω_{m}	$0.313^{+0.051}_{-0.078} \quad (+0.8\sigma)$	z_*	$1087.8^{+1.6}_{-1.8} \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.724^{+0.050}_{-0.059} \quad (-1.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.135^{+0.018}_{-0.028} \quad (-1.6\sigma)$	r_*	$151^{+15}_{-19} \quad (+9.6\sigma)$	$f\sigma_8(0.38)$	$0.455 \pm 0.023 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.093^{+0.018}_{-0.041} \quad (-3.1\sigma)$	$100\theta_*$	$1.0421^{+0.0039}_{-0.0061} \quad (+2.4\sigma)$	$\sigma_8(0.38)$	$0.643^{+0.048}_{-0.059} \quad (-1.7\sigma)$
σ_8	$0.783^{+0.050}_{-0.058} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.4^{+1.4}_{-1.7} \quad (+9.2\sigma)$	$f\sigma_8(0.51)$	$0.454 \pm 0.023 \quad (-0.2\sigma)$
S_8	$0.792^{+0.056}_{-0.066} \quad (+0.2\sigma)$	z_{drag}	$1060.1 \pm 8.7 \quad (-1.3\sigma)$	$\sigma_8(0.51)$	$0.602^{+0.047}_{-0.058} \quad (-1.9\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.434^{+0.031}_{-0.036} \quad (+0.2\sigma)$	r_{drag}	$153^{+15}_{-20} \quad (+9.5\sigma)$	$f\sigma_8(0.61)$	$0.450 \pm 0.023 \quad (-0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.582 \pm 0.029 \quad (-0.1\sigma)$	k_{D}	$0.139^{+0.012}_{-0.014} \quad (-3.2\sigma)$	$\sigma_8(0.61)$	$0.573^{+0.046}_{-0.057} \quad (-2.2\sigma)$
$\sigma_8/h^{0.5}$	$0.964^{+0.043}_{-0.048} \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.1586^{+0.0018}_{-0.0023} \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.289^{+0.025}_{-0.031} \quad (-2.7\sigma)$
$r_{\mathrm{drag}} h$	$100.4^{+7.0}_{-8.2} \quad (-0.5\sigma)$	z_{eq}	$3400^{+170}_{-190} \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.299^{+0.027}_{-0.036} \quad (-2.8\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.41 \pm 0.11 \quad (+0.4\sigma)$	k_{eq}	$0.01001^{+0.00062}_{-0.00076} \quad (-0.7\sigma)$	χ_{simall}^2	$396.5 \pm 1.4 \quad (+0.1\sigma)$
z_{re}	$< 7.62 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.818^{+0.036}_{-0.041} \quad (-0.6\sigma)$	χ_{plikEE}^2	$744.1 \pm 3.5 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	$2.07^{+0.17}_{-0.12} \quad (-1.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.451 \pm 0.018 \quad (-0.6\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.85^{+0.15}_{-0.085} \quad (-2.2\sigma)$	$H(0.15)$	$72^{+10}_{-10} \quad (-1.3\sigma)$	χ_{CMB}^2	$1140.6 \pm 3.7 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1141.65; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.34; R - 1 = 0.00915$$

7.29 base_nnu_plikHM_TE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022391	0.02240 ± 0.00029 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.3895	2.393 ± 0.033 $(+0.0\sigma)$	$D_M(0.15)$	644.6	642 ± 20 $(+1.3\sigma)$
$\Omega_c h^2$	0.1152	$0.1165^{+0.0056}_{-0.0067}$ (-1.4σ)	z_{re}	7.06	$7.01^{+0.95}_{-0.73}$ (-0.0σ)	$H(0.38)$	82.35	82.7 ± 2.3 (-1.8σ)
$100\theta_{\text{MC}}$	1.04169	1.04161 ± 0.00089 $(+0.6\sigma)$	$10^9 A_s$	2.0347	2.035 ± 0.048 (-0.2σ)	$D_M(0.38)$	1538.9	1533 ± 46 $(+1.5\sigma)$
τ	0.0493	$0.0488^{+0.0088}_{-0.0075}$ (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8437	1.846 ± 0.029 (-0.5σ)	$H(0.51)$	88.93	89.3 ± 2.5 (-2.3σ)
N_{eff}	2.873	$2.94^{+0.34}_{-0.39}$	D_{40}	1213.7	1218 ± 25 $(+0.1\sigma)$	$D_M(0.51)$	1995	1987 ± 59 $(+1.6\sigma)$
$\ln(10^{10} A_s)$	3.0129	$3.013^{+0.025}_{-0.022}$ (-0.2σ)	D_{220}	5690	5695 ± 58 (-0.0σ)	$H(0.61)$	94.44	$94.9^{+2.4}_{-2.7}$ (-2.7σ)
n_s	0.9643	0.963 ± 0.013 (-0.2σ)	D_{810}	2513.2	2508 ± 26 $(+0.1\sigma)$	$D_M(0.61)$	2322	2313 ± 67 $(+1.7\sigma)$
y_{cal}	0.99998	1.0000 ± 0.0025 (-0.0σ)	D_{1420}	812.6	809 ± 14 $(+0.2\sigma)$	$H(2.33)$	232.9	$233.9^{+5.1}_{-5.8}$ (-1.9σ)
A_{100}^{dustTE}	0.1131	0.113 ± 0.038 (-0.0σ)	D_{2000}	230.2	228.7 ± 6.0 $(+0.3\sigma)$	$D_M(2.33)$	5820	5798 ± 150 $(+3.5\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1357	0.136 ± 0.030 (-0.0σ)	$n_{s,0.002}$	0.9643	0.963 ± 0.013 (-0.2σ)	$f\sigma_8(0.15)$	0.4404	0.441 ± 0.010 (-0.2σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.473	0.477 ± 0.086 $(+0.0\sigma)$	Y_P	0.2431	0.2439 ± 0.0051 (-16.7σ)	$\sigma_8(0.15)$	0.7288	0.730 ± 0.017 (-0.5σ)
A_{143}^{dustTE}	0.219	0.221 ± 0.054 $(+0.0\sigma)$	Y_P^{BBN}	0.2444	0.2452 ± 0.0052 (-16.7σ)	$f\sigma_8(0.38)$	0.4596	0.460 ± 0.010 (-0.3σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.659	0.658 ± 0.080 (-0.0σ)	10^5D/H	2.522	$2.543^{+0.099}_{-0.11}$ (-0.7σ)	$\sigma_8(0.38)$	0.6467	0.648 ± 0.016 (-0.5σ)
A_{217}^{dustTE}	2.030	2.04 ± 0.27 $(+0.0\sigma)$	Age/Gyr	13.934	13.88 ± 0.36 $(+3.7\sigma)$	$f\sigma_8(0.51)$	0.4589	0.460 ± 0.010 (-0.3σ)
c_{100}	1.00017	1.00017 ± 0.00070 $(+0.0\sigma)$	z_*	1089.30	$1089.46^{+0.72}_{-0.81}$ (-0.6σ)	$\sigma_8(0.51)$	0.6055	0.607 ± 0.015 (-0.5σ)
c_{217}	0.99795	0.99799 ± 0.00065 (-0.0σ)	r_*	146.55	146.0 ± 3.7 $(+3.4\sigma)$	$f\sigma_8(0.61)$	0.4546	0.455 ± 0.010 (-0.3σ)
H_0	67.30	67.6 ± 2.1 (-1.1σ)	$100\theta_*$	1.04199	1.0419 ± 0.0011 $(+0.8\sigma)$	$\sigma_8(0.61)$	0.5763	0.578 ± 0.014 (-0.5σ)
Ω_Λ	0.6947	0.6948 ± 0.0086 (-0.2σ)	$D_M(z_*)/\text{Gpc}$	14.065	14.01 ± 0.34 $(+3.1\sigma)$	$f\sigma_8(2.33)$	0.2909	0.2915 ± 0.0074 (-0.5σ)
Ω_m	0.3053	0.3052 ± 0.0086 $(+0.2\sigma)$	z_{drag}	1059.51	1059.7 ± 1.3 (-0.6σ)	$\sigma_8(2.33)$	0.3001	0.3008 ± 0.0078 (-0.6σ)
$\Omega_m h^2$	0.1383	$0.1395^{+0.0058}_{-0.0069}$ (-1.4σ)	r_{drag}	149.24	148.7 ± 3.8 $(+3.1\sigma)$	χ_{small}^2	395.67	396.8 ± 1.6 (-0.0σ)
$\Omega_m h^3$	0.0930	$0.0945^{+0.0063}_{-0.0078}$ (-3.5σ)	k_D	0.13931	0.1397 ± 0.0027 (-1.5σ)	χ_{plikTE}^2	852.90	860.0 ± 3.8 $(+0.2\sigma)$
σ_8	0.7881	0.790 ± 0.019 (-0.4σ)	$100\theta_D$	0.16034	$0.16052^{+0.00088}_{-0.00098}$ (-0.8σ)	$\chi_{6\text{DF}}^2$	0.0001	0.048 ± 0.068 $(+0.2\sigma)$
S_8	0.7950	0.796 ± 0.019 (-0.2σ)	z_{eq}	3366.6	3366 ± 34 $(+0.2\sigma)$	χ_{MGS}^2	1.68	1.76 ± 0.65 (-0.2σ)
$\sigma_8 \Omega_m^{0.5}$	0.4354	0.436 ± 0.010 (-0.2σ)	k_{eq}	0.010155	$0.01020^{+0.00020}_{-0.00024}$ (-0.6σ)	χ_{DR12BAO}^2	3.460	4.2 ± 1.2 $(+0.2\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5858	0.587 ± 0.013 (-0.3σ)	$100\theta_{\text{eq}}$	0.8202	0.8203 ± 0.0063 (-0.2σ)	χ_{prior}^2	0.41	7.4 ± 3.7 (-0.0σ)
$\sigma_8/h^{0.5}$	0.9607	0.960 ± 0.014 (-0.1σ)	$100\theta_{s,\text{eq}}$	0.45301	0.4530 ± 0.0032 (-0.2σ)	χ_{BAO}^2	5.14	6.0 ± 1.2 $(+0.1\sigma)$
$r_{\text{drag}} h$	100.44	100.4 ± 1.1 (-0.2σ)	$H(0.15)$	72.45	72.8 ± 2.2 (-1.3σ)	χ_{CMB}^2	1248.57	1256.9 ± 4.2 $(+0.2\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 1254.11$; $\Delta\chi_{\text{eff}}^2 = -0.12$; $\bar{\chi}_{\text{eff}}^2 = 1270.28$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.86$; $R - 1 = 0.00797$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.68 (Δ -0.07) DR12BAO: 3.46 (Δ 0.02) CMB - small_100x143.offlike5_EE_Aplanck_B: 395.67 (Δ 0.00) plik_rd12_HM.v22_TE: 852.90 (Δ -0.03)

7.30 base_nnu_plikHM_TE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240 \pm 0.00028 \quad (-0.4\sigma)$	z_{re}	$7.59 \pm 0.75 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1550 \pm 43 \quad (+3.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1154^{+0.0051}_{-0.0061} \quad (-3.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.071 \pm 0.039 \quad (-0.5\sigma)$	$H(0.51)$	$88.5 \pm 2.3 \quad (-4.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04179 \pm 0.00086 \quad (+1.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.856 \pm 0.026 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2008 \pm 55 \quad (+3.3\sigma)$
τ	$0.0547 \pm 0.0075 \quad (-0.0\sigma)$	D_{40}	$1225 \pm 25 \quad (+0.1\sigma)$	$H(0.61)$	$94.1 \pm 2.3 \quad (-5.6\sigma)$
N_{eff}	$2.83^{+0.31}_{-0.35}$	D_{220}	$5724 \pm 55 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2337 \pm 63 \quad (+3.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.030 \pm 0.019 \quad (-0.5\sigma)$	D_{810}	$2533 \pm 21 \quad (+0.2\sigma)$	$H(2.33)$	$232.8^{+4.6}_{-5.3} \quad (-4.5\sigma)$
n_{s}	$0.963 \pm 0.012 \quad (-0.4\sigma)$	D_{1420}	$820 \pm 12 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5843 \pm 140 \quad (+6.9\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{2000}	$233.1 \pm 5.3 \quad (+0.7\sigma)$	$f\sigma_8(0.15)$	$0.4485 \pm 0.0078 \quad (-0.5\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.963 \pm 0.012 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.736 \pm 0.015 \quad (-1.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.138 \pm 0.030 \quad (+0.1\sigma)$	Y_{P}	$0.2424 \pm 0.0047 \quad (-33.3\sigma)$	$f\sigma_8(0.38)$	$0.4667 \pm 0.0081 \quad (-0.8\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.479 \pm 0.087 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2437 \pm 0.0048 \quad (-33.3\sigma)$	$\sigma_8(0.38)$	$0.653 \pm 0.014 \quad (-1.5\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.505^{+0.089}_{-0.10} \quad (-1.3\sigma)$	$f\sigma_8(0.51)$	$0.4654 \pm 0.0083 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.081 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.99 \pm 0.34 \quad (+7.2\sigma)$	$\sigma_8(0.51)$	$0.611 \pm 0.013 \quad (-1.5\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.06 \pm 0.27 \quad (+0.0\sigma)$	z_{*}	$1089.25^{+0.64}_{-0.74} \quad (-1.2\sigma)$	$f\sigma_8(0.61)$	$0.4606 \pm 0.0084 \quad (-1.0\sigma)$
c_{100}	$1.00020 \pm 0.00071 \quad (+0.0\sigma)$	r_{*}	$146.8 \pm 3.4 \quad (+7.6\sigma)$	$\sigma_8(0.61)$	$0.581 \pm 0.013 \quad (-1.5\sigma)$
c_{217}	$0.99800 \pm 0.00065 \quad (-0.0\sigma)$	$100\theta_{*}$	$1.0421 \pm 0.0011 \quad (+1.5\sigma)$	$f\sigma_8(2.33)$	$0.2931 \pm 0.0065 \quad (-1.5\sigma)$
H_0	$66.8 \pm 2.0 \quad (-2.3\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.09 \pm 0.32 \quad (+7.1\sigma)$	$\sigma_8(2.33)$	$0.3022 \pm 0.0070 \quad (-1.5\sigma)$
Ω_{Λ}	$0.6893 \pm 0.0083 \quad (-0.5\sigma)$	z_{drag}	$1059.5 \pm 1.2 \quad (-1.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.2 \pm 1.9 \quad (-0.2\sigma)$
Ω_{m}	$0.3107 \pm 0.0083 \quad (+0.5\sigma)$	r_{drag}	$149.5 \pm 3.5 \quad (+6.9\sigma)$	χ_{small}^2	$396.9 \pm 1.9 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1384^{+0.0052}_{-0.0062} \quad (-3.4\sigma)$	k_{D}	$0.1393 \pm 0.0025 \quad (-3.3\sigma)$	χ_{plikTE}^2	$860.5 \pm 3.8 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0925^{+0.0058}_{-0.0069} \quad (-8.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16015 \pm 0.00085 \quad (-1.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.063 \pm 0.084 \quad (+0.5\sigma)$
σ_8	$0.797 \pm 0.016 \quad (-1.3\sigma)$	z_{eq}	$3391 \pm 31 \quad (+0.5\sigma)$	χ_{MGS}^2	$1.35 \pm 0.55 \quad (-0.3\sigma)$
S_8	$0.810 \pm 0.014 \quad (-0.4\sigma)$	k_{eq}	$0.01020^{+0.00018}_{-0.00022} \quad (-1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.7 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4439 \pm 0.0079 \quad (-0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8159 \pm 0.0058 \quad (-0.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.8 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.595 \pm 0.010 \quad (-0.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0029 \quad (-0.4\sigma)$	χ_{CMB}^2	$1267.6 \pm 4.3 \quad (+0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.975 \pm 0.010 \quad (-0.2\sigma)$	$H(0.15)$	$72.0 \pm 2.0 \quad (-2.7\sigma)$	χ_{BAO}^2	$6.2 \pm 1.4 \quad (+0.3\sigma)$
$r_{\mathrm{drag}}h$	$99.8 \pm 1.0 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$650 \pm 19 \quad (+2.7\sigma)$		
$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.029 \quad (+0.1\sigma)$	$H(0.38)$	$81.9 \pm 2.2 \quad (-3.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1281.35; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.66; R - 1 = 0.02891$$

7.31 base_nnu_plikHM_TE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02242 \pm 0.00029 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.401 \pm 0.031 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$642 \pm 20 \quad (+1.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1166^{+0.0056}_{-0.0067} \quad (-1.2\sigma)$	z_{re}	$7.41^{+0.31}_{-0.83} \quad (-0.0\sigma)$	$H(0.38)$	$82.8^{+2.2}_{-2.4} \quad (-1.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04160 \pm 0.00089 \quad (+0.6\sigma)$	$10^9 A_{\mathrm{s}}$	$2.052^{+0.037}_{-0.042} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1532 \pm 46 \quad (+1.4\sigma)$
τ	$0.0526^{+0.0038}_{-0.0072} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.847 \pm 0.029 \quad (-0.4\sigma)$	$H(0.51)$	$89.4^{+2.3}_{-2.6} \quad (-2.1\sigma)$
N_{eff}	$2.95^{+0.33}_{-0.39}$	D_{40}	$1217 \pm 25 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1985 \pm 58 \quad (+1.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.021 \pm 0.020 \quad (-0.2\sigma)$	D_{220}	$5694 \pm 58 \quad (-0.0\sigma)$	$H(0.61)$	$94.9^{+2.4}_{-2.7} \quad (-2.5\sigma)$
n_{s}	$0.964 \pm 0.013 \quad (-0.2\sigma)$	D_{810}	$2509 \pm 26 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311 \pm 67 \quad (+1.6\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.0\sigma)$	D_{1420}	$809 \pm 14 \quad (+0.2\sigma)$	$H(2.33)$	$234.0^{+5.0}_{-5.8} \quad (-1.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{2000}	$228.9 \pm 5.9 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5793 \pm 150 \quad (+3.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.964 \pm 0.013 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4429 \pm 0.0097 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.477 \pm 0.086 \quad (-0.0\sigma)$	Y_{P}	$0.2440 \pm 0.0051 \quad (-15.4\sigma)$	$\sigma_8(0.15)$	$0.734 \pm 0.017 \quad (-0.5\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.054 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2453 \pm 0.0051 \quad (-15.4\sigma)$	$f\sigma_8(0.38)$	$0.4624 \pm 0.0098 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.658 \pm 0.080 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.544^{+0.098}_{-0.11} \quad (-0.6\sigma)$	$\sigma_8(0.38)$	$0.651 \pm 0.015 \quad (-0.5\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.87 \pm 0.36 \quad (+3.4\sigma)$	$f\sigma_8(0.51)$	$0.4618 \pm 0.0098 \quad (-0.3\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (+0.0\sigma)$	z_*	$1089.46^{+0.71}_{-0.80} \quad (-0.6\sigma)$	$\sigma_8(0.51)$	$0.610 \pm 0.014 \quad (-0.6\sigma)$
c_{217}	$0.99798 \pm 0.00065 \quad (-0.0\sigma)$	r_*	$145.9 \pm 3.7 \quad (+3.1\sigma)$	$f\sigma_8(0.61)$	$0.4574 \pm 0.0098 \quad (-0.3\sigma)$
H_0	$67.7 \pm 2.1 \quad (-1.0\sigma)$	$100\theta_*$	$1.0418 \pm 0.0011 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.580 \pm 0.014 \quad (-0.6\sigma)$
Ω_{Λ}	$0.6951 \pm 0.0087 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.00 \pm 0.34 \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.2928 \pm 0.0071 \quad (-0.6\sigma)$
Ω_{m}	$0.3049 \pm 0.0087 \quad (+0.2\sigma)$	z_{drag}	$1059.7 \pm 1.3 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3022 \pm 0.0075 \quad (-0.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1397^{+0.0057}_{-0.0068} \quad (-1.3\sigma)$	r_{drag}	$148.6 \pm 3.8 \quad (+2.8\sigma)$	χ_{simall}^2	$396.4 \pm 1.2 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0947^{+0.0063}_{-0.0078} \quad (-3.2\sigma)$	k_{D}	$0.1398 \pm 0.0027 \quad (-1.3\sigma)$	χ_{plikTE}^2	$860.1 \pm 3.8 \quad (+0.2\sigma)$
σ_8	$0.793 \pm 0.018 \quad (-0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16053^{+0.00087}_{-0.00097} \quad (-0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.048 \pm 0.070 \quad (+0.2\sigma)$
S_8	$0.800 \pm 0.018 \quad (-0.1\sigma)$	z_{eq}	$3366 \pm 34 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.78 \pm 0.65 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4379 \pm 0.0098 \quad (-0.1\sigma)$	k_{eq}	$0.01020^{+0.00020}_{-0.00024} \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.2 \pm 1.2 \quad (+0.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.589 \pm 0.013 \quad (-0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8205 \pm 0.0063 \quad (-0.2\sigma)$	χ_{prior}^2	$7.5 \pm 3.7 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.964 \pm 0.013 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4531 \pm 0.0032 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.0 \pm 1.2 \quad (+0.1\sigma)$
$r_{\mathrm{drag}} h$	$100.5 \pm 1.1 \quad (-0.2\sigma)$	$H(0.15)$	$72.9^{+2.1}_{-2.3} \quad (-1.2\sigma)$	χ_{CMB}^2	$1256.5 \pm 4.1 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1269.92; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.92; R - 1 = 0.01050$$

7.32 base_nnu_plikHM_TE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02241 \pm 0.00028 \quad (-0.4\sigma)$	z_{re}	$7.71^{+0.56}_{-0.74} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1550 \pm 43 \quad (+3.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1154^{+0.0051}_{-0.0060} \quad (-3.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.075^{+0.034}_{-0.039} \quad (-0.5\sigma)$	$H(0.51)$	$88.6 \pm 2.3 \quad (-4.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04179 \pm 0.00086 \quad (+1.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.856 \pm 0.026 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2008 \pm 55 \quad (+3.2\sigma)$
τ	$0.0558^{+0.0054}_{-0.0072} \quad (+0.0\sigma)$	D_{40}	$1225 \pm 25 \quad (+0.1\sigma)$	$H(0.61)$	$94.1 \pm 2.3 \quad (-5.5\sigma)$
N_{eff}	$2.83^{+0.31}_{-0.35}$	D_{220}	$5722 \pm 55 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2336 \pm 63 \quad (+3.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.033^{+0.016}_{-0.018} \quad (-0.6\sigma)$	D_{810}	$2532 \pm 21 \quad (+0.2\sigma)$	$H(2.33)$	$232.8^{+4.7}_{-5.3} \quad (-4.5\sigma)$
n_{s}	$0.963 \pm 0.012 \quad (-0.4\sigma)$	D_{1420}	$820 \pm 12 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5842 \pm 140 \quad (+6.8\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{2000}	$233.0 \pm 5.3 \quad (+0.7\sigma)$	$f\sigma_8(0.15)$	$0.4487^{+0.0072}_{-0.0080} \quad (-0.5\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.963 \pm 0.012 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.737 \pm 0.015 \quad (-1.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.138 \pm 0.029 \quad (+0.1\sigma)$	Y_{P}	$0.2424 \pm 0.0048 \quad (-32.9\sigma)$	$f\sigma_8(0.38)$	$0.4670 \pm 0.0081 \quad (-0.7\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.479 \pm 0.087 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2437 \pm 0.0048 \quad (-32.9\sigma)$	$\sigma_8(0.38)$	$0.653 \pm 0.014 \quad (-1.5\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.506^{+0.090}_{-0.10} \quad (-1.3\sigma)$	$f\sigma_8(0.51)$	$0.4658 \pm 0.0082 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.661 \pm 0.081 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.99 \pm 0.34 \quad (+7.1\sigma)$	$\sigma_8(0.51)$	$0.611 \pm 0.013 \quad (-1.5\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.06 \pm 0.27 \quad (+0.0\sigma)$	z_{*}	$1089.25^{+0.65}_{-0.74} \quad (-1.2\sigma)$	$f\sigma_8(0.61)$	$0.4610 \pm 0.0083 \quad (-1.0\sigma)$
c_{100}	$1.00020 \pm 0.00071 \quad (+0.0\sigma)$	r_{*}	$146.8 \pm 3.4 \quad (+7.5\sigma)$	$\sigma_8(0.61)$	$0.582 \pm 0.013 \quad (-1.5\sigma)$
c_{217}	$0.99799 \pm 0.00065 \quad (-0.0\sigma)$	$100\theta_{*}$	$1.0421 \pm 0.0011 \quad (+1.5\sigma)$	$f\sigma_8(2.33)$	$0.2934 \pm 0.0065 \quad (-1.6\sigma)$
H_0	$66.8 \pm 2.0 \quad (-2.3\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$14.09 \pm 0.32 \quad (+7.0\sigma)$	$\sigma_8(2.33)$	$0.3026 \pm 0.0069 \quad (-1.6\sigma)$
Ω_{Λ}	$0.6896 \pm 0.0083 \quad (-0.5\sigma)$	z_{drag}	$1059.5 \pm 1.2 \quad (-1.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.1 \pm 1.8 \quad (-0.2\sigma)$
Ω_{m}	$0.3104 \pm 0.0083 \quad (+0.5\sigma)$	r_{drag}	$149.5 \pm 3.5 \quad (+6.8\sigma)$	χ_{small}^2	$396.9 \pm 1.9 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1384^{+0.0053}_{-0.0062} \quad (-3.4\sigma)$	k_{D}	$0.1393 \pm 0.0025 \quad (-3.3\sigma)$	χ_{plikTE}^2	$860.4 \pm 3.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0926^{+0.0058}_{-0.0070} \quad (-7.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16016 \pm 0.00085 \quad (-1.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.061 \pm 0.081 \quad (+0.4\sigma)$
σ_8	$0.797 \pm 0.016 \quad (-1.4\sigma)$	z_{eq}	$3390 \pm 31 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.37 \pm 0.55 \quad (-0.3\sigma)$
S_8	$0.811^{+0.013}_{-0.015} \quad (-0.4\sigma)$	k_{eq}	$0.01019^{+0.00018}_{-0.00022} \quad (-1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.6 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4441^{+0.0072}_{-0.0080} \quad (-0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8161 \pm 0.0058 \quad (-0.4\sigma)$	χ_{prior}^2	$7.5 \pm 3.8 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.595 \pm 0.010 \quad (-0.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4508 \pm 0.0029 \quad (-0.4\sigma)$	χ_{CMB}^2	$1267.4 \pm 4.2 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.9756 \pm 0.0097 \quad (-0.2\sigma)$	$H(0.15)$	$72.0 \pm 2.0 \quad (-2.7\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.3\sigma)$
$r_{\mathrm{drag}}h$	$99.79 \pm 0.99 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$650 \pm 19 \quad (+2.6\sigma)$		
$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.028 \quad (+0.1\sigma)$	$H(0.38)$	$82.0 \pm 2.2 \quad (-3.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1281.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.53; R - 1 = 0.03229$$

7.33 base_nnu_plikHM_EE_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02342	$0.02296^{+0.00095}_{-0.00082}$ (-0.8σ)	D_{810}	2611.9	2589 ± 36 $(+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	2052	2075^{+140}_{-160} $(+6.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.1056	$0.106^{+0.014}_{-0.017}$ (-8.1σ)	D_{1420}	862.6	854 ± 26 $(+1.1\sigma)$	$H(0.61)$	91.7	91.3 ± 6.3 (-8.6σ)
$100\theta_{\mathrm{MC}}$	1.04152	$1.0421^{+0.0022}_{-0.0033}$ $(+2.8\sigma)$	D_{2000}	250.4	248 ± 13 $(+1.6\sigma)$	$D_{\mathrm{M}}(0.61)$	2389	2415^{+160}_{-190} $(+6.8\sigma)$
τ	0.0522	$0.0514^{+0.0085}_{-0.0077}$ (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9643	0.962 ± 0.020 (-1.4σ)	$H(2.33)$	225.7	225 ± 14 (-11.1σ)
N_{eff}	2.37	$2.37^{+0.81}_{-0.97}$	Y_{P}	0.2363	0.235 ± 0.014 (-41.0σ)	$D_{\mathrm{M}}(2.33)$	5996	6051^{+370}_{-450} $(+11.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0317	$3.015^{+0.051}_{-0.038}$ (-1.6σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2376	0.236 ± 0.014 (-41.1σ)	$f\sigma_8(0.15)$	0.4293	0.429 ± 0.023 (-1.7σ)
n_{s}	0.9643	0.962 ± 0.020 (-1.4σ)	$10^5 D/H$	2.182	$2.25^{+0.21}_{-0.24}$ (-1.4σ)	$\sigma_8(0.15)$	0.7136	0.709 ± 0.043 (-3.7σ)
y_{cal}	1.00042	0.99997 ± 0.0025 (-0.0σ)	Age/Gyr	14.36	$14.49^{+0.89}_{-1.1}$ $(+11.3\sigma)$	$f\sigma_8(0.38)$	0.4487	0.447 ± 0.024 (-2.2σ)
H_0	65.49	65.0 ± 4.9 (-4.4σ)	z_*	1086.77	$1087.2^{+1.6}_{-1.9}$ (-1.5σ)	$\sigma_8(0.38)$	0.6336	0.629 ± 0.039 (-3.9σ)
Ω_{Λ}	0.6976	$0.694^{+0.013}_{-0.011}$ (-0.7σ)	r_*	151.2	$152.5^{+9.4}_{-11}$ $(+15.8\sigma)$	$f\sigma_8(0.51)$	0.4484	0.447 ± 0.025 (-2.5σ)
Ω_{m}	0.3024	$0.306^{+0.011}_{-0.013}$ $(+0.7\sigma)$	$100\theta_*$	1.04203	$1.0427^{+0.0028}_{-0.0040}$ $(+3.4\sigma)$	$\sigma_8(0.51)$	0.5933	0.589 ± 0.037 (-3.9σ)
$\Omega_{\mathrm{m}}h^2$	0.1297	$0.130^{+0.015}_{-0.018}$ (-8.8σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.51	$14.62^{+0.87}_{-1.0}$ $(+14.7\sigma)$	$f\sigma_8(0.61)$	0.4444	0.442 ± 0.025 (-2.7σ)
$\Omega_{\mathrm{m}}h^3$	0.0849	$0.085^{+0.014}_{-0.019}$ (-10.2σ)	z_{drag}	1060.77	$1059.6^{+3.8}_{-3.4}$ (-1.8σ)	$\sigma_8(0.61)$	0.5648	0.561 ± 0.035 (-4.0σ)
σ_8	0.7713	0.767 ± 0.046 (-3.5σ)	r_{drag}	153.6	$155.1^{+9.6}_{-12}$ $(+12.3\sigma)$	$f\sigma_8(2.33)$	0.2852	0.283 ± 0.018 (-4.0σ)
S_8	0.7744	0.774 ± 0.040 (-1.5σ)	k_{D}	0.1376	0.1366 ± 0.0074 (-4.9σ)	$\sigma_8(2.33)$	0.2944	0.292 ± 0.019 (-4.1σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4242	0.424 ± 0.022 (-1.5σ)	$100\theta_{\mathrm{D}}$	0.15735	$0.1579^{+0.0019}_{-0.0022}$ (-1.7σ)	χ_{small}^2	395.54	396.7 ± 1.6 (-0.0σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5720	0.570 ± 0.032 (-2.3σ)	z_{eq}	3391.6	3390^{+39}_{-44} $(+0.6\sigma)$	χ_{plikEE}^2	738.76	743.5 ± 3.2 $(+0.1\sigma)$
$\sigma_8/h^{0.5}$	0.9531	$0.951^{+0.028}_{-0.023}$ (-1.1σ)	k_{eq}	0.00987	0.00984 ± 0.00060 (-4.4σ)	$\chi_{6\mathrm{DF}}^2$	0.0003	0.064 ± 0.088 $(+0.1\sigma)$
$r_{\mathrm{drag}}h$	100.58	100.3 ± 1.2 (-0.4σ)	$100\theta_{\mathrm{eq}}$	0.8181	0.8175 ± 0.0075 (-0.6σ)	χ_{MGS}^2	1.75	1.70 ± 0.73 (-0.3σ)
$\langle d^2 \rangle^{1/2}$	2.3977	2.390 ± 0.038 (-0.4σ)	$100\theta_{\mathrm{s,eq}}$	0.45109	0.4511 ± 0.0036 (-0.5σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.56	4.5 ± 1.5 $(+0.0\sigma)$
z_{re}	6.95	$6.92^{+0.88}_{-0.76}$ (-0.3σ)	$H(0.15)$	70.5	70.0 ± 5.2 (-5.1σ)	χ_{prior}^2	0.028	0.98 ± 1.4 (-0.0σ)
$10^9 A_{\mathrm{s}}$	2.073	$2.04^{+0.10}_{-0.081}$ (-1.5σ)	$D_{\mathrm{M}}(0.15)$	662.6	671^{+45}_{-55} $(+5.5\sigma)$	χ_{BAO}^2	5.30	6.2 ± 1.4 (-0.1σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.868	$1.842^{+0.087}_{-0.064}$ (-2.4σ)	$H(0.38)$	80.0	79.6 ± 5.7 (-6.6σ)	χ_{CMB}^2	1134.30	1140.2 ± 3.5 $(+0.1\sigma)$
D_{40}	1246.9	1235 ± 31 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1583	1601^{+110}_{-130} $(+6.1\sigma)$			
D_{220}	5969	5880 ± 130 (-0.1σ)	$H(0.51)$	86.4	85.9 ± 6.0 (-7.6σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1139.64$; $\Delta\chi_{\mathrm{eff}}^2 = -0.53$; $\bar{\chi}_{\mathrm{eff}}^2 = 1147.36$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.01$; $R - 1 = 0.00877$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.75 (Δ -0.14) DR12BAO: 3.56 (Δ -0.04) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.54 (Δ -0.07) plik_rd12_HM_v22_EE: 738.76 (Δ -0.28)

7.34 base_nnu_plikHM_EE_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02296 \pm 0.00073 \quad (-0.8\sigma)$	D_{810}	$2586 \pm 29 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$2065^{+110}_{-120} \quad (+6.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.106^{+0.011}_{-0.012} \quad (-8.1\sigma)$	D_{1420}	$852 \pm 21 \quad (+1.4\sigma)$	$H(0.61)$	$91.5 \pm 4.8 \quad (-8.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0418^{+0.0018}_{-0.0025} \quad (+2.4\sigma)$	D_{2000}	$247 \pm 10 \quad (+2.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2404^{+120}_{-140} \quad (+6.5\sigma)$
τ	$0.0513^{+0.0081}_{-0.0072} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.963 \pm 0.015 \quad (-1.2\sigma)$	$H(2.33)$	$226 \pm 11 \quad (-12.9\sigma)$
N_{eff}	$2.40^{+0.62}_{-0.71}$	Y_{P}	$0.236 \pm 0.010 \quad (-44.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$6023^{+290}_{-330} \quad (+11.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.018^{+0.033}_{-0.028} \quad (-1.7\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.237 \pm 0.010 \quad (-44.6\sigma)$	$f\sigma_8(0.15)$	$0.430 \pm 0.016 \quad (-1.5\sigma)$
n_{s}	$0.963 \pm 0.015 \quad (-1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.26 \pm 0.17 \quad (-1.5\sigma)$	$\sigma_8(0.15)$	$0.712 \pm 0.030 \quad (-4.1\sigma)$
y_{cal}	$0.9999 \pm 0.0024 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.42^{+0.68}_{-0.78} \quad (+11.5\sigma)$	$f\sigma_8(0.38)$	$0.449 \pm 0.017 \quad (-2.1\sigma)$
H_0	$65.2 \pm 3.8 \quad (-4.4\sigma)$	z_*	$1087.3 \pm 1.3 \quad (-1.6\sigma)$	$\sigma_8(0.38)$	$0.632 \pm 0.028 \quad (-4.4\sigma)$
Ω_{Λ}	$0.694^{+0.012}_{-0.010} \quad (-0.8\sigma)$	r_*	$151.7^{+7.1}_{-8.2} \quad (+19.4\sigma)$	$f\sigma_8(0.51)$	$0.448 \pm 0.017 \quad (-2.5\sigma)$
Ω_{m}	$0.306^{+0.010}_{-0.012} \quad (+0.8\sigma)$	$100\theta_*$	$1.0424^{+0.0023}_{-0.0030} \quad (+3.0\sigma)$	$\sigma_8(0.51)$	$0.591 \pm 0.026 \quad (-4.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.130^{+0.011}_{-0.013} \quad (-9.8\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.55^{+0.65}_{-0.74} \quad (+17.1\sigma)$	$f\sigma_8(0.61)$	$0.444 \pm 0.017 \quad (-2.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.085^{+0.011}_{-0.014} \quad (-12.0\sigma)$	z_{drag}	$1059.7 \pm 2.8 \quad (-2.0\sigma)$	$\sigma_8(0.61)$	$0.563 \pm 0.025 \quad (-4.5\sigma)$
σ_8	$0.770 \pm 0.032 \quad (-3.9\sigma)$	r_{drag}	$154.3^{+7.3}_{-8.5} \quad (+14.9\sigma)$	$f\sigma_8(2.33)$	$0.284 \pm 0.013 \quad (-4.6\sigma)$
S_8	$0.776 \pm 0.028 \quad (-1.3\sigma)$	k_{D}	$0.1369 \pm 0.0055 \quad (-5.9\sigma)$	$\sigma_8(2.33)$	$0.293 \pm 0.014 \quad (-4.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.425 \pm 0.015 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1580 \pm 0.0016 \quad (-2.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.2 \pm 1.2 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.572 \pm 0.022 \quad (-2.3\sigma)$	z_{eq}	$3387 \pm 36 \quad (+0.8\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.953^{+0.018}_{-0.016} \quad (-0.9\sigma)$	k_{eq}	$0.00986 \pm 0.00043 \quad (-4.8\sigma)$	χ_{plikEE}^2	$742.5 \pm 2.7 \quad (-0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.3 \pm 1.2 \quad (-0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0068 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.061 \pm 0.085 \quad (+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.391 \pm 0.031 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4514 \pm 0.0032 \quad (-0.7\sigma)$	χ_{MGS}^2	$1.68 \pm 0.71 \quad (-0.4\sigma)$
z_{re}	$6.94^{+0.83}_{-0.71} \quad (-0.2\sigma)$	$H(0.15)$	$70.2 \pm 4.0 \quad (-5.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.4 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	$2.047^{+0.067}_{-0.060} \quad (-1.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$668^{+35}_{-41} \quad (+5.2\sigma)$	χ_{prior}^2	$0.96 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.847^{+0.059}_{-0.048} \quad (-2.9\sigma)$	$H(0.38)$	$79.8 \pm 4.3 \quad (-6.6\sigma)$	χ_{CMB}^2	$1148.2 \pm 3.5 \quad (-0.0\sigma)$
D_{40}	$1234 \pm 28 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1593^{+83}_{-95} \quad (+5.8\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (-0.1\sigma)$
D_{220}	$5873 \pm 110 \quad (-0.1\sigma)$	$H(0.51)$	$86.2 \pm 4.6 \quad (-7.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1155.37$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.32$; $R - 1 = 0.00317$

7.35 base_nnu_plikHM_EE_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02301^{+0.00093}_{-0.00082} \quad (-0.7\sigma)$	D_{810}	$2586 \pm 36 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$2058^{+130}_{-160} \quad (+5.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.108^{+0.014}_{-0.017} \quad (-6.8\sigma)$	D_{1420}	$851 \pm 26 \quad (+0.9\sigma)$	$H(0.61)$	$92.0 \pm 6.2 \quad (-7.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0418^{+0.0021}_{-0.0032} \quad (+2.4\sigma)$	D_{2000}	$246 \pm 12 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2395^{+150}_{-180} \quad (+5.8\sigma)$
τ	$0.0553^{+0.0044}_{-0.0070} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.964 \pm 0.019 \quad (-1.2\sigma)$	$H(2.33)$	$227 \pm 14 \quad (-9.5\sigma)$
N_{eff}	$2.47^{+0.81}_{-0.96}$	Y_{P}	$0.237 \pm 0.013 \quad (-35.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$6004^{+360}_{-440} \quad (+9.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.028^{+0.046}_{-0.034} \quad (-1.4\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.238 \pm 0.013 \quad (-35.0\sigma)$	$f\sigma_8(0.15)$	$0.433 \pm 0.022 \quad (-1.5\sigma)$
n_{s}	$0.964 \pm 0.019 \quad (-1.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.27^{+0.20}_{-0.24} \quad (-1.2\sigma)$	$\sigma_8(0.15)$	$0.717 \pm 0.042 \quad (-3.5\sigma)$
y_{cal}	$0.99995 \pm 0.0025 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.38^{+0.87}_{-1.0} \quad (+9.6\sigma)$	$f\sigma_8(0.38)$	$0.452 \pm 0.024 \quad (-1.9\sigma)$
H_0	$65.6 \pm 4.9 \quad (-3.7\sigma)$	z_*	$1087.4^{+1.6}_{-1.8} \quad (-1.3\sigma)$	$\sigma_8(0.38)$	$0.636 \pm 0.038 \quad (-3.7\sigma)$
Ω_{Λ}	$0.695^{+0.012}_{-0.011} \quad (-0.6\sigma)$	r_*	$151.3^{+9.1}_{-11} \quad (+13.5\sigma)$	$f\sigma_8(0.51)$	$0.451 \pm 0.024 \quad (-2.2\sigma)$
Ω_{m}	$0.305^{+0.011}_{-0.012} \quad (+0.6\sigma)$	$100\theta_*$	$1.0423^{+0.0027}_{-0.0039} \quad (+2.9\sigma)$	$\sigma_8(0.51)$	$0.596 \pm 0.035 \quad (-3.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.131^{+0.015}_{-0.018} \quad (-7.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.51^{+0.84}_{-1.0} \quad (+12.5\sigma)$	$f\sigma_8(0.61)$	$0.447 \pm 0.024 \quad (-2.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.087^{+0.014}_{-0.019} \quad (-8.7\sigma)$	z_{drag}	$1060.0^{+3.8}_{-3.3} \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.567 \pm 0.034 \quad (-3.8\sigma)$
σ_8	$0.775 \pm 0.044 \quad (-3.3\sigma)$	r_{drag}	$153.8^{+9.4}_{-11} \quad (+10.5\sigma)$	$f\sigma_8(2.33)$	$0.286 \pm 0.017 \quad (-3.8\sigma)$
S_8	$0.781 \pm 0.039 \quad (-1.3\sigma)$	k_{D}	$0.1374 \pm 0.0073 \quad (-4.2\sigma)$	$\sigma_8(2.33)$	$0.295 \pm 0.018 \quad (-3.9\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.428 \pm 0.021 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1581^{+0.0019}_{-0.0021} \quad (-1.4\sigma)$	χ_{simall}^2	$396.4 \pm 1.4 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.576 \pm 0.030 \quad (-2.1\sigma)$	z_{eq}	$3387^{+38}_{-43} \quad (+0.5\sigma)$	χ_{plikEE}^2	$743.4 \pm 3.1 \quad (+0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.957^{+0.025}_{-0.021} \quad (-1.0\sigma)$	k_{eq}	$0.00991 \pm 0.00059 \quad (-3.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.063 \pm 0.087 \quad (+0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.2 \quad (-0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8181 \pm 0.0074 \quad (-0.5\sigma)$	χ_{MGS}^2	$1.73 \pm 0.73 \quad (-0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.401 \pm 0.035 \quad (-0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4514 \pm 0.0035 \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.4 \quad (+0.0\sigma)$
z_{re}	$< 7.55 \quad (-0.2\sigma)$	$H(0.15)$	$70.6 \pm 5.1 \quad (-4.3\sigma)$	χ_{prior}^2	$0.97 \pm 1.4 \quad (-0.0\sigma)$
10^9A_{s}	$2.066^{+0.092}_{-0.074} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$665^{+44}_{-53} \quad (+4.7\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (-0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.850^{+0.085}_{-0.063} \quad (-2.1\sigma)$	$H(0.38)$	$80.2 \pm 5.6 \quad (-5.6\sigma)$	χ_{CMB}^2	$1139.8 \pm 3.4 \quad (+0.0\sigma)$
D_{40}	$1234 \pm 31 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1588^{+100}_{-120} \quad (+5.2\sigma)$		
D_{220}	$5875 \pm 130 \quad (-0.1\sigma)$	$H(0.51)$	$86.6 \pm 5.9 \quad (-6.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1147.01$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.05$; $R - 1 = 0.00611$

7.36 base_nnu_plikHM_EE_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02292 \pm 0.00073 \quad (-0.8\sigma)$	D_{810}	$2582 \pm 28 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2060^{+110}_{-120} \quad (+5.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.107^{+0.011}_{-0.013} \quad (-7.6\sigma)$	D_{1420}	$850 \pm 21 \quad (+1.3\sigma)$	$H(0.61)$	$91.7 \pm 4.8 \quad (-8.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0417^{+0.0018}_{-0.0025} \quad (+2.3\sigma)$	D_{2000}	$246 \pm 10 \quad (+1.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2398^{+120}_{-140} \quad (+6.1\sigma)$
τ	$0.0549^{+0.0039}_{-0.0067} \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.964 \pm 0.016 \quad (-1.1\sigma)$	$H(2.33)$	$226 \pm 11 \quad (-12.4\sigma)$
N_{eff}	2.44 ± 0.69	Y_{P}	$0.237 \pm 0.010 \quad (-42.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$6009^{+290}_{-330} \quad (+10.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.025^{+0.032}_{-0.026} \quad (-1.8\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.238 \pm 0.010 \quad (-42.4\sigma)$	$f\sigma_8(0.15)$	$0.432 \pm 0.016 \quad (-1.4\sigma)$
n_{s}	$0.964 \pm 0.016 \quad (-1.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.28 \pm 0.17 \quad (-1.5\sigma)$	$\sigma_8(0.15)$	$0.715 \pm 0.030 \quad (-4.4\sigma)$
y_{cal}	$0.9998 \pm 0.0024 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.39^{+0.69}_{-0.80} \quad (+10.9\sigma)$	$f\sigma_8(0.38)$	$0.451 \pm 0.017 \quad (-2.1\sigma)$
H_0	$65.4 \pm 3.9 \quad (-4.1\sigma)$	z_*	$1087.5 \pm 1.3 \quad (-1.5\sigma)$	$\sigma_8(0.38)$	$0.635 \pm 0.028 \quad (-4.8\sigma)$
Ω_{Λ}	$0.695^{+0.012}_{-0.010} \quad (-0.7\sigma)$	r_*	$151.4^{+7.2}_{-8.4} \quad (+18.9\sigma)$	$f\sigma_8(0.51)$	$0.450 \pm 0.017 \quad (-2.5\sigma)$
Ω_{m}	$0.305^{+0.010}_{-0.012} \quad (+0.7\sigma)$	$100\theta_*$	$1.0423^{+0.0023}_{-0.0030} \quad (+2.8\sigma)$	$\sigma_8(0.51)$	$0.594 \pm 0.026 \quad (-4.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.131^{+0.011}_{-0.013} \quad (-9.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.52^{+0.66}_{-0.76} \quad (+16.5\sigma)$	$f\sigma_8(0.61)$	$0.446 \pm 0.017 \quad (-2.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.086^{+0.011}_{-0.014} \quad (-11.4\sigma)$	z_{drag}	$1059.7 \pm 2.8 \quad (-2.0\sigma)$	$\sigma_8(0.61)$	$0.566 \pm 0.025 \quad (-4.9\sigma)$
σ_8	$0.773 \pm 0.032 \quad (-4.1\sigma)$	r_{drag}	$154.0^{+7.4}_{-8.7} \quad (+14.5\sigma)$	$f\sigma_8(2.33)$	$0.286 \pm 0.013 \quad (-5.0\sigma)$
S_8	$0.780 \pm 0.028 \quad (-1.3\sigma)$	k_{D}	$0.1371 \pm 0.0056 \quad (-5.7\sigma)$	$\sigma_8(2.33)$	$0.295 \pm 0.014 \quad (-5.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.427 \pm 0.015 \quad (-1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1581 \pm 0.0016 \quad (-1.9\sigma)$	$\chi^2_{\mathrm{lensing}}$	$9.1 \pm 1.2 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.575 \pm 0.022 \quad (-2.2\sigma)$	z_{eq}	$3383^{+34}_{-38} \quad (+0.7\sigma)$	χ^2_{small}	$396.3 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.957 \pm 0.017 \quad (-0.9\sigma)$	k_{eq}	$0.00988 \pm 0.00044 \quad (-4.6\sigma)$	χ^2_{plikEE}	$742.4 \pm 2.6 \quad (-0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.4 \pm 1.2 \quad (-0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8185 \pm 0.0068 \quad (-0.7\sigma)$	$\chi^2_{6\mathrm{DF}}$	$0.061 \pm 0.086 \quad (+0.1\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.398 \pm 0.029 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0032 \quad (-0.6\sigma)$	χ^2_{MGS}	$1.72 \pm 0.71 \quad (-0.4\sigma)$
z_{re}	$< 7.51 \quad (-0.1\sigma)$	$H(0.15)$	$70.4 \pm 4.0 \quad (-4.8\sigma)$	$\chi^2_{\mathrm{DR12BAO}}$	$4.4 \pm 1.4 \quad (+0.1\sigma)$
10^9A_{s}	$2.061^{+0.065}_{-0.055} \quad (-1.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$666^{+36}_{-42} \quad (+4.9\sigma)$	χ^2_{prior}	$0.9 \pm 1.3 \quad (-0.0\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.847^{+0.060}_{-0.049} \quad (-2.9\sigma)$	$H(0.38)$	$80.0 \pm 4.4 \quad (-6.2\sigma)$	χ^2_{CMB}	$1147.9 \pm 3.4 \quad (-0.1\sigma)$
D_{40}	$1232 \pm 27 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1589^{+84}_{-97} \quad (+5.5\sigma)$	χ^2_{BAO}	$6.2 \pm 1.4 \quad (-0.1\sigma)$
D_{220}	$5860 \pm 110 \quad (-0.1\sigma)$	$H(0.51)$	$86.4 \pm 4.6 \quad (-7.3\sigma)$		

$\bar{\chi}^2_{\mathrm{eff}} = 1155.01$; $\Delta\bar{\chi}^2_{\mathrm{eff}} = -0.38$; $R - 1 = 0.00359$

7.37 base_nnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022244	0.02227 ± 0.00023 (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9823	0.983 ± 0.012 (+0.1 σ)	$D_{\mathrm{M}}(0.38)$	1525.5	1518 ± 30 (−1.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11934	0.1206 ± 0.0039 (+1.3 σ)	$r_{\mathrm{drag}}h$	99.87	99.96 ± 1.0 (+0.2 σ)	$H(0.51)$	89.87	90.3 ± 1.6 (+2.3 σ)
$100\theta_{\mathrm{MC}}$	1.04094	1.04085 ± 0.00056 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4251	2.426 ± 0.028 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1976.5	1967 ± 38 (−1.4 σ)
τ	0.0545	0.0539 ± 0.0080 (+0.0 σ)	z_{re}	7.72	7.67 ± 0.83 (+0.0 σ)	$H(0.61)$	95.47	96.0 ± 1.6 (+2.8 σ)
N_{eff}	3.075	3.15 ± 0.23	$10^9 A_{\mathrm{s}}$	2.0950	2.100 ± 0.042 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2300.2	2289 ± 43 (−1.5 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0421	3.044 ± 0.020 (+0.2 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8787	1.885 ± 0.021 (+0.6 σ)	$H(2.33)$	236.10	237.1 ± 3.4 (+1.8 σ)
n_{s}	0.9686	0.9696 ± 0.0084 (+0.7 σ)	D_{40}	1221.3	1222 ± 15 (−0.3 σ)	$D_{\mathrm{M}}(2.33)$	5754	5728 ± 93 (−3.2 σ)
y_{cal}	1.00034	1.0006 ± 0.0025 (+0.0 σ)	D_{220}	5713.9	5719 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4546	0.4557 ± 0.0085 (+0.2 σ)
A_{217}^{CIB}	49.7	48 ± 7 (+0.1 σ)	D_{810}	2536.1	2537 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7477	0.750 ± 0.013 (+0.6 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.19	—	D_{1420}	815.8	814.9 ± 5.2 (−0.1 σ)	$f\sigma_8(0.38)$	0.4734	0.4748 ± 0.0081 (+0.3 σ)
A_{143}^{tSZ}	7.05	4.9 ± 2.0 (−0.1 σ)	D_{2000}	230.01	229.4 ± 2.2 (−0.3 σ)	$\sigma_8(0.38)$	0.6630	0.666 ± 0.012 (+0.7 σ)
A_{100}^{PS}	256.6	266 ± 29 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9686	0.9696 ± 0.0084 (+0.7 σ)	$f\sigma_8(0.51)$	0.4723	0.4737 ± 0.0079 (+0.4 σ)
A_{143}^{PS}	47.6	50 ± 9 (+0.2 σ)	Y_{P}	0.24573	0.2466 ± 0.0031 (+15.5 σ)	$\sigma_8(0.51)$	0.6206	0.623 ± 0.011 (+0.7 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	43.4	44_{-10}^{+9} (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24706	0.2480 ± 0.0031 (+15.5 σ)	$f\sigma_8(0.61)$	0.4675	0.4690 ± 0.0077 (+0.4 σ)
A_{217}^{PS}	117.6	115 ± 10 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.620	2.640 ± 0.067 (+0.7 σ)	$\sigma_8(0.61)$	0.5906	0.593 ± 0.010 (+0.7 σ)
A^{kSZ}	0.00	< 5.15 (+0.1 σ)	Age/Gyr	13.777	13.71 ± 0.22 (−3.3 σ)	$f\sigma_8(2.33)$	0.2979	0.2991 ± 0.0054 (+0.8 σ)
$A_{100}^{\mathrm{dustTT}}$	8.86	9.0 ± 1.8 (+0.0 σ)	z_*	1090.051	1090.19 ± 0.49 (+0.6 σ)	$\sigma_8(2.33)$	0.3072	0.3085 ± 0.0057 (+0.8 σ)
$A_{143}^{\mathrm{dustTT}}$	10.81	10.8 ± 1.8 (−0.0 σ)	r_*	144.55	143.9 ± 2.2 (−2.8 σ)	f_{2000}^{143}	30.47	31.7 ± 3.4 (+0.3 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.15	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.04111	1.04098 ± 0.00067 (−0.5 σ)	$f_{2000}^{143 \times 217}$	33.22	33.9 ± 2.5 (+0.3 σ)
$A_{217}^{\mathrm{dustTT}}$	94.1	93.2 ± 7.4 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.884	13.82 ± 0.20 (−2.7 σ)	f_{2000}^{217}	107.69	108.5 ± 2.3 (+0.3 σ)
c_{100}	0.99965	0.99961 ± 0.00061 (+0.0 σ)	z_{drag}	1059.63	1059.81 ± 0.86 (+0.7 σ)	χ_{small}^2	396.05	397.1 ± 1.9 (−0.0 σ)
c_{217}	0.99825	0.99828 ± 0.00062 (+0.0 σ)	r_{drag}	147.26	146.6 ± 2.3 (−2.7 σ)	χ_{lowl}^2	22.69	22.8 ± 1.1 (−0.3 σ)
H_0	67.82	68.2 ± 1.5 (+1.1 σ)	k_{D}	0.14048	0.1410 ± 0.0017 (+1.5 σ)	χ_{plik}^2	760.2	773.2 ± 5.7 (+0.2 σ)
Ω_{Λ}	0.6908	0.6914 ± 0.0083 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.16107	0.16125 ± 0.00058 (+0.9 σ)	$\chi_{6\mathrm{DF}}^2$	0.0157	0.057 ± 0.076 (−0.0 σ)
Ω_{m}	0.3092	0.3086 ± 0.0083 (−0.2 σ)	z_{eq}	3370.5	3368 ± 31 (−0.2 σ)	χ_{MGS}^2	1.34	1.47 ± 0.60 (+0.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.14223	0.1435 ± 0.0040 (+1.4 σ)	k_{eq}	0.010307	0.01035 ± 0.00015 (+0.6 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.05	4.7 ± 1.6 (−0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09646	$0.0979_{-0.0048}^{+0.0043}$ (+4.4 σ)	$100\theta_{\mathrm{eq}}$	0.8187	0.8192 ± 0.0059 (+0.2 σ)	χ_{prior}^2	1.38	7.3 ± 3.7 (−0.0 σ)
σ_8	0.8089	0.812 ± 0.014 (+0.6 σ)	$100\theta_{\mathrm{s,eq}}$	0.45229	0.4525 ± 0.0030 (+0.2 σ)	χ_{BAO}^2	5.41	6.2 ± 1.3 (−0.0 σ)
S_8	0.8213	0.823 ± 0.016 (+0.1 σ)	$H(0.15)$	73.08	73.5 ± 1.5 (+1.3 σ)	χ_{CMB}^2	1178.9	1193.0 ± 5.6 (+0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4498	0.4509 ± 0.0088 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	639.4	636 ± 13 (−1.1 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6032	0.605 ± 0.010 (+0.3 σ)	$H(0.38)$	83.17	83.6 ± 1.5 (+1.8 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1185.72$; $\Delta\chi_{\mathrm{eff}}^2 = -0.03$; $\bar{\chi}_{\mathrm{eff}}^2 = 1206.54$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.52$; $R - 1 = 0.01083$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.05 (Δ -0.14) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.16) commander_dx12_v3_2_29: 22.69 (Δ -0.14) plik_rd12_HM_v22_TT: 760.20 (Δ 0.10)

7.38 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022247	0.02227 ± 0.00023	$\sigma_8/h^{0.5}$	0.9834	0.9844 ± 0.0092	$D_M(0.38)$	1527.8	1520 ± 29
$\Omega_c h^2$	0.11922	0.1202 ± 0.0036	$r_{\text{drag}} h$	99.76	99.90 ± 0.97	$H(0.51)$	89.76	90.2 ± 1.5
$100\theta_{\text{MC}}$	1.04096	1.04087 ± 0.00054	$\langle d^2 \rangle^{1/2}$	2.4284	2.431 ± 0.023	$D_M(0.51)$	1979.4	1970 ± 37
τ	0.0545	0.0553 ± 0.0075	z_{re}	7.72	7.80 ± 0.75	$H(0.61)$	95.37	95.8 ± 1.5
N_{eff}	3.060	3.12 ± 0.22	$10^9 A_s$	2.0965	2.105 ± 0.036	$D_M(0.61)$	2303.5	2293 ± 42
$\ln(10^{10} A_s)$	3.0429	3.047 ± 0.017	$10^9 A_s e^{-2\tau}$	1.8801	1.884 ± 0.019	$H(2.33)$	235.97	236.9 ± 3.2
n_s	0.9680	0.9687 ± 0.0082	D_{40}	1223.3	1225 ± 14	$D_M(2.33)$	5760	5736 ± 90
y_{cal}	1.00062	1.0007 ± 0.0025	D_{220}	5720.2	5725 ± 40	$f\sigma_8(0.15)$	0.4552	0.4562 ± 0.0066
A_{217}^{CIB}	48.0	48 ± 7	D_{810}	2538.8	2538 ± 14	$\sigma_8(0.15)$	0.7478	0.751 ± 0.011
$\xi^{\text{tSZ} \times \text{CIB}}$	0.42	—	D_{1420}	816.9	815.3 ± 5.2	$f\sigma_8(0.38)$	0.4739	0.4751 ± 0.0064
A_{143}^{tSZ}	6.90	5.0 ± 2.0	D_{2000}	230.45	229.6 ± 2.2	$\sigma_8(0.38)$	0.6630	0.666 ± 0.010
A_{100}^{PS}	253.3	265 ± 28	$n_{s,0.002}$	0.9680	0.9687 ± 0.0082	$f\sigma_8(0.51)$	0.4726	0.4740 ± 0.0063
A_{143}^{PS}	50.5	49 ± 8	Y_{P}	0.24553	0.2464 ± 0.0030	$\sigma_8(0.51)$	0.6205	0.6231 ± 0.0097
$A_{143 \times 217}^{\text{PS}}$	49.1	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.24686	0.2477 ± 0.0030	$f\sigma_8(0.61)$	0.4678	0.4693 ± 0.0063
A_{217}^{PS}	120.3	115 ± 10	$10^5 D/H$	2.614	2.632 ± 0.065	$\sigma_8(0.61)$	0.5905	0.5930 ± 0.0094
A^{kSZ}	0.04	< 5.05	Age/Gyr	13.791	13.73 ± 0.21	$f\sigma_8(2.33)$	0.29779	0.2991 ± 0.0049
A_{100}^{dustTT}	8.89	9.0 ± 1.8	z_*	1090.023	1090.14 ± 0.46	$\sigma_8(2.33)$	0.3071	0.3085 ± 0.0052
A_{143}^{dustTT}	10.81	10.7 ± 1.8	r_*	144.66	144.1 ± 2.1	f_{2000}^{143}	30.02	31.4 ± 3.4
$A_{143 \times 217}^{\text{dustTT}}$	19.47	18.3 ± 3.3	$100\theta_*$	1.04115	1.04102 ± 0.00065	$f_{2000}^{143 \times 217}$	33.02	33.7 ± 2.4
A_{217}^{dustTT}	94.7	93.2 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.894	13.84 ± 0.19	f_{2000}^{217}	107.48	108.3 ± 2.2
c_{100}	0.99967	0.99962 ± 0.00062	z_{drag}	1059.59	1059.77 ± 0.83	χ_{lensing}^2	8.92	9.45 ± 0.82
c_{217}	0.99825	0.99827 ± 0.00062	r_{drag}	147.37	146.8 ± 2.1	χ_{small}^2	396.08	397.1 ± 1.9
H_0	67.70	68.1 ± 1.4	k_{D}	0.14043	0.1408 ± 0.0016	χ_{lowl}^2	22.79	23.0 ± 1.1
Ω_{Λ}	0.6899	0.6910 ± 0.0078	$100\theta_{\text{D}}$	0.16101	0.16118 ± 0.00056	χ_{plik}^2	760.1	772.5 ± 5.5
Ω_{m}	0.3101	0.3090 ± 0.0078	z_{eq}	3374.5	3370 ± 29	χ_{JLA}^2	706.709	706.73 ± 0.21
$\Omega_{\text{m}} h^2$	0.14211	0.1432 ± 0.0037	k_{eq}	0.010309	0.01034 ± 0.00013	$\chi_{6\text{DF}}^2$	0.0217	0.053 ± 0.071
$\Omega_{\text{m}} h^3$	0.09621	0.0975 ± 0.0043	$100\theta_{\text{eq}}$	0.8180	0.8188 ± 0.0054	χ_{MGS}^2	1.28	1.43 ± 0.55
σ_8	0.8091	0.812 ± 0.012	$100\theta_{s,\text{eq}}$	0.45192	0.4523 ± 0.0028	χ_{DR12BAO}^2	4.20	4.6 ± 1.5
S_8	0.8226	0.824 ± 0.013	$H(0.15)$	72.97	73.4 ± 1.4	χ_{prior}^2	1.29	7.3 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4506	0.4514 ± 0.0069	$D_M(0.15)$	640.5	637 ± 13	χ_{CMB}^2	1187.9	1202.0 ± 5.6
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6038	0.6055 ± 0.0081	$H(0.38)$	83.05	83.5 ± 1.5	χ_{BAO}^2	5.50	6.1 ± 1.2

Best-fit $\chi_{\text{eff}}^2 = 1901.41$; $\bar{\chi}_{\text{eff}}^2 = 1922.14$; $R - 1 = 0.01097$

χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.20 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.92 small_100x143.offlike5_EE_Aplanck_B: 396.08 commander_dx12.v3.2.29: 22.79 plik_rd12_HM.v22_TT: 760.13 SN - JLA December_2013: 706.71

7.39 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022279	0.02228 ± 0.00023 (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9832	0.9842 ± 0.0092 (+0.1 σ)	$D_{\mathrm{M}}(0.38)$	1523.2	1519 ± 28 (−1.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11969	0.1203 ± 0.0036 (+1.3 σ)	$r_{\mathrm{drag}}h$	99.88	99.96 ± 0.94 (+0.3 σ)	$H(0.51)$	90.00	90.2 ± 1.5 (+2.3 σ)
$100\theta_{\mathrm{MC}}$	1.04093	1.04087 ± 0.00054 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4272	2.430 ± 0.022 (−0.2 σ)	$D_{\mathrm{M}}(0.51)$	1973.6	1968 ± 36 (−1.4 σ)
τ	0.0545	0.0554 ± 0.0074 (−0.0 σ)	z_{re}	7.72	7.81 ± 0.75 (+0.0 σ)	$H(0.61)$	95.61	95.9 ± 1.5 (+2.7 σ)
N_{eff}	3.092	3.13 ± 0.22	$10^9 A_{\mathrm{s}}$	2.0992	2.106 ± 0.036 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2296.8	2291 ± 41 (−1.5 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0441	3.047 ± 0.017 (+0.2 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8823	1.885 ± 0.019 (+0.6 σ)	$H(2.33)$	236.42	236.9 ± 3.1 (+1.7 σ)
n_{s}	0.9689	0.9691 ± 0.0080 (+0.7 σ)	D_{40}	1222.7	1224 ± 14 (−0.3 σ)	$D_{\mathrm{M}}(2.33)$	5746	5733 ± 89 (−3.0 σ)
y_{cal}	1.00071	1.0007 ± 0.0025 (−0.0 σ)	D_{220}	5722.4	5725 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4553	0.4561 ± 0.0066 (+0.1 σ)
A_{217}^{CIB}	49.2	48 ± 7 (+0.0 σ)	D_{810}	2539.1	2538 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7490	0.751 ± 0.011 (+0.6 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.25	—	D_{1420}	816.6	815.3 ± 5.2 (−0.1 σ)	$f\sigma_8(0.38)$	0.4742	0.4751 ± 0.0064 (+0.3 σ)
A_{143}^{tSZ}	7.08	5.0 ± 2.0 (−0.1 σ)	D_{2000}	230.24	229.6 ± 2.2 (−0.3 σ)	$\sigma_8(0.38)$	0.6642	0.666 ± 0.010 (+0.7 σ)
A_{100}^{PS}	256.0	265 ± 28 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9689	0.9691 ± 0.0080 (+0.7 σ)	$f\sigma_8(0.51)$	0.4731	0.4740 ± 0.0063 (+0.3 σ)
A_{143}^{PS}	48.4	49 ± 8 (+0.1 σ)	Y_{P}	0.24597	0.2464 ± 0.0029 (+14.0 σ)	$\sigma_8(0.51)$	0.6217	0.6234 ± 0.0096 (+0.7 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	45.1	43_{-10}^{+9} (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24730	0.2478 ± 0.0029 (+14.0 σ)	$f\sigma_8(0.61)$	0.4683	0.4693 ± 0.0063 (+0.4 σ)
A_{217}^{PS}	118.5	115 ± 10 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.619	2.633 ± 0.064 (+0.5 σ)	$\sigma_8(0.61)$	0.5916	0.5933 ± 0.0093 (+0.7 σ)
A^{kSZ}	0.00	< 5.07 (+0.1 σ)	Age/Gyr	13.758	13.73 ± 0.21 (−3.1 σ)	$f\sigma_8(2.33)$	0.29839	0.2993 ± 0.0048 (+0.7 σ)
$A_{100}^{\mathrm{dustTT}}$	8.89	9.0 ± 1.8 (+0.0 σ)	z_*	1090.052	1090.15 ± 0.46 (+0.4 σ)	$\sigma_8(2.33)$	0.3077	0.3087 ± 0.0052 (+0.7 σ)
$A_{143}^{\mathrm{dustTT}}$	10.78	10.7 ± 1.8 (+0.0 σ)	r_*	144.35	144.0 ± 2.1 (−2.7 σ)	f_{2000}^{143}	30.41	31.5 ± 3.4 (+0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.37	18.3 ± 3.3 (−0.0 σ)	$100\theta_*$	1.04109	1.04101 ± 0.00065 (−0.4 σ)	$f_{2000}^{143 \times 217}$	33.22	33.7 ± 2.4 (+0.2 σ)
$A_{217}^{\mathrm{dustTT}}$	94.6	93.2 ± 7.3 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.865	13.84 ± 0.19 (−2.5 σ)	f_{2000}^{217}	107.74	108.3 ± 2.2 (+0.2 σ)
c_{100}	0.99967	0.99962 ± 0.00062 (−0.0 σ)	z_{drag}	1059.74	1059.80 ± 0.82 (+0.7 σ)	$\chi_{\mathrm{lensing}}^2$	8.98	9.45 ± 0.82 (+0.3 σ)
c_{217}	0.99827	0.99827 ± 0.00062 (+0.0 σ)	r_{drag}	147.04	146.7 ± 2.1 (−2.5 σ)	χ_{small}^2	396.05	397.2 ± 1.9 (−0.0 σ)
H_0	67.92	68.1 ± 1.4 (+1.1 σ)	k_{D}	0.14067	0.1409 ± 0.0016 (+1.4 σ)	χ_{lowl}^2	22.70	22.9 ± 1.1 (−0.3 σ)
Ω_{Λ}	0.6909	0.6914 ± 0.0075 (+0.3 σ)	$100\theta_{\mathrm{D}}$	0.16107	0.16119 ± 0.00056 (+0.7 σ)	χ_{plik}^2	760.1	772.6 ± 5.5 (+0.2 σ)
Ω_{m}	0.3091	0.3086 ± 0.0075 (−0.3 σ)	z_{eq}	3372.0	3369 ± 28 (−0.2 σ)	χ_{JLA}^2	1034.948	1035.04 ± 0.34 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14262	0.1432 ± 0.0037 (+1.3 σ)	k_{eq}	0.010323	0.01034 ± 0.00013 (+0.5 σ)	χ_{6DF}^2	0.0156	0.048 ± 0.065 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09687	0.0976 ± 0.0043 (+3.9 σ)	$100\theta_{\mathrm{eq}}$	0.8185	0.8191 ± 0.0053 (+0.2 σ)	χ_{MGS}^2	1.34	1.45 ± 0.54 (+0.3 σ)
σ_8	0.8103	0.812 ± 0.012 (+0.6 σ)	$100\theta_{\mathrm{s,eq}}$	0.45218	0.4525 ± 0.0027 (+0.2 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.05	4.5 ± 1.4 (−0.1 σ)
S_8	0.8226	0.824 ± 0.012 (+0.1 σ)	$H(0.15)$	73.19	73.4 ± 1.4 (+1.3 σ)	χ_{prior}^2	1.42	7.3 ± 3.6 (−0.0 σ)
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4506	0.4512 ± 0.0068 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	638.4	637 ± 12 (−1.1 σ)	χ_{CMB}^2	1187.9	1202.1 ± 5.6 (+0.1 σ)
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6042	0.6054 ± 0.0081 (+0.3 σ)	$H(0.38)$	83.29	83.5 ± 1.4 (+1.8 σ)	χ_{BAO}^2	5.41	6.0 ± 1.1 (+0.0 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 2229.65$; $\Delta\chi_{\mathrm{eff}}^2 = -0.06$; $\bar{\chi}_{\mathrm{eff}}^2 = 2250.41$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.64$; $R - 1 = 0.01118$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.34 (Δ 0.00) DR12BAO: 4.05 (Δ 0.02) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.98 (Δ 0.10) small_100x143_offlike5_EE_Aplanck.L
396.06 (Δ -0.31) commander_dx12_v3.2.29: 22.70 (Δ -0.11) plik_rd12_HM_v22_TT: 760.14 (Δ 0.35) SN - JLA Pantheon18: 1034.95 (Δ -0.01)

7.40 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022244	0.02225 ± 0.00023 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9835	0.9847 ± 0.0092 (+0.0 σ)	$D_{\mathrm{M}}(0.38)$	1529.9	1523 ± 29 (−1.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.11919	0.1201 ± 0.0036 (+0.9 σ)	$r_{\mathrm{drag}}h$	99.65	99.80 ± 0.99 (+0.2 σ)	$H(0.51)$	89.67	90.1 ± 1.5 (+1.7 σ)
$100\theta_{\mathrm{MC}}$	1.04095	1.04088 ± 0.00054 (−0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4306	2.432 ± 0.023 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1981.9	1973 ± 37 (−1.0 σ)
τ	0.0544	0.0551 ± 0.0075 (−0.0 σ)	z_{re}	7.70	7.78 ± 0.75 (+0.0 σ)	$H(0.61)$	95.29	95.7 ± 1.6 (+2.0 σ)
N_{eff}	3.050	3.11 ± 0.22	$10^9 A_{\mathrm{s}}$	2.0947	2.103 ± 0.036 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2306.3	2296 ± 42 (−1.1 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0420	3.046 ± 0.017 (+0.1 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8789	1.884 ± 0.020 (+0.4 σ)	$H(2.33)$	235.92	236.7 ± 3.2 (+1.3 σ)
n_{s}	0.9671	0.9681 ± 0.0083 (+0.5 σ)	D_{40}	1224.7	1225 ± 14 (−0.2 σ)	$D_{\mathrm{M}}(2.33)$	5765	5742 ± 91 (−2.2 σ)
y_{cal}	1.00054	1.0007 ± 0.0025 (−0.0 σ)	D_{220}	5719.9	5724 ± 40 (+0.0 σ)	$f\sigma_8(0.15)$	0.4555	0.4565 ± 0.0066 (+0.1 σ)
A_{217}^{CIB}	49.2	48 ± 7 (+0.0 σ)	D_{810}	2537.2	2538 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7472	0.750 ± 0.011 (+0.5 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.23	—	D_{1420}	816.3	815.3 ± 5.2 (−0.1 σ)	$f\sigma_8(0.38)$	0.4740	0.4752 ± 0.0064 (+0.2 σ)
A_{143}^{tSZ}	7.15	5.0 ± 2.0 (−0.1 σ)	D_{2000}	230.29	229.7 ± 2.2 (−0.2 σ)	$\sigma_8(0.38)$	0.6624	0.665 ± 0.010 (+0.5 σ)
A_{100}^{PS}	253.8	265 ± 28 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9671	0.9681 ± 0.0083 (+0.5 σ)	$f\sigma_8(0.51)$	0.4726	0.4740 ± 0.0063 (+0.2 σ)
A_{143}^{PS}	47.5	49 ± 8 (+0.1 σ)	Y_{P}	0.24540	0.2462 ± 0.0030 (+10.6 σ)	$\sigma_8(0.51)$	0.6199	0.6226 ± 0.0098 (+0.5 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	44.2	43 ± 9 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24673	0.2475 ± 0.0030 (+10.6 σ)	$f\sigma_8(0.61)$	0.4677	0.4692 ± 0.0063 (+0.3 σ)
A_{217}^{PS}	118.0	115 ± 10 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.611	2.630 ± 0.065 (+0.4 σ)	$\sigma_8(0.61)$	0.5899	0.5925 ± 0.0094 (+0.5 σ)
A^{kSZ}	0.06	< 5.02 (+0.1 σ)	Age/Gyr	13.802	13.75 ± 0.22 (−2.3 σ)	$f\sigma_8(2.33)$	0.29746	0.2988 ± 0.0049 (+0.5 σ)
$A_{100}^{\mathrm{dustTT}}$	9.00	9.0 ± 1.8 (+0.0 σ)	z_*	1090.014	1090.14 ± 0.46 (+0.3 σ)	$\sigma_8(2.33)$	0.3067	0.3081 ± 0.0053 (+0.5 σ)
$A_{143}^{\mathrm{dustTT}}$	10.76	10.7 ± 1.8 (+0.0 σ)	r_*	144.72	144.2 ± 2.1 (−2.0 σ)	f_{2000}^{143}	30.21	31.4 ± 3.4 (+0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.28	18.3 ± 3.3 (−0.0 σ)	$100\theta_*$	1.04113	1.04104 ± 0.00065 (−0.3 σ)	$f_{2000}^{143 \times 217}$	33.07	33.7 ± 2.4 (+0.2 σ)
$A_{217}^{\mathrm{dustTT}}$	94.5	93.3 ± 7.3 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.900	13.85 ± 0.19 (−1.9 σ)	f_{2000}^{217}	107.57	108.3 ± 2.2 (+0.2 σ)
c_{100}	0.99968	0.99962 ± 0.00062 (−0.0 σ)	z_{drag}	1059.59	1059.72 ± 0.84 (+0.5 σ)	$\chi_{\mathrm{lensing}}^2$	8.90	9.42 ± 0.81 (+0.2 σ)
c_{217}	0.99825	0.99827 ± 0.00062 (+0.0 σ)	r_{drag}	147.43	146.9 ± 2.2 (−1.9 σ)	χ_{small}^2	396.08	397.1 ± 1.9 (−0.0 σ)
H_0	67.59	68.0 ± 1.4 (+0.9 σ)	k_{D}	0.14040	0.1408 ± 0.0016 (+1.1 σ)	χ_{lowl}^2	22.94	23.0 ± 1.2 (−0.2 σ)
Ω_{Λ}	0.6890	0.6902 ± 0.0080 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.16098	0.16115 ± 0.00056 (+0.5 σ)	χ_{plik}^2	759.7	772.4 ± 5.5 (+0.1 σ)
Ω_{m}	0.3110	0.3098 ± 0.0080 (−0.2 σ)	z_{eq}	3377.8	3373 ± 29 (−0.2 σ)	$\chi_{6\mathrm{DF}}^2$	0.0293	0.060 ± 0.079 (+0.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14208	0.1430 ± 0.0037 (+1.0 σ)	k_{eq}	0.010313	0.01034 ± 0.00013 (+0.4 σ)	χ_{MGS}^2	1.22	1.37 ± 0.55 (+0.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.09603	0.0973 ± 0.0044 (+3.0 σ)	$100\theta_{\mathrm{eq}}$	0.8173	0.8183 ± 0.0056 (+0.2 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.38	4.8 ± 1.6 (−0.0 σ)
σ_8	0.8086	0.812 ± 0.012 (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.45159	0.4521 ± 0.0028 (+0.2 σ)	χ_{prior}^2	1.45	7.3 ± 3.6 (−0.0 σ)
S_8	0.8233	0.825 ± 0.013 (+0.1 σ)	$H(0.15)$	72.87	73.2 ± 1.4 (+1.0 σ)	χ_{CMB}^2	1187.6	1201.9 ± 5.6 (+0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4509	0.4518 ± 0.0069 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	641.4	638 ± 13 (−0.9 σ)	χ_{BAO}^2	5.63	6.2 ± 1.3 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6038	0.6055 ± 0.0081 (+0.2 σ)	$H(0.38)$	82.96	83.4 ± 1.5 (+1.4 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.71$; $\Delta\chi_{\mathrm{eff}}^2 = 0.03$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.41$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68$; $R - 1 = 0.01056$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.38 (Δ 0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.90 (Δ 0.03) small_100x143_offlike5_EE_Aplanck.L
396.08 (Δ -0.01) commander_dx12_v3.2.29: 22.94 (Δ -0.02) plik_rd12_HM_v22_TT: 759.72 (Δ -0.09)

7.41 base_nnu_plikHM_TT_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00022	$\sigma_8/h^{0.5}$	0.982 ± 0.012	$D_{\mathrm{M}}(0.38)$	1528 ± 24
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0031	$r_{\mathrm{drag}}h$	99.8 ± 1.0	$H(0.51)$	89.8 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00051	$\langle d^2 \rangle^{1/2}$	2.428 ± 0.028	$D_{\mathrm{M}}(0.51)$	1980 ± 31
τ	0.0537 ± 0.0080	z_{re}	7.62 ± 0.82	$H(0.61)$	95.4 ± 1.3
N_{eff}	3.06 ± 0.18	$10^9 A_{\mathrm{s}}$	2.092 ± 0.039	$D_{\mathrm{M}}(0.61)$	2304 ± 35
$\ln(10^{10} A_{\mathrm{s}})$	3.040 ± 0.019	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.878 ± 0.018	$H(2.33)$	235.9 ± 2.7
n_{s}	0.9669 ± 0.0071	D_{40}	1225 ± 14	$D_{\mathrm{M}}(2.33)$	5762 ± 75
y_{cal}	1.0006 ± 0.0025	D_{220}	5720 ± 40	$f\sigma_8(0.15)$	0.4544 ± 0.0082
A_{217}^{CIB}	48 ± 7	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.747 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.4 ± 5.1	$f\sigma_8(0.38)$	0.4730 ± 0.0075
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.9 ± 2.1	$\sigma_8(0.38)$	0.6619 ± 0.0098
A_{100}^{PS}	264 ± 28	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0071	$f\sigma_8(0.51)$	0.4718 ± 0.0072
A_{143}^{PS}	49 ± 8	Y_{P}	0.2455 ± 0.0024	$\sigma_8(0.51)$	0.6195 ± 0.0093
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2468 ± 0.0024	$f\sigma_8(0.61)$	0.4669 ± 0.0069
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.619 ± 0.058	$\sigma_8(0.61)$	0.5895 ± 0.0089
A^{kSZ}	< 4.85	$\mathrm{Age}/\mathrm{Gyr}$	13.80 ± 0.18	$f\sigma_8(2.33)$	0.2973 ± 0.0045
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	z_*	1090.05 ± 0.43	$\sigma_8(2.33)$	0.3066 ± 0.0048
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.7 ± 1.7	f_{2000}^{143}	31.0 ± 3.2
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04117 ± 0.00059	$f_{2000}^{143 \times 217}$	33.4 ± 2.3
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.90 ± 0.16	f_{2000}^{217}	108.0 ± 2.1
c_{100}	0.99962 ± 0.00061	z_{drag}	1059.54 ± 0.72	χ_{simall}^2	397.1 ± 1.9
c_{217}	0.99827 ± 0.00062	r_{drag}	147.4 ± 1.8	χ_{lowl}^2	23.0 ± 1.1
H_0	67.7 ± 1.2	k_{D}	0.1404 ± 0.0013	χ_{plik}^2	772.6 ± 5.6
Ω_{Λ}	0.6899 ± 0.0080	$100\theta_{\mathrm{D}}$	0.16105 ± 0.00048	χ_{Aver15}^2	0.60 ± 0.79
Ω_{m}	0.3101 ± 0.0080	z_{eq}	3373 ± 30	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.080
$\Omega_{\mathrm{m}}h^2$	0.1421 ± 0.0032	k_{eq}	0.01030 ± 0.00013	χ_{MGS}^2	1.37 ± 0.56
$\Omega_{\mathrm{m}}h^3$	0.0962 ± 0.0035	$100\theta_{\mathrm{eq}}$	0.8182 ± 0.0057	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.7
σ_8	0.808 ± 0.012	$100\theta_{\mathrm{s,eq}}$	0.4521 ± 0.0029	χ_{prior}^2	7.3 ± 3.6
S_8	0.821 ± 0.016	$H(0.15)$	73.0 ± 1.2	χ_{BAO}^2	6.2 ± 1.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4497 ± 0.0086	$D_{\mathrm{M}}(0.15)$	641 ± 11	χ_{CMB}^2	1192.7 ± 5.5
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6027 ± 0.0095	$H(0.38)$	83.0 ± 1.2		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.79$; $R - 1 = 0.01271$

7.42 base_nnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02222 ± 0.00022	$r_{\mathrm{drag}}h$	99.8 ± 1.0	$D_{\mathrm{M}}(0.51)$	1980 ± 29
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0029	$\langle d^2 \rangle^{1/2}$	2.428 ± 0.028	$H(0.61)$	95.3 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00049	z_{re}	7.62 ± 0.82	$D_{\mathrm{M}}(0.61)$	2304 ± 33
τ	0.0538 ± 0.0080	$10^9 A_{\mathrm{s}}$	2.092 ± 0.039	$H(2.33)$	235.9 ± 2.5
N_{eff}	3.06 ± 0.16	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.878 ± 0.017	$D_{\mathrm{M}}(2.33)$	5763 ± 70
$\ln(10^{10} A_{\mathrm{s}})$	3.040 ± 0.019	D_{40}	1225 ± 14	$f\sigma_8(0.15)$	0.4544 ± 0.0080
n_{s}	0.9669 ± 0.0069	D_{220}	5720 ± 40	$\sigma_8(0.15)$	0.746 ± 0.010
y_{cal}	1.0006 ± 0.0025	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4730 ± 0.0073
A_{217}^{CIB}	48 ± 7	D_{1420}	815.4 ± 5.0	$\sigma_8(0.38)$	0.6618 ± 0.0093
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	229.9 ± 1.9	$f\sigma_8(0.51)$	0.4717 ± 0.0069
A_{143}^{tSZ}	5.1 ± 2.0	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0069	$\sigma_8(0.51)$	0.6194 ± 0.0088
A_{100}^{PS}	264 ± 28	Y_{P}	0.2455 ± 0.0022	$f\sigma_8(0.61)$	0.4669 ± 0.0066
A_{143}^{PS}	49 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2468 ± 0.0023	$\sigma_8(0.61)$	0.5894 ± 0.0084
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$10^5 \mathrm{D}/\mathrm{H}$	2.618 ± 0.049	$f\sigma_8(2.33)$	0.2973 ± 0.0043
A_{217}^{PS}	115 ± 10	$\mathrm{Age}/\mathrm{Gyr}$	13.80 ± 0.17	$\sigma_8(2.33)$	0.3065 ± 0.0046
A^{kSZ}	< 4.82	z_*	1090.04 ± 0.37	f_{2000}^{143}	31.0 ± 3.1
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	r_*	144.7 ± 1.6	$f_{2000}^{143 \times 217}$	33.4 ± 2.2
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	$100\theta_*$	1.04118 ± 0.00056	f_{2000}^{217}	108.0 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.90 ± 0.15	χ_{simall}^2	397.1 ± 1.9
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	z_{drag}	1059.53 ± 0.72	χ_{lowl}^2	23.1 ± 1.1
c_{100}	0.99962 ± 0.00061	r_{drag}	147.5 ± 1.7	χ_{plik}^2	772.4 ± 5.5
c_{217}	0.99827 ± 0.00062	k_{D}	0.1403 ± 0.0013	χ_{Aver15}^2	0.54 ± 0.69
H_0	67.7 ± 1.1	$100\theta_{\mathrm{D}}$	0.16105 ± 0.00042	$\chi_{\mathrm{Cooke17}}^2$	0.27 ± 0.39
Ω_{Λ}	0.6899 ± 0.0080	z_{eq}	3373 ± 30	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.081
Ω_{m}	0.3101 ± 0.0080	k_{eq}	0.01030 ± 0.00012	χ_{MGS}^2	1.37 ± 0.56
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0030	$100\theta_{\mathrm{eq}}$	0.8182 ± 0.0057	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.7
$\Omega_{\mathrm{m}}h^3$	0.0961 ± 0.0033	$100\theta_{\mathrm{s,eq}}$	0.4521 ± 0.0029	χ_{prior}^2	7.3 ± 3.6
σ_8	0.808 ± 0.011	$H(0.15)$	73.0 ± 1.1	χ_{BAO}^2	6.3 ± 1.4
S_8	0.821 ± 0.015	$D_{\mathrm{M}}(0.15)$	641 ± 10	χ_{CMB}^2	1192.5 ± 5.5
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4497 ± 0.0084	$H(0.38)$	83.0 ± 1.1	χ_{Abund}^2	0.81 ± 0.90
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6026 ± 0.0091	$D_{\mathrm{M}}(0.38)$	1528 ± 23		
$\sigma_8/h^{0.5}$	0.982 ± 0.012	$H(0.51)$	89.7 ± 1.2		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1206.80; R - 1 = 0.01238$$

7.43 base_nnu_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02227 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517 \pm 30 \quad (-1.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1206 \pm 0.0039 \quad (+1.4\sigma)$	$r_{\mathrm{drag}}h$	$99.99 \pm 1.0 \quad (+0.2\sigma)$	$H(0.51)$	$90.4 \pm 1.6 \quad (+2.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00056 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.428 \pm 0.027 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1965 \pm 38 \quad (-1.4\sigma)$
τ	$0.0552^{+0.0053}_{-0.0082} \quad (-0.0\sigma)$	z_{re}	$7.80^{+0.60}_{-0.82} \quad (+0.0\sigma)$	$H(0.61)$	$96.0 \pm 1.6 \quad (+2.9\sigma)$
N_{eff}	3.15 ± 0.23	$10^9 A_{\mathrm{s}}$	$2.105^{+0.033}_{-0.041} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2287 \pm 43 \quad (-1.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.016}_{-0.019} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885 \pm 0.021 \quad (+0.7\sigma)$	$H(2.33)$	$237.2 \pm 3.4 \quad (+1.9\sigma)$
n_{s}	$0.9699 \pm 0.0084 \quad (+0.8\sigma)$	D_{40}	$1222 \pm 15 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5725 \pm 93 \quad (-3.3\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0084 \quad (+0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.752 \pm 0.012 \quad (+0.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.9 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4753 \pm 0.0079 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.4 \pm 2.2 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.667 \pm 0.011 \quad (+0.8\sigma)$
A_{100}^{PS}	$266 \pm 29 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9699 \pm 0.0084 \quad (+0.8\sigma)$	$f\sigma_8(0.51)$	$0.4743 \pm 0.0076 \quad (+0.4\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.2\sigma)$	Y_{P}	$0.2467 \pm 0.0031 \quad (+16.4\sigma)$	$\sigma_8(0.51)$	$0.624 \pm 0.010 \quad (+0.8\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44^{+9}_{-10} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2480 \pm 0.0031 \quad (+16.4\sigma)$	$f\sigma_8(0.61)$	$0.4696 \pm 0.0075 \quad (+0.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.641 \pm 0.067 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.594 \pm 0.010 \quad (+0.8\sigma)$
A^{kSZ}	$< 5.13 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.71 \pm 0.22 \quad (-3.5\sigma)$	$f\sigma_8(2.33)$	$0.2995 \pm 0.0052 \quad (+0.9\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.20 \pm 0.49 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3090 \pm 0.0055 \quad (+0.9\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$143.9 \pm 2.2 \quad (-3.0\sigma)$	f_{2000}^{143}	$31.7 \pm 3.4 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04097 \pm 0.00067 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.9 \pm 2.5 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.82 \pm 0.20 \quad (-2.9\sigma)$	f_{2000}^{217}	$108.4 \pm 2.3 \quad (+0.3\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.84 \pm 0.85 \quad (+0.7\sigma)$	χ_{small}^2	$397.0 \pm 1.9 \quad (-0.0\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$146.6 \pm 2.3 \quad (-2.8\sigma)$	χ_{lowl}^2	$22.8 \pm 1.1 \quad (-0.4\sigma)$
H_0	$68.2 \pm 1.5 \quad (+1.1\sigma)$	k_{D}	$0.1410 \pm 0.0017 \quad (+1.6\sigma)$	χ_{plik}^2	$773.0 \pm 5.7 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6917 \pm 0.0083 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16126 \pm 0.00058 \quad (+0.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.056 \pm 0.075 \quad (-0.0\sigma)$
Ω_{m}	$0.3083 \pm 0.0083 \quad (-0.3\sigma)$	z_{eq}	$3368 \pm 31 \quad (-0.2\sigma)$	χ_{MGS}^2	$1.48 \pm 0.60 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1436 \pm 0.0040 \quad (+1.5\sigma)$	k_{eq}	$0.01035 \pm 0.00015 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0980^{+0.0043}_{-0.0048} \quad (+4.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8193 \pm 0.0059 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.813 \pm 0.013 \quad (+0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4526 \pm 0.0030 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (-0.0\sigma)$
S_8	$0.824 \pm 0.016 \quad (+0.2\sigma)$	$H(0.15)$	$73.5 \pm 1.5 \quad (+1.4\sigma)$	χ_{CMB}^2	$1192.8 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4514 \pm 0.0087 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$636 \pm 13 \quad (-1.2\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.606 \pm 0.010 \quad (+0.3\sigma)$	$H(0.38)$	$83.6 \pm 1.5 \quad (+1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1206.29; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.53; R - 1 = 0.01028$$

7.44 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_JLA_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02227 ± 0.00023	$\sigma_8/h^{0.5}$	0.9848 ± 0.0090	$D_{\mathrm{M}}(0.38)$	1520 ± 29
$\Omega_{\mathrm{c}}h^2$	0.1202 ± 0.0036	$r_{\mathrm{drag}}h$	99.93 ± 0.96	$H(0.51)$	90.2 ± 1.5
$100\theta_{\mathrm{MC}}$	1.04087 ± 0.00054	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.022	$D_{\mathrm{M}}(0.51)$	1969 ± 36
τ	$0.0560^{+0.0057}_{-0.0078}$	z_{re}	$7.87^{+0.61}_{-0.76}$	$H(0.61)$	95.8 ± 1.5
N_{eff}	3.13 ± 0.22	$10^9 A_{\mathrm{s}}$	$2.108^{+0.031}_{-0.036}$	$D_{\mathrm{M}}(0.61)$	2292 ± 42
$\ln(10^{10} A_{\mathrm{s}})$	$3.048^{+0.015}_{-0.017}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.884 ± 0.019	$H(2.33)$	236.9 ± 3.2
n_{s}	0.9689 ± 0.0081	D_{40}	1224 ± 14	$D_{\mathrm{M}}(2.33)$	5735 ± 90
y_{cal}	1.0007 ± 0.0025	D_{220}	5724 ± 40	$f\sigma_8(0.15)$	0.4563 ± 0.0066
A_{217}^{CIB}	48 ± 7	D_{810}	2538 ± 14	$\sigma_8(0.15)$	0.751 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.3 ± 5.2	$f\sigma_8(0.38)$	0.4753 ± 0.0063
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.6 ± 2.2	$\sigma_8(0.38)$	0.666 ± 0.010
A_{100}^{PS}	265 ± 28	$n_{\mathrm{s},0.002}$	0.9689 ± 0.0081	$f\sigma_8(0.51)$	0.4743 ± 0.0062
A_{143}^{PS}	49 ± 8	Y_{P}	0.2464 ± 0.0029	$\sigma_8(0.51)$	0.6236 ± 0.0095
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2477 ± 0.0030	$f\sigma_8(0.61)$	0.4695 ± 0.0062
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.632 ± 0.065	$\sigma_8(0.61)$	0.5934 ± 0.0092
A^{kSZ}	< 5.04	$\mathrm{Age}/\mathrm{Gyr}$	13.73 ± 0.21	$f\sigma_8(2.33)$	0.2993 ± 0.0048
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	z_*	1090.14 ± 0.46	$\sigma_8(2.33)$	0.3087 ± 0.0051
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.1 ± 2.1	f_{2000}^{143}	31.4 ± 3.4
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04102 ± 0.00065	$f_{2000}^{143 \times 217}$	33.7 ± 2.5
$A_{217}^{\mathrm{dust}TT}$	93.2 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.84 ± 0.19	f_{2000}^{217}	108.3 ± 2.2
c_{100}	0.99962 ± 0.00062	z_{drag}	1059.79 ± 0.83	$\chi_{\mathrm{lensing}}^2$	9.41 ± 0.78
c_{217}	0.99827 ± 0.00061	r_{drag}	146.8 ± 2.1	χ_{simall}^2	397.1 ± 1.9
H_0	68.1 ± 1.4	k_{D}	0.1409 ± 0.0016	χ_{lowl}^2	22.9 ± 1.1
Ω_{Λ}	0.6912 ± 0.0077	$100\theta_{\mathrm{D}}$	0.16118 ± 0.00056	χ_{plik}^2	772.4 ± 5.5
Ω_{m}	0.3088 ± 0.0077	z_{eq}	3370 ± 29	χ_{JLA}^2	706.72 ± 0.20
$\Omega_{\mathrm{m}}h^2$	0.1432 ± 0.0037	k_{eq}	0.01034 ± 0.00013	$\chi_{6\mathrm{DF}}^2$	0.051 ± 0.068
$\Omega_{\mathrm{m}}h^3$	0.0975 ± 0.0043	$100\theta_{\mathrm{eq}}$	$0.8190^{+0.0050}_{-0.0056}$	χ_{MGS}^2	1.44 ± 0.55
σ_8	0.813 ± 0.011	$100\theta_{\mathrm{s,eq}}$	0.4524 ± 0.0027	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.4
S_8	0.824 ± 0.013	$H(0.15)$	73.4 ± 1.4	χ_{prior}^2	7.3 ± 3.6
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515 ± 0.0069	$D_{\mathrm{M}}(0.15)$	637 ± 13	χ_{CMB}^2	1201.9 ± 5.6
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6057 ± 0.0080	$H(0.38)$	83.5 ± 1.5	χ_{BAO}^2	6.1 ± 1.2

$\bar{\chi}_{\mathrm{eff}}^2 = 1921.98$; $R - 1 = 0.01169$

7.45 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02228 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9846 \pm 0.0090 \quad (+0.1\sigma)$	$D_M(0.38)$	$1519 \pm 28 \quad (-1.3\sigma)$
$\Omega_c h^2$	$0.1203 \pm 0.0036 \quad (+1.3\sigma)$	$r_{\text{drag}} h$	$99.98 \pm 0.93 \quad (+0.3\sigma)$	$H(0.51)$	$90.3 \pm 1.5 \quad (+2.3\sigma)$
$100\theta_{\text{MC}}$	$1.04087 \pm 0.00054 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.022 \quad (-0.2\sigma)$	$D_M(0.51)$	$1968 \pm 36 \quad (-1.4\sigma)$
τ	$0.0561^{+0.0057}_{-0.0077} \quad (-0.0\sigma)$	z_{re}	$7.88^{+0.62}_{-0.76} \quad (-0.0\sigma)$	$H(0.61)$	$95.9 \pm 1.5 \quad (+2.7\sigma)$
N_{eff}	3.13 ± 0.22	$10^9 A_s$	$2.108^{+0.031}_{-0.036} \quad (+0.2\sigma)$	$D_M(0.61)$	$2290 \pm 41 \quad (-1.5\sigma)$
$\ln(10^{10} A_s)$	$3.048^{+0.015}_{-0.017} \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.885 \pm 0.019 \quad (+0.6\sigma)$	$H(2.33)$	$236.9 \pm 3.1 \quad (+1.8\sigma)$
n_s	$0.9692 \pm 0.0080 \quad (+0.7\sigma)$	D_{40}	$1224 \pm 14 \quad (-0.3\sigma)$	$D_M(2.33)$	$5732 \pm 89 \quad (-3.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5725 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0066 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.751 \pm 0.011 \quad (+0.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$815.3 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4753 \pm 0.0063 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.6 \pm 2.2 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6665 \pm 0.0099 \quad (+0.7\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9692 \pm 0.0080 \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4743 \pm 0.0062 \quad (+0.3\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.2465 \pm 0.0029 \quad (+14.3\sigma)$	$\sigma_8(0.51)$	$0.6239 \pm 0.0094 \quad (+0.7\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2478 \pm 0.0029 \quad (+14.3\sigma)$	$f\sigma_8(0.61)$	$0.4695 \pm 0.0062 \quad (+0.4\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.633 \pm 0.065 \quad (+0.5\sigma)$	$\sigma_8(0.61)$	$0.5937 \pm 0.0091 \quad (+0.7\sigma)$
A^{kSZ}	$< 5.06 \quad (+0.1\sigma)$	Age/Gyr	$13.72 \pm 0.21 \quad (-3.1\sigma)$	$f\sigma_8(2.33)$	$0.2995 \pm 0.0047 \quad (+0.8\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.46 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3089 \pm 0.0051 \quad (+0.8\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.0 \pm 2.1 \quad (-2.8\sigma)$	f_{2000}^{143}	$31.5 \pm 3.4 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04101 \pm 0.00065 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.5 \quad (+0.2\sigma)$
A_{217}^{dustTT}	$93.2 \pm 7.3 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.84 \pm 0.19 \quad (-2.6\sigma)$	f_{2000}^{217}	$108.3 \pm 2.2 \quad (+0.2\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.81 \pm 0.82 \quad (+0.7\sigma)$	χ_{lensing}^2	$9.42 \pm 0.78 \quad (+0.3\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$146.7 \pm 2.1 \quad (-2.6\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.0\sigma)$
H_0	$68.2 \pm 1.4 \quad (+1.2\sigma)$	k_{D}	$0.1409 \pm 0.0016 \quad (+1.4\sigma)$	χ_{lowl}^2	$22.9 \pm 1.1 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6916 \pm 0.0074 \quad (+0.3\sigma)$	$100\theta_{\text{D}}$	$0.16119 \pm 0.00056 \quad (+0.7\sigma)$	χ_{plik}^2	$772.5 \pm 5.5 \quad (+0.2\sigma)$
Ω_{m}	$0.3084 \pm 0.0074 \quad (-0.3\sigma)$	z_{eq}	$3368 \pm 28 \quad (-0.2\sigma)$	χ_{JLA}^2	$1035.03 \pm 0.32 \quad (-0.1\sigma)$
$\Omega_{\text{m}} h^2$	$0.1432 \pm 0.0037 \quad (+1.4\sigma)$	k_{eq}	$0.01034 \pm 0.00013 \quad (+0.6\sigma)$	$\chi_{6\text{DF}}^2$	$0.047 \pm 0.063 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.0977^{+0.0040}_{-0.0045} \quad (+4.0\sigma)$	$100\theta_{\text{eq}}$	$0.8192^{+0.0049}_{-0.0054} \quad (+0.2\sigma)$	χ_{MGS}^2	$1.47 \pm 0.53 \quad (+0.3\sigma)$
σ_8	$0.813 \pm 0.011 \quad (+0.6\sigma)$	$100\theta_{\text{s,eq}}$	$0.4525 \pm 0.0027 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$4.5 \pm 1.3 \quad (-0.1\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.1\sigma)$	$H(0.15)$	$73.4 \pm 1.4 \quad (+1.4\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4513 \pm 0.0068 \quad (+0.1\sigma)$	$D_M(0.15)$	$636 \pm 12 \quad (-1.2\sigma)$	χ_{CMB}^2	$1202.0 \pm 5.6 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6057 \pm 0.0080 \quad (+0.3\sigma)$	$H(0.38)$	$83.5 \pm 1.4 \quad (+1.9\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2250.26$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.63$; $R - 1 = 0.01176$

7.46 base_nnu_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02226 \pm 0.00023 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9851 \pm 0.0090 \quad (+0.0\sigma)$	$D_{\text{M}}(0.38)$	$1522 \pm 29 \quad (-1.0\sigma)$
$\Omega_{\text{c}}h^2$	$0.1201 \pm 0.0036 \quad (+1.0\sigma)$	$r_{\text{drag}}h$	$99.84 \pm 0.98 \quad (+0.2\sigma)$	$H(0.51)$	$90.1 \pm 1.5 \quad (+1.8\sigma)$
$100\theta_{\text{MC}}$	$1.04088 \pm 0.00054 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.023 \quad (-0.2\sigma)$	$D_{\text{M}}(0.51)$	$1972 \pm 37 \quad (-1.1\sigma)$
τ	$0.0558^{+0.0056}_{-0.0078} \quad (-0.0\sigma)$	z_{re}	$7.85^{+0.61}_{-0.76} \quad (+0.0\sigma)$	$H(0.61)$	$95.7 \pm 1.6 \quad (+2.1\sigma)$
N_{eff}	3.11 ± 0.22	$10^9 A_{\text{s}}$	$2.106^{+0.031}_{-0.036} \quad (+0.2\sigma)$	$D_{\text{M}}(0.61)$	$2295 \pm 42 \quad (-1.2\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.015}_{-0.017} \quad (+0.2\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884 \pm 0.020 \quad (+0.4\sigma)$	$H(2.33)$	$236.8 \pm 3.2 \quad (+1.3\sigma)$
n_{s}	$0.9683 \pm 0.0083 \quad (+0.6\sigma)$	D_{40}	$1225 \pm 14 \quad (-0.2\sigma)$	$D_{\text{M}}(2.33)$	$5741 \pm 91 \quad (-2.3\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5724 \pm 40 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4566 \pm 0.0066 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.751 \pm 0.011 \quad (+0.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$815.3 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4754 \pm 0.0063 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.7 \pm 2.2 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.666 \pm 0.010 \quad (+0.6\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9683 \pm 0.0083 \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.4743 \pm 0.0062 \quad (+0.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.2462 \pm 0.0030 \quad (+11.1\sigma)$	$\sigma_8(0.51)$	$0.6231 \pm 0.0096 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2475 \pm 0.0030 \quad (+11.1\sigma)$	$f\sigma_8(0.61)$	$0.4694 \pm 0.0062 \quad (+0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.631 \pm 0.065 \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5930 \pm 0.0092 \quad (+0.6\sigma)$
A^{kSZ}	$< 5.00 \quad (+0.1\sigma)$	Age/Gyr	$13.74 \pm 0.22 \quad (-2.4\sigma)$	$f\sigma_8(2.33)$	$0.2991 \pm 0.0048 \quad (+0.6\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.46 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3084 \pm 0.0052 \quad (+0.6\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.2 \pm 2.1 \quad (-2.1\sigma)$	f_{2000}^{143}	$31.4 \pm 3.4 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00065 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.6 \pm 2.5 \quad (+0.2\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.3 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.85 \pm 0.19 \quad (-2.0\sigma)$	f_{2000}^{217}	$108.2 \pm 2.2 \quad (+0.2\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.74 \pm 0.83 \quad (+0.6\sigma)$	χ_{lensing}^2	$9.39 \pm 0.77 \quad (+0.2\sigma)$
c_{217}	$0.99827 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$146.9 \pm 2.2 \quad (-2.0\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.0\sigma)$
H_0	$68.0 \pm 1.4 \quad (+0.9\sigma)$	k_{D}	$0.1408 \pm 0.0016 \quad (+1.1\sigma)$	χ_{lowl}^2	$23.0 \pm 1.2 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0079 \quad (+0.2\sigma)$	$100\theta_{\text{D}}$	$0.16116 \pm 0.00056 \quad (+0.5\sigma)$	χ_{plik}^2	$772.3 \pm 5.5 \quad (+0.2\sigma)$
Ω_{m}	$0.3096 \pm 0.0079 \quad (-0.2\sigma)$	z_{eq}	$3372 \pm 29 \quad (-0.2\sigma)$	$\chi_{6\text{DF}}^2$	$0.058 \pm 0.076 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1430 \pm 0.0037 \quad (+1.0\sigma)$	k_{eq}	$0.01034 \pm 0.00013 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.39 \pm 0.55 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.0973 \pm 0.0044 \quad (+3.1\sigma)$	$100\theta_{\text{eq}}$	$0.8184 \pm 0.0055 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.6 \quad (-0.1\sigma)$
σ_8	$0.812 \pm 0.011 \quad (+0.5\sigma)$	$100\theta_{\text{s,eq}}$	$0.4521 \pm 0.0028 \quad (+0.2\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.825 \pm 0.013 \quad (+0.1\sigma)$	$H(0.15)$	$73.3 \pm 1.4 \quad (+1.1\sigma)$	χ_{CMB}^2	$1201.8 \pm 5.6 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4519 \pm 0.0069 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$638 \pm 13 \quad (-0.9\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6058 \pm 0.0080 \quad (+0.2\sigma)$	$H(0.38)$	$83.4 \pm 1.5 \quad (+1.4\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1215.24$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.67$; $R - 1 = 0.01151$

7.47 base_nnu_plikHM_TT_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00022	$\sigma_8/h^{0.5}$	0.983 ± 0.011	$D_{\mathrm{M}}(0.38)$	1528 ± 24
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0031	$r_{\mathrm{drag}}h$	99.8 ± 1.0	$H(0.51)$	89.8 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00051	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.027	$D_{\mathrm{M}}(0.51)$	1979 ± 30
τ	$0.0551^{+0.0052}_{-0.0083}$	z_{re}	$7.77^{+0.58}_{-0.83}$	$H(0.61)$	95.4 ± 1.3
N_{eff}	3.06 ± 0.18	$10^9 A_{\mathrm{s}}$	$2.097^{+0.030}_{-0.039}$	$D_{\mathrm{M}}(0.61)$	2303 ± 35
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.014}_{-0.018}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.878 ± 0.018	$H(2.33)$	236.0 ± 2.7
n_{s}	0.9672 ± 0.0071	D_{40}	1225 ± 14	$D_{\mathrm{M}}(2.33)$	5760 ± 74
y_{cal}	1.0006 ± 0.0025	D_{220}	5720 ± 40	$f\sigma_8(0.15)$	0.4549 ± 0.0081
A_{217}^{CIB}	48 ± 7	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.748 ± 0.010
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.4 ± 5.1	$f\sigma_8(0.38)$	0.4736 ± 0.0073
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.9 ± 2.1	$\sigma_8(0.38)$	0.6629 ± 0.0093
A_{100}^{PS}	264 ± 28	$n_{\mathrm{s},0.002}$	0.9672 ± 0.0071	$f\sigma_8(0.51)$	0.4724 ± 0.0070
A_{143}^{PS}	49 ± 8	Y_{P}	0.2455 ± 0.0024	$\sigma_8(0.51)$	0.6204 ± 0.0088
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2469 ± 0.0024	$f\sigma_8(0.61)$	0.4676 ± 0.0067
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.619 ± 0.058	$\sigma_8(0.61)$	0.5904 ± 0.0084
A^{kSZ}	< 4.81	$\mathrm{Age}/\mathrm{Gyr}$	13.79 ± 0.18	$f\sigma_8(2.33)$	0.2978 ± 0.0043
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	z_*	1090.05 ± 0.43	$\sigma_8(2.33)$	0.3071 ± 0.0046
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.7 ± 1.7	f_{2000}^{143}	31.0 ± 3.2
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04117 ± 0.00059	$f_{2000}^{143 \times 217}$	33.4 ± 2.3
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.90 ± 0.16	f_{2000}^{217}	108.0 ± 2.1
c_{100}	0.99961 ± 0.00061	z_{drag}	1059.56 ± 0.72	χ_{simall}^2	397.0 ± 1.9
c_{217}	0.99826 ± 0.00061	r_{drag}	147.4 ± 1.8	χ_{lowl}^2	23.0 ± 1.1
H_0	67.7 ± 1.2	k_{D}	0.1404 ± 0.0013	χ_{plik}^2	772.4 ± 5.5
Ω_{Λ}	0.6902 ± 0.0079	$100\theta_{\mathrm{D}}$	0.16106 ± 0.00048	χ_{Aver15}^2	0.61 ± 0.80
Ω_{m}	0.3098 ± 0.0079	z_{eq}	3372 ± 30	$\chi_{6\mathrm{DF}}^2$	0.060 ± 0.079
$\Omega_{\mathrm{m}}h^2$	0.1421 ± 0.0032	k_{eq}	0.01030 ± 0.00013	χ_{MGS}^2	1.39 ± 0.56
$\Omega_{\mathrm{m}}h^3$	0.0963 ± 0.0035	$100\theta_{\mathrm{eq}}$	0.8184 ± 0.0056	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.6
σ_8	0.809 ± 0.011	$100\theta_{\mathrm{s,eq}}$	0.4522 ± 0.0029	χ_{prior}^2	7.3 ± 3.6
S_8	0.822 ± 0.015	$H(0.15)$	73.0 ± 1.2	χ_{BAO}^2	6.2 ± 1.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4502 ± 0.0085	$D_{\mathrm{M}}(0.15)$	640 ± 11	χ_{CMB}^2	1192.4 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6034 ± 0.0092	$H(0.38)$	83.1 ± 1.2		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.51$; $R - 1 = 0.01186$

7.48 base_nnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02223 ± 0.00021	$r_{\text{drag}} h$	99.8 ± 1.0	$D_{\text{M}}(0.51)$	1979 ± 29
$\Omega_c h^2$	0.1192 ± 0.0029	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.027	$H(0.61)$	95.4 ± 1.2
$100\theta_{\text{MC}}$	1.04098 ± 0.00049	z_{re}	$7.77^{+0.58}_{-0.83}$	$D_{\text{M}}(0.61)$	2303 ± 33
τ	$0.0551^{+0.0052}_{-0.0083}$	$10^9 A_{\text{s}}$	$2.097^{+0.029}_{-0.039}$	$H(2.33)$	235.9 ± 2.5
N_{eff}	3.06 ± 0.16	$10^9 A_{\text{s}} e^{-2\tau}$	1.878 ± 0.017	$D_{\text{M}}(2.33)$	5761 ± 70
$\ln(10^{10} A_{\text{s}})$	$3.043^{+0.014}_{-0.018}$	D_{40}	1225 ± 14	$f\sigma_8(0.15)$	0.4549 ± 0.0079
n_{s}	0.9671 ± 0.0069	D_{220}	5720 ± 40	$\sigma_8(0.15)$	0.7475 ± 0.0098
y_{cal}	1.0006 ± 0.0025	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4735 ± 0.0071
A_{217}^{CIB}	48 ± 7	D_{1420}	815.5 ± 5.0	$\sigma_8(0.38)$	0.6628 ± 0.0088
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	229.9 ± 1.9	$f\sigma_8(0.51)$	0.4723 ± 0.0067
A_{143}^{tSZ}	5.1 ± 2.0	$n_{\text{s},0.002}$	0.9671 ± 0.0069	$\sigma_8(0.51)$	0.6204 ± 0.0083
A_{100}^{PS}	264 ± 28	Y_{P}	0.2455 ± 0.0022	$f\sigma_8(0.61)$	0.4675 ± 0.0064
A_{143}^{PS}	49 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.2468 ± 0.0022	$\sigma_8(0.61)$	0.5903 ± 0.0080
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	10^5D/H	2.618 ± 0.049	$f\sigma_8(2.33)$	0.2977 ± 0.0041
A_{217}^{PS}	115 ± 10	Age/Gyr	13.79 ± 0.17	$\sigma_8(2.33)$	0.3070 ± 0.0044
A^{kSZ}	< 4.78	z_*	1090.04 ± 0.37	f_{2000}^{143}	31.0 ± 3.1
A_{100}^{dustTT}	9.0 ± 1.8	r_*	144.7 ± 1.6	$f_{2000}^{143 \times 217}$	33.3 ± 2.2
A_{143}^{dustTT}	10.7 ± 1.8	$100\theta_*$	1.04117 ± 0.00055	f_{2000}^{217}	107.9 ± 2.0
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.90 ± 0.15	χ_{simall}^2	397.0 ± 1.9
A_{217}^{dustTT}	93.3 ± 7.3	z_{drag}	1059.55 ± 0.72	χ_{lowl}^2	23.1 ± 1.1
c_{100}	0.99961 ± 0.00061	r_{drag}	147.4 ± 1.7	χ_{plik}^2	772.2 ± 5.4
c_{217}	0.99826 ± 0.00061	k_{D}	0.1404 ± 0.0013	χ_{Aver15}^2	0.55 ± 0.70
H_0	67.7 ± 1.1	$100\theta_{\text{D}}$	0.16105 ± 0.00042	χ_{Cooke17}^2	0.27 ± 0.39
Ω_{Λ}	0.6902 ± 0.0079	z_{eq}	3372 ± 30	$\chi_{6\text{DF}}^2$	0.060 ± 0.079
Ω_{m}	0.3098 ± 0.0079	k_{eq}	0.01030 ± 0.00012	χ_{MGS}^2	1.39 ± 0.56
$\Omega_{\text{m}} h^2$	0.1420 ± 0.0030	$100\theta_{\text{eq}}$	0.8184 ± 0.0056	χ_{DR12BAO}^2	4.8 ± 1.7
$\Omega_{\text{m}} h^3$	0.0962 ± 0.0033	$100\theta_{\text{s,eq}}$	0.4521 ± 0.0029	χ_{prior}^2	7.3 ± 3.6
σ_8	0.809 ± 0.011	$H(0.15)$	73.0 ± 1.1	χ_{BAO}^2	6.2 ± 1.4
S_8	0.822 ± 0.015	$D_{\text{M}}(0.15)$	640 ± 10	χ_{CMB}^2	1192.2 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4502 ± 0.0083	$H(0.38)$	83.1 ± 1.1	χ_{Abund}^2	0.82 ± 0.91
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6034 ± 0.0088	$D_{\text{M}}(0.38)$	1528 ± 23		
$\sigma_8/h^{0.5}$	0.983 ± 0.011	$H(0.51)$	89.8 ± 1.2		

$$\bar{\chi}_{\text{eff}}^2 = 1206.53; R - 1 = 0.01138$$

7.49 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022382	0.02239 ± 0.00018 (-0.2σ)	σ_8	0.8060	0.808 ± 0.012 (-0.3σ)	$D_M(0.15)$	645.7	643 ± 11 $(+0.6\sigma)$
$\Omega_c h^2$	0.11790	0.1186 ± 0.0031 (-0.7σ)	S_8	0.8229	0.823 ± 0.014 (-0.1σ)	$H(0.38)$	82.48	82.8 ± 1.2 (-0.9σ)
$100\theta_{MC}$	1.041192	1.04110 ± 0.00044 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4507	0.4509 ± 0.0075 (-0.1σ)	$D_M(0.38)$	1539.6	1534 ± 24 $(+0.7\sigma)$
τ	0.0551	0.0556 ± 0.0080 (-0.0σ)	$\sigma_8 \Omega_m^{0.25}$	0.6027	0.6035 ± 0.0087 (-0.2σ)	$H(0.51)$	89.17	89.5 ± 1.2 (-1.2σ)
N_{eff}	2.956	3.01 ± 0.18	$\sigma_8/h^{0.5}$	0.9837	0.984 ± 0.011 (-0.1σ)	$D_M(0.51)$	1994.2	1987 ± 30 $(+0.8\sigma)$
$\ln(10^{10} A_s)$	3.0415	3.043 ± 0.019 (-0.1σ)	$r_{\text{drag}} h$	99.43	99.56 ± 0.85 (-0.1σ)	$H(0.61)$	94.77	95.1 ± 1.3 (-1.5σ)
n_s	0.9652	0.9655 ± 0.0070 (-0.4σ)	$\langle d^2 \rangle^{1/2}$	2.4359	2.436 ± 0.025 $(+0.0\sigma)$	$D_M(0.61)$	2320.4	2312 ± 35 $(+0.8\sigma)$
y_{cal}	1.00061	1.0007 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.72	7.76 ± 0.80 (-0.0σ)	$H(2.33)$	234.91	235.5 ± 2.7 (-1.0σ)
A_{217}^{CIB}	44.0	46 ± 7 (-0.0σ)	$10^9 A_s$	2.0936	$2.098^{+0.036}_{-0.041}$ (-0.1σ)	$D_M(2.33)$	5795	5777 ± 75 $(+2.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.89	—	$10^9 A_s e^{-2\tau}$	1.8751	1.877 ± 0.018 (-0.3σ)	$f\sigma_8(0.15)$	0.4552	0.4554 ± 0.0073 (-0.1σ)
A_{143}^{tSZ}	7.01	$5.6^{+2.1}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1228.4	1229 ± 13 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7447	0.746 ± 0.011 (-0.3σ)
A_{100}^{PS}	244.3	257 ± 28 (-0.0σ)	D_{220}	5735.9	5737 ± 39 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4732	0.4737 ± 0.0069 (-0.2σ)
A_{143}^{PS}	52.0	45 ± 8 (-0.0σ)	D_{810}	2541.0	2539 ± 14 (-0.0σ)	$\sigma_8(0.38)$	0.6600	0.6616 ± 0.0097 (-0.3σ)
$A_{143 \times 217}^{\text{PS}}$	57.7	42 ± 9 (-0.0σ)	D_{1420}	820.11	818.1 ± 4.9 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4716	0.4723 ± 0.0067 (-0.2σ)
A_{217}^{PS}	124.0	115 ± 10 (-0.0σ)	D_{2000}	232.28	231.4 ± 1.9 $(+0.2\sigma)$	$\sigma_8(0.51)$	0.6176	0.6191 ± 0.0092 (-0.4σ)
A^{kSZ}	0.01	< 4.05 (-0.0σ)	$n_{s,0.002}$	0.9652	0.9655 ± 0.0070 (-0.4σ)	$f\sigma_8(0.61)$	0.4666	0.4673 ± 0.0066 (-0.2σ)
A_{100}^{dustTT}	8.76	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.24418	0.2448 ± 0.0025 (-11.4σ)	$\sigma_8(0.61)$	0.5876	0.5891 ± 0.0088 (-0.4σ)
A_{143}^{dustTT}	11.02	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.24551	0.2461 ± 0.0025 (-11.4σ)	$f\sigma_8(2.33)$	0.29624	0.2970 ± 0.0045 (-0.4σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.45	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5521	2.569 ± 0.046 (-0.3σ)	$\sigma_8(2.33)$	0.30535	0.3062 ± 0.0048 (-0.4σ)
A_{217}^{dustTT}	96.2	93.8 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.874	13.83 ± 0.18 $(+2.2\sigma)$	f_{2000}^{143}	27.52	29.0 ± 3.0 (-0.1σ)
A_{100}^{dustTE}	0.1135	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.632	1089.74 ± 0.35 (-0.3σ)	$f_{2000}^{143 \times 217}$	31.16	31.8 ± 2.1 (-0.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1351	0.135 ± 0.029 $(+0.0\sigma)$	r_*	145.42	145.0 ± 1.8 $(+1.9\sigma)$	f_{2000}^{217}	105.72	106.7 ± 2.0 (-0.1σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.04144	1.04131 ± 0.00054 $(+0.4\sigma)$	χ_{small}^2	396.16	397.3 ± 2.1 (-0.0σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.964	13.93 ± 0.16 $(+1.8\sigma)$	χ_{lowl}^2	23.21	23.3 ± 1.1 $(+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.664 ± 0.080 (-0.0σ)	z_{drag}	1059.74	1059.84 ± 0.70 (-0.6σ)	χ_{plik}^2	2344.8	2360.4 ± 6.2 $(+0.1\sigma)$
A_{217}^{dustTE}	2.070	2.08 ± 0.27 (-0.0σ)	r_{drag}	148.10	147.7 ± 1.8 $(+1.9\sigma)$	$\chi_{6\text{DF}}^2$	0.0470	0.066 ± 0.077 $(+0.1\sigma)$
c_{100}	0.99975	0.99966 ± 0.00061 $(+0.0\sigma)$	k_D	0.14017	0.1404 ± 0.0013 (-1.1σ)	χ_{MGS}^2	1.097	1.23 ± 0.46 (-0.1σ)
c_{217}	0.99816	0.99818 ± 0.00062 $(+0.0\sigma)$	$100\theta_D$	0.160506	0.16065 ± 0.00040 (-0.5σ)	χ_{DR12BAO}^2	4.79	5.0 ± 1.6 $(+0.1\sigma)$
H_0	67.14	67.4 ± 1.2 (-0.5σ)	z_{eq}	3393.6	3389 ± 25 $(+0.1\sigma)$	χ_{prior}^2	1.47	11.6 ± 4.6 $(+0.0\sigma)$
Ω_Λ	0.6873	0.6883 ± 0.0069 (-0.1σ)	k_{eq}	0.010295	0.01031 ± 0.00012 (-0.3σ)	χ_{BAO}^2	5.93	6.3 ± 1.3 $(+0.1\sigma)$
Ω_m	0.3127	0.3117 ± 0.0069 $(+0.1\sigma)$	$100\theta_{\text{eq}}$	0.81501	0.8159 ± 0.0047 (-0.1σ)	χ_{CMB}^2	2764.2	2781.0 ± 6.0 $(+0.2\sigma)$
$\Omega_m h^2$	0.14093	0.1417 ± 0.0032 (-0.7σ)	$100\theta_{s,\text{eq}}$	0.45027	0.4507 ± 0.0024 (-0.1σ)			
$\Omega_m h^3$	0.09462	0.0956 ± 0.0035 (-2.8σ)	$H(0.15)$	72.40	72.7 ± 1.2 (-0.6σ)			

Best-fit $\chi_{\text{eff}}^2 = 2771.61$; $\Delta\chi_{\text{eff}}^2 = -0.30$; $\bar{\chi}_{\text{eff}}^2 = 2798.95$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.05$; $R - 1 = 0.01038$
 χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.79 (Δ 0.38) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.16 (Δ -0.04) commander_dx12_v3_2_29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2344.84 (Δ -0.67)

7.50 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022382	0.02238 ± 0.00018	σ_8	0.8061	$0.8082^{+0.0091}_{-0.010}$	$D_M(0.15)$	645.5	643 ± 10
$\Omega_c h^2$	0.11760	0.1185 ± 0.0028	S_8	0.8218	0.824 ± 0.011	$H(0.38)$	82.47	82.7 ± 1.1
$100\theta_{MC}$	1.041191	1.04110 ± 0.00041	$\sigma_8 \Omega_m^{0.5}$	0.4501	0.4511 ± 0.0060	$D_M(0.38)$	1539.5	1534 ± 23
τ	0.0566	$0.0565^{+0.0068}_{-0.0076}$	$\sigma_8 \Omega_m^{0.25}$	0.6023	0.6038 ± 0.0070	$H(0.51)$	89.15	89.4 ± 1.2
N_{eff}	2.948	3.00 ± 0.17	$\sigma_8/h^{0.5}$	0.9836	0.9845 ± 0.0085	$D_M(0.51)$	1994.2	1988 ± 29
$\ln(10^{10} A_s)$	3.0438	3.045 ± 0.016	$r_{\text{drag}} h$	99.54	99.56 ± 0.80	$H(0.61)$	94.74	95.1 ± 1.2
n_s	0.9649	0.9654 ± 0.0067	$\langle d^2 \rangle^{1/2}$	2.4377	2.439 ± 0.021	$D_M(0.61)$	2320.5	2313 ± 33
y_{cal}	1.00079	1.0008 ± 0.0025	z_{re}	7.86	7.86 ± 0.74	$H(2.33)$	234.68	235.4 ± 2.5
A_{217}^{CIB}	45.2	47 ± 7	$10^9 A_s$	2.0986	$2.102^{+0.031}_{-0.035}$	$D_M(2.33)$	5798	5780 ± 71
$\xi^{\text{tSZ} \times \text{CIB}}$	0.75	—	$10^9 A_s e^{-2\tau}$	1.8740	1.877 ± 0.016	$f\sigma_8(0.15)$	0.4547	0.4557 ± 0.0057
A_{143}^{tSZ}	7.06	$5.6^{+2.2}_{-1.9}$	D_{40}	1229.7	1230 ± 13	$\sigma_8(0.15)$	0.7448	$0.7468^{+0.0086}_{-0.0096}$
A_{100}^{PS}	245.9	256 ± 28	D_{220}	5740.1	5739 ± 38	$f\sigma_8(0.38)$	0.4728	0.4739 ± 0.0055
A_{143}^{PS}	50.0	45 ± 8	D_{810}	2540.7	2539 ± 14	$\sigma_8(0.38)$	0.6602	$0.6620^{+0.0079}_{-0.0089}$
$A_{143 \times 217}^{\text{PS}}$	54.1	42 ± 9	D_{1420}	819.97	818.5 ± 4.9	$f\sigma_8(0.51)$	0.4714	0.4725 ± 0.0054
A_{217}^{PS}	122.2	115 ± 10	D_{2000}	232.26	231.5 ± 1.9	$\sigma_8(0.51)$	0.6178	$0.6195^{+0.0075}_{-0.0085}$
A^{kSZ}	0.00	< 4.09	$n_{s,0.002}$	0.9649	0.9654 ± 0.0067	$f\sigma_8(0.61)$	0.4664	0.4676 ± 0.0054
A_{100}^{dustTT}	8.82	8.8 ± 1.8	Y_{P}	0.24408	0.2447 ± 0.0023	$\sigma_8(0.61)$	0.5879	$0.5895^{+0.0072}_{-0.0082}$
A_{143}^{dustTT}	11.01	10.8 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.24540	0.2460 ± 0.0023	$f\sigma_8(2.33)$	0.29640	$0.2972^{+0.0037}_{-0.0042}$
$A_{143 \times 217}^{\text{dustTT}}$	20.16	18.5 ± 3.3	$10^5 D/H$	2.5494	2.567 ± 0.043	$\sigma_8(2.33)$	0.30555	$0.3064^{+0.0040}_{-0.0046}$
A_{217}^{dustTT}	95.5	93.6 ± 7.4	Age/Gyr	13.881	13.84 ± 0.17	f_{2000}^{143}	27.68	28.8 ± 3.0
A_{100}^{dustTE}	0.1133	0.114 ± 0.038	z_*	1089.599	1089.72 ± 0.32	$f_{2000}^{143 \times 217}$	31.23	31.7 ± 2.1
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.135 ± 0.030	r_*	145.54	145.1 ± 1.6	f_{2000}^{217}	105.87	106.6 ± 2.0
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.481 ± 0.085	$100\theta_*$	1.04144	1.04132 ± 0.00050	χ_{lensing}^2	8.580	9.06 ± 0.64
A_{143}^{dustTE}	0.226	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.975	13.93 ± 0.15	χ_{small}^2	396.47	397.4 ± 2.1
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.665 ± 0.079	z_{drag}	1059.70	1059.82 ± 0.67	χ_{lowl}^2	23.29	23.4 ± 1.0
A_{217}^{dustTE}	2.075	2.07 ± 0.26	r_{drag}	148.22	147.8 ± 1.7	χ_{plik}^2	2344.5	2359.6 ± 5.9
c_{100}	0.99975	0.99966 ± 0.00062	k_{D}	0.14007	0.1404 ± 0.0013	χ_{JLA}^2	706.758	706.79 ± 0.20
c_{217}	0.99816	0.99818 ± 0.00061	$100\theta_{\text{D}}$	0.160487	0.16063 ± 0.00038	$\chi_{6\text{DF}}^2$	0.0376	0.063 ± 0.071
H_0	67.16	67.4 ± 1.1	z_{eq}	3389.7	3388 ± 23	χ_{MGS}^2	1.156	1.23 ± 0.43
Ω_{Λ}	0.6882	0.6884 ± 0.0065	k_{eq}	0.010278	0.01031 ± 0.00011	χ_{DR12BAO}^2	4.58	5.0 ± 1.5
Ω_{m}	0.3118	0.3116 ± 0.0065	$100\theta_{\text{eq}}$	0.81571	0.8160 ± 0.0044	χ_{prior}^2	1.59	11.6 ± 4.5
$\Omega_{\text{m}} h^2$	0.14063	0.1415 ± 0.0029	$100\theta_{s,\text{eq}}$	0.45064	0.4508 ± 0.0022	χ_{CMB}^2	2772.9	2789.4 ± 6.0
$\Omega_{\text{m}} h^3$	0.09444	$0.0954^{+0.0031}_{-0.0035}$	$H(0.15)$	72.41	72.7 ± 1.1	χ_{BAO}^2	5.77	6.3 ± 1.2

Best-fit $\chi_{\text{eff}}^2 = 3486.99$; $\bar{\chi}_{\text{eff}}^2 = 3514.05$; $R - 1 = 0.03296$

χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.58 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.58 small_100x143.offlike5_EE_Aplanck_B: 396.47 commander_dx12.v3.2.29: 23.29 plik_rd12_HM.v22b_TTTEEE: 2344.53 SN - JLA December.2013: 706.76

7.51 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022397	0.02239 ± 0.00018 (-0.3σ)	σ_8	0.8068	0.808 ± 0.010 (-0.3σ)	$D_M(0.15)$	644.4	643 ± 10 $(+0.8\sigma)$
$\Omega_c h^2$	0.11805	0.1185 ± 0.0029 (-0.9σ)	S_8	0.8225	0.823 ± 0.011 (-0.1σ)	$H(0.38)$	82.60	82.8 ± 1.2 (-1.2σ)
$100\theta_{MC}$	1.041150	1.04111 ± 0.00043 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4505	0.4507 ± 0.0060 (-0.1σ)	$D_M(0.38)$	1536.9	1534 ± 23 $(+0.9\sigma)$
τ	0.0559	0.0566 ± 0.0074 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6029	0.6035 ± 0.0071 (-0.2σ)	$H(0.51)$	89.30	89.5 ± 1.2 (-1.5σ)
N_{eff}	2.971	3.00 ± 0.17	$\sigma_8/h^{0.5}$	0.9837	0.9840 ± 0.0086 (-0.0σ)	$D_M(0.51)$	1990.8	1987 ± 29 $(+1.0\sigma)$
$\ln(10^{10} A_s)$	3.0437	3.045 ± 0.016 (-0.1σ)	$r_{\text{drag}} h$	99.53	99.62 ± 0.79 (-0.1σ)	$H(0.61)$	94.89	95.1 ± 1.2 (-1.8σ)
n_s	0.9653	0.9655 ± 0.0067 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4371	2.438 ± 0.021 $(+0.1\sigma)$	$D_M(0.61)$	2316.6	2312 ± 34 $(+1.0\sigma)$
y_{cal}	1.00085	1.0008 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.80	7.86 ± 0.73 $(+0.0\sigma)$	$H(2.33)$	235.07	235.4 ± 2.5 (-1.3σ)
A_{217}^{CIB}	46.4	46 ± 7 (-0.1σ)	$10^9 A_s$	2.0982	2.102 ± 0.034 (-0.1σ)	$D_M(2.33)$	5788	5778 ± 72 $(+2.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.50	—	$10^9 A_s e^{-2\tau}$	1.8762	1.877 ± 0.017 (-0.4σ)	$f\sigma_8(0.15)$	0.4550	0.4553 ± 0.0058 (-0.1σ)
A_{143}^{tSZ}	7.18	$5.6_{-1.8}^{+2.2}$ $(+0.1\sigma)$	D_{40}	1229.6	1230 ± 13 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7455	0.7467 ± 0.0094 (-0.3σ)
A_{100}^{PS}	248.7	257 ± 28 (-0.1σ)	D_{220}	5741.1	5740 ± 38 (-0.0σ)	$f\sigma_8(0.38)$	0.4732	0.4737 ± 0.0056 (-0.2σ)
A_{143}^{PS}	46.9	45 ± 8 (-0.1σ)	D_{810}	2541.0	2539 ± 14 (-0.0σ)	$\sigma_8(0.38)$	0.6608	0.6620 ± 0.0086 (-0.4σ)
$A_{143 \times 217}^{\text{PS}}$	48.3	42 ± 9 (-0.0σ)	D_{1420}	819.67	818.4 ± 4.9 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4718	0.4723 ± 0.0055 (-0.2σ)
A_{217}^{PS}	120.1	115 ± 10 $(+0.0\sigma)$	D_{2000}	232.05	231.5 ± 1.9 $(+0.2\sigma)$	$\sigma_8(0.51)$	0.6184	0.6195 ± 0.0082 (-0.4σ)
A^{kSZ}	0.00	< 3.98 (-0.1σ)	$n_{s,0.002}$	0.9653	0.9655 ± 0.0067 (-0.3σ)	$f\sigma_8(0.61)$	0.4668	0.4674 ± 0.0055 (-0.2σ)
A_{100}^{dustTT}	8.79	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.24440	0.2448 ± 0.0024 (-12.8σ)	$\sigma_8(0.61)$	0.5884	0.5895 ± 0.0079 (-0.4σ)
A_{143}^{dustTT}	11.00	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.24573	0.2461 ± 0.0024 (-12.8σ)	$f\sigma_8(2.33)$	0.29667	0.2973 ± 0.0041 (-0.4σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.74	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5548	2.565 ± 0.044 (-0.4σ)	$\sigma_8(2.33)$	0.30583	0.3065 ± 0.0044 (-0.4σ)
A_{217}^{dustTT}	95.1	93.8 ± 7.4 $(+0.0\sigma)$	Age/Gyr	13.858	13.83 ± 0.17 $(+2.5\sigma)$	f_{2000}^{143}	27.99	28.8 ± 3.0 (-0.2σ)
A_{100}^{dustTE}	0.1142	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.642	1089.71 ± 0.33 (-0.3σ)	$f_{2000}^{143 \times 217}$	31.35	31.7 ± 2.1 (-0.2σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.135 ± 0.030 (-0.0σ)	r_*	145.29	145.1 ± 1.7 $(+2.3\sigma)$	f_{2000}^{217}	106.12	106.6 ± 2.0 (-0.2σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.04138	1.04132 ± 0.00052 $(+0.4\sigma)$	χ_{lensing}^2	8.619	9.06 ± 0.65 (-0.1σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.952	13.93 ± 0.16 $(+2.2\sigma)$	χ_{small}^2	396	230 ± 200 (-89.0σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.664 ± 0.080 (-0.0σ)	z_{drag}	1059.78	1059.84 ± 0.68 (-0.6σ)	χ_{lowl}^2	23	191 ± 200 $(+207.3\sigma)$
A_{217}^{dustTE}	2.078	2.07 ± 0.27 (-0.0σ)	r_{drag}	147.96	147.7 ± 1.8 $(+2.2\sigma)$	χ_{plik}^2	2344.6	2359.9 ± 6.0 $(+0.0\sigma)$
c_{100}	0.99973	0.99968 ± 0.00061 $(+0.0\sigma)$	k_D	0.14026	0.1404 ± 0.0013 (-1.3σ)	χ_{JLA}^2	1035.072	1035.12 ± 0.34 $(+0.2\sigma)$
c_{217}	0.99815	0.99817 ± 0.00062 (-0.0σ)	$100\theta_D$	0.160536	0.16062 ± 0.00039 (-0.5σ)	χ_{6DF}^2	0.038	0.59 ± 0.66 $(+10.3\sigma)$
H_0	67.27	67.4 ± 1.1 (-0.7σ)	z_{eq}	3390.1	3387 ± 23 $(+0.1\sigma)$	χ_{MGS}^2	1.16	0.72 ± 0.68 (-1.5σ)
Ω_Λ	0.6882	0.6889 ± 0.0064 (-0.1σ)	k_{eq}	0.010295	0.01030 ± 0.00011 (-0.4σ)	χ_{DR12BAO}^2	4.60	4.9 ± 1.4 $(+0.2\sigma)$
Ω_m	0.3118	0.3111 ± 0.0064 $(+0.1\sigma)$	$100\theta_{\text{eq}}$	0.81566	0.8163 ± 0.0044 (-0.1σ)	χ_{prior}^2	1.72	11.6 ± 4.5 $(+0.0\sigma)$
$\Omega_m h^2$	0.14109	0.1415 ± 0.0030 (-0.9σ)	$100\theta_{s,\text{eq}}$	0.45060	0.4509 ± 0.0022 (-0.1σ)	χ_{CMB}^2	2772.8	2789.7 ± 6.0 $(+0.1\sigma)$
$\Omega_m h^3$	0.09491	0.0955 ± 0.0034 (-3.0σ)	$H(0.15)$	72.53	72.7 ± 1.1 (-0.8σ)	χ_{BAO}^2	5.79	6.2 ± 1.1 $(+0.2\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 3815.38$; $\Delta\chi_{\text{eff}}^2 = -0.29$; $\bar{\chi}_{\text{eff}}^2 = 3842.56$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.70$; $R - 1 = 0.01451$

χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.02) MGS: 1.16 (Δ -0.12) DR12BAO: 4.60 (Δ 0.35) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.62 (Δ -0.10) small_100x143_offlike5_EE_Aplanck396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.25 (Δ 0.37) plik_rd12_HM_v22b.TTTEEE: 2344.60 (Δ -0.67) SN - JLA Pantheon18: 1035.07 (Δ 0.10)

7.52 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022341	0.02237 ± 0.00018 (-0.4σ)	σ_8	0.8047	0.8076 ± 0.0099 (-0.4σ)	$D_M(0.15)$	648.2	644 ± 10 $(+1.0\sigma)$
$\Omega_c h^2$	0.11726	0.1183 ± 0.0029 (-1.1σ)	S_8	0.8229	0.824 ± 0.011 (-0.1σ)	$H(0.38)$	82.19	82.7 ± 1.2 (-1.5σ)
$100\theta_{MC}$	1.041259	1.04112 ± 0.00043 $(+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4507	0.4512 ± 0.0061 (-0.1σ)	$D_M(0.38)$	1545.4	1537 ± 24 $(+1.2\sigma)$
τ	0.0558	0.0563 ± 0.0074 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6022	0.6036 ± 0.0071 (-0.3σ)	$H(0.51)$	88.88	89.4 ± 1.2 (-1.9σ)
N_{eff}	2.914	2.99 ± 0.17	$\sigma_8/h^{0.5}$	0.9841	0.9844 ± 0.0086 (-0.1σ)	$D_M(0.51)$	2001.6	1990 ± 30 $(+1.2\sigma)$
$\ln(10^{10} A_s)$	3.0412	3.044 ± 0.016 (-0.2σ)	$r_{\text{drag}} h$	99.31	99.49 ± 0.82 (-0.2σ)	$H(0.61)$	94.46	95.0 ± 1.2 (-2.4σ)
n_s	0.9635	0.9647 ± 0.0069 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4400	2.440 ± 0.021 $(+0.1\sigma)$	$D_M(0.61)$	2328.9	2316 ± 34 $(+1.3\sigma)$
y_{cal}	1.00056	1.0008 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.78	7.83 ± 0.73 $(+0.0\sigma)$	$H(2.33)$	234.31	235.3 ± 2.5 (-1.6σ)
A_{217}^{CIB}	44.0	46 ± 7 (-0.1σ)	$10^9 A_s$	2.0929	2.100 ± 0.034 (-0.2σ)	$D_M(2.33)$	5814	5785 ± 73 $(+3.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.92	—	$10^9 A_s e^{-2\tau}$	1.8719	1.876 ± 0.017 (-0.5σ)	$f\sigma_8(0.15)$	0.4551	0.4557 ± 0.0058 (-0.1σ)
A_{143}^{tSZ}	6.98	$5.6_{-1.8}^{+2.2}$ $(+0.1\sigma)$	D_{40}	1230.9	1231 ± 13 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7434	0.7462 ± 0.0094 (-0.5σ)
A_{100}^{PS}	243.4	256 ± 28 (-0.1σ)	D_{220}	5736.4	5739 ± 38 (-0.0σ)	$f\sigma_8(0.38)$	0.4728	0.4738 ± 0.0056 (-0.2σ)
A_{143}^{PS}	51.9	45 ± 8 (-0.1σ)	D_{810}	2540.1	2539 ± 14 (-0.1σ)	$\sigma_8(0.38)$	0.6587	0.6613 ± 0.0086 (-0.5σ)
$A_{143 \times 217}^{\text{PS}}$	58.2	42 ± 9 (-0.0σ)	D_{1420}	820.08	818.4 ± 4.9 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4712	0.4724 ± 0.0055 (-0.3σ)
A_{217}^{PS}	123.9	115 ± 10 $(+0.0\sigma)$	D_{2000}	232.41	231.5 ± 1.9 $(+0.3\sigma)$	$\sigma_8(0.51)$	0.6163	0.6189 ± 0.0082 (-0.5σ)
A^{kSZ}	0.01	< 3.94 (-0.1σ)	$n_{s,0.002}$	0.9635	0.9647 ± 0.0069 (-0.5σ)	$f\sigma_8(0.61)$	0.4660	0.4673 ± 0.0054 (-0.3σ)
A_{100}^{dustTT}	8.73	8.9 ± 1.8 (-0.0σ)	Y_P	0.24360	0.2445 ± 0.0024 (-16.6σ)	$\sigma_8(0.61)$	0.5864	0.5889 ± 0.0079 (-0.5σ)
A_{143}^{dustTT}	10.94	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.24492	0.2459 ± 0.0024 (-16.6σ)	$f\sigma_8(2.33)$	0.29559	0.2969 ± 0.0041 (-0.5σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.27	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5452	2.564 ± 0.044 (-0.5σ)	$\sigma_8(2.33)$	0.30464	0.3061 ± 0.0044 (-0.5σ)
A_{217}^{dustTT}	95.8	93.7 ± 7.4 $(+0.0\sigma)$	Age/Gyr	13.918	13.85 ± 0.17 $(+3.2\sigma)$	f_{2000}^{143}	27.26	28.8 ± 3.0 (-0.2σ)
A_{100}^{dustTE}	0.1141	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.587	1089.71 ± 0.33 (-0.4σ)	$f_{2000}^{143 \times 217}$	31.03	31.6 ± 2.1 (-0.3σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1351	0.135 ± 0.030 (-0.0σ)	r_*	145.84	145.2 ± 1.7 $(+2.9\sigma)$	f_{2000}^{217}	105.56	106.6 ± 2.0 (-0.2σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.04153	1.04135 ± 0.00053 $(+0.6\sigma)$	χ_{lensing}^2	8.540	9.05 ± 0.65 (-0.1σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.002	13.94 ± 0.16 $(+2.8\sigma)$	χ_{small}^2	396	229 ± 200 (-91.1σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.664 ± 0.080 (-0.0σ)	z_{drag}	1059.55	1059.78 ± 0.69 (-0.8σ)	χ_{lowl}^2	23	192 ± 200 $(+205.8\sigma)$
A_{217}^{dustTE}	2.076	2.07 ± 0.27 (-0.0σ)	r_{drag}	148.53	147.9 ± 1.8 $(+2.9\sigma)$	χ_{plik}^2	2344.3	2359.7 ± 6.0 $(+0.0\sigma)$
c_{100}	0.99977	0.99968 ± 0.00061 $(+0.0\sigma)$	k_D	0.13985	0.1403 ± 0.0013 (-1.6σ)	$\chi_{6\text{DF}}^2$	0.057	0.57 ± 0.63 $(+8.7\sigma)$
c_{217}	0.99816	0.99817 ± 0.00062 (-0.0σ)	$100\theta_D$	0.160431	0.16060 ± 0.00039 (-0.7σ)	χ_{MGS}^2	1.04	0.69 ± 0.65 (-1.4σ)
H_0	66.86	67.3 ± 1.1 (-0.9σ)	z_{eq}	3396.3	3391 ± 24 $(+0.2\sigma)$	χ_{DR12BAO}^2	5.00	5.1 ± 1.6 $(+0.2\sigma)$
Ω_Λ	0.6863	0.6878 ± 0.0067 (-0.2σ)	k_{eq}	0.010274	0.01031 ± 0.00011 (-0.5σ)	χ_{prior}^2	1.42	11.6 ± 4.5 $(+0.0\sigma)$
Ω_m	0.3137	0.3122 ± 0.0067 $(+0.2\sigma)$	$100\theta_{\text{eq}}$	0.81444	0.8155 ± 0.0045 (-0.2σ)	χ_{CMB}^2	2772.7	2789.5 ± 6.0 $(+0.1\sigma)$
$\Omega_m h^2$	0.14025	0.1414 ± 0.0030 (-1.2σ)	$100\theta_{s,\text{eq}}$	0.45000	0.4505 ± 0.0023 (-0.2σ)	χ_{BAO}^2	6.09	6.4 ± 1.3 $(+0.2\sigma)$
$\Omega_m h^3$	0.09378	$0.0952_{-0.0036}^{+0.0032}$ (-4.0σ)	$H(0.15)$	72.12	72.6 ± 1.1 (-1.1σ)			

Best-fit $\chi_{\text{eff}}^2 = 2780.19$; $\Delta\chi_{\text{eff}}^2 = -0.51$; $\bar{\chi}_{\text{eff}}^2 = 2807.45$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.60$; $R - 1 = 0.01513$
 χ_{eff}^2 : BAO - 6DF: 0.06 (Δ 0.03) MGS: 1.04 (Δ -0.18) DR12BAO: 5.00 (Δ 0.58) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.54 (Δ -0.19) simall_100x143_offlike5_EE_Aplanck
396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.47 (Δ 0.57) plik_rd12_HM_v22b.TTTEEE: 2344.34 (Δ -0.98)

7.53 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00017	σ_8	0.807 ± 0.010	$D_M(0.15)$	644.5 ± 9.2
$\Omega_c h^2$	0.1182 ± 0.0026	S_8	0.823 ± 0.013	$H(0.38)$	82.6 ± 1.0
$100\theta_{MC}$	1.04114 ± 0.00040	$\sigma_8 \Omega_m^{0.5}$	0.4506 ± 0.0073	$D_M(0.38)$	1537 ± 21
τ	0.0554 ± 0.0079	$\sigma_8 \Omega_m^{0.25}$	0.6028 ± 0.0082	$H(0.51)$	89.3 ± 1.0
N_{eff}	2.98 ± 0.15	$\sigma_8/h^{0.5}$	0.983 ± 0.011	$D_M(0.51)$	1991 ± 26
$\ln(10^{10} A_s)$	3.042 ± 0.018	$r_{\text{drag}} h$	99.50 ± 0.83	$H(0.61)$	94.9 ± 1.1
n_s	0.9648 ± 0.0062	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.025	$D_M(0.61)$	2317 ± 30
y_{cal}	1.0007 ± 0.0025	z_{re}	7.74 ± 0.80	$H(2.33)$	235.2 ± 2.3
A_{217}^{CIB}	46 ± 7	$10^9 A_s$	2.095 ± 0.038	$D_M(2.33)$	5787 ± 64
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.875 ± 0.016	$f\sigma_8(0.15)$	0.4551 ± 0.0070
A_{143}^{tSZ}	$5.6_{-1.8}^{+2.1}$	D_{40}	1230 ± 13	$\sigma_8(0.15)$	0.7452 ± 0.0097
A_{100}^{PS}	256 ± 28	D_{220}	5737 ± 39	$f\sigma_8(0.38)$	0.4732 ± 0.0065
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 14	$\sigma_8(0.38)$	0.6605 ± 0.0087
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.3 ± 4.9	$f\sigma_8(0.51)$	0.4717 ± 0.0063
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.8	$\sigma_8(0.51)$	0.6181 ± 0.0082
A^{kSZ}	< 3.94	$n_{s,0.002}$	0.9648 ± 0.0062	$f\sigma_8(0.61)$	0.4667 ± 0.0061
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	Y_P	0.2445 ± 0.0021	$\sigma_8(0.61)$	0.5881 ± 0.0079
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	0.2458 ± 0.0021	$f\sigma_8(2.33)$	0.2965 ± 0.0040
$A_{143 \times 217}^{\text{dust}TT}$	18.6 ± 3.3	10^5D/H	2.564 ± 0.041	$\sigma_8(2.33)$	0.3057 ± 0.0043
$A_{217}^{\text{dust}TT}$	93.8 ± 7.4	Age/Gyr	13.85 ± 0.15	f_{2000}^{143}	28.8 ± 2.9
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.70 ± 0.32	$f_{2000}^{143 \times 217}$	31.6 ± 2.0
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	r_*	145.2 ± 1.5	f_{2000}^{217}	106.5 ± 1.9
$A_{100 \times 217}^{\text{dust}TE}$	0.482 ± 0.085	$100\theta_*$	1.04137 ± 0.00048	χ_{simall}^2	228 ± 200
$A_{143}^{\text{dust}TE}$	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.95 ± 0.14	χ_{lowl}^2	192 ± 200
$A_{143 \times 217}^{\text{dust}TE}$	0.664 ± 0.080	z_{drag}	1059.75 ± 0.61	χ_{plik}^2	2359.9 ± 6.1
$A_{217}^{\text{dust}TE}$	2.07 ± 0.27	r_{drag}	147.9 ± 1.6	χ_{Aver15}^2	0.32 ± 0.45
c_{100}	0.99967 ± 0.00062	k_D	0.1403 ± 0.0011	$\chi_{6\text{DF}}^2$	0.58 ± 0.63
c_{217}	0.99818 ± 0.00062	$100\theta_D$	0.16060 ± 0.00035	χ_{MGS}^2	0.69 ± 0.65
H_0	67.3 ± 1.0	z_{eq}	3390 ± 24	χ_{DR12BAO}^2	5.1 ± 1.6
Ω_Λ	0.6878 ± 0.0067	k_{eq}	0.01030 ± 0.00011	χ_{prior}^2	11.6 ± 4.5
Ω_m	0.3122 ± 0.0067	$100\theta_{\text{eq}}$	0.8156 ± 0.0046	χ_{BAO}^2	6.4 ± 1.4
$\Omega_m h^2$	0.1413 ± 0.0027	$100\theta_{s,\text{eq}}$	0.4506 ± 0.0023	χ_{CMB}^2	2780.6 ± 6.0
$\Omega_m h^3$	0.0950 ± 0.0030	$H(0.15)$	72.5 ± 1.0		

$$\bar{\chi}_{\text{eff}}^2 = 2798.91; R - 1 = 0.01423$$

7.54 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00017	S_8	0.824 ± 0.013	$D_M(0.38)$	1534 ± 20
$\Omega_c h^2$	0.1187 ± 0.0025	$\sigma_8 \Omega_m^{0.5}$	0.4513 ± 0.0072	$H(0.51)$	89.5 ± 1.0
$100\theta_{MC}$	1.04108 ± 0.00039	$\sigma_8 \Omega_m^{0.25}$	0.6038 ± 0.0080	$D_M(0.51)$	1987 ± 25
τ	0.0554 ± 0.0080	$\sigma_8/h^{0.5}$	0.984 ± 0.011	$H(0.61)$	95.1 ± 1.0
N_{eff}	3.01 ± 0.14	$r_{\text{drag}} h$	99.50 ± 0.83	$D_M(0.61)$	2313 ± 29
$\ln(10^{10} A_s)$	3.043 ± 0.018	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.025	$H(2.33)$	235.6 ± 2.2
n_s	0.9655 ± 0.0061	z_{re}	7.75 ± 0.80	$D_M(2.33)$	5778 ± 61
y_{cal}	1.0007 ± 0.0025	$10^9 A_s$	2.097 ± 0.038	$f\sigma_8(0.15)$	0.4558 ± 0.0069
A_{217}^{CIB}	47 ± 7	$10^9 A_s e^{-2\tau}$	1.877 ± 0.016	$\sigma_8(0.15)$	0.7465 ± 0.0094
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1229 ± 13	$f\sigma_8(0.38)$	0.4740 ± 0.0064
A_{143}^{tSZ}	$5.6_{-1.9}^{+2.2}$	D_{220}	5735 ± 38	$\sigma_8(0.38)$	0.6616 ± 0.0084
A_{100}^{PS}	257 ± 28	D_{810}	2539 ± 14	$f\sigma_8(0.51)$	0.4725 ± 0.0061
A_{143}^{PS}	45 ± 8	D_{1420}	818.0 ± 4.8	$\sigma_8(0.51)$	0.6192 ± 0.0080
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{2000}	231.3 ± 1.7	$f\sigma_8(0.61)$	0.4675 ± 0.0059
A_{217}^{PS}	115 ± 10	$n_{s,0.002}$	0.9655 ± 0.0061	$\sigma_8(0.61)$	0.5891 ± 0.0076
A^{kSZ}	< 4.05	Y_P	0.2448 ± 0.0020	$f\sigma_8(2.33)$	0.2970 ± 0.0039
A_{100}^{dustTT}	8.9 ± 1.8	Y_P^{BBN}	0.2462 ± 0.0020	$\sigma_8(2.33)$	$0.3062_{-0.0043}^{+0.0039}$
A_{143}^{dustTT}	10.9 ± 1.8	10^5D/H	2.572 ± 0.038	f_{2000}^{143}	29.1 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	Age/Gyr	13.83 ± 0.15	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
A_{217}^{dustTT}	93.8 ± 7.4	z_*	1089.77 ± 0.29	f_{2000}^{217}	106.7 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	r_*	145.0 ± 1.4	χ_{small}^2	230 ± 200
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	$100\theta_*$	1.04129 ± 0.00046	χ_{lowl}^2	190 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.92 ± 0.13	χ_{plik}^2	2359.9 ± 6.1
A_{143}^{dustTE}	0.224 ± 0.054	z_{drag}	1059.80 ± 0.61	χ_{Aver15}^2	0.34 ± 0.46
$A_{143 \times 217}^{\text{dustTE}}$	0.665 ± 0.080	r_{drag}	147.7 ± 1.5	χ_{Cooke17}^2	0.40 ± 0.45
A_{217}^{dustTE}	2.08 ± 0.27	k_D	0.1404 ± 0.0011	$\chi_{6\text{DF}}^2$	0.57 ± 0.63
c_{100}	0.99967 ± 0.00061	$100\theta_D$	0.16067 ± 0.00032	χ_{MGS}^2	0.69 ± 0.65
c_{217}	0.99818 ± 0.00062	z_{eq}	3390 ± 24	χ_{DR12BAO}^2	5.1 ± 1.7
H_0	67.39 ± 0.98	k_{eq}	0.01032 ± 0.00010	χ_{prior}^2	11.6 ± 4.5
Ω_Λ	0.6879 ± 0.0067	$100\theta_{\text{eq}}$	0.8157 ± 0.0046	χ_{BAO}^2	6.4 ± 1.4
Ω_m	0.3121 ± 0.0067	$100\theta_{s,\text{eq}}$	0.4506 ± 0.0023	χ_{CMB}^2	2780.5 ± 5.9
$\Omega_m h^2$	0.1417 ± 0.0026	$H(0.15)$	72.67 ± 0.97	χ_{Abund}^2	0.74 ± 0.57
$\Omega_m h^3$	0.0955 ± 0.0029	$D_M(0.15)$	643.4 ± 9.0		
σ_8	0.808 ± 0.010	$H(0.38)$	82.77 ± 0.99		

$$\bar{\chi}_{\text{eff}}^2 = 2799.26; R - 1 = 0.01400$$

7.55 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00018 \quad (-0.2\sigma)$	σ_8	$0.809 \pm 0.011 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$643 \pm 11 \quad (+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1186 \pm 0.0031 \quad (-0.6\sigma)$	S_8	$0.824 \pm 0.013 \quad (-0.1\sigma)$	$H(0.38)$	$82.8 \pm 1.2 \quad (-0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00044 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0074 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533 \pm 24 \quad (+0.7\sigma)$
τ	$0.0565^{+0.0056}_{-0.0083} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6040 \pm 0.0085 \quad (-0.2\sigma)$	$H(0.51)$	$89.5 \pm 1.2 \quad (-1.2\sigma)$
N_{eff}	3.01 ± 0.18	$\sigma_8/h^{0.5}$	$0.984 \pm 0.010 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986 \pm 30 \quad (+0.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.015}_{-0.019} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.57 \pm 0.85 \quad (-0.1\sigma)$	$H(0.61)$	$95.1 \pm 1.3 \quad (-1.5\sigma)$
n_{s}	$0.9657 \pm 0.0069 \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.024 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311 \pm 35 \quad (+0.8\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.86^{+0.61}_{-0.82} \quad (-0.0\sigma)$	$H(2.33)$	$235.6 \pm 2.7 \quad (-1.0\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.031}_{-0.040} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5776 \pm 75 \quad (+2.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.018 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0071 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1229 \pm 13 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.747 \pm 0.010 \quad (-0.3\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5737 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4741 \pm 0.0067 \quad (-0.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0094 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.1 \pm 4.9 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4727 \pm 0.0065 \quad (-0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.4 \pm 1.9 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6198 \pm 0.0089 \quad (-0.3\sigma)$
A^{kSZ}	$< 4.04 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9657 \pm 0.0069 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0064 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.2449 \pm 0.0025 \quad (-10.9\sigma)$	$\sigma_8(0.61)$	$0.5897^{+0.0079}_{-0.0088} \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2462 \pm 0.0025 \quad (-10.9\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0040}_{-0.0045} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.569 \pm 0.046 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3066^{+0.0043}_{-0.0048} \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.83 \pm 0.18 \quad (+2.1\sigma)$	f_{2000}^{143}	$29.0 \pm 3.0 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.74 \pm 0.35 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.1 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	r_*	$145.0 \pm 1.8 \quad (+1.8\sigma)$	f_{2000}^{217}	$106.6 \pm 2.0 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04131 \pm 0.00054 \quad (+0.4\sigma)$	χ_{small}^2	$397.3 \pm 2.2 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.92 \pm 0.16 \quad (+1.7\sigma)$	χ_{lowl}^2	$23.3 \pm 1.1 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.85 \pm 0.70 \quad (-0.5\sigma)$	χ_{plik}^2	$2360.2 \pm 6.2 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.7 \pm 1.8 \quad (+1.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.065 \pm 0.076 \quad (+0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1405 \pm 0.0013 \quad (-1.1\sigma)$	χ_{MGS}^2	$1.24 \pm 0.46 \quad (-0.1\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16065 \pm 0.00040 \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.6 \quad (+0.1\sigma)$
H_0	$67.4 \pm 1.2 \quad (-0.5\sigma)$	z_{eq}	$3388 \pm 25 \quad (+0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6885 \pm 0.0069 \quad (-0.1\sigma)$	k_{eq}	$0.01031 \pm 0.00012 \quad (-0.3\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.1\sigma)$
Ω_{m}	$0.3115 \pm 0.0069 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8160 \pm 0.0047 \quad (-0.1\sigma)$	χ_{CMB}^2	$2780.8 \pm 6.0 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1417 \pm 0.0032 \quad (-0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4508 \pm 0.0024 \quad (-0.1\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.0956 \pm 0.0035 \quad (-2.6\sigma)$	$H(0.15)$	$72.7 \pm 1.2 \quad (-0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2798.76$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.04$; $R - 1 = 0.01049$

7.56 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00018	σ_8	$0.8085^{+0.0089}_{-0.010}$	$D_M(0.15)$	643 ± 10
$\Omega_c h^2$	0.1185 ± 0.0028	S_8	0.824 ± 0.011	$H(0.38)$	82.8 ± 1.1
$100\theta_{MC}$	1.04110 ± 0.00041	$\sigma_8 \Omega_m^{0.5}$	0.4512 ± 0.0059	$D_M(0.38)$	1534 ± 23
τ	$0.0571^{+0.0058}_{-0.0077}$	$\sigma_8 \Omega_m^{0.25}$	0.6040 ± 0.0069	$H(0.51)$	89.5 ± 1.2
N_{eff}	3.00 ± 0.17	$\sigma_8/h^{0.5}$	0.9848 ± 0.0084	$D_M(0.51)$	1987 ± 29
$\ln(10^{10} A_s)$	$3.046^{+0.014}_{-0.017}$	$r_{\text{drag}} h$	99.58 ± 0.80	$H(0.61)$	95.1 ± 1.2
n_s	0.9655 ± 0.0066	$\langle d^2 \rangle^{1/2}$	2.440 ± 0.020	$D_M(0.61)$	2313 ± 33
y_{cal}	1.0008 ± 0.0025	z_{re}	$7.91^{+0.61}_{-0.75}$	$H(2.33)$	235.4 ± 2.5
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.104^{+0.028}_{-0.035}$	$D_M(2.33)$	5779 ± 71
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.877 ± 0.016	$f\sigma_8(0.15)$	0.4558 ± 0.0057
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9}$	D_{40}	1230 ± 13	$\sigma_8(0.15)$	$0.7472^{+0.0083}_{-0.0096}$
A_{100}^{PS}	256 ± 28	D_{220}	5738 ± 38	$f\sigma_8(0.38)$	0.4741 ± 0.0054
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 14	$\sigma_8(0.38)$	$0.6623^{+0.0076}_{-0.0088}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.4 ± 4.9	$f\sigma_8(0.51)$	0.4727 ± 0.0053
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.9	$\sigma_8(0.51)$	$0.6198^{+0.0072}_{-0.0084}$
A^{kSZ}	< 4.10	$n_{s,0.002}$	0.9655 ± 0.0066	$f\sigma_8(0.61)$	0.4677 ± 0.0053
$A_{100}^{\text{dust}TT}$	8.8 ± 1.8	Y_P	0.2447 ± 0.0023	$\sigma_8(0.61)$	$0.5898^{+0.0070}_{-0.0081}$
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	0.2461 ± 0.0023	$f\sigma_8(2.33)$	$0.2974^{+0.0036}_{-0.0042}$
$A_{143 \times 217}^{\text{dust}TT}$	18.5 ± 3.3	$10^5 \text{D}/\text{H}$	2.567 ± 0.043	$\sigma_8(2.33)$	$0.3066^{+0.0038}_{-0.0045}$
$A_{217}^{\text{dust}TT}$	93.6 ± 7.4	Age/Gyr	13.84 ± 0.17	f_{2000}^{143}	28.8 ± 3.0
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.72 ± 0.32	$f_{2000}^{143 \times 217}$	31.7 ± 2.1
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	r_*	145.1 ± 1.6	f_{2000}^{217}	106.6 ± 2.0
$A_{100 \times 217}^{\text{dust}TE}$	0.480 ± 0.085	$100\theta_*$	1.04131 ± 0.00050	χ_{lensing}^2	9.04 ± 0.61
$A_{143}^{\text{dust}TE}$	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.93 ± 0.15	χ_{simall}^2	397.4 ± 2.1
$A_{143 \times 217}^{\text{dust}TE}$	0.665 ± 0.079	z_{drag}	1059.82 ± 0.67	χ_{lowl}^2	23.4 ± 1.0
$A_{217}^{\text{dust}TE}$	2.07 ± 0.26	r_{drag}	147.7 ± 1.7	χ_{plik}^2	2359.6 ± 5.8
c_{100}	0.99966 ± 0.00062	k_D	0.1404 ± 0.0013	χ_{JLA}^2	706.78 ± 0.19
c_{217}	0.99818 ± 0.00061	$100\theta_D$	0.16063 ± 0.00038	$\chi_{6\text{DF}}^2$	0.061 ± 0.069
H_0	67.4 ± 1.1	z_{eq}	3388 ± 23	χ_{MGS}^2	1.24 ± 0.43
Ω_Λ	0.6885 ± 0.0065	k_{eq}	0.01031 ± 0.00011	χ_{DR12BAO}^2	4.9 ± 1.5
Ω_m	0.3115 ± 0.0065	$100\theta_{\text{eq}}$	0.8161 ± 0.0044	χ_{prior}^2	11.6 ± 4.5
$\Omega_m h^2$	0.1415 ± 0.0029	$100\theta_{s,\text{eq}}$	0.4508 ± 0.0022	χ_{CMB}^2	2789.3 ± 5.9
$\Omega_m h^3$	$0.0954^{+0.0031}_{-0.0036}$	$H(0.15)$	72.7 ± 1.1	χ_{BAO}^2	6.2 ± 1.2

$\bar{\chi}_{\text{eff}}^2 = 3513.91$; $R - 1 = 0.03578$

7.57 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02240 \pm 0.00018 \quad (-0.3\sigma)$	σ_8	$0.8084 \pm 0.0098 \quad (-0.3\sigma)$	$D_{\text{M}}(0.15)$	$643 \pm 10 \quad (+0.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1184 \pm 0.0029 \quad (-0.9\sigma)$	S_8	$0.823 \pm 0.011 \quad (-0.1\sigma)$	$H(0.38)$	$82.8 \pm 1.2 \quad (-1.1\sigma)$
$100\theta_{\text{MC}}$	$1.04111 \pm 0.00043 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4508 \pm 0.0060 \quad (-0.1\sigma)$	$D_{\text{M}}(0.38)$	$1533 \pm 23 \quad (+0.9\sigma)$
τ	$0.0572^{+0.0058}_{-0.0077} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6037 \pm 0.0070 \quad (-0.2\sigma)$	$H(0.51)$	$89.5 \pm 1.2 \quad (-1.5\sigma)$
N_{eff}	3.00 ± 0.17	$\sigma_8/h^{0.5}$	$0.9843 \pm 0.0084 \quad (-0.0\sigma)$	$D_{\text{M}}(0.51)$	$1986 \pm 29 \quad (+1.0\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.014}_{-0.017} \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$99.64 \pm 0.78 \quad (-0.1\sigma)$	$H(0.61)$	$95.1 \pm 1.2 \quad (-1.8\sigma)$
n_{s}	$0.9656 \pm 0.0067 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.020 \quad (+0.1\sigma)$	$D_{\text{M}}(0.61)$	$2311 \pm 34 \quad (+1.0\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.92^{+0.61}_{-0.75} \quad (+0.0\sigma)$	$H(2.33)$	$235.4 \pm 2.5 \quad (-1.3\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.104^{+0.029}_{-0.035} \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	$5778 \pm 72 \quad (+2.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}} e^{-2\tau}$	$1.877 \pm 0.017 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.4554 \pm 0.0058 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.8} \quad (+0.1\sigma)$	D_{40}	$1230 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7471 \pm 0.0093 \quad (-0.3\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5740 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4738 \pm 0.0055 \quad (-0.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0085 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.4 \pm 4.9 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0054 \quad (-0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.5 \pm 1.9 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6198 \pm 0.0081 \quad (-0.4\sigma)$
A^{kSZ}	$< 3.99 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9656 \pm 0.0067 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4676 \pm 0.0054 \quad (-0.2\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.2448 \pm 0.0024 \quad (-12.7\sigma)$	$\sigma_8(0.61)$	$0.5898 \pm 0.0078 \quad (-0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2461 \pm 0.0024 \quad (-12.7\sigma)$	$f\sigma_8(2.33)$	$0.2974 \pm 0.0040 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.565 \pm 0.044 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3066 \pm 0.0043 \quad (-0.4\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.4 \quad (+0.0\sigma)$	Age/Gyr	$13.83 \pm 0.17 \quad (+2.4\sigma)$	f_{2000}^{143}	$28.8 \pm 3.0 \quad (-0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.70 \pm 0.33 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.1 \quad (-0.2\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	r_*	$145.1 \pm 1.7 \quad (+2.3\sigma)$	f_{2000}^{217}	$106.6 \pm 2.0 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.482 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04132 \pm 0.00052 \quad (+0.4\sigma)$	χ_{lensing}^2	$9.03 \pm 0.62 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.93 \pm 0.16 \quad (+2.2\sigma)$	χ_{small}^2	$230 \pm 200 \quad (-87.8\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.85 \pm 0.68 \quad (-0.6\sigma)$	χ_{lowl}^2	$190 \pm 200 \quad (+206.7\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.7 \pm 1.8 \quad (+2.2\sigma)$	χ_{plik}^2	$2359.8 \pm 6.0 \quad (+0.0\sigma)$
c_{100}	$0.99967 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.1404 \pm 0.0013 \quad (-1.3\sigma)$	χ_{JLA}^2	$1035.11 \pm 0.33 \quad (+0.2\sigma)$
c_{217}	$0.99817 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16063 \pm 0.00039 \quad (-0.5\sigma)$	$\chi_{6\text{DF}}^2$	$0.59 \pm 0.66 \quad (+10.7\sigma)$
H_0	$67.5 \pm 1.1 \quad (-0.7\sigma)$	z_{eq}	$3386 \pm 23 \quad (+0.1\sigma)$	χ_{MGS}^2	$0.73 \pm 0.68 \quad (-1.5\sigma)$
Ω_{Λ}	$0.6890 \pm 0.0063 \quad (-0.1\sigma)$	k_{eq}	$0.01030 \pm 0.00011 \quad (-0.4\sigma)$	χ_{DR12BAO}^2	$4.8 \pm 1.4 \quad (+0.2\sigma)$
Ω_{m}	$0.3110 \pm 0.0063 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8163 \pm 0.0043 \quad (-0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1415 \pm 0.0030 \quad (-0.9\sigma)$	$100\theta_{\text{s,eq}}$	$0.4510 \pm 0.0022 \quad (-0.1\sigma)$	χ_{CMB}^2	$2789.6 \pm 6.0 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.0955 \pm 0.0034 \quad (-3.0\sigma)$	$H(0.15)$	$72.7 \pm 1.1 \quad (-0.8\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (+0.2\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 3842.41; \Delta\bar{\chi}_{\text{eff}}^2 = 0.67; R - 1 = 0.01464$$

7.58 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238 \pm 0.00018 \quad (-0.3\sigma)$	σ_8	$0.8080 \pm 0.0098 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$644 \pm 10 \quad (+1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1183 \pm 0.0029 \quad (-1.1\sigma)$	S_8	$0.824 \pm 0.011 \quad (-0.1\sigma)$	$H(0.38)$	$82.7 \pm 1.2 \quad (-1.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04113 \pm 0.00043 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4513 \pm 0.0060 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1536 \pm 24 \quad (+1.1\sigma)$
τ	$0.0569^{+0.0057}_{-0.0077} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6039 \pm 0.0070 \quad (-0.2\sigma)$	$H(0.51)$	$89.4 \pm 1.2 \quad (-1.9\sigma)$
N_{eff}	2.99 ± 0.17	$\sigma_8/h^{0.5}$	$0.9848 \pm 0.0084 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1990 \pm 30 \quad (+1.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.014}_{-0.017} \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.51 \pm 0.81 \quad (-0.2\sigma)$	$H(0.61)$	$95.0 \pm 1.2 \quad (-2.4\sigma)$
n_{s}	$0.9648 \pm 0.0068 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.021 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2315 \pm 34 \quad (+1.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.89^{+0.61}_{-0.75} \quad (+0.0\sigma)$	$H(2.33)$	$235.3 \pm 2.5 \quad (-1.6\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.029}_{-0.035} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5785 \pm 73 \quad (+3.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.876 \pm 0.017 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0058 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.8} \quad (+0.1\sigma)$	D_{40}	$1231 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7466 \pm 0.0092 \quad (-0.5\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5739 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4740 \pm 0.0055 \quad (-0.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6617 \pm 0.0085 \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.4 \pm 4.9 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0054 \quad (-0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.5 \pm 1.9 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6192 \pm 0.0081 \quad (-0.5\sigma)$
A^{kSZ}	$< 3.95 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9648 \pm 0.0068 \quad (-0.5\sigma)$	$f\sigma_8(0.61)$	$0.4675 \pm 0.0054 \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.2446 \pm 0.0024 \quad (-16.5\sigma)$	$\sigma_8(0.61)$	$0.5892 \pm 0.0078 \quad (-0.5\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2459 \pm 0.0024 \quad (-16.5\sigma)$	$f\sigma_8(2.33)$	$0.2971 \pm 0.0040 \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.564 \pm 0.044 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3062^{+0.0040}_{-0.0045} \quad (-0.5\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.4 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.85 \pm 0.17 \quad (+3.2\sigma)$	f_{2000}^{143}	$28.8 \pm 3.0 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.71 \pm 0.33 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.1 \quad (-0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	r_*	$145.2 \pm 1.7 \quad (+2.9\sigma)$	f_{2000}^{217}	$106.5 \pm 2.0 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04135 \pm 0.00053 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.02 \pm 0.61 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.94 \pm 0.16 \quad (+2.8\sigma)$	χ_{small}^2	$230 \pm 200 \quad (-89.8\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.78 \pm 0.69 \quad (-0.8\sigma)$	χ_{lowl}^2	$191 \pm 200 \quad (+205.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.07 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.9 \pm 1.8 \quad (+2.8\sigma)$	χ_{plik}^2	$2359.6 \pm 6.0 \quad (+0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1403 \pm 0.0013 \quad (-1.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.57 \pm 0.63 \quad (+9.0\sigma)$
c_{217}	$0.99817 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16060 \pm 0.00039 \quad (-0.7\sigma)$	χ_{MGS}^2	$0.69 \pm 0.65 \quad (-1.5\sigma)$
H_0	$67.3 \pm 1.1 \quad (-0.9\sigma)$	z_{eq}	$3390 \pm 24 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.1 \pm 1.6 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6879 \pm 0.0066 \quad (-0.2\sigma)$	k_{eq}	$0.01030 \pm 0.00011 \quad (-0.5\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{m}	$0.3121 \pm 0.0066 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8156 \pm 0.0045 \quad (-0.2\sigma)$	χ_{CMB}^2	$2789.4 \pm 6.0 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1414 \pm 0.0030 \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0023 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0952^{+0.0032}_{-0.0036} \quad (-4.0\sigma)$	$H(0.15)$	$72.6 \pm 1.1 \quad (-1.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2807.29$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.57$; $R - 1 = 0.01488$

7.59 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00017	σ_8	0.807 ± 0.010	$D_M(0.15)$	644.4 ± 9.2
$\Omega_c h^2$	0.1182 ± 0.0026	S_8	0.823 ± 0.013	$H(0.38)$	82.6 ± 1.0
$100\theta_{MC}$	1.04114 ± 0.00041	$\sigma_8 \Omega_m^{0.5}$	0.4509 ± 0.0072	$D_M(0.38)$	1537 ± 21
τ	$0.0564^{+0.0055}_{-0.0083}$	$\sigma_8 \Omega_m^{0.25}$	0.6033 ± 0.0080	$H(0.51)$	89.3 ± 1.0
N_{eff}	2.98 ± 0.15	$\sigma_8/h^{0.5}$	0.984 ± 0.010	$D_M(0.51)$	1990 ± 26
$\ln(10^{10} A_s)$	$3.044^{+0.014}_{-0.018}$	$r_{\text{drag}} h$	99.52 ± 0.82	$H(0.61)$	94.9 ± 1.1
n_s	0.9649 ± 0.0062	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.024	$D_M(0.61)$	2316 ± 30
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.84^{+0.60}_{-0.82}$	$H(2.33)$	235.2 ± 2.3
A_{217}^{CIB}	46 ± 7	$10^9 A_s$	$2.099^{+0.030}_{-0.038}$	$D_M(2.33)$	5787 ± 64
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.875 ± 0.016	$f\sigma_8(0.15)$	0.4555 ± 0.0069
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.8}$	D_{40}	1230 ± 13	$\sigma_8(0.15)$	0.7459 ± 0.0093
A_{100}^{PS}	256 ± 28	D_{220}	5736 ± 39	$f\sigma_8(0.38)$	0.4736 ± 0.0064
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 14	$\sigma_8(0.38)$	$0.6612^{+0.0078}_{-0.0087}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	818.3 ± 4.9	$f\sigma_8(0.51)$	0.4722 ± 0.0061
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.8	$\sigma_8(0.51)$	$0.6187^{+0.0073}_{-0.0082}$
A^{kSZ}	< 3.95	$n_{s,0.002}$	0.9649 ± 0.0062	$f\sigma_8(0.61)$	0.4672 ± 0.0059
A_{100}^{dustTT}	8.9 ± 1.8	Y_P	0.2445 ± 0.0021	$\sigma_8(0.61)$	$0.5887^{+0.0070}_{-0.0079}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	0.2458 ± 0.0021	$f\sigma_8(2.33)$	$0.2968^{+0.0036}_{-0.0041}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	10^5D/H	2.564 ± 0.041	$\sigma_8(2.33)$	$0.3060^{+0.0038}_{-0.0043}$
A_{217}^{dustTT}	93.8 ± 7.4	Age/Gyr	13.85 ± 0.15	f_{2000}^{143}	28.8 ± 2.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.70 ± 0.32	$f_{2000}^{143 \times 217}$	31.6 ± 2.0
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	145.2 ± 1.5	f_{2000}^{217}	106.5 ± 1.9
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.085	$100\theta_*$	1.04137 ± 0.00048	χ_{simall}^2	229 ± 200
A_{143}^{dustTE}	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.95 ± 0.14	χ_{lowl}^2	191 ± 200
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080	z_{drag}	1059.76 ± 0.61	χ_{plik}^2	2359.7 ± 6.1
A_{217}^{dustTE}	2.07 ± 0.27	r_{drag}	147.9 ± 1.6	χ_{Aver15}^2	0.32 ± 0.45
c_{100}	0.99967 ± 0.00062	k_D	0.1403 ± 0.0011	$\chi_{6\text{DF}}^2$	0.58 ± 0.64
c_{217}	0.99817 ± 0.00062	$100\theta_D$	0.16060 ± 0.00035	χ_{MGS}^2	0.69 ± 0.66
H_0	67.3 ± 1.0	z_{eq}	3390 ± 24	χ_{DR12BAO}^2	5.1 ± 1.6
Ω_Λ	0.6880 ± 0.0066	k_{eq}	0.01030 ± 0.00011	χ_{prior}^2	11.6 ± 4.5
Ω_m	0.3120 ± 0.0066	$100\theta_{\text{eq}}$	0.8157 ± 0.0046	χ_{BAO}^2	6.3 ± 1.3
$\Omega_m h^2$	0.1413 ± 0.0027	$100\theta_{s,\text{eq}}$	0.4506 ± 0.0023	χ_{CMB}^2	2780.4 ± 5.9
$\Omega_m h^3$	0.0951 ± 0.0030	$H(0.15)$	72.6 ± 1.0		

$$\bar{\chi}_{\text{eff}}^2 = 2798.70; R - 1 = 0.01387$$

7.60 base_nnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00017	S_8	0.825 ± 0.013	$D_M(0.38)$	1534 ± 20
$\Omega_c h^2$	0.1187 ± 0.0025	$\sigma_8 \Omega_m^{0.5}$	0.4517 ± 0.0071	$H(0.51)$	89.5 ± 1.0
$100\theta_{MC}$	1.04108 ± 0.00039	$\sigma_8 \Omega_m^{0.25}$	0.6044 ± 0.0078	$D_M(0.51)$	1987 ± 25
τ	$0.0564^{+0.0055}_{-0.0083}$	$\sigma_8/h^{0.5}$	0.985 ± 0.010	$H(0.61)$	95.1 ± 1.0
N_{eff}	3.01 ± 0.14	$r_{\text{drag}} h$	99.51 ± 0.83	$D_M(0.61)$	2312 ± 29
$\ln(10^{10} A_s)$	$3.045^{+0.014}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.024	$H(2.33)$	235.6 ± 2.2
n_s	0.9656 ± 0.0061	z_{re}	$7.85^{+0.60}_{-0.82}$	$D_M(2.33)$	5777 ± 61
y_{cal}	1.0007 ± 0.0025	$10^9 A_s$	$2.101^{+0.029}_{-0.038}$	$f\sigma_8(0.15)$	0.4562 ± 0.0068
A_{217}^{CIB}	47 ± 7	$10^9 A_s e^{-2\tau}$	1.877 ± 0.016	$\sigma_8(0.15)$	$0.7472^{+0.0084}_{-0.0094}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1229 ± 13	$f\sigma_8(0.38)$	0.4744 ± 0.0062
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9}$	D_{220}	5734 ± 39	$\sigma_8(0.38)$	$0.6623^{+0.0075}_{-0.0085}$
A_{100}^{PS}	257 ± 28	D_{810}	2538 ± 14	$f\sigma_8(0.51)$	0.4729 ± 0.0059
A_{143}^{PS}	45 ± 8	D_{1420}	817.9 ± 4.9	$\sigma_8(0.51)$	$0.6198^{+0.0070}_{-0.0081}$
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{2000}	231.3 ± 1.7	$f\sigma_8(0.61)$	0.4679 ± 0.0057
A_{217}^{PS}	115 ± 10	$n_{s,0.002}$	0.9656 ± 0.0061	$\sigma_8(0.61)$	$0.5897^{+0.0067}_{-0.0077}$
A^{kSZ}	< 4.05	Y_{P}	0.2449 ± 0.0020	$f\sigma_8(2.33)$	$0.2973^{+0.0034}_{-0.0040}$
A_{100}^{dustTT}	8.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.2462 ± 0.0020	$\sigma_8(2.33)$	$0.3065^{+0.0036}_{-0.0042}$
A_{143}^{dustTT}	10.9 ± 1.8	10^5D/H	2.572 ± 0.037	f_{2000}^{143}	29.0 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	Age/Gyr	13.83 ± 0.15	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
A_{217}^{dustTT}	93.8 ± 7.4	z_*	1089.77 ± 0.29	f_{2000}^{217}	106.7 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	r_*	145.0 ± 1.4	χ_{small}^2	231 ± 200
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	$100\theta_*$	1.04129 ± 0.00046	χ_{lowl}^2	190 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.92 ± 0.13	χ_{plik}^2	2359.7 ± 6.0
A_{143}^{dustTE}	0.224 ± 0.054	z_{drag}	1059.81 ± 0.61	χ_{Aver15}^2	0.34 ± 0.47
$A_{143 \times 217}^{\text{dustTE}}$	0.665 ± 0.080	r_{drag}	147.7 ± 1.5	χ_{Cooke17}^2	0.40 ± 0.45
A_{217}^{dustTE}	2.07 ± 0.27	k_{D}	0.1404 ± 0.0011	$\chi_{6\text{DF}}^2$	0.57 ± 0.64
c_{100}	0.99966 ± 0.00062	$100\theta_{\text{D}}$	0.16067 ± 0.00032	χ_{MGS}^2	0.70 ± 0.66
c_{217}	0.99817 ± 0.00062	z_{eq}	3389 ± 24	χ_{DR12BAO}^2	5.1 ± 1.6
H_0	67.41 ± 0.98	k_{eq}	0.01032 ± 0.00010	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.6880 ± 0.0067	$100\theta_{\text{eq}}$	0.8158 ± 0.0046	χ_{BAO}^2	6.4 ± 1.3
Ω_{m}	0.3120 ± 0.0067	$100\theta_{s,\text{eq}}$	0.4507 ± 0.0023	χ_{CMB}^2	2780.3 ± 5.9
$\Omega_{\text{m}} h^2$	0.1417 ± 0.0026	$H(0.15)$	72.68 ± 0.97	χ_{Abund}^2	0.74 ± 0.57
$\Omega_{\text{m}} h^3$	0.0955 ± 0.0029	$D_M(0.15)$	643.3 ± 9.0		
σ_8	$0.8087^{+0.0090}_{-0.010}$	$H(0.38)$	82.78 ± 0.99		

$$\bar{\chi}_{\text{eff}}^2 = 2799.05; R - 1 = 0.01367$$

7.61 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022321	0.02231 ± 0.00019 (-0.2σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4481	0.4476 ± 0.0074 (-0.2σ)	$H(0.38)$	82.89	82.8 ± 1.4 (-1.0σ)
$\Omega_{\mathrm{c}}h^2$	0.11858	0.1182 ± 0.0034 (-0.8σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6006	0.5999 ± 0.0087 (-0.3σ)	$D_{\mathrm{M}}(0.38)$	1530.8	1534 ± 27 $(+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	1.040988	1.04106 ± 0.00047 $(+0.3\sigma)$	$\sigma_8/h^{0.5}$	0.9791	0.979 ± 0.011 (-0.1σ)	$H(0.51)$	89.59	89.4 ± 1.4 (-1.3σ)
τ	0.0533	0.0536 ± 0.0077 (-0.0σ)	$r_{\mathrm{drag}}h$	99.76	99.77 ± 0.91 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	1983.2	1987 ± 35 $(+0.8\sigma)$
N_{eff}	3.023	3.00 ± 0.20	$\langle d^2 \rangle^{1/2}$	2.4232	2.423 ± 0.025 (-0.0σ)	$H(0.61)$	95.18	95.0 ± 1.4 (-1.6σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0368	3.036 ± 0.018 (-0.2σ)	z_{re}	7.57	7.57 ± 0.78 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2307.9	2312 ± 40 $(+0.9\sigma)$
n_{s}	0.9667	0.9662 ± 0.0076 (-0.3σ)	10^9A_{s}	2.0838	2.083 ± 0.038 (-0.2σ)	$H(2.33)$	235.50	235.1 ± 3.0 (-1.1σ)
y_{cal}	1.00020	1.0005 ± 0.0025 (-0.0σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8729	1.871 ± 0.019 (-0.4σ)	$D_{\mathrm{M}}(2.33)$	5772	5782 ± 85 $(+2.2\sigma)$
A_{100}^{PS}	233.9	238 ± 25 (-0.1σ)	D_{40}	1222.9	1224 ± 14 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4528	0.4523 ± 0.0072 (-0.2σ)
A_{143}^{PS}	45.4	38 ± 9 (-0.1σ)	D_{220}	5718.2	5720 ± 38 (-0.1σ)	$\sigma_8(0.15)$	0.7439	0.743 ± 0.011 (-0.4σ)
A_{217}^{PS}	101.0	102 ± 10 $(+0.0\sigma)$	D_{810}	2532.9	2534 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4714	0.4708 ± 0.0068 (-0.2σ)
A_{217}^{CIB}	43.3	39_{-8}^{+7} (-0.0σ)	D_{1420}	815.81	816.4 ± 5.0 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6596	0.659 ± 0.010 (-0.4σ)
A_{143}^{tSZ}	5.94	$4.0_{-2.5}^{+1.9}$ $(+0.0\sigma)$	D_{2000}	230.39	230.7 ± 2.0 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4701	0.4696 ± 0.0067 (-0.3σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.641	0.66 ± 0.13 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9667	0.9662 ± 0.0076 (-0.3σ)	$\sigma_8(0.51)$	0.6173	0.6166 ± 0.0096 (-0.4σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.903	$0.56_{-0.17}^{+0.40}$ $(+0.0\sigma)$	Y_{P}	0.24507	0.2447 ± 0.0028 (-11.5σ)	$f\sigma_8(0.61)$	0.4653	0.4648 ± 0.0066 (-0.3σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.55	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24639	0.2460 ± 0.0028 (-11.5σ)	$\sigma_8(0.61)$	0.5874	0.5867 ± 0.0092 (-0.4σ)
A^{kSZ}	1.32	< 6.09 (-0.0σ)	$10^5\mathrm{D}/\mathrm{H}$	2.587	2.581 ± 0.056 (-0.4σ)	$f\sigma_8(2.33)$	0.29624	0.2959 ± 0.0048 (-0.4σ)
A_{100}^{dust}	1.012	1.01 ± 0.19 $(+0.0\sigma)$	Age/Gyr	13.818	13.84 ± 0.20 $(+2.3\sigma)$	$\sigma_8(2.33)$	0.3055	0.3051 ± 0.0051 (-0.4σ)
A_{143}^{dust}	0.998	0.96 ± 0.17 (-0.0σ)	z_*	1089.833	1089.79 ± 0.40 (-0.4σ)	f_{2000}^{143}	30.15	29 ± 3 (-0.2σ)
A_{217}^{dust}	0.981	0.98 ± 0.10 (-0.0σ)	r_*	144.95	145.2 ± 2.0 $(+2.0\sigma)$	f_{2000}^{217}	106.63	106.5 ± 2.2 (-0.2σ)
$A_{143 \times 217}^{\mathrm{dust}}$	0.974	1.02 ± 0.16 (-0.0σ)	$100\theta_*$	1.04120	1.04128 ± 0.00059 $(+0.4\sigma)$	$f_{2000}^{143 \times 217}$	31.93	31.7 ± 2.4 (-0.2σ)
c_{100}	0.99766	0.9975 ± 0.0011 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.922	13.95 ± 0.18 $(+1.9\sigma)$	χ_{small}^2	395.88	396.9 ± 1.7 (-0.1σ)
c_{217}	1.00145	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1059.70	1059.62 ± 0.75 (-0.5σ)	χ_{lowl}^2	22.86	23.0 ± 1.1 $(+0.1\sigma)$
c_{TE}	0.9966	0.9966 ± 0.0051 (-0.1σ)	r_{drag}	147.64	147.9 ± 2.0 $(+2.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	11500.0	11515.3 ± 6.0 $(+0.1\sigma)$
c_{EE}	0.9922	0.9919 ± 0.0054 (-0.1σ)	k_{D}	0.14034	0.1402 ± 0.0015 (-1.1σ)	$\chi_{6\mathrm{DF}}^2$	0.0220	0.056 ± 0.071 $(+0.2\sigma)$
H_0	67.57	67.5 ± 1.3 (-0.5σ)	$100\theta_{\mathrm{D}}$	0.160795	0.16074 ± 0.00049 (-0.6σ)	χ_{MGS}^2	1.279	1.35 ± 0.51 (-0.0σ)
Ω_{Λ}	0.6900	0.6899 ± 0.0074 (-0.1σ)	z_{eq}	3377.4	3378 ± 27 $(+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.22	4.7 ± 1.5 $(+0.1\sigma)$
Ω_{m}	0.3100	0.3101 ± 0.0074 $(+0.1\sigma)$	k_{eq}	0.010292	0.01028 ± 0.00012 (-0.4σ)	χ_{prior}^2	2.31	7.8 ± 3.4 (-0.0σ)
$\Omega_{\mathrm{m}}h^2$	0.14154	0.1411 ± 0.0035 (-0.8σ)	$100\theta_{\mathrm{eq}}$	0.8176	0.8177 ± 0.0051 (-0.1σ)	χ_{BAO}^2	5.52	6.1 ± 1.2 $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09564	$0.0952_{-0.0042}^{+0.0037}$ (-2.8σ)	$100\theta_{\mathrm{s,eq}}$	0.45169	0.4517 ± 0.0026 (-0.0σ)	χ_{CMB}^2	11918.7	11935.2 ± 5.9 $(+0.1\sigma)$
σ_8	0.8049	0.804 ± 0.012 (-0.4σ)	$H(0.15)$	72.83	72.7 ± 1.3 (-0.7σ)			
S_8	0.8182	0.817 ± 0.013 (-0.2σ)	$D_{\mathrm{M}}(0.15)$	641.7	643 ± 12 $(+0.6\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 11926.54$; $\bar{\chi}_{\mathrm{eff}}^2 = 11949.07$; $\Delta\chi_{\mathrm{eff}}^2 = 0.79$; $R - 1 = 0.00571$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.22 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3_2_29: 22.86 CamSpec like_10.7HM_1400_unified: 11499.97

7.62 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02230 ± 0.00019	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4494 ± 0.0061	$H(0.38)$	82.7 ± 1.3
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0032	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6017 ± 0.0072	$D_{\mathrm{M}}(0.38)$	1536 ± 27
$100\theta_{\mathrm{MC}}$	1.04108 ± 0.00047	$\sigma_8/h^{0.5}$	0.9819 ± 0.0085	$H(0.51)$	89.3 ± 1.4
τ	0.0553 ± 0.0070	$r_{\mathrm{drag}}h$	99.63 ± 0.86	$D_{\mathrm{M}}(0.51)$	1990 ± 34
N_{eff}	$2.99^{+0.18}_{-0.21}$	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.022	$H(0.61)$	94.9 ± 1.4
$\ln(10^{10}A_{\mathrm{s}})$	3.041 ± 0.016	z_{re}	7.75 ± 0.70	$D_{\mathrm{M}}(0.61)$	2316 ± 38
n_{s}	0.9654 ± 0.0073	$10^9 A_{\mathrm{s}}$	2.092 ± 0.034	$H(2.33)$	$235.1^{+2.7}_{-3.0}$
y_{cal}	1.0008 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.873 ± 0.018	$D_{\mathrm{M}}(2.33)$	5788 ± 82
A_{100}^{PS}	238 ± 24	D_{40}	1227 ± 13	$f\sigma_8(0.15)$	0.4540 ± 0.0059
A_{143}^{PS}	38 ± 9	D_{220}	5726 ± 37	$\sigma_8(0.15)$	0.7445 ± 0.0099
A_{217}^{PS}	103 ± 10	D_{810}	2536 ± 13	$f\sigma_8(0.38)$	0.4723 ± 0.0057
A_{217}^{CIB}	39 ± 7	D_{1420}	817.1 ± 5.1	$\sigma_8(0.38)$	0.6600 ± 0.0091
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.4}$	D_{2000}	231.0 ± 2.1	$f\sigma_8(0.51)$	0.4710 ± 0.0056
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.14	$n_{\mathrm{s},0.002}$	0.9654 ± 0.0073	$\sigma_8(0.51)$	0.6177 ± 0.0087
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.41}_{-0.18}$	Y_{P}	0.2446 ± 0.0027	$f\sigma_8(0.61)$	0.4660 ± 0.0056
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2459 ± 0.0027	$\sigma_8(0.61)$	0.5878 ± 0.0084
A^{kSZ}	< 5.77	$10^5 \mathrm{D}/\mathrm{H}$	2.578 ± 0.054	$f\sigma_8(2.33)$	0.2964 ± 0.0044
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.86 ± 0.20	$\sigma_8(2.33)$	0.3056 ± 0.0047
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.78 ± 0.39	f_{2000}^{143}	29 ± 3
A_{217}^{dust}	0.98 ± 0.10	r_*	145.3 ± 1.9	f_{2000}^{217}	106.4 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04131 ± 0.00058	$f_{2000}^{143 \times 217}$	31.5 ± 2.5
c_{100}	0.9976 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.18	$\chi_{\mathrm{lensing}}^2$	9.29 ± 0.86
c_{217}	1.0011 ± 0.0015	z_{drag}	1059.60 ± 0.73	χ_{simall}^2	397.0 ± 1.7
c_{TE}	0.9964 ± 0.0052	r_{drag}	148.0 ± 2.0	χ_{lowl}^2	23.2 ± 1.1
c_{EE}	0.9917 ± 0.0053	k_{D}	0.1401 ± 0.0014	$\chi_{\mathrm{CamSpec}}^2$	11514.6 ± 5.9
H_0	67.3 ± 1.3	$100\theta_{\mathrm{D}}$	0.16071 ± 0.00048	χ_{JLA}^2	706.78 ± 0.21
Ω_{Λ}	$0.6888^{+0.0074}_{-0.0066}$	z_{eq}	3382 ± 25	$\chi_{6\mathrm{DF}}^2$	0.061 ± 0.076
Ω_{m}	$0.3112^{+0.0066}_{-0.0074}$	k_{eq}	0.01028 ± 0.00012	χ_{MGS}^2	1.27 ± 0.46
$\Omega_{\mathrm{m}}h^2$	$0.1411^{+0.0031}_{-0.0035}$	$100\theta_{\mathrm{eq}}$	0.8168 ± 0.0048	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.6
$\Omega_{\mathrm{m}}h^3$	$0.0950^{+0.0035}_{-0.0041}$	$100\theta_{\mathrm{s,eq}}$	0.4513 ± 0.0024	χ_{prior}^2	7.7 ± 3.3
σ_8	0.806 ± 0.010	$H(0.15)$	72.6 ± 1.3	χ_{CMB}^2	11944.1 ± 6.0
S_8	0.821 ± 0.011	$D_{\mathrm{M}}(0.15)$	644 ± 12	χ_{BAO}^2	6.2 ± 1.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 12664.75; R - 1 = 0.04059$$

7.63 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022296	0.02232 ± 0.00019 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4488	0.4490 ± 0.0061 (-0.1σ)	$H(0.38)$	82.61	82.8 ± 1.3 (-1.1σ)
$\Omega_c h^2$	0.11795	0.1182 ± 0.0032 (-0.8σ)	$\sigma_8 \Omega_m^{0.25}$	0.6009	0.6016 ± 0.0073 (-0.2σ)	$D_M(0.38)$	1536.4	1534 ± 26 $(+0.9\sigma)$
$100\theta_{MC}$	1.041050	1.04106 ± 0.00046 $(+0.3\sigma)$	$\sigma_8/h^{0.5}$	0.9809	0.9816 ± 0.0085 (-0.1σ)	$H(0.51)$	89.29	89.4 ± 1.3 (-1.4σ)
τ	0.0546	0.0558 ± 0.0071 $(+0.0\sigma)$	$r_{drag}h$	99.64	99.73 ± 0.83 (-0.1σ)	$D_M(0.51)$	1990.4	1987 ± 33 $(+0.9\sigma)$
N_{eff}	2.981	3.00 ± 0.19	$\langle d^2 \rangle^{1/2}$	2.4288	2.431 ± 0.021 $(+0.1\sigma)$	$H(0.61)$	94.88	95.0 ± 1.4 (-1.8σ)
$\ln(10^{10} A_s)$	3.0388	3.042 ± 0.016 (-0.1σ)	z_{re}	7.69	7.79 ± 0.71 $(+0.0\sigma)$	$D_M(0.61)$	2316.1	2312 ± 38 $(+1.0\sigma)$
n_s	0.9657	0.9660 ± 0.0073 (-0.4σ)	$10^9 A_s$	2.0881	2.094 ± 0.034 (-0.1σ)	$H(2.33)$	234.93	235.2 ± 2.8 (-1.2σ)
y_{cal}	1.00064	1.0007 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8721	1.873 ± 0.018 (-0.4σ)	$D_M(2.33)$	5789	5782 ± 81 $(+2.3\sigma)$
A_{100}^{PS}	231.1	238 ± 25 (-0.0σ)	D_{40}	1225.3	1226 ± 13 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4534	0.4537 ± 0.0059 (-0.1σ)
A_{143}^{PS}	41.8	38 ± 9 (-0.1σ)	D_{220}	5723.0	5726 ± 38 (-0.0σ)	$\sigma_8(0.15)$	0.7436	0.7450 ± 0.0099 (-0.4σ)
A_{217}^{PS}	104.0	103 ± 10 (-0.0σ)	D_{810}	2535.5	2535 ± 13 (-0.0σ)	$f\sigma_8(0.38)$	0.4717	0.4722 ± 0.0057 (-0.2σ)
A_{217}^{CIB}	42.9	39 ± 7 (-0.0σ)	D_{1420}	817.27	816.9 ± 5.0 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6592	0.6605 ± 0.0091 (-0.4σ)
A_{143}^{tSZ}	6.57	$4.0^{+1.9}_{-2.5}$ $(+0.0\sigma)$	D_{2000}	231.05	230.9 ± 2.0 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4704	0.4709 ± 0.0057 (-0.2σ)
$r_{143 \times 217}^{PS}$	0.650	0.66 ± 0.14 (-0.0σ)	$n_{s,0.002}$	0.9657	0.9660 ± 0.0073 (-0.4σ)	$\sigma_8(0.51)$	0.6169	0.6182 ± 0.0087 (-0.4σ)
$r_{143 \times 217}^{CIB}$	0.795	$0.55^{+0.41}_{-0.17}$ $(+0.0\sigma)$	Y_P	0.24449	0.2447 ± 0.0027 (-11.7σ)	$f\sigma_8(0.61)$	0.4655	0.4661 ± 0.0056 (-0.3σ)
$\xi^{tSZ \times CIB}$	0.33	—	Y_P^{BBN}	0.24582	0.2460 ± 0.0027 (-11.7σ)	$\sigma_8(0.61)$	0.5870	0.5883 ± 0.0084 (-0.4σ)
A^{kSZ}	0.01	< 6.01 (-0.0σ)	$10^5 D/H$	2.577	2.580 ± 0.054 (-0.4σ)	$f\sigma_8(2.33)$	0.29602	0.2967 ± 0.0044 (-0.4σ)
A_{100}^{dust}	1.008	1.01 ± 0.20 $(+0.0\sigma)$	Age/Gyr	13.860	13.84 ± 0.19 $(+2.4\sigma)$	$\sigma_8(2.33)$	0.30520	0.3059 ± 0.0047 (-0.4σ)
A_{143}^{dust}	0.968	0.95 ± 0.17 (-0.0σ)	z_*	1089.770	1089.78 ± 0.39 (-0.4σ)	f_{2000}^{143}	29.13	29 ± 3 (-0.2σ)
A_{217}^{dust}	0.975	0.98 ± 0.10 $(+0.0\sigma)$	r_*	145.35	145.2 ± 1.9 $(+2.1\sigma)$	f_{2000}^{217}	106.27	106.5 ± 2.2 (-0.1σ)
$A_{143 \times 217}^{dust}$	1.002	1.02 ± 0.16 (-0.0σ)	$100\theta_*$	1.04129	1.04128 ± 0.00057 $(+0.4\sigma)$	$f_{2000}^{143 \times 217}$	31.47	31.6 ± 2.4 (-0.2σ)
c_{100}	0.99776	0.9976 ± 0.0011 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.959	13.94 ± 0.17 $(+2.0\sigma)$	$\chi_{lensing}^2$	8.94	9.32 ± 0.85 (-0.0σ)
c_{217}	1.00120	1.0011 ± 0.0016 $(+0.0\sigma)$	z_{drag}	1059.55	1059.64 ± 0.72 (-0.5σ)	χ_{small}^2	396.09	397.1 ± 1.8 $(+0.0\sigma)$
c_{TE}	0.9964	0.9964 ± 0.0051 (-0.0σ)	r_{drag}	148.05	147.9 ± 2.0 $(+2.0\sigma)$	χ_{lowl}^2	23.00	23.1 ± 1.1 $(+0.2\sigma)$
c_{EE}	0.9918	0.9919 ± 0.0054 (-0.1σ)	k_D	0.14005	0.1402 ± 0.0014 (-1.1σ)	$\chi_{CamSpec}^2$	11499.7	11514.7 ± 5.8 $(+0.1\sigma)$
H_0	67.30	67.5 ± 1.2 (-0.6σ)	$100\theta_D$	0.160698	0.16073 ± 0.00047 (-0.6σ)	χ_{JLA}^2	1035.034	1035.09 ± 0.34 $(+0.3\sigma)$
Ω_Λ	0.6890	0.6896 ± 0.0068 (-0.1σ)	z_{eq}	3380.9	3379 ± 25 $(+0.1\sigma)$	χ_{6DF}^2	0.0297	0.053 ± 0.065 $(+0.3\sigma)$
Ω_m	0.3110	0.3104 ± 0.0068 $(+0.1\sigma)$	k_{eq}	0.010274	0.01028 ± 0.00012 (-0.4σ)	χ_{MGS}^2	1.217	1.32 ± 0.46 (-0.1σ)
$\Omega_m h^2$	0.14089	0.1412 ± 0.0033 (-0.9σ)	$100\theta_{eq}$	0.81697	0.8174 ± 0.0047 (-0.1σ)	$\chi_{DR12BAO}^2$	4.39	4.7 ± 1.4 $(+0.2\sigma)$
$\Omega_m h^3$	0.09482	0.0953 ± 0.0038 (-2.8σ)	$100\theta_{s,eq}$	0.45136	0.4516 ± 0.0024 (-0.1σ)	χ_{prior}^2	2.04	7.7 ± 3.4 (-0.0σ)
σ_8	0.8047	0.806 ± 0.010 (-0.3σ)	$H(0.15)$	72.55	72.7 ± 1.3 (-0.8σ)	χ_{CMB}^2	11927.7	11944.3 ± 5.9 $(+0.1\sigma)$
S_8	0.8194	0.820 ± 0.011 (-0.1σ)	$D_M(0.15)$	644.2	643 ± 11 $(+0.8\sigma)$	χ_{BAO}^2	5.64	6.1 ± 1.1 $(+0.2\sigma)$

Best-fit $\chi_{eff}^2 = 12970.39$; $\Delta\chi_{eff}^2 = -0.10$; $\bar{\chi}_{eff}^2 = 12993.15$; $\Delta\bar{\chi}_{eff}^2 = 0.76$; $R - 1 = 0.01037$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.01) MGS: 1.22 (Δ -0.06) DR12BAO: 4.39 (Δ 0.16) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.94 (Δ -0.03) simall_100x143_offlike5_EE_Aplanck 396.09 (Δ 0.04) commander_dx12_v3_2_29: 23.00 (Δ 0.23) CamSpec like_10.7HM_1400_unified: 11499.66 (Δ -0.52) SN - JLA Pantheon18: 1035.03 (Δ 0.05)

7.64 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00019 \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4495 \pm 0.0061 \quad (-0.1\sigma)$	$H(0.38)$	$82.6 \pm 1.3 \quad (-1.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0032 \quad (-1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6017 \pm 0.0073 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 27 \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04108 \pm 0.00046 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.9820 \pm 0.0086 \quad (-0.1\sigma)$	$H(0.51)$	$89.3 \pm 1.4 \quad (-2.0\sigma)$
τ	$0.0554 \pm 0.0071 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.59 \pm 0.87 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 34 \quad (+1.3\sigma)$
N_{eff}	2.98 ± 0.20	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.021 \quad (+0.1\sigma)$	$H(0.61)$	$94.9 \pm 1.4 \quad (-2.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040 \pm 0.016 \quad (-0.2\sigma)$	z_{re}	$7.76 \pm 0.71 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2317 \pm 39 \quad (+1.4\sigma)$
n_{s}	$0.9651 \pm 0.0074 \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092 \pm 0.034 \quad (-0.2\sigma)$	$H(2.33)$	$235.0 \pm 2.8 \quad (-1.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.018 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5791 \pm 83 \quad (+3.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4541 \pm 0.0059 \quad (-0.2\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5725 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.744 \pm 0.010 \quad (-0.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4723 \pm 0.0057 \quad (-0.3\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$816.9 \pm 5.0 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6598 \pm 0.0092 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 2.0 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4709 \pm 0.0057 \quad (-0.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.14 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9651 \pm 0.0074 \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.6174 \pm 0.0088 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.41}_{-0.17} \quad (+0.0\sigma)$	Y_{P}	$0.2445 \pm 0.0027 \quad (-16.0\sigma)$	$f\sigma_8(0.61)$	$0.4660 \pm 0.0056 \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2458 \pm 0.0027 \quad (-16.0\sigma)$	$\sigma_8(0.61)$	$0.5875 \pm 0.0085 \quad (-0.5\sigma)$
A^{kSZ}	$< 5.97 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.577 \pm 0.054 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.2962 \pm 0.0044 \quad (-0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.86 \pm 0.20 \quad (+3.3\sigma)$	$\sigma_8(2.33)$	$0.3054 \pm 0.0048 \quad (-0.6\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1089.78 \pm 0.39 \quad (-0.5\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$145.4 \pm 1.9 \quad (+2.9\sigma)$	f_{2000}^{217}	$106.4 \pm 2.2 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04131 \pm 0.00058 \quad (+0.6\sigma)$	$f_{2000}^{143 \times 217}$	$31.5 \pm 2.4 \quad (-0.3\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.18 \quad (+2.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.27 \pm 0.84 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (-0.0\sigma)$	z_{drag}	$1059.57 \pm 0.73 \quad (-0.7\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9963 \pm 0.0051 \quad (-0.1\sigma)$	r_{drag}	$148.1 \pm 2.0 \quad (+2.8\sigma)$	χ_{lowl}^2	$23.2 \pm 1.1 \quad (+0.3\sigma)$
c_{EE}	$0.9916 \pm 0.0054 \quad (-0.1\sigma)$	k_{D}	$0.1401 \pm 0.0014 \quad (-1.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.5 \pm 5.8 \quad (+0.0\sigma)$
H_0	$67.3 \pm 1.3 \quad (-0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16070 \pm 0.00048 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.065 \pm 0.077 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6885 \pm 0.0071 \quad (-0.2\sigma)$	z_{eq}	$3383 \pm 26 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.25 \pm 0.47 \quad (-0.1\sigma)$
Ω_{m}	$0.3115 \pm 0.0071 \quad (+0.2\sigma)$	k_{eq}	$0.01028 \pm 0.00012 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.6 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0033 \quad (-1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8166 \pm 0.0049 \quad (-0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0949^{+0.0036}_{-0.0040} \quad (-4.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4512 \pm 0.0025 \quad (-0.2\sigma)$	χ_{CMB}^2	$11944.1 \pm 5.9 \quad (+0.1\sigma)$
σ_8	$0.805 \pm 0.011 \quad (-0.5\sigma)$	$H(0.15)$	$72.5 \pm 1.3 \quad (-1.1\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.3\sigma)$
S_8	$0.821 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$645 \pm 12 \quad (+1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.08; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68; R - 1 = 0.01000$$

7.65 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02229 ± 0.00018	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4472 ± 0.0073	$H(0.38)$	82.6 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1177 ± 0.0028	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5991 ± 0.0082	$D_{\mathrm{M}}(0.38)$	1537 ± 23
$100\theta_{\mathrm{MC}}$	1.04111 ± 0.00042	$\sigma_8/h^{0.5}$	0.978 ± 0.011	$H(0.51)$	89.2 ± 1.1
τ	0.0536 ± 0.0077	$r_{\mathrm{drag}}h$	99.71 ± 0.87	$D_{\mathrm{M}}(0.51)$	1992 ± 29
N_{eff}	2.97 ± 0.17	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.025	$H(0.61)$	94.8 ± 1.2
$\ln(10^{10}A_{\mathrm{s}})$	3.035 ± 0.018	z_{re}	7.56 ± 0.78	$D_{\mathrm{M}}(0.61)$	2318 ± 33
n_{s}	0.9652 ± 0.0066	$10^9 A_{\mathrm{s}}$	2.081 ± 0.037	$H(2.33)$	234.7 ± 2.4
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.869 ± 0.017	$D_{\mathrm{M}}(2.33)$	5794 ± 70
A_{100}^{PS}	238 ± 25	D_{40}	1225 ± 13	$f\sigma_8(0.15)$	0.4519 ± 0.0070
A_{143}^{PS}	38 ± 8	D_{220}	5720 ± 38	$\sigma_8(0.15)$	0.7417 ± 0.0098
A_{217}^{PS}	102 ± 10	D_{810}	2533 ± 14	$f\sigma_8(0.38)$	0.4702 ± 0.0065
A_{217}^{CIB}	39 ± 7	D_{1420}	816.6 ± 5.0	$\sigma_8(0.38)$	0.6575 ± 0.0089
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5}$	D_{2000}	230.9 ± 1.9	$f\sigma_8(0.51)$	0.4689 ± 0.0063
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.14	$n_{\mathrm{s},0.002}$	0.9652 ± 0.0066	$\sigma_8(0.51)$	0.6154 ± 0.0084
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.16}$	Y_{P}	0.2443 ± 0.0023	$f\sigma_8(0.61)$	0.4641 ± 0.0061
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2456 ± 0.0023	$\sigma_8(0.61)$	0.5856 ± 0.0081
A^{kSZ}	< 6.07	$10^5 \mathrm{D}/\mathrm{H}$	2.574 ± 0.048	$f\sigma_8(2.33)$	0.2953 ± 0.0041
A_{100}^{dust}	1.01 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.87 ± 0.17	$\sigma_8(2.33)$	0.3045 ± 0.0044
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.74 ± 0.36	f_{2000}^{143}	28.9 ± 3.1
A_{217}^{dust}	0.98 ± 0.10	r_*	145.5 ± 1.6	f_{2000}^{217}	106.3 ± 2.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04135 ± 0.00051	$f_{2000}^{143 \times 217}$	31.5 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.97 ± 0.15	χ_{simall}^2	396.9 ± 1.7
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.53 ± 0.63	χ_{lowl}^2	23.1 ± 1.0
c_{TE}	0.9964 ± 0.0051	r_{drag}	148.2 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	11514.9 ± 5.8
c_{EE}	0.9916 ± 0.0053	k_{D}	0.1399 ± 0.0012	χ_{Aver15}^2	0.36 ± 0.51
H_0	67.3 ± 1.1	$100\theta_{\mathrm{D}}$	0.16068 ± 0.00042	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.070
Ω_{Λ}	0.6894 ± 0.0069	z_{eq}	3379 ± 26	χ_{MGS}^2	1.32 ± 0.48
Ω_{m}	0.3106 ± 0.0069	k_{eq}	0.01026 ± 0.00011	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0029	$100\theta_{\mathrm{eq}}$	0.8173 ± 0.0048	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.0946 ± 0.0032	$100\theta_{\mathrm{s,eq}}$	0.4515 ± 0.0025	χ_{BAO}^2	6.1 ± 1.2
σ_8	0.803 ± 0.011	$H(0.15)$	72.5 ± 1.1	χ_{CMB}^2	11934.9 ± 5.8
S_8	0.817 ± 0.013	$D_{\mathrm{M}}(0.15)$	645 ± 10		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.20; R - 1 = 0.00729$$

7.66 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02229 ± 0.00018	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6000 ± 0.0080	$H(0.51)$	89.4 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0026	$\sigma_8/h^{0.5}$	0.979 ± 0.010	$D_{\mathrm{M}}(0.51)$	1988 ± 27
$100\theta_{\mathrm{MC}}$	1.04106 ± 0.00040	$r_{\mathrm{drag}}h$	99.73 ± 0.87	$H(0.61)$	95.0 ± 1.1
τ	0.0535 ± 0.0077	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.025	$D_{\mathrm{M}}(0.61)$	2314 ± 31
N_{eff}	3.00 ± 0.15	z_{re}	7.56 ± 0.78	$H(2.33)$	235.1 ± 2.3
$\ln(10^{10}A_{\mathrm{s}})$	3.036 ± 0.018	$10^9 A_{\mathrm{s}}$	2.082 ± 0.037	$D_{\mathrm{M}}(2.33)$	5784 ± 66
n_{s}	0.9659 ± 0.0063	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.016	$f\sigma_8(0.15)$	0.4525 ± 0.0069
y_{cal}	1.0005 ± 0.0025	D_{40}	1224 ± 13	$\sigma_8(0.15)$	0.7428 ± 0.0095
A_{100}^{PS}	238 ± 25	D_{220}	5719 ± 38	$f\sigma_8(0.38)$	0.4709 ± 0.0063
A_{143}^{PS}	38 ± 8	D_{810}	2533 ± 14	$\sigma_8(0.38)$	0.6586 ± 0.0085
A_{217}^{PS}	102 ± 10	D_{1420}	816.2 ± 4.9	$f\sigma_8(0.51)$	0.4696 ± 0.0061
A_{217}^{CIB}	40 ± 7	D_{2000}	230.6 ± 1.8	$\sigma_8(0.51)$	0.6164 ± 0.0081
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$n_{\mathrm{s},0.002}$	0.9659 ± 0.0063	$f\sigma_8(0.61)$	0.4648 ± 0.0059
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	Y_{P}	0.2447 ± 0.0021	$\sigma_8(0.61)$	0.5865 ± 0.0077
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2460 ± 0.0021	$f\sigma_8(2.33)$	0.2958 ± 0.0040
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.583 ± 0.043	$\sigma_8(2.33)$	0.3050 ± 0.0042
A^{kSZ}	$4.6^{+1.7}_{-4.4}$	$\mathrm{Age}/\mathrm{Gyr}$	13.85 ± 0.16	f_{2000}^{143}	29.3 ± 3.1
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.80 ± 0.32	f_{2000}^{217}	106.5 ± 2.1
A_{143}^{dust}	0.96 ± 0.18	r_*	145.3 ± 1.5	$f_{2000}^{143 \times 217}$	31.8 ± 2.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04128 ± 0.00048	χ_{simall}^2	396.9 ± 1.6
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.14	χ_{lowl}^2	23.00 ± 0.99
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.57 ± 0.62	$\chi_{\mathrm{CamSpec}}^2$	11514.9 ± 5.8
c_{217}	1.0011 ± 0.0016	r_{drag}	148.0 ± 1.6	χ_{Aver15}^2	0.36 ± 0.49
c_{TE}	0.9966 ± 0.0051	k_{D}	0.1401 ± 0.0011	$\chi_{\mathrm{Cooke17}}^2$	0.35 ± 0.45
c_{EE}	0.9920 ± 0.0051	$100\theta_{\mathrm{D}}$	0.16075 ± 0.00038	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.069
H_0	67.4 ± 1.1	z_{eq}	3378 ± 26	χ_{MGS}^2	1.32 ± 0.48
Ω_{Λ}	0.6895 ± 0.0069	k_{eq}	0.01027 ± 0.00010	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.5
Ω_{m}	0.3105 ± 0.0069	$100\theta_{\mathrm{eq}}$	0.8175 ± 0.0048	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\mathrm{m}}h^2$	0.1410 ± 0.0027	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0025	χ_{BAO}^2	6.1 ± 1.2
$\Omega_{\mathrm{m}}h^3$	0.0951 ± 0.0030	$H(0.15)$	72.7 ± 1.0	χ_{CMB}^2	11934.8 ± 5.8
σ_8	0.804 ± 0.010	$D_{\mathrm{M}}(0.15)$	643.3 ± 9.6	χ_{Abund}^2	0.71 ± 0.65
S_8	0.818 ± 0.013	$H(0.38)$	82.7 ± 1.1		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4478 ± 0.0072	$D_{\mathrm{M}}(0.38)$	1535 ± 22		

$\bar{\chi}_{\mathrm{eff}}^2 = 11949.40$; $R - 1 = 0.00827$

7.67 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02231 \pm 0.00019 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4481 \pm 0.0073 \quad (-0.2\sigma)$	$H(0.38)$	$82.8 \pm 1.4 \quad (-0.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1182 \pm 0.0034 \quad (-0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6006 \pm 0.0084 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533 \pm 27 \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04106 \pm 0.00047 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.010 \quad (-0.2\sigma)$	$H(0.51)$	$89.5 \pm 1.4 \quad (-1.2\sigma)$
τ	$0.0549^{+0.0050}_{-0.0079} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.79 \pm 0.91 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986 \pm 35 \quad (+0.8\sigma)$
N_{eff}	3.00 ± 0.20	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.024 \quad (-0.1\sigma)$	$H(0.61)$	$95.1 \pm 1.4 \quad (-1.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.039^{+0.015}_{-0.018} \quad (-0.2\sigma)$	z_{re}	$7.70^{+0.55}_{-0.80} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2312 \pm 40 \quad (+0.8\sigma)$
n_{s}	$0.9664 \pm 0.0076 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.089^{+0.031}_{-0.038} \quad (-0.2\sigma)$	$H(2.33)$	$235.1 \pm 3.0 \quad (-1.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.871 \pm 0.019 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5781 \pm 85 \quad (+2.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	D_{40}	$1224 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4528 \pm 0.0070 \quad (-0.2\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5720 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.744 \pm 0.011 \quad (-0.4\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4713 \pm 0.0066 \quad (-0.3\sigma)$
A_{217}^{CIB}	$39^{+7}_{-8} \quad (-0.0\sigma)$	D_{1420}	$816.4 \pm 5.0 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6597 \pm 0.0098 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.4} \quad (+0.0\sigma)$	D_{2000}	$230.7 \pm 2.1 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4701 \pm 0.0065 \quad (-0.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9664 \pm 0.0076 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6174 \pm 0.0093 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.40}_{-0.17} \quad (+0.0\sigma)$	Y_{P}	$0.2448 \pm 0.0028 \quad (-11.0\sigma)$	$f\sigma_8(0.61)$	$0.4653 \pm 0.0064 \quad (-0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2461 \pm 0.0028 \quad (-11.0\sigma)$	$\sigma_8(0.61)$	$0.5875 \pm 0.0089 \quad (-0.5\sigma)$
A^{kSZ}	$< 6.07 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.581 \pm 0.056 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2963 \pm 0.0046 \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.84 \pm 0.20 \quad (+2.2\sigma)$	$\sigma_8(2.33)$	$0.3056 \pm 0.0049 \quad (-0.5\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1089.78 \pm 0.41 \quad (-0.3\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (-0.0\sigma)$	r_*	$145.2 \pm 2.0 \quad (+1.9\sigma)$	f_{2000}^{217}	$106.5 \pm 2.2 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00059 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.4 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.94 \pm 0.18 \quad (+1.8\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.64 \pm 0.75 \quad (-0.5\sigma)$	χ_{lowl}^2	$23.0 \pm 1.1 \quad (+0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0051 \quad (-0.1\sigma)$	r_{drag}	$147.9 \pm 2.0 \quad (+1.9\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.1 \pm 5.9 \quad (+0.1\sigma)$
c_{EE}	$0.9919 \pm 0.0055 \quad (-0.1\sigma)$	k_{D}	$0.1402 \pm 0.0015 \quad (-1.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.070 \quad (+0.2\sigma)$
H_0	$67.5 \pm 1.3 \quad (-0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00049 \quad (-0.5\sigma)$	χ_{MGS}^2	$1.36 \pm 0.51 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6901 \pm 0.0073 \quad (-0.1\sigma)$	z_{eq}	$3377 \pm 27 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (+0.1\sigma)$
Ω_{m}	$0.3099 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.01028 \pm 0.00012 \quad (-0.4\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0035 \quad (-0.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8178 \pm 0.0051 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0953^{+0.0037}_{-0.0042} \quad (-2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4518 \pm 0.0026 \quad (-0.0\sigma)$	χ_{CMB}^2	$11935.0 \pm 5.8 \quad (+0.1\sigma)$
σ_8	$0.805 \pm 0.011 \quad (-0.4\sigma)$	$H(0.15)$	$72.7 \pm 1.3 \quad (-0.6\sigma)$		
S_8	$0.818 \pm 0.013 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$643 \pm 12 \quad (+0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11948.82; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.83; R - 1 = 0.00628$$

7.68 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_JLA_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02231 ± 0.00019	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4495 ± 0.0061	$H(0.38)$	82.7 ± 1.3
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0032	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6020 ± 0.0071	$D_{\mathrm{M}}(0.38)$	1536 ± 27
$100\theta_{\mathrm{MC}}$	1.04108 ± 0.00047	$\sigma_8/h^{0.5}$	0.9823 ± 0.0083	$H(0.51)$	89.3 ± 1.4
τ	$0.0560^{+0.0056}_{-0.0070}$	$r_{\mathrm{drag}}h$	99.65 ± 0.85	$D_{\mathrm{M}}(0.51)$	1990 ± 34
N_{eff}	$2.99^{+0.18}_{-0.21}$	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.021	$H(0.61)$	94.9 ± 1.4
$\ln(10^{10}A_{\mathrm{s}})$	3.042 ± 0.015	z_{re}	$7.82^{+0.59}_{-0.70}$	$D_{\mathrm{M}}(0.61)$	2315 ± 38
n_{s}	0.9655 ± 0.0073	$10^9 A_{\mathrm{s}}$	$2.095^{+0.030}_{-0.034}$	$H(2.33)$	235.0 ± 2.8
y_{cal}	1.0008 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.873 ± 0.018	$D_{\mathrm{M}}(2.33)$	5787 ± 82
A_{100}^{PS}	237 ± 24	D_{40}	1227 ± 13	$f\sigma_8(0.15)$	0.4541 ± 0.0058
A_{143}^{PS}	38 ± 9	D_{220}	5725 ± 37	$\sigma_8(0.15)$	0.7449 ± 0.0097
A_{217}^{PS}	103 ± 10	D_{810}	2536 ± 13	$f\sigma_8(0.38)$	0.4725 ± 0.0056
A_{217}^{CIB}	39 ± 7	D_{1420}	817.1 ± 5.1	$\sigma_8(0.38)$	0.6604 ± 0.0090
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.4}$	D_{2000}	231.0 ± 2.1	$f\sigma_8(0.51)$	0.4712 ± 0.0055
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.14	$n_{\mathrm{s},0.002}$	0.9655 ± 0.0073	$\sigma_8(0.51)$	0.6180 ± 0.0085
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18}$	Y_{P}	0.2446 ± 0.0027	$f\sigma_8(0.61)$	0.4663 ± 0.0055
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2459 ± 0.0027	$\sigma_8(0.61)$	0.5881 ± 0.0082
A^{kSZ}	< 5.77	$10^5 \mathrm{D}/\mathrm{H}$	2.578 ± 0.054	$f\sigma_8(2.33)$	0.2966 ± 0.0043
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.86 ± 0.20	$\sigma_8(2.33)$	0.3058 ± 0.0046
A_{143}^{dust}	0.95 ± 0.17	z_*	1089.77 ± 0.39	f_{2000}^{143}	29 ± 3
A_{217}^{dust}	0.98 ± 0.10	r_*	145.3 ± 1.9	f_{2000}^{217}	106.4 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04131 ± 0.00058	$f_{2000}^{143 \times 217}$	31.5 ± 2.5
c_{100}	0.9975 ± 0.0010	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.18	$\chi_{\mathrm{lensing}}^2$	9.23 ± 0.79
c_{217}	1.0011 ± 0.0015	z_{drag}	1059.60 ± 0.73	χ_{simall}^2	397.0 ± 1.7
c_{TE}	0.9963 ± 0.0052	r_{drag}	148.0 ± 2.0	χ_{lowl}^2	23.2 ± 1.1
c_{EE}	0.9917 ± 0.0054	k_{D}	0.1401 ± 0.0014	$\chi_{\mathrm{CamSpec}}^2$	11514.5 ± 5.9
H_0	67.3 ± 1.3	$100\theta_{\mathrm{D}}$	0.16071 ± 0.00048	χ_{JLA}^2	706.78 ± 0.21
Ω_{Λ}	$0.6889^{+0.0074}_{-0.0066}$	z_{eq}	3382 ± 25	$\chi_{6\mathrm{DF}}^2$	0.059 ± 0.073
Ω_{m}	$0.3111^{+0.0066}_{-0.0074}$	k_{eq}	0.01028 ± 0.00011	χ_{MGS}^2	1.28 ± 0.46
$\Omega_{\mathrm{m}}h^2$	$0.1410^{+0.0031}_{-0.0035}$	$100\theta_{\mathrm{eq}}$	0.8169 ± 0.0048	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
$\Omega_{\mathrm{m}}h^3$	$0.0950^{+0.0035}_{-0.0041}$	$100\theta_{\mathrm{s,eq}}$	0.4513 ± 0.0024	χ_{prior}^2	7.7 ± 3.3
σ_8	0.806 ± 0.010	$H(0.15)$	72.6 ± 1.3	χ_{CMB}^2	11943.9 ± 6.0
S_8	0.821 ± 0.011	$D_{\mathrm{M}}(0.15)$	644 ± 12	χ_{BAO}^2	6.2 ± 1.2

$$\bar{\chi}_{\mathrm{eff}}^2 = 12664.58; R - 1 = 0.04058$$

7.69 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02232 \pm 0.00019 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4492 \pm 0.0061 \quad (-0.1\sigma)$	$H(0.38)$	$82.8 \pm 1.3 \quad (-1.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1182 \pm 0.0032 \quad (-0.8\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6019 \pm 0.0072 \quad (-0.2\sigma)$	$D_{\text{M}}(0.38)$	$1534 \pm 26 \quad (+0.9\sigma)$
$100\theta_{\text{MC}}$	$1.04106 \pm 0.00046 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9820 \pm 0.0083 \quad (-0.1\sigma)$	$H(0.51)$	$89.4 \pm 1.3 \quad (-1.4\sigma)$
τ	$0.0564^{+0.0057}_{-0.0073} \quad (+0.0\sigma)$	$r_{\text{drag}}h$	$99.75 \pm 0.83 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1987 \pm 33 \quad (+0.9\sigma)$
N_{eff}	3.00 ± 0.19	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.021 \quad (+0.1\sigma)$	$H(0.61)$	$95.0 \pm 1.4 \quad (-1.8\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.043^{+0.014}_{-0.016} \quad (-0.1\sigma)$	z_{re}	$7.85^{+0.61}_{-0.71} \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2312 \pm 38 \quad (+1.0\sigma)$
n_{s}	$0.9661 \pm 0.0073 \quad (-0.4\sigma)$	$10^9 A_{\text{s}}$	$2.096^{+0.029}_{-0.034} \quad (-0.1\sigma)$	$H(2.33)$	$235.2 \pm 2.8 \quad (-1.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.873 \pm 0.018 \quad (-0.4\sigma)$	$D_{\text{M}}(2.33)$	$5782 \pm 81 \quad (+2.3\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1226^{+12}_{-14} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0059 \quad (-0.1\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5725 \pm 37 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7454 \pm 0.0098 \quad (-0.4\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4724 \pm 0.0056 \quad (-0.2\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$816.9 \pm 5.0 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6609 \pm 0.0090 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 2.0 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4711 \pm 0.0056 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.14 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9661 \pm 0.0073 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6185 \pm 0.0086 \quad (-0.4\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.41}_{-0.17} \quad (+0.0\sigma)$	Y_{P}	$0.2447 \pm 0.0027 \quad (-11.6\sigma)$	$f\sigma_8(0.61)$	$0.4663 \pm 0.0056 \quad (-0.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.2461 \pm 0.0027 \quad (-11.7\sigma)$	$\sigma_8(0.61)$	$0.5886 \pm 0.0082 \quad (-0.4\sigma)$
A^{kSZ}	$< 6.01 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.579 \pm 0.054 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0043 \quad (-0.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.84 \pm 0.19 \quad (+2.4\sigma)$	$\sigma_8(2.33)$	$0.3061 \pm 0.0046 \quad (-0.4\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1089.78 \pm 0.39 \quad (-0.4\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$145.2 \pm 1.9 \quad (+2.1\sigma)$	f_{2000}^{217}	$106.4 \pm 2.2 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00057 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.4 \quad (-0.2\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.94 \pm 0.17 \quad (+2.0\sigma)$	χ_{lensing}^2	$9.27 \pm 0.79 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.65 \pm 0.72 \quad (-0.5\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9964 \pm 0.0051 \quad (-0.0\sigma)$	r_{drag}	$147.9 \pm 2.0 \quad (+2.1\sigma)$	χ_{lowl}^2	$23.1 \pm 1.1 \quad (+0.2\sigma)$
c_{EE}	$0.9919 \pm 0.0054 \quad (-0.1\sigma)$	k_{D}	$0.1402 \pm 0.0014 \quad (-1.1\sigma)$	χ_{CamSpec}^2	$11514.7 \pm 5.8 \quad (+0.1\sigma)$
H_0	$67.5 \pm 1.2 \quad (-0.6\sigma)$	$100\theta_{\text{D}}$	$0.16073 \pm 0.00047 \quad (-0.6\sigma)$	χ_{JLA}^2	$1035.09 \pm 0.34 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6898 \pm 0.0068 \quad (-0.1\sigma)$	z_{eq}	$3379 \pm 25 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.051 \pm 0.064 \quad (+0.3\sigma)$
Ω_{m}	$0.3102 \pm 0.0068 \quad (+0.1\sigma)$	k_{eq}	$0.01028 \pm 0.00012 \quad (-0.4\sigma)$	χ_{MGS}^2	$1.33 \pm 0.46 \quad (-0.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1412 \pm 0.0033 \quad (-0.9\sigma)$	$100\theta_{\text{eq}}$	$0.8175 \pm 0.0047 \quad (-0.1\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.4 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.0953 \pm 0.0038 \quad (-2.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4516 \pm 0.0024 \quad (-0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.807 \pm 0.010 \quad (-0.4\sigma)$	$H(0.15)$	$72.7 \pm 1.3 \quad (-0.8\sigma)$	χ_{CMB}^2	$11944.2 \pm 5.9 \quad (+0.1\sigma)$
S_8	$0.820 \pm 0.011 \quad (-0.1\sigma)$	$D_{\text{M}}(0.15)$	$643 \pm 11 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (+0.2\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 12993.02; \Delta\bar{\chi}_{\text{eff}}^2 = 0.76; R - 1 = 0.01132$$

7.70 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00019 \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4496 \pm 0.0061 \quad (-0.1\sigma)$	$H(0.38)$	$82.6 \pm 1.3 \quad (-1.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0032 \quad (-1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6020 \pm 0.0072 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 27 \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04108 \pm 0.00047 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.9824 \pm 0.0083 \quad (-0.1\sigma)$	$H(0.51)$	$89.3 \pm 1.4 \quad (-2.0\sigma)$
τ	$0.0561^{+0.0056}_{-0.0073} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.61 \pm 0.87 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 34 \quad (+1.3\sigma)$
N_{eff}	2.98 ± 0.20	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.021 \quad (+0.1\sigma)$	$H(0.61)$	$94.9 \pm 1.4 \quad (-2.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.014}_{-0.016} \quad (-0.2\sigma)$	z_{re}	$7.82^{+0.60}_{-0.72} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2317 \pm 39 \quad (+1.4\sigma)$
n_{s}	$0.9652 \pm 0.0074 \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.094^{+0.030}_{-0.034} \quad (-0.2\sigma)$	$H(2.33)$	$235.0 \pm 2.8 \quad (-1.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.018 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5790 \pm 83 \quad (+3.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1227^{+13}_{-14} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4542 \pm 0.0059 \quad (-0.2\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7447 \pm 0.0098 \quad (-0.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4725 \pm 0.0056 \quad (-0.3\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$816.9 \pm 5.0 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6601 \pm 0.0091 \quad (-0.6\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 2.0 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4711 \pm 0.0056 \quad (-0.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.14 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9652 \pm 0.0074 \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.6178 \pm 0.0086 \quad (-0.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.41}_{-0.17} \quad (-0.0\sigma)$	Y_{P}	$0.2445 \pm 0.0027 \quad (-16.0\sigma)$	$f\sigma_8(0.61)$	$0.4662 \pm 0.0056 \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2458 \pm 0.0027 \quad (-16.0\sigma)$	$\sigma_8(0.61)$	$0.5879 \pm 0.0083 \quad (-0.6\sigma)$
A^{kSZ}	$< 5.97 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.577 \pm 0.054 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.2964 \pm 0.0043 \quad (-0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.86 \pm 0.20 \quad (+3.3\sigma)$	$\sigma_8(2.33)$	$0.3056 \pm 0.0047 \quad (-0.6\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1089.77 \pm 0.39 \quad (-0.5\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$145.4 \pm 1.9 \quad (+2.9\sigma)$	f_{2000}^{217}	$106.4 \pm 2.2 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04132 \pm 0.00058 \quad (+0.6\sigma)$	$f_{2000}^{143 \times 217}$	$31.5 \pm 2.4 \quad (-0.3\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.18 \quad (+2.8\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.22 \pm 0.77 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.57 \pm 0.73 \quad (-0.7\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9963 \pm 0.0051 \quad (-0.1\sigma)$	r_{drag}	$148.1 \pm 2.0 \quad (+2.8\sigma)$	χ_{lowl}^2	$23.2 \pm 1.1 \quad (+0.3\sigma)$
c_{EE}	$0.9916 \pm 0.0055 \quad (-0.1\sigma)$	k_{D}	$0.1401 \pm 0.0014 \quad (-1.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.5 \pm 5.8 \quad (+0.0\sigma)$
H_0	$67.3 \pm 1.3 \quad (-0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16070 \pm 0.00048 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.063 \pm 0.075 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6886 \pm 0.0071 \quad (-0.2\sigma)$	z_{eq}	$3383 \pm 26 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.26 \pm 0.47 \quad (-0.1\sigma)$
Ω_{m}	$0.3114 \pm 0.0071 \quad (+0.2\sigma)$	k_{eq}	$0.01028 \pm 0.00012 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.6 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0033 \quad (-1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8167 \pm 0.0049 \quad (-0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0949^{+0.0036}_{-0.0040} \quad (-3.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4512 \pm 0.0025 \quad (-0.2\sigma)$	χ_{CMB}^2	$11944.0 \pm 5.9 \quad (+0.1\sigma)$
σ_8	$0.806 \pm 0.010 \quad (-0.5\sigma)$	$H(0.15)$	$72.5 \pm 1.3 \quad (-1.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (+0.3\sigma)$
S_8	$0.821 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$644 \pm 12 \quad (+1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.94; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68; R - 1 = 0.01105$$

7.71 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00018	$\sigma_8 \Omega_m^{0.5}$	0.4477 ± 0.0072	$H(0.38)$	82.6 ± 1.1
$\Omega_c h^2$	0.1177 ± 0.0028	$\sigma_8 \Omega_m^{0.25}$	0.5998 ± 0.0079	$D_M(0.38)$	1537 ± 23
$100\theta_{MC}$	1.04111 ± 0.00043	$\sigma_8/h^{0.5}$	0.980 ± 0.010	$H(0.51)$	89.3 ± 1.1
τ	$0.0549^{+0.0050}_{-0.0078}$	$r_{\text{drag}} h$	99.74 ± 0.86	$D_M(0.51)$	1991 ± 29
N_{eff}	2.97 ± 0.17	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.024	$H(0.61)$	94.8 ± 1.2
$\ln(10^{10} A_s)$	$3.038^{+0.014}_{-0.017}$	z_{re}	$7.70^{+0.55}_{-0.79}$	$D_M(0.61)$	2317 ± 33
n_s	0.9654 ± 0.0065	$10^9 A_s$	$2.086^{+0.029}_{-0.036}$	$H(2.33)$	234.7 ± 2.4
y_{cal}	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.869 ± 0.017	$D_M(2.33)$	5793 ± 70
A_{100}^{PS}	237 ± 25	D_{40}	1225 ± 13	$f\sigma_8(0.15)$	0.4524 ± 0.0069
A_{143}^{PS}	38 ± 8	D_{220}	5720 ± 38	$\sigma_8(0.15)$	0.7427 ± 0.0094
A_{217}^{PS}	102 ± 10	D_{810}	2533 ± 14	$f\sigma_8(0.38)$	0.4708 ± 0.0063
A_{217}^{CIB}	39 ± 7	D_{1420}	816.6 ± 5.0	$\sigma_8(0.38)$	0.6584 ± 0.0085
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5}$	D_{2000}	230.9 ± 1.9	$f\sigma_8(0.51)$	0.4695 ± 0.0060
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.14	$n_{s,0.002}$	0.9654 ± 0.0065	$\sigma_8(0.51)$	0.6163 ± 0.0080
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.41}_{-0.16}$	Y_P	0.2443 ± 0.0023	$f\sigma_8(0.61)$	0.4647 ± 0.0059
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	0.2457 ± 0.0023	$\sigma_8(0.61)$	0.5864 ± 0.0077
A^{kSZ}	< 6.05	10^5D/H	2.574 ± 0.048	$f\sigma_8(2.33)$	0.2957 ± 0.0039
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	13.87 ± 0.17	$\sigma_8(2.33)$	0.3049 ± 0.0042
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.73 ± 0.36	f_{2000}^{143}	28.9 ± 3.1
A_{217}^{dust}	0.98 ± 0.10	r_*	145.5 ± 1.6	f_{2000}^{217}	106.3 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04135 ± 0.00051	$f_{2000}^{143 \times 217}$	31.5 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.97 ± 0.15	χ_{simall}^2	396.9 ± 1.7
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.54 ± 0.63	χ_{lowl}^2	23.1 ± 1.0
c_{TE}	0.9963 ± 0.0051	r_{drag}	148.2 ± 1.7	χ_{CamSpec}^2	11514.8 ± 5.8
c_{EE}	0.9915 ± 0.0053	k_D	0.1400 ± 0.0012	χ_{Aver15}^2	0.36 ± 0.51
H_0	67.3 ± 1.1	$100\theta_D$	0.16068 ± 0.00042	$\chi_{6\text{DF}}^2$	0.054 ± 0.068
Ω_Λ	0.6895 ± 0.0069	z_{eq}	3379 ± 26	χ_{MGS}^2	1.33 ± 0.48
Ω_m	0.3105 ± 0.0069	k_{eq}	0.01026 ± 0.00011	χ_{DR12BAO}^2	4.7 ± 1.5
$\Omega_m h^2$	0.1406 ± 0.0029	$100\theta_{\text{eq}}$	0.8175 ± 0.0048	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^3$	0.0947 ± 0.0032	$100\theta_{s,\text{eq}}$	0.4516 ± 0.0025	χ_{BAO}^2	6.1 ± 1.2
σ_8	0.804 ± 0.010	$H(0.15)$	72.6 ± 1.1	χ_{CMB}^2	11934.7 ± 5.7
S_8	0.817 ± 0.013	$D_M(0.15)$	644 ± 10		

$$\bar{\chi}_{\text{eff}}^2 = 11948.97; R - 1 = 0.00928$$

7.72 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02229 ± 0.00018	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6007 ± 0.0077	$H(0.51)$	89.4 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0026	$\sigma_8/h^{0.5}$	0.9802 ± 0.0099	$D_{\mathrm{M}}(0.51)$	1988 ± 27
$100\theta_{\mathrm{MC}}$	1.04106 ± 0.00040	$r_{\mathrm{drag}}h$	99.75 ± 0.86	$H(0.61)$	95.0 ± 1.1
τ	$0.0549^{+0.0050}_{-0.0078}$	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.024	$D_{\mathrm{M}}(0.61)$	2313 ± 31
N_{eff}	3.00 ± 0.15	z_{re}	$7.70^{+0.55}_{-0.78}$	$H(2.33)$	235.1 ± 2.3
$\ln(10^{10}A_{\mathrm{s}})$	$3.039^{+0.014}_{-0.017}$	$10^9 A_{\mathrm{s}}$	$2.088^{+0.029}_{-0.035}$	$D_{\mathrm{M}}(2.33)$	5783 ± 66
n_{s}	0.9661 ± 0.0063	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.016	$f\sigma_8(0.15)$	0.4530 ± 0.0067
y_{cal}	1.0005 ± 0.0025	D_{40}	1224 ± 13	$\sigma_8(0.15)$	0.7439 ± 0.0090
A_{100}^{PS}	238 ± 25	D_{220}	5718 ± 38	$f\sigma_8(0.38)$	0.4715 ± 0.0061
A_{143}^{PS}	38 ± 8	D_{810}	2533 ± 14	$\sigma_8(0.38)$	0.6595 ± 0.0081
A_{217}^{PS}	102 ± 10	D_{1420}	816.2 ± 4.9	$f\sigma_8(0.51)$	0.4702 ± 0.0058
A_{217}^{CIB}	40 ± 7	D_{2000}	230.6 ± 1.8	$\sigma_8(0.51)$	0.6173 ± 0.0077
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$n_{\mathrm{s},0.002}$	0.9661 ± 0.0063	$f\sigma_8(0.61)$	0.4654 ± 0.0056
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.14	Y_{P}	0.2447 ± 0.0021	$\sigma_8(0.61)$	0.5874 ± 0.0073
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2460 ± 0.0021	$f\sigma_8(2.33)$	0.2962 ± 0.0038
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.583 ± 0.043	$\sigma_8(2.33)$	0.3054 ± 0.0040
A^{kSZ}	$4.6^{+1.6}_{-4.5}$	$\mathrm{Age}/\mathrm{Gyr}$	13.85 ± 0.16	f_{2000}^{143}	29.2 ± 3.1
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.80 ± 0.32	f_{2000}^{217}	106.5 ± 2.1
A_{143}^{dust}	0.96 ± 0.18	r_*	145.2 ± 1.5	$f_{2000}^{143 \times 217}$	31.7 ± 2.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04128 ± 0.00048	χ_{simall}^2	396.8 ± 1.7
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.14	χ_{lowl}^2	23.01 ± 0.99
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.58 ± 0.62	$\chi_{\mathrm{CamSpec}}^2$	11514.7 ± 5.8
c_{217}	1.0011 ± 0.0016	r_{drag}	147.9 ± 1.6	χ_{Aver15}^2	0.36 ± 0.50
c_{TE}	0.9966 ± 0.0050	k_{D}	0.1401 ± 0.0011	$\chi_{\mathrm{Cooke17}}^2$	0.35 ± 0.45
c_{EE}	0.9920 ± 0.0052	$100\theta_{\mathrm{D}}$	0.16076 ± 0.00038	$\chi_{6\mathrm{DF}}^2$	0.054 ± 0.067
H_0	67.4 ± 1.1	z_{eq}	3378 ± 25	χ_{MGS}^2	1.34 ± 0.48
Ω_{Λ}	0.6897 ± 0.0069	k_{eq}	0.01027 ± 0.00010	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.4
Ω_{m}	0.3103 ± 0.0069	$100\theta_{\mathrm{eq}}$	0.8176 ± 0.0048	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0027	$100\theta_{\mathrm{s,eq}}$	0.4517 ± 0.0025	χ_{BAO}^2	6.1 ± 1.1
$\Omega_{\mathrm{m}}h^3$	0.0951 ± 0.0030	$H(0.15)$	72.7 ± 1.0	χ_{CMB}^2	11934.6 ± 5.7
σ_8	0.8049 ± 0.0096	$D_{\mathrm{M}}(0.15)$	643.1 ± 9.6	χ_{Abund}^2	0.71 ± 0.65
S_8	0.819 ± 0.013	$H(0.38)$	82.7 ± 1.1		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4483 ± 0.0070	$D_{\mathrm{M}}(0.38)$	1534 ± 22		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.15; R - 1 = 0.01020$$

7.73 base_nnu_plikHM_TT_lowl_lowE_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022625	0.02260 ± 0.00023 (+1.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042	0.606 ± 0.012 (+1.2 σ)	$D_{\mathrm{M}}(0.15)$	611.1	610 ± 12 (−3.4 σ)
$\Omega_{\mathrm{c}}h^2$	0.12382	0.1248 ± 0.0036 (+4.0 σ)	$\sigma_8/h^{0.5}$	0.9757	0.977 ± 0.015 (+0.5 σ)	$H(0.38)$	86.33	86.6 ± 1.3 (+5.6 σ)
$100\theta_{\mathrm{MC}}$	1.04058	1.04048 ± 0.00054 (−1.7 σ)	$r_{\mathrm{drag}}h$	102.21	102.2 ± 1.5 (+0.6 σ)	$D_{\mathrm{M}}(0.38)$	1462.2	1459 ± 26 (−3.9 σ)
τ	0.0568	$0.0573^{+0.0076}_{-0.0086}$ (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.3870	2.391 ± 0.034 (−0.3 σ)	$H(0.51)$	93.01	93.3 ± 1.4 (+7.4 σ)
N_{eff}	3.478	3.53 ± 0.20	z_{re}	7.99	8.04 ± 0.83 (+0.3 σ)	$D_{\mathrm{M}}(0.51)$	1897.3	1893 ± 32 (−4.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0599	3.061 ± 0.019 (+1.2 σ)	10^9A_{s}	2.1325	$2.136^{+0.037}_{-0.041}$ (+1.2 σ)	$H(0.61)$	98.62	98.9 ± 1.4 (+9.4 σ)
n_{s}	0.9858	0.9858 ± 0.0079 (+2.8 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.9035	1.905 ± 0.019 (+2.6 σ)	$D_{\mathrm{M}}(0.61)$	2210.4	2205 ± 36 (−4.5 σ)
y_{cal}	1.00109	1.0006 ± 0.0025 (+0.0 σ)	D_{40}	1200.2	1201 ± 15 (−1.1 σ)	$H(2.33)$	240.73	241.4 ± 2.9 (+5.8 σ)
A_{217}^{CIB}	48.4	50 ± 7 (+0.3 σ)	D_{220}	5729.7	5724 ± 41 (−0.2 σ)	$D_{\mathrm{M}}(2.33)$	5581	5566 ± 74 (−11.8 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.59	—	D_{810}	2545.7	2542 ± 14 (+0.5 σ)	$f\sigma_8(0.15)$	0.4500	0.452 ± 0.011 (+0.7 σ)
A_{143}^{tSZ}	5.42	4.6 ± 2.0 (−0.3 σ)	D_{1420}	816.1	813.7 ± 5.4 (−0.6 σ)	$\sigma_8(0.15)$	0.7624	0.764 ± 0.011 (+2.7 σ)
A_{100}^{PS}	264.6	272 ± 28 (+0.4 σ)	D_{2000}	228.71	227.7 ± 2.1 (−1.7 σ)	$f\sigma_8(0.38)$	0.4732	0.4747 ± 0.0095 (+1.1 σ)
A_{143}^{PS}	54.9	53 ± 8 (+0.8 σ)	$n_{\mathrm{s},0.002}$	0.9858	0.9858 ± 0.0079 (+2.8 σ)	$\sigma_8(0.38)$	0.6781	0.680 ± 0.010 (+3.1 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	50.2	45^{+9}_{-10} (+0.2 σ)	Y_{P}	0.25111	0.2517 ± 0.0025 (+73.4 σ)	$f\sigma_8(0.51)$	0.4743	0.4757 ± 0.0087 (+1.3 σ)
A_{217}^{PS}	118.5	115 ± 10 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.25245	0.2530 ± 0.0025 (+73.4 σ)	$\sigma_8(0.51)$	0.6356	0.6372 ± 0.0096 (+3.3 σ)
A^{kSZ}	3.04	$4.6^{+2.0}_{-4.1}$ (+0.4 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.686	2.706 ± 0.062 (+3.0 σ)	$f\sigma_8(0.61)$	0.4710	0.4723 ± 0.0082 (+1.5 σ)
$A_{100}^{\mathrm{dustTT}}$	9.01	9.1 ± 1.8 (−0.0 σ)	Age/Gyr	13.366	13.33 ± 0.18 (−12.7 σ)	$\sigma_8(0.61)$	0.6054	0.6069 ± 0.0092 (+3.4 σ)
$A_{143}^{\mathrm{dustTT}}$	10.96	10.9 ± 1.8 (+0.1 σ)	z_*	1090.346	1090.50 ± 0.49 (+2.3 σ)	$f\sigma_8(2.33)$	0.30605	0.3068 ± 0.0047 (+3.6 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.35	18.5 ± 3.3 (+0.1 σ)	r_*	141.20	140.8 ± 1.8 (−9.6 σ)	$\sigma_8(2.33)$	0.3165	0.3173 ± 0.0050 (+3.8 σ)
$A_{217}^{\mathrm{dustTT}}$	94.5	93.0 ± 7.3 (−0.0 σ)	$100\theta_*$	1.04046	1.04034 ± 0.00061 (−2.4 σ)	f_{2000}^{143}	32.80	34.0 ± 3.3 (+1.3 σ)
c_{100}	0.99963	0.99962 ± 0.00062 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.571	13.53 ± 0.16 (−9.6 σ)	$f_{2000}^{143 \times 217}$	35.12	35.8 ± 2.4 (+1.5 σ)
c_{217}	0.99833	0.99831 ± 0.00062 (+0.1 σ)	z_{drag}	1061.12	1061.18 ± 0.73 (+3.1 σ)	f_{2000}^{217}	109.46	110.1 ± 2.2 (+1.4 σ)
H_0	71.11	71.3 ± 1.4 (+3.3 σ)	r_{drag}	143.74	143.3 ± 1.8 (−9.7 σ)	χ_{small}^2	396.30	397.5 ± 2.2 (+0.1 σ)
Ω_{Λ}	0.7091	$0.708^{+0.011}_{-0.010}$ (+0.7 σ)	k_{D}	0.14304	0.1433 ± 0.0014 (+6.2 σ)	χ_{lowl}^2	20.96	21.17 ± 0.79 (−1.2 σ)
Ω_{m}	0.2909	$0.292^{+0.010}_{-0.011}$ (−0.7 σ)	$100\theta_{\mathrm{D}}$	0.16184	0.16200 ± 0.00051 (+4.2 σ)	χ_{plik}^2	765.1	777.8 ± 6.1 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14709	0.1480 ± 0.0037 (+4.3 σ)	z_{eq}	3307.8	3308 ± 42 (−0.6 σ)	$\chi_{\mathrm{H073p45}}^2$	1.99	2.4 ± 2.4 (−2.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.10459	0.1055 ± 0.0040 (+20.2 σ)	k_{eq}	0.010384	0.01042 ± 0.00016 (+1.8 σ)	χ_{prior}^2	1.91	7.5 ± 3.8 (+0.0 σ)
σ_8	0.8227	0.825 ± 0.013 (+2.5 σ)	$100\theta_{\mathrm{eq}}$	0.8314	0.8313 ± 0.0084 (+0.6 σ)	χ_{CMB}^2	1182.4	1196.5 ± 5.9 (+0.1 σ)
S_8	0.8102	0.813 ± 0.021 (+0.6 σ)	$100\theta_{\mathrm{s,eq}}$	0.45861	0.4586 ± 0.0043 (+0.6 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4438	0.445 ± 0.012 (+0.6 σ)	$H(0.15)$	76.31	76.5 ± 1.4 (+3.9 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1186.27$; $\Delta\chi_{\mathrm{eff}}^2 = -5.30$; $\bar{\chi}_{\mathrm{eff}}^2 = 1206.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -5.69$; $R - 1 = 0.00670$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck.B: 396.30 (Δ 0.22) commander_dx12_v3.2_29: 20.96 (Δ -1.12) plik_rd12_HM_v22_TT: 765.11 (Δ 2.09) Hubble - H073p45: 1.99 (Δ -6.99)

7.74 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022516	0.02251 ± 0.00021	$\sigma_8/h^{0.5}$	0.9839	0.984 ± 0.012	$D_{\text{M}}(0.38)$	1474.6	1472 ± 22
$\Omega_{\text{c}}h^2$	0.12435	0.1254 ± 0.0035	$r_{\text{drag}}h$	101.26	101.12 ± 0.92	$H(0.51)$	92.51	92.8 ± 1.2
$100\theta_{\text{MC}}$	1.04048	1.04039 ± 0.00052	$\langle d^2 \rangle^{1/2}$	2.4070	2.409 ± 0.027	$D_{\text{M}}(0.51)$	1912.4	1908 ± 28
τ	0.0565	0.0558 ± 0.0080	z_{re}	7.99	7.92 ± 0.82	$H(0.61)$	98.16	98.4 ± 1.3
N_{eff}	3.442	3.49 ± 0.19	$10^9 A_{\text{s}}$	2.1354	2.133 ± 0.039	$D_{\text{M}}(0.61)$	2227.0	2222 ± 32
$\ln(10^{10} A_{\text{s}})$	3.0612	3.060 ± 0.018	$10^9 A_{\text{s}} e^{-2\tau}$	1.9072	1.907 ± 0.019	$H(2.33)$	240.82	241.6 ± 2.9
n_{s}	0.9825	0.9819 ± 0.0067	D_{40}	1206.9	1207 ± 14	$D_{\text{M}}(2.33)$	5603	5588 ± 72
y_{cal}	1.00148	1.0005 ± 0.0025	D_{220}	5727.5	5719 ± 41	$f\sigma_8(0.15)$	0.4562	0.4576 ± 0.0085
A_{217}^{CIB}	52.6	50 ± 7	D_{810}	2548.1	2542 ± 14	$\sigma_8(0.15)$	0.7641	0.765 ± 0.011
$\xi^{\text{tSZ} \times \text{CIB}}$	0.27	—	D_{1420}	816.4	813.3 ± 5.2	$f\sigma_8(0.38)$	0.4780	0.4791 ± 0.0079
A_{143}^{tSZ}	6.34	4.6 ± 2.0	D_{2000}	228.87	227.7 ± 2.1	$\sigma_8(0.38)$	0.6788	0.680 ± 0.010
A_{100}^{PS}	264.3	273 ± 28	$n_{\text{s},0.002}$	0.9825	0.9819 ± 0.0067	$f\sigma_8(0.51)$	0.4782	0.4792 ± 0.0076
A_{143}^{PS}	52.0	54 ± 8	Y_{P}	0.25060	0.2512 ± 0.0025	$\sigma_8(0.51)$	0.6359	0.6367 ± 0.0095
$A_{143 \times 217}^{\text{PS}}$	46.4	45_{-10}^{+9}	$Y_{\text{P}}^{\text{BBN}}$	0.25195	0.2525 ± 0.0025	$f\sigma_8(0.61)$	0.4742	0.4752 ± 0.0073
A_{217}^{PS}	116.2	115 ± 10	$10^5 D/\text{H}$	2.694	2.711 ± 0.062	$\sigma_8(0.61)$	0.6055	0.6062 ± 0.0090
A^{kSZ}	1.18	$4.6_{-3.9}^{+2.1}$	Age/Gyr	13.417	13.38 ± 0.17	$f\sigma_8(2.33)$	0.30581	0.3061 ± 0.0046
A_{100}^{dustTT}	9.07	9.1 ± 1.9	z_*	1090.492	1090.63 ± 0.46	$\sigma_8(2.33)$	0.31594	0.3162 ± 0.0048
A_{143}^{dustTT}	10.80	10.9 ± 1.8	r_*	141.32	140.9 ± 1.8	f_{2000}^{143}	32.57	34.0 ± 3.3
$A_{143 \times 217}^{\text{dustTT}}$	18.26	18.5 ± 3.3	$100\theta_*$	1.04039	1.04028 ± 0.00060	$f_{2000}^{143 \times 217}$	35.15	35.8 ± 2.3
A_{217}^{dustTT}	91.0	93.0 ± 7.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.583	13.54 ± 0.17	f_{2000}^{217}	109.36	110.1 ± 2.1
c_{100}	0.99969	0.99961 ± 0.00062	z_{drag}	1060.89	1061.00 ± 0.71	χ_{small}^2	396.32	397.3 ± 2.0
c_{217}	0.99825	0.99831 ± 0.00063	r_{drag}	143.90	143.4 ± 1.8	χ_{lowl}^2	21.31	21.55 ± 0.74
H_0	70.37	70.5 ± 1.1	k_{D}	0.14292	0.1433 ± 0.0014	χ_{plik}^2	763.9	776.3 ± 5.8
Ω_{Λ}	0.7022	0.7011 ± 0.0069	$100\theta_{\text{D}}$	0.16183	0.16195 ± 0.00050	χ_{H073p45}^2	3.43	3.6 ± 2.5
Ω_{m}	0.2978	0.2989 ± 0.0069	z_{eq}	3332.5	3337 ± 28	$\chi_{6\text{DF}}^2$	0.0250	0.052 ± 0.071
$\Omega_{\text{m}}h^2$	0.14751	0.1486 ± 0.0036	k_{eq}	0.010438	0.01048 ± 0.00014	χ_{MGS}^2	2.19	2.16 ± 0.60
$\Omega_{\text{m}}h^3$	0.10381	0.1048 ± 0.0039	$100\theta_{\text{eq}}$	0.8263	0.8256 ± 0.0052	χ_{DR12BAO}^2	3.483	3.99 ± 0.81
σ_8	0.8254	0.827 ± 0.012	$100\theta_{\text{s,eq}}$	0.45607	0.4557 ± 0.0027	χ_{prior}^2	1.79	7.5 ± 3.7
S_8	0.8224	0.825 ± 0.016	$H(0.15)$	75.64	75.8 ± 1.1	χ_{BAO}^2	5.70	6.2 ± 1.2
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4504	0.4519 ± 0.0088	$D_{\text{M}}(0.15)$	617.0	615.8 ± 9.6	χ_{CMB}^2	1181.6	1195.1 ± 5.7
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6097	0.6112 ± 0.0099	$H(0.38)$	85.76	86.0 ± 1.2			

Best-fit $\chi_{\text{eff}}^2 = 1192.50$; $\bar{\chi}_{\text{eff}}^2 = 1212.38$; $R - 1 = 0.01231$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 2.19 DR12BAO: 3.48 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.32 commander_dx12_v3.2.29: 21.31 plik_rd12_HM_v22_TT: 763.94
Hubble - H073p45: 3.44

7.75 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022535	0.02252 ± 0.00021	$\sigma_8/h^{0.5}$	0.9831	0.984 ± 0.012	$D_M(0.38)$	1472.7	1472 ± 22
$\Omega_c h^2$	0.12507	0.1254 ± 0.0035	$r_{\text{drag}} h$	101.14	101.13 ± 0.88	$H(0.51)$	92.67	92.8 ± 1.2
$100\theta_{\text{MC}}$	1.04041	1.04039 ± 0.00052	$\langle d^2 \rangle^{1/2}$	2.4064	2.409 ± 0.026	$D_M(0.51)$	1909.7	1908 ± 28
τ	0.0551	0.0558 ± 0.0080	z_{re}	7.86	7.92 ± 0.82	$H(0.61)$	98.34	98.4 ± 1.3
N_{eff}	3.471	3.49 ± 0.19	$10^9 A_s$	2.1283	2.133 ± 0.039	$D_M(0.61)$	2223.8	2222 ± 32
$\ln(10^{10} A_s)$	3.0579	3.060 ± 0.018	$10^9 A_s e^{-2\tau}$	1.9062	1.907 ± 0.019	$H(2.33)$	241.40	241.6 ± 2.9
n_s	0.9817	0.9819 ± 0.0066	D_{40}	1207.0	1207 ± 13	$D_M(2.33)$	5592	5588 ± 72
y_{cal}	1.00049	1.0005 ± 0.0025	D_{220}	5720.9	5719 ± 41	$f\sigma_8(0.15)$	0.4566	0.4576 ± 0.0083
A_{217}^{CIB}	52.0	50 ± 7	D_{810}	2542.6	2542 ± 14	$\sigma_8(0.15)$	0.7638	0.765 ± 0.011
$\xi^{\text{tSZ} \times \text{CIB}}$	0.01	—	D_{1420}	813.8	813.3 ± 5.2	$f\sigma_8(0.38)$	0.4782	0.4791 ± 0.0079
A_{143}^{tSZ}	6.31	4.6 ± 2.0	D_{2000}	227.92	227.7 ± 2.1	$\sigma_8(0.38)$	0.6785	0.680 ± 0.010
A_{100}^{PS}	267.4	273 ± 28	$n_{\text{s},0.002}$	0.9817	0.9819 ± 0.0066	$f\sigma_8(0.51)$	0.4783	0.4792 ± 0.0075
A_{143}^{PS}	49.1	54 ± 8	Y_{P}	0.25098	0.2512 ± 0.0025	$\sigma_8(0.51)$	0.6355	0.6367 ± 0.0095
$A_{143 \times 217}^{\text{PS}}$	39.3	45_{-10}^{+9}	$Y_{\text{P}}^{\text{BBN}}$	0.25233	0.2525 ± 0.0025	$f\sigma_8(0.61)$	0.4743	0.4752 ± 0.0073
A_{217}^{PS}	115.0	115 ± 10	$10^5 D/H$	2.701	2.711 ± 0.062	$\sigma_8(0.61)$	0.6051	0.6062 ± 0.0090
A^{kSZ}	1.66	$4.6_{-3.9}^{+2.1}$	Age/Gyr	13.392	13.38 ± 0.17	$f\sigma_8(2.33)$	0.30558	0.3061 ± 0.0046
A_{100}^{dustTT}	9.05	9.1 ± 1.9	z_*	1090.560	1090.63 ± 0.46	$\sigma_8(2.33)$	0.31566	0.3162 ± 0.0048
A_{143}^{dustTT}	10.91	10.9 ± 1.8	r_*	140.99	140.9 ± 1.8	f_{2000}^{143}	33.48	34.0 ± 3.3
$A_{143 \times 217}^{\text{dustTT}}$	18.79	18.5 ± 3.3	$100\theta_*$	1.04031	1.04028 ± 0.00060	$f_{2000}^{143 \times 217}$	35.48	35.8 ± 2.3
A_{217}^{dustTT}	93.2	93.0 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.553	13.54 ± 0.17	f_{2000}^{217}	109.85	110.1 ± 2.1
c_{100}	0.99963	0.99962 ± 0.00062	z_{drag}	1061.00	1061.00 ± 0.71	χ_{small}^2	396.11	397.3 ± 2.0
c_{217}	0.99831	0.99831 ± 0.00063	r_{drag}	143.56	143.4 ± 1.8	χ_{lowl}^2	21.44	21.54 ± 0.73
H_0	70.45	70.5 ± 1.1	k_{D}	0.14320	0.1433 ± 0.0014	χ_{plik}^2	763.7	776.3 ± 5.8
Ω_{Λ}	0.7013	0.7011 ± 0.0066	$100\theta_{\text{D}}$	0.16187	0.16195 ± 0.00050	χ_{H073p45}^2	3.26	3.6 ± 2.4
Ω_{m}	0.2987	0.2989 ± 0.0066	z_{eq}	3336.9	3337 ± 27	χ_{JLA}^2	1034.734	1034.82 ± 0.13
$\Omega_{\text{m}} h^2$	0.14825	0.1486 ± 0.0036	k_{eq}	0.010471	0.01048 ± 0.00014	$\chi_{6\text{DF}}^2$	0.0174	0.049 ± 0.066
$\Omega_{\text{m}} h^3$	0.10445	0.1048 ± 0.0039	$100\theta_{\text{eq}}$	0.82554	0.8256 ± 0.0050	χ_{MGS}^2	2.12	2.16 ± 0.58
σ_8	0.8252	0.827 ± 0.012	$100\theta_{\text{s,eq}}$	0.45564	0.4557 ± 0.0026	χ_{DR12BAO}^2	3.446	3.94 ± 0.74
S_8	0.8234	0.825 ± 0.016	$H(0.15)$	75.74	75.8 ± 1.1	χ_{prior}^2	1.81	7.5 ± 3.7
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4510	0.4519 ± 0.0086	$D_M(0.15)$	616.2	615.8 ± 9.4	χ_{BAO}^2	5.58	6.2 ± 1.1
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6100	0.6112 ± 0.0099	$H(0.38)$	85.90	86.0 ± 1.2	χ_{CMB}^2	1181.2	1195.1 ± 5.7

Best-fit $\chi_{\text{eff}}^2 = 2226.63$; $\bar{\chi}_{\text{eff}}^2 = 2247.12$; $R - 1 = 0.01243$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 2.12 DR12BAO: 3.45 CMB - small_100x143_offlike5_EE_Aplanck_B: 396.11 commander_dx12_v3.2.29: 21.44 plik_rd12_HM_v22_TT: 763.69
Hubble - H073p45: 3.26 SN - JLA Pantheon18: 1034.73

7.76 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022573	0.02258 ± 0.00023 (+1.3 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6088	0.6095 ± 0.0084 (+1.3 σ)	$D_{\mathrm{M}}(0.15)$	614.2	613 ± 11 (−4.4 σ)
$\Omega_{\mathrm{c}}h^2$	0.12449	0.1248 ± 0.0033 (+4.5 σ)	$\sigma_8/h^{0.5}$	0.9820	0.983 ± 0.010 (+0.3 σ)	$H(0.38)$	86.06	86.3 ± 1.3 (+7.0 σ)
$100\theta_{\mathrm{MC}}$	1.04051	1.04047 ± 0.00052 (−1.6 σ)	$r_{\mathrm{drag}}h$	101.59	101.7 ± 1.3 (+1.1 σ)	$D_{\mathrm{M}}(0.38)$	1468.5	1465 ± 26 (−5.0 σ)
τ	0.0581	$0.0590^{+0.0071}_{-0.0087}$ (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4033	2.405 ± 0.025 (−0.8 σ)	$H(0.51)$	92.80	93.0 ± 1.4 (+9.0 σ)
N_{eff}	3.471	3.50 ± 0.19	z_{re}	8.15	$8.22^{+0.73}_{-0.82}$ (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1904.8	1901 ± 32 (−5.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0629	$3.066^{+0.016}_{-0.018}$ (+1.1 σ)	10^9A_{s}	2.1389	$2.146^{+0.033}_{-0.038}$ (+1.1 σ)	$H(0.61)$	98.44	98.6 ± 1.4 (+11.1 σ)
n_{s}	0.9834	0.9837 ± 0.0078 (+3.2 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.9041	1.906 ± 0.017 (+2.8 σ)	$D_{\mathrm{M}}(0.61)$	2218.5	2214 ± 36 (−5.7 σ)
y_{cal}	1.00032	1.0008 ± 0.0025 (−0.1 σ)	D_{40}	1204.4	1206 ± 14 (−1.5 σ)	$H(2.33)$	241.07	241.4 ± 2.7 (+6.6 σ)
A_{217}^{CIB}	46.9	49 ± 7 (+0.3 σ)	D_{220}	5722.5	5729 ± 41 (−0.2 σ)	$D_{\mathrm{M}}(2.33)$	5588	5579 ± 75 (−13.3 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.72	—	D_{810}	2542.8	2544 ± 14 (+0.4 σ)	$f\sigma_8(0.15)$	0.4547	0.4550 ± 0.0079 (+0.5 σ)
A_{143}^{tSZ}	5.07	4.6 ± 2.0 (−0.3 σ)	D_{1420}	814.5	814.1 ± 5.4 (−0.6 σ)	$\sigma_8(0.15)$	0.7647	0.7662 ± 0.0099 (+3.4 σ)
A_{100}^{PS}	264.8	272 ± 29 (+0.4 σ)	D_{2000}	228.22	228.0 ± 2.1 (−1.5 σ)	$f\sigma_8(0.38)$	0.4771	0.4775 ± 0.0068 (+1.1 σ)
A_{143}^{PS}	56.7	53 ± 8 (+0.7 σ)	$n_{\mathrm{s},0.002}$	0.9834	0.9837 ± 0.0078 (+3.2 σ)	$\sigma_8(0.38)$	0.6797	0.6811 ± 0.0091 (+3.6 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	52.4	45^{+9}_{-10} (+0.2 σ)	Y_{P}	0.25099	0.2513 ± 0.0025 (+74.6 σ)	$f\sigma_8(0.51)$	0.4776	0.4781 ± 0.0063 (+1.5 σ)
A_{217}^{PS}	120.0	115 ± 10 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.25234	0.2527 ± 0.0025 (+74.6 σ)	$\sigma_8(0.51)$	0.6368	0.6382 ± 0.0087 (+3.7 σ)
A^{kSZ}	3.42	$4.5^{+1.8}_{-4.1}$ (+0.4 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.693	2.701 ± 0.060 (+2.9 σ)	$f\sigma_8(0.61)$	0.4739	0.4745 ± 0.0061 (+1.9 σ)
$A_{100}^{\mathrm{dustTT}}$	9.07	9.1 ± 1.9 (+0.1 σ)	Age/Gyr	13.383	13.36 ± 0.18 (−14.1 σ)	$\sigma_8(0.61)$	0.6064	0.6078 ± 0.0084 (+3.7 σ)
$A_{143}^{\mathrm{dustTT}}$	10.90	10.9 ± 1.8 (+0.1 σ)	z_*	1090.460	1090.51 ± 0.45 (+2.1 σ)	$f\sigma_8(2.33)$	0.30639	0.3071 ± 0.0044 (+3.7 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.47	18.4 ± 3.3 (+0.0 σ)	r_*	141.11	140.9 ± 1.7 (−11.2 σ)	$\sigma_8(2.33)$	0.31667	0.3175 ± 0.0049 (+3.6 σ)
$A_{217}^{\mathrm{dustTT}}$	95.1	93.0 ± 7.4 (−0.1 σ)	$100\theta_*$	1.04041	1.04035 ± 0.00060 (−2.3 σ)	f_{2000}^{143}	32.98	33.7 ± 3.3 (+1.1 σ)
c_{100}	0.99965	0.99962 ± 0.00062 (−0.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.563	13.55 ± 0.16 (−11.0 σ)	$f_{2000}^{143 \times 217}$	35.17	35.6 ± 2.3 (+1.4 σ)
c_{217}	0.99828	0.99830 ± 0.00062 (+0.1 σ)	z_{drag}	1061.04	1061.11 ± 0.73 (+3.3 σ)	f_{2000}^{217}	109.40	109.9 ± 2.2 (+1.3 σ)
H_0	70.72	70.9 ± 1.4 (+4.3 σ)	r_{drag}	143.66	143.5 ± 1.8 (−11.1 σ)	$\chi_{\mathrm{lensing}}^2$	9.68	10.3 ± 1.1 (+0.7 σ)
Ω_{Λ}	0.7046	0.7053 ± 0.0094 (+1.1 σ)	k_{D}	0.14311	0.1432 ± 0.0013 (+6.6 σ)	χ_{small}^2	396.67	397.9 ± 2.5 (+0.0 σ)
Ω_{m}	0.2954	0.2947 ± 0.0094 (−1.1 σ)	$100\theta_{\mathrm{D}}$	0.16185	0.16193 ± 0.00050 (+4.0 σ)	χ_{lowl}^2	21.30	21.43 ± 0.80 (−1.6 σ)
$\Omega_{\mathrm{m}}h^2$	0.14771	0.1481 ± 0.0034 (+4.9 σ)	z_{eq}	3324.9	3321 ± 36 (−1.0 σ)	χ_{plik}^2	764.3	776.3 ± 5.9 (+0.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.10445	0.1050 ± 0.0039 (+20.7 σ)	k_{eq}	0.010433	0.01044 ± 0.00013 (+1.9 σ)	$\chi_{\mathrm{H073p45}}^2$	2.71	3.0 ± 2.7 (−2.9 σ)
σ_8	0.8258	0.827 ± 0.010 (+3.1 σ)	$100\theta_{\mathrm{eq}}$	0.8280	0.8287 ± 0.0070 (+1.1 σ)	χ_{prior}^2	1.56	7.5 ± 3.8 (+0.0 σ)
S_8	0.8194	0.820 ± 0.015 (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.45688	0.4572 ± 0.0036 (+1.0 σ)	χ_{CMB}^2	1191.9	1205.9 ± 6.1 (+0.5 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4488	0.4490 ± 0.0084 (+0.4 σ)	$H(0.15)$	75.97	76.2 ± 1.4 (+5.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1196.19$; $\Delta\chi_{\mathrm{eff}}^2 = -4.86$; $\bar{\chi}_{\mathrm{eff}}^2 = 1216.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.79$; $R - 1 = 0.01200$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.68 (Δ 0.70) small_100x143_offlike5_EE_Aplanck_B: 396.67 (Δ 0.10) commander_dx12_v3.2_29: 21.30 (Δ -1.38) plik_rd12_HM_v22_TT: 764.27 (Δ 3.38) Hubble - H073p45: 2.71 (Δ -7.96)

7.77 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02251 \pm 0.00021 \quad (+1.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9855 \pm 0.0092 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1475 \pm 22 \quad (-5.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1250 \pm 0.0033 \quad (+6.2\sigma)$	$r_{\mathrm{drag}}h$	$101.05 \pm 0.86 \quad (+0.7\sigma)$	$H(0.51)$	$92.6 \pm 1.2 \quad (+10.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04043 \pm 0.00051 \quad (-1.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.414 \pm 0.022 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1913 \pm 28 \quad (-6.2\sigma)$
τ	$0.0570 \pm 0.0075 \quad (-0.1\sigma)$	z_{re}	$8.04 \pm 0.75 \quad (+0.0\sigma)$	$H(0.61)$	$98.2 \pm 1.3 \quad (+12.2\sigma)$
N_{eff}	3.46 ± 0.18	$10^9 A_{\mathrm{s}}$	$2.137^{+0.031}_{-0.035} \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2227 \pm 32 \quad (-6.6\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.062 \pm 0.016 \quad (+0.9\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.906 \pm 0.017 \quad (+2.8\sigma)$	$H(2.33)$	$241.2 \pm 2.7 \quad (+8.4\sigma)$
n_{s}	$0.9807 \pm 0.0066 \quad (+3.0\sigma)$	D_{40}	$1210 \pm 13 \quad (-1.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5599 \pm 70 \quad (-14.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5724 \pm 41 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4578 \pm 0.0067 \quad (+1.1\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.3\sigma)$	D_{810}	$2543 \pm 14 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7649 \pm 0.0097 \quad (+3.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$813.7 \pm 5.2 \quad (-0.7\sigma)$	$f\sigma_8(0.38)$	$0.4793 \pm 0.0063 \quad (+1.6\sigma)$
A_{143}^{tSZ}	$4.7 \pm 2.0 \quad (-0.3\sigma)$	D_{2000}	$227.9 \pm 2.1 \quad (-1.6\sigma)$	$\sigma_8(0.38)$	$0.6794 \pm 0.0088 \quad (+3.2\sigma)$
A_{100}^{PS}	$272 \pm 29 \quad (+0.4\sigma)$	$n_{\mathrm{s},0.002}$	$0.9807 \pm 0.0066 \quad (+3.0\sigma)$	$f\sigma_8(0.51)$	$0.4793 \pm 0.0061 \quad (+2.0\sigma)$
A_{143}^{PS}	$53 \pm 8 \quad (+0.7\sigma)$	Y_{P}	$0.2508 \pm 0.0024 \quad (+70.6\sigma)$	$\sigma_8(0.51)$	$0.6364 \pm 0.0083 \quad (+3.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$45^{+9}_{-10} \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2521 \pm 0.0024 \quad (+70.6\sigma)$	$f\sigma_8(0.61)$	$0.4752 \pm 0.0059 \quad (+2.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.701 \pm 0.059 \quad (+2.9\sigma)$	$\sigma_8(0.61)$	$0.6059 \pm 0.0080 \quad (+3.3\sigma)$
A^{kSZ}	$4.5^{+1.8}_{-4.1} \quad (+0.4\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.41 \pm 0.17 \quad (-14.5\sigma)$	$f\sigma_8(2.33)$	$0.3059 \pm 0.0041 \quad (+3.3\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.9 \quad (+0.1\sigma)$	z_*	$1090.57 \pm 0.44 \quad (+2.7\sigma)$	$\sigma_8(2.33)$	$0.3160 \pm 0.0044 \quad (+3.3\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	r_*	$141.1 \pm 1.7 \quad (-13.1\sigma)$	f_{2000}^{143}	$33.7 \pm 3.3 \quad (+1.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04034 \pm 0.00059 \quad (-2.4\sigma)$	$f_{2000}^{143 \times 217}$	$35.6 \pm 2.3 \quad (+1.3\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.1 \pm 7.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.57 \pm 0.16 \quad (-12.4\sigma)$	f_{2000}^{217}	$109.9 \pm 2.1 \quad (+1.2\sigma)$
c_{100}	$0.99963 \pm 0.00062 \quad (-0.1\sigma)$	z_{drag}	$1060.93 \pm 0.69 \quad (+2.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.02 \pm 0.81 \quad (+0.6\sigma)$
c_{217}	$0.99830 \pm 0.00062 \quad (+0.1\sigma)$	r_{drag}	$143.7 \pm 1.7 \quad (-12.2\sigma)$	χ_{small}^2	$397.4 \pm 2.0 \quad (-0.1\sigma)$
H_0	$70.3 \pm 1.1 \quad (+4.8\sigma)$	k_{D}	$0.1431 \pm 0.0013 \quad (+6.7\sigma)$	χ_{lowl}^2	$21.70 \pm 0.76 \quad (-1.4\sigma)$
Ω_{Λ}	$0.7005 \pm 0.0065 \quad (+0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16187 \pm 0.00049 \quad (+3.7\sigma)$	χ_{plik}^2	$775.5 \pm 5.7 \quad (+0.5\sigma)$
Ω_{m}	$0.2995 \pm 0.0065 \quad (-0.9\sigma)$	z_{eq}	$3339 \pm 25 \quad (-0.7\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$4.0 \pm 2.6 \quad (-3.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1481 \pm 0.0033 \quad (+6.6\sigma)$	k_{eq}	$0.01047 \pm 0.00013 \quad (+2.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.044 \pm 0.059 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1042 \pm 0.0037 \quad (+18.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8251 \pm 0.0048 \quad (+0.8\sigma)$	χ_{MGS}^2	$2.11 \pm 0.56 \quad (+0.7\sigma)$
σ_8	$0.826 \pm 0.010 \quad (+3.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4554 \pm 0.0025 \quad (+0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.90 \pm 0.69 \quad (-0.1\sigma)$
S_8	$0.826 \pm 0.013 \quad (+0.9\sigma)$	$H(0.15)$	$75.6 \pm 1.1 \quad (+5.7\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4523 \pm 0.0070 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$617.4 \pm 9.5 \quad (-5.0\sigma)$	χ_{CMB}^2	$1204.6 \pm 5.8 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6114 \pm 0.0079 \quad (+1.8\sigma)$	$H(0.38)$	$85.8 \pm 1.2 \quad (+8.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.0 \quad (+0.5\sigma)$

 $\bar{\chi}_{\mathrm{eff}}^2 = 1222.03; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.42; R - 1 = 0.01416$

7.78 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022521	0.02251 ± 0.00020 (+1.0 σ)	$r_{\mathrm{drag}}h$	101.03	101.05 ± 0.82 (+0.7 σ)	$D_{\mathrm{M}}(0.51)$	1914.5	1913 ± 27 (−6.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.12467	0.1250 ± 0.0033 (+6.5 σ)	$\langle d^2 \rangle^{1/2}$	2.4137	2.414 ± 0.021 (−0.5 σ)	$H(0.61)$	98.13	98.2 ± 1.2 (+12.4 σ)
$100\theta_{\mathrm{MC}}$	1.04049	1.04043 ± 0.00051 (−1.8 σ)	z_{re}	8.02	8.04 ± 0.74 (−0.0 σ)	$D_{\mathrm{M}}(0.61)$	2229.3	2227 ± 31 (−6.7 σ)
τ	0.0568	0.0571 ± 0.0075 (−0.2 σ)	$10^9 A_{\mathrm{s}}$	2.1349	2.137 ± 0.034 (+0.9 σ)	$H(2.33)$	241.03	241.2 ± 2.7 (+8.7 σ)
N_{eff}	3.440	3.46 ± 0.18	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.9058	1.906 ± 0.017 (+2.9 σ)	$D_{\mathrm{M}}(2.33)$	5604	5599 ± 69 (−14.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0610	3.062 ± 0.016 (+0.9 σ)	D_{40}	1210.1	1210 ± 13 (−1.2 σ)	$f\sigma_8(0.15)$	0.4575	0.4578 ± 0.0067 (+1.2 σ)
n_{s}	0.9805	0.9808 ± 0.0065 (+3.0 σ)	D_{220}	5725.8	5724 ± 41 (−0.3 σ)	$\sigma_8(0.15)$	0.7643	0.7649 ± 0.0097 (+3.1 σ)
y_{cal}	1.00067	1.0007 ± 0.0025 (−0.1 σ)	D_{810}	2543.7	2543 ± 14 (+0.3 σ)	$f\sigma_8(0.38)$	0.4790	0.4793 ± 0.0063 (+1.7 σ)
A_{217}^{CIB}	52.1	49 ± 7 (+0.3 σ)	D_{1420}	814.4	813.7 ± 5.2 (−0.7 σ)	$\sigma_8(0.38)$	0.6788	0.6794 ± 0.0087 (+3.2 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.00	—	D_{2000}	228.25	227.9 ± 2.1 (−1.6 σ)	$f\sigma_8(0.51)$	0.4790	0.4793 ± 0.0061 (+2.0 σ)
A_{143}^{tSZ}	6.67	4.7 ± 2.0 (−0.3 σ)	$n_{\mathrm{s},0.002}$	0.9805	0.9808 ± 0.0065 (+3.0 σ)	$\sigma_8(0.51)$	0.6358	0.6364 ± 0.0083 (+3.3 σ)
A_{100}^{PS}	264.9	272 ± 29 (+0.4 σ)	Y_{P}	0.25059	0.2508 ± 0.0024 (+71.2 σ)	$f\sigma_8(0.61)$	0.4749	0.4752 ± 0.0059 (+2.3 σ)
A_{143}^{PS}	49.0	53 ± 8 (+0.7 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.25193	0.2521 ± 0.0024 (+71.2 σ)	$\sigma_8(0.61)$	0.6053	0.6059 ± 0.0079 (+3.3 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	39.9	45_{-10}^{+9} (+0.2 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.693	2.701 ± 0.059 (+3.0 σ)	$f\sigma_8(2.33)$	0.30565	0.3059 ± 0.0041 (+3.3 σ)
A_{217}^{PS}	115.7	115 ± 10 (+0.0 σ)	Age/Gyr	13.419	13.41 ± 0.17 (−14.7 σ)	$\sigma_8(2.33)$	0.31570	0.3160 ± 0.0044 (+3.3 σ)
A^{kSZ}	0.999	$4.5_{-4.1}^{+1.7}$ (+0.4 σ)	z_*	1090.512	1090.57 ± 0.44 (+2.8 σ)	f_{2000}^{143}	33.20	33.7 ± 3.3 (+1.1 σ)
$A_{100}^{\mathrm{dustTT}}$	9.03	9.1 ± 1.9 (+0.1 σ)	r_*	141.24	141.1 ± 1.7 (−13.5 σ)	$f_{2000}^{143 \times 217}$	35.30	35.6 ± 2.3 (+1.4 σ)
$A_{143}^{\mathrm{dustTT}}$	10.88	10.9 ± 1.8 (+0.1 σ)	$100\theta_*$	1.04041	1.04034 ± 0.00059 (−2.5 σ)	f_{2000}^{217}	109.66	109.9 ± 2.1 (+1.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.95	18.5 ± 3.3 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.576	13.57 ± 0.16 (−12.7 σ)	$\chi_{\mathrm{lensing}}^2$	9.51	10.01 ± 0.81 (+0.6 σ)
$A_{217}^{\mathrm{dustTT}}$	93.4	93.1 ± 7.3 (−0.0 σ)	z_{drag}	1060.92	1060.93 ± 0.69 (+2.9 σ)	χ_{small}^2	396.47	397.4 ± 2.0 (−0.1 σ)
c_{100}	0.99962	0.99963 ± 0.00062 (−0.1 σ)	r_{drag}	143.81	143.7 ± 1.7 (−12.4 σ)	χ_{lowl}^2	21.61	21.69 ± 0.75 (−1.4 σ)
c_{217}	0.99831	0.99830 ± 0.00062 (+0.1 σ)	k_{D}	0.14302	0.1431 ± 0.0013 (+6.7 σ)	χ_{plik}^2	763.0	775.5 ± 5.7 (+0.5 σ)
H_0	70.25	70.3 ± 1.1 (+4.9 σ)	$100\theta_{\mathrm{D}}$	0.161806	0.16187 ± 0.00049 (+3.7 σ)	$\chi_{\mathrm{H073p45}}^2$	3.71	4.0 ± 2.5 (−3.7 σ)
Ω_{Λ}	0.7004	0.7006 ± 0.0062 (+0.8 σ)	z_{eq}	3340.7	3339 ± 25 (−0.7 σ)	χ_{JLA}^2	1034.7350	1034.82 ± 0.12 (−0.3 σ)
Ω_{m}	0.2996	0.2994 ± 0.0062 (−0.8 σ)	k_{eq}	0.010463	0.01047 ± 0.00013 (+3.0 σ)	$\chi_{6\mathrm{DF}}^2$	0.0122	0.042 ± 0.056 (+0.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.14784	0.1481 ± 0.0033 (+6.8 σ)	$100\theta_{\mathrm{eq}}$	0.82484	0.8251 ± 0.0047 (+0.7 σ)	χ_{MGS}^2	2.04	2.11 ± 0.54 (+0.7 σ)
$\Omega_{\mathrm{m}}h^3$	0.10386	0.1042 ± 0.0037 (+18.7 σ)	$100\theta_{\mathrm{s,eq}}$	0.45529	0.4554 ± 0.0024 (+0.7 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.422	3.87 ± 0.63 (−0.0 σ)
σ_8	0.8257	0.826 ± 0.010 (+3.0 σ)	$H(0.15)$	75.54	75.6 ± 1.1 (+5.8 σ)	χ_{prior}^2	1.79	7.4 ± 3.7 (−0.0 σ)
S_8	0.8252	0.826 ± 0.013 (+1.0 σ)	$D_{\mathrm{M}}(0.15)$	617.9	617.4 ± 9.3 (−5.1 σ)	χ_{CMB}^2	1190.5	1204.6 ± 5.8 (+0.3 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4520	0.4522 ± 0.0069 (+1.0 σ)	$H(0.38)$	85.69	85.8 ± 1.2 (+8.2 σ)	χ_{BAO}^2	5.47	6.02 ± 0.97 (+0.5 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6109	0.6113 ± 0.0079 (+1.9 σ)	$D_{\mathrm{M}}(0.38)$	1476.5	1475 ± 21 (−5.8 σ)			
$\sigma_8/h^{0.5}$	0.9852	0.9855 ± 0.0092 (+0.7 σ)	$H(0.51)$	92.46	92.6 ± 1.2 (+10.3 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2236.25$; $\Delta\chi_{\mathrm{eff}}^2 = -4.76$; $\bar{\chi}_{\mathrm{eff}}^2 = 2256.76$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.50$; $R - 1 = 0.01430$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ 0.01) MGS: 2.04 (Δ 0.29) DR12BAO: 3.42 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.51 (Δ 0.51) small_100x143_offlike5_EE_Aplanck: 396.47 (Δ -0.42) commander_dx12_v3_2_29: 21.61 (Δ -0.99) plik_rd12_HM_v22_TT: 762.95 (Δ 2.11) Hubble - H073p45: 3.71 (Δ -6.61) SN - JLA Pantheon18: 1034.73 (Δ -0.05)

7.79 **base_nnu_plikHM_TT_lowl_lowE_Riess18_post_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02261 \pm 0.00023 \quad (+1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.606 \pm 0.012 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$610 \pm 12 \quad (-3.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1247 \pm 0.0036 \quad (+4.1\sigma)$	$\sigma_8/h^{0.5}$	$0.978 \pm 0.015 \quad (+0.5\sigma)$	$H(0.38)$	$86.6 \pm 1.3 \quad (+5.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04048 \pm 0.00054 \quad (-1.7\sigma)$	$r_{\mathrm{drag}}h$	$102.2 \pm 1.5 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1459 \pm 26 \quad (-4.0\sigma)$
τ	$0.0579^{+0.0064}_{-0.0088} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.392 \pm 0.034 \quad (-0.3\sigma)$	$H(0.51)$	$93.3 \pm 1.4 \quad (+7.6\sigma)$
N_{eff}	3.53 ± 0.20	z_{re}	$8.11^{+0.69}_{-0.85} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1893 \pm 32 \quad (-4.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.063^{+0.016}_{-0.019} \quad (+1.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.139^{+0.033}_{-0.041} \quad (+1.3\sigma)$	$H(0.61)$	$98.9 \pm 1.4 \quad (+9.6\sigma)$
n_{s}	$0.9859 \pm 0.0079 \quad (+2.8\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.905 \pm 0.019 \quad (+2.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2205 \pm 36 \quad (-4.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1201 \pm 15 \quad (-1.1\sigma)$	$H(2.33)$	$241.4 \pm 2.9 \quad (+5.9\sigma)$
A_{217}^{CIB}	$50 \pm 7 \quad (+0.3\sigma)$	D_{220}	$5724 \pm 41 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5566 \pm 74 \quad (-12.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2542 \pm 14 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.452 \pm 0.011 \quad (+0.7\sigma)$
A_{143}^{tSZ}	$4.6 \pm 2.0 \quad (-0.3\sigma)$	D_{1420}	$813.7 \pm 5.4 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.765 \pm 0.011 \quad (+2.9\sigma)$
A_{100}^{PS}	$272 \pm 28 \quad (+0.4\sigma)$	D_{2000}	$227.7 \pm 2.1 \quad (-1.7\sigma)$	$f\sigma_8(0.38)$	$0.4749 \pm 0.0095 \quad (+1.1\sigma)$
A_{143}^{PS}	$53 \pm 8 \quad (+0.8\sigma)$	$n_{\mathrm{s},0.002}$	$0.9859 \pm 0.0079 \quad (+2.8\sigma)$	$\sigma_8(0.38)$	$0.680 \pm 0.010 \quad (+3.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$45^{+9}_{-10} \quad (+0.2\sigma)$	Y_{P}	$0.2517 \pm 0.0025 \quad (+73.7\sigma)$	$f\sigma_8(0.51)$	$0.4759 \pm 0.0087 \quad (+1.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2530 \pm 0.0025 \quad (+73.7\sigma)$	$\sigma_8(0.51)$	$0.6376 \pm 0.0094 \quad (+3.5\sigma)$
A^{kSZ}	$4.6^{+2.0}_{-4.1} \quad (+0.4\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.706 \pm 0.062 \quad (+3.0\sigma)$	$f\sigma_8(0.61)$	$0.4726 \pm 0.0081 \quad (+1.6\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.8 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.33 \pm 0.18 \quad (-12.9\sigma)$	$\sigma_8(0.61)$	$0.6073 \pm 0.0090 \quad (+3.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1090.49 \pm 0.49 \quad (+2.3\sigma)$	$f\sigma_8(2.33)$	$0.3070 \pm 0.0046 \quad (+3.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.1\sigma)$	r_*	$140.8 \pm 1.8 \quad (-9.7\sigma)$	$\sigma_8(2.33)$	$0.3175 \pm 0.0049 \quad (+4.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.0 \pm 7.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04035 \pm 0.00061 \quad (-2.5\sigma)$	f_{2000}^{143}	$34.0 \pm 3.3 \quad (+1.3\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.53 \pm 0.16 \quad (-9.6\sigma)$	$f_{2000}^{143 \times 217}$	$35.8 \pm 2.4 \quad (+1.5\sigma)$
c_{217}	$0.99831 \pm 0.00062 \quad (+0.1\sigma)$	z_{drag}	$1061.19 \pm 0.73 \quad (+3.1\sigma)$	f_{2000}^{217}	$110.1 \pm 2.2 \quad (+1.4\sigma)$
H_0	$71.3 \pm 1.4 \quad (+3.4\sigma)$	r_{drag}	$143.3 \pm 1.8 \quad (-9.8\sigma)$	χ_{small}^2	$397.5 \pm 2.3 \quad (+0.1\sigma)$
Ω_{Λ}	$0.709^{+0.011}_{-0.010} \quad (+0.7\sigma)$	k_{D}	$0.1433 \pm 0.0014 \quad (+6.2\sigma)$	χ_{lowl}^2	$21.17 \pm 0.79 \quad (-1.2\sigma)$
Ω_{m}	$0.291^{+0.010}_{-0.011} \quad (-0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16200 \pm 0.00051 \quad (+4.2\sigma)$	χ_{plik}^2	$777.7 \pm 6.1 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1480 \pm 0.0037 \quad (+4.4\sigma)$	z_{eq}	$3308 \pm 42 \quad (-0.6\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$2.4 \pm 2.4 \quad (-2.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1055 \pm 0.0040 \quad (+20.0\sigma)$	k_{eq}	$0.01042 \pm 0.00016 \quad (+1.8\sigma)$	χ_{prior}^2	$7.5 \pm 3.8 \quad (+0.0\sigma)$
σ_8	$0.825 \pm 0.012 \quad (+2.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8314 \pm 0.0084 \quad (+0.6\sigma)$	χ_{CMB}^2	$1196.4 \pm 5.9 \quad (+0.2\sigma)$
S_8	$0.813 \pm 0.021 \quad (+0.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4586 \pm 0.0043 \quad (+0.6\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.446 \pm 0.012 \quad (+0.6\sigma)$	$H(0.15)$	$76.5 \pm 1.4 \quad (+4.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.27$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -5.54$; $R - 1 = 0.00718$

7.80 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02252 ± 0.00021	$\sigma_8/h^{0.5}$	0.985 ± 0.012	$D_{\mathrm{M}}(0.38)$	1472 ± 22
$\Omega_{\mathrm{c}}h^2$	0.1254 ± 0.0035	$r_{\mathrm{drag}}h$	101.13 ± 0.92	$H(0.51)$	92.8 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04039 ± 0.00052	$\langle d^2 \rangle^{1/2}$	2.411 ± 0.026	$D_{\mathrm{M}}(0.51)$	1908 ± 28
τ	$0.0566^{+0.0062}_{-0.0081}$	z_{re}	$8.00^{+0.66}_{-0.81}$	$H(0.61)$	98.4 ± 1.3
N_{eff}	3.49 ± 0.19	$10^9 A_{\mathrm{s}}$	$2.136^{+0.032}_{-0.040}$	$D_{\mathrm{M}}(0.61)$	2222 ± 32
$\ln(10^{10} A_{\mathrm{s}})$	$3.061^{+0.015}_{-0.019}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.907 ± 0.019	$H(2.33)$	241.7 ± 2.9
n_{s}	0.9820 ± 0.0067	D_{40}	1207 ± 14	$D_{\mathrm{M}}(2.33)$	5587 ± 72
y_{cal}	1.0005 ± 0.0025	D_{220}	5719 ± 41	$f\sigma_8(0.15)$	0.4579 ± 0.0084
A_{217}^{CIB}	50 ± 7	D_{810}	2542 ± 14	$\sigma_8(0.15)$	0.766 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	813.3 ± 5.2	$f\sigma_8(0.38)$	0.4795 ± 0.0078
A_{143}^{tSZ}	4.6 ± 2.0	D_{2000}	227.7 ± 2.1	$\sigma_8(0.38)$	0.6802 ± 0.0098
A_{100}^{PS}	273 ± 28	$n_{\mathrm{s},0.002}$	0.9820 ± 0.0067	$f\sigma_8(0.51)$	0.4796 ± 0.0074
A_{143}^{PS}	54 ± 8	Y_{P}	0.2512 ± 0.0025	$\sigma_8(0.51)$	0.6371 ± 0.0092
$A_{143 \times 217}^{\mathrm{PS}}$	45^{+9}_{-10}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2525 ± 0.0025	$f\sigma_8(0.61)$	0.4755 ± 0.0072
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.711 ± 0.061	$\sigma_8(0.61)$	0.6066 ± 0.0088
A^{kSZ}	$4.6^{+2.0}_{-3.9}$	Age/Gyr	13.38 ± 0.17	$f\sigma_8(2.33)$	0.3063 ± 0.0045
$A_{100}^{\mathrm{dust}TT}$	9.1 ± 1.9	z_*	1090.63 ± 0.46	$\sigma_8(2.33)$	0.3165 ± 0.0047
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	r_*	140.9 ± 1.8	f_{2000}^{143}	33.9 ± 3.3
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.3	$100\theta_*$	1.04028 ± 0.00060	$f_{2000}^{143 \times 217}$	35.8 ± 2.3
$A_{217}^{\mathrm{dust}TT}$	93.0 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.54 ± 0.17	f_{2000}^{217}	110.0 ± 2.1
c_{100}	0.99961 ± 0.00062	z_{drag}	1061.00 ± 0.71	χ_{simall}^2	397.2 ± 2.0
c_{217}	0.99831 ± 0.00063	r_{drag}	143.4 ± 1.8	χ_{lowl}^2	21.55 ± 0.75
H_0	70.5 ± 1.1	k_{D}	0.1433 ± 0.0014	χ_{plik}^2	776.2 ± 5.8
Ω_{Λ}	0.7012 ± 0.0069	$100\theta_{\mathrm{D}}$	0.16195 ± 0.00050	$\chi_{\mathrm{H073p45}}^2$	3.6 ± 2.5
Ω_{m}	0.2988 ± 0.0069	z_{eq}	3337 ± 28	$\chi_{6\mathrm{DF}}^2$	0.053 ± 0.072
$\Omega_{\mathrm{m}}h^2$	0.1486 ± 0.0036	k_{eq}	0.01048 ± 0.00014	χ_{MGS}^2	2.17 ± 0.60
$\Omega_{\mathrm{m}}h^3$	0.1048 ± 0.0039	$100\theta_{\mathrm{eq}}$	0.8256 ± 0.0052	$\chi_{\mathrm{DR12BAO}}^2$	4.00 ± 0.82
σ_8	0.827 ± 0.012	$100\theta_{\mathrm{s,eq}}$	0.4557 ± 0.0027	χ_{prior}^2	7.4 ± 3.7
S_8	0.826 ± 0.016	$H(0.15)$	75.8 ± 1.1	χ_{BAO}^2	6.2 ± 1.2
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4522 ± 0.0087	$D_{\mathrm{M}}(0.15)$	615.8 ± 9.6	χ_{CMB}^2	1195.0 ± 5.7
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6116 ± 0.0098	$H(0.38)$	86.0 ± 1.2		

$\bar{\chi}_{\mathrm{eff}}^2 = 1212.22$; $R - 1 = 0.01139$

7.81 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02252 ± 0.00021	$\sigma_8/h^{0.5}$	0.985 ± 0.011	$D_{\mathrm{M}}(0.38)$	1472 ± 22
$\Omega_{\mathrm{c}}h^2$	0.1254 ± 0.0036	$r_{\mathrm{drag}}h$	101.13 ± 0.88	$H(0.51)$	92.8 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04039 ± 0.00052	$\langle d^2 \rangle^{1/2}$	2.411 ± 0.026	$D_{\mathrm{M}}(0.51)$	1908 ± 28
τ	$0.0566^{+0.0062}_{-0.0081}$	z_{re}	$8.00^{+0.66}_{-0.81}$	$H(0.61)$	98.4 ± 1.3
N_{eff}	3.49 ± 0.19	$10^9 A_{\mathrm{s}}$	$2.136^{+0.032}_{-0.040}$	$D_{\mathrm{M}}(0.61)$	2222 ± 32
$\ln(10^{10} A_{\mathrm{s}})$	$3.061^{+0.015}_{-0.019}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.907 ± 0.019	$H(2.33)$	241.7 ± 2.9
n_{s}	0.9820 ± 0.0066	D_{40}	1207 ± 13	$D_{\mathrm{M}}(2.33)$	5587 ± 72
y_{cal}	1.0005 ± 0.0025	D_{220}	5719 ± 41	$f\sigma_8(0.15)$	0.4579 ± 0.0083
A_{217}^{CIB}	50 ± 7	D_{810}	2542 ± 14	$\sigma_8(0.15)$	0.766 ± 0.011
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	813.3 ± 5.2	$f\sigma_8(0.38)$	0.4795 ± 0.0077
A_{143}^{tSZ}	4.6 ± 2.0	D_{2000}	227.7 ± 2.1	$\sigma_8(0.38)$	0.6802 ± 0.0098
A_{100}^{PS}	273 ± 28	$n_{\mathrm{s},0.002}$	0.9820 ± 0.0066	$f\sigma_8(0.51)$	0.4796 ± 0.0074
A_{143}^{PS}	54 ± 8	Y_{P}	0.2512 ± 0.0025	$\sigma_8(0.51)$	0.6372 ± 0.0092
$A_{143 \times 217}^{\mathrm{PS}}$	45^{+9}_{-10}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2525 ± 0.0025	$f\sigma_8(0.61)$	0.4755 ± 0.0072
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.711 ± 0.062	$\sigma_8(0.61)$	0.6066 ± 0.0088
A^{kSZ}	$4.6^{+2.0}_{-4.0}$	$\mathrm{Age}/\mathrm{Gyr}$	13.38 ± 0.17	$f\sigma_8(2.33)$	0.3063 ± 0.0045
$A_{100}^{\mathrm{dustTT}}$	9.1 ± 1.9	z_*	1090.63 ± 0.46	$\sigma_8(2.33)$	0.3165 ± 0.0047
$A_{143}^{\mathrm{dustTT}}$	10.9 ± 1.8	r_*	140.9 ± 1.8	f_{2000}^{143}	33.9 ± 3.3
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.5 ± 3.3	$100\theta_*$	1.04028 ± 0.00060	$f_{2000}^{143 \times 217}$	35.8 ± 2.3
$A_{217}^{\mathrm{dustTT}}$	93.0 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.54 ± 0.17	f_{2000}^{217}	110.0 ± 2.1
c_{100}	0.99961 ± 0.00062	z_{drag}	1061.00 ± 0.71	χ_{simall}^2	397.2 ± 2.0
c_{217}	0.99831 ± 0.00063	r_{drag}	143.4 ± 1.8	χ_{lowl}^2	21.55 ± 0.74
H_0	70.5 ± 1.1	k_{D}	0.1433 ± 0.0014	χ_{plik}^2	776.2 ± 5.8
Ω_{Λ}	0.7012 ± 0.0066	$100\theta_{\mathrm{D}}$	0.16195 ± 0.00050	$\chi_{\mathrm{H073p45}}^2$	3.6 ± 2.4
Ω_{m}	0.2988 ± 0.0066	z_{eq}	3337 ± 27	χ_{JLA}^2	1034.82 ± 0.13
$\Omega_{\mathrm{m}}h^2$	0.1486 ± 0.0036	k_{eq}	0.01048 ± 0.00014	$\chi_{6\mathrm{DF}}^2$	0.050 ± 0.067
$\Omega_{\mathrm{m}}h^3$	0.1048 ± 0.0039	$100\theta_{\mathrm{eq}}$	0.8256 ± 0.0050	χ_{MGS}^2	2.16 ± 0.58
σ_8	0.827 ± 0.012	$100\theta_{\mathrm{s,eq}}$	0.4557 ± 0.0026	$\chi_{\mathrm{DR12BAO}}^2$	3.95 ± 0.75
S_8	0.826 ± 0.016	$H(0.15)$	75.8 ± 1.1	χ_{prior}^2	7.4 ± 3.7
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4522 ± 0.0085	$D_{\mathrm{M}}(0.15)$	615.8 ± 9.5	χ_{BAO}^2	6.2 ± 1.2
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6116 ± 0.0097	$H(0.38)$	86.0 ± 1.2	χ_{CMB}^2	1195.0 ± 5.7

$\bar{\chi}_{\mathrm{eff}}^2 = 2246.95$; $R - 1 = 0.01150$

7.82 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02258 \pm 0.00023 \quad (+1.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6095 \pm 0.0084 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$613 \pm 11 \quad (-4.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1248 \pm 0.0033 \quad (+4.6\sigma)$	$\sigma_8/h^{0.5}$	$0.983 \pm 0.010 \quad (+0.3\sigma)$	$H(0.38)$	$86.3 \pm 1.3 \quad (+7.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04047 \pm 0.00052 \quad (-1.6\sigma)$	$r_{\mathrm{drag}}h$	$101.7 \pm 1.3 \quad (+1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1465 \pm 26 \quad (-5.0\sigma)$
τ	$0.0593^{+0.0066}_{-0.0088} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.406 \pm 0.025 \quad (-0.8\sigma)$	$H(0.51)$	$93.0 \pm 1.4 \quad (+9.0\sigma)$
N_{eff}	3.50 ± 0.19	z_{re}	$8.25^{+0.69}_{-0.84} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1901 \pm 32 \quad (-5.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.066^{+0.015}_{-0.018} \quad (+1.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.147^{+0.031}_{-0.039} \quad (+1.2\sigma)$	$H(0.61)$	$98.6 \pm 1.4 \quad (+11.2\sigma)$
n_{s}	$0.9837 \pm 0.0078 \quad (+3.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.906 \pm 0.017 \quad (+2.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2214 \pm 36 \quad (-5.7\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1206 \pm 14 \quad (-1.5\sigma)$	$H(2.33)$	$241.4 \pm 2.7 \quad (+6.7\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.3\sigma)$	D_{220}	$5729 \pm 41 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5579 \pm 75 \quad (-13.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2544 \pm 14 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4550 \pm 0.0079 \quad (+0.5\sigma)$
A_{143}^{tSZ}	$4.6 \pm 2.0 \quad (-0.3\sigma)$	D_{1420}	$814.1 \pm 5.4 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.7664 \pm 0.0098 \quad (+3.5\sigma)$
A_{100}^{PS}	$272 \pm 28 \quad (+0.4\sigma)$	D_{2000}	$228.0 \pm 2.1 \quad (-1.5\sigma)$	$f\sigma_8(0.38)$	$0.4776 \pm 0.0068 \quad (+1.1\sigma)$
A_{143}^{PS}	$53 \pm 8 \quad (+0.7\sigma)$	$n_{\mathrm{s},0.002}$	$0.9837 \pm 0.0078 \quad (+3.2\sigma)$	$\sigma_8(0.38)$	$0.6813 \pm 0.0090 \quad (+3.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$45^{+9}_{-10} \quad (+0.2\sigma)$	Y_{P}	$0.2513 \pm 0.0025 \quad (+74.8\sigma)$	$f\sigma_8(0.51)$	$0.4782 \pm 0.0063 \quad (+1.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2527 \pm 0.0025 \quad (+74.8\sigma)$	$\sigma_8(0.51)$	$0.6384 \pm 0.0087 \quad (+3.8\sigma)$
A^{kSZ}	$4.5^{+1.8}_{-4.1} \quad (+0.4\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.701 \pm 0.060 \quad (+2.9\sigma)$	$f\sigma_8(0.61)$	$0.4745 \pm 0.0061 \quad (+1.9\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.9 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.36 \pm 0.18 \quad (-14.2\sigma)$	$\sigma_8(0.61)$	$0.6079 \pm 0.0084 \quad (+3.9\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1090.50 \pm 0.45 \quad (+2.2\sigma)$	$f\sigma_8(2.33)$	$0.3072 \pm 0.0044 \quad (+3.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	r_*	$140.9 \pm 1.7 \quad (-11.3\sigma)$	$\sigma_8(2.33)$	$0.3175 \pm 0.0048 \quad (+3.8\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.1 \pm 7.4 \quad (-0.1\sigma)$	$100\theta_*$	$1.04035 \pm 0.00060 \quad (-2.3\sigma)$	f_{2000}^{143}	$33.7 \pm 3.3 \quad (+1.1\sigma)$
c_{100}	$0.99963 \pm 0.00062 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.55 \pm 0.16 \quad (-11.1\sigma)$	$f_{2000}^{143 \times 217}$	$35.6 \pm 2.3 \quad (+1.4\sigma)$
c_{217}	$0.99830 \pm 0.00062 \quad (+0.1\sigma)$	z_{drag}	$1061.11 \pm 0.73 \quad (+3.3\sigma)$	f_{2000}^{217}	$109.9 \pm 2.2 \quad (+1.3\sigma)$
H_0	$70.9 \pm 1.4 \quad (+4.3\sigma)$	r_{drag}	$143.5 \pm 1.8 \quad (-11.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.2 \pm 1.0 \quad (+0.7\sigma)$
Ω_{Λ}	$0.7054 \pm 0.0094 \quad (+1.1\sigma)$	k_{D}	$0.1432 \pm 0.0013 \quad (+6.7\sigma)$	χ_{small}^2	$397.9 \pm 2.5 \quad (+0.0\sigma)$
Ω_{m}	$0.2946 \pm 0.0094 \quad (-1.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16193 \pm 0.00050 \quad (+4.0\sigma)$	χ_{lowl}^2	$21.43 \pm 0.80 \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1480 \pm 0.0033 \quad (+4.9\sigma)$	z_{eq}	$3321 \pm 36 \quad (-1.0\sigma)$	χ_{plik}^2	$776.3 \pm 5.8 \quad (+0.6\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1050 \pm 0.0039 \quad (+20.7\sigma)$	k_{eq}	$0.01044 \pm 0.00013 \quad (+1.9\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$3.0 \pm 2.7 \quad (-2.9\sigma)$
σ_8	$0.827 \pm 0.010 \quad (+3.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8288 \pm 0.0070 \quad (+1.1\sigma)$	χ_{prior}^2	$7.5 \pm 3.8 \quad (+0.0\sigma)$
S_8	$0.820 \pm 0.015 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4573 \pm 0.0036 \quad (+1.0\sigma)$	χ_{CMB}^2	$1205.8 \pm 6.1 \quad (+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4490 \pm 0.0084 \quad (+0.4\sigma)$	$H(0.15)$	$76.2 \pm 1.4 \quad (+5.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1216.31; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.76; R - 1 = 0.01206$$

7.83 base_nnu_plikHM_TT_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02251 \pm 0.00020 \quad (+1.0\sigma)$	$r_{\mathrm{drag}}h$	$101.07 \pm 0.82 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1913 \pm 27 \quad (-6.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1249 \pm 0.0033 \quad (+6.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.415 \pm 0.021 \quad (-0.5\sigma)$	$H(0.61)$	$98.2 \pm 1.2 \quad (+12.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04043 \pm 0.00051 \quad (-1.8\sigma)$	z_{re}	$8.08^{+0.65}_{-0.74} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2227 \pm 31 \quad (-6.7\sigma)$
τ	$0.0574^{+0.0063}_{-0.0076} \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.138^{+0.029}_{-0.035} \quad (+0.9\sigma)$	$H(2.33)$	$241.2 \pm 2.7 \quad (+8.7\sigma)$
N_{eff}	3.46 ± 0.18	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.906 \pm 0.017 \quad (+2.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5599 \pm 69 \quad (-14.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.062^{+0.014}_{-0.016} \quad (+0.9\sigma)$	D_{40}	$1210 \pm 13 \quad (-1.2\sigma)$	$f\sigma_8(0.15)$	$0.4579 \pm 0.0066 \quad (+1.2\sigma)$
n_{s}	$0.9808 \pm 0.0065 \quad (+3.0\sigma)$	D_{220}	$5724 \pm 41 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.7651 \pm 0.0096 \quad (+3.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{810}	$2543 \pm 14 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4794 \pm 0.0062 \quad (+1.7\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.3\sigma)$	D_{1420}	$813.7 \pm 5.2 \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.6796 \pm 0.0087 \quad (+3.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$227.9 \pm 2.1 \quad (-1.6\sigma)$	$f\sigma_8(0.51)$	$0.4794 \pm 0.0060 \quad (+2.1\sigma)$
A_{143}^{tSZ}	$4.7 \pm 2.0 \quad (-0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.9808 \pm 0.0065 \quad (+3.0\sigma)$	$\sigma_8(0.51)$	$0.6366 \pm 0.0082 \quad (+3.4\sigma)$
A_{100}^{PS}	$272 \pm 29 \quad (+0.4\sigma)$	Y_{P}	$0.2508 \pm 0.0024 \quad (+71.1\sigma)$	$f\sigma_8(0.61)$	$0.4753 \pm 0.0059 \quad (+2.3\sigma)$
A_{143}^{PS}	$53 \pm 8 \quad (+0.7\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2521 \pm 0.0024 \quad (+71.1\sigma)$	$\sigma_8(0.61)$	$0.6061 \pm 0.0078 \quad (+3.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$45^{+9}_{-10} \quad (+0.2\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.701 \pm 0.059 \quad (+3.0\sigma)$	$f\sigma_8(2.33)$	$0.3060 \pm 0.0040 \quad (+3.4\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.41 \pm 0.17 \quad (-14.7\sigma)$	$\sigma_8(2.33)$	$0.3161 \pm 0.0043 \quad (+3.4\sigma)$
A^{kSZ}	$4.5^{+1.7}_{-4.1} \quad (+0.4\sigma)$	z_*	$1090.56 \pm 0.43 \quad (+2.8\sigma)$	f_{2000}^{143}	$33.7 \pm 3.3 \quad (+1.1\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.9 \quad (+0.1\sigma)$	r_*	$141.1 \pm 1.7 \quad (-13.5\sigma)$	$f_{2000}^{143 \times 217}$	$35.5 \pm 2.3 \quad (+1.3\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	$100\theta_*$	$1.04034 \pm 0.00059 \quad (-2.5\sigma)$	f_{2000}^{217}	$109.8 \pm 2.1 \quad (+1.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.57 \pm 0.16 \quad (-12.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.99 \pm 0.78 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.1 \pm 7.3 \quad (-0.0\sigma)$	z_{drag}	$1060.93 \pm 0.69 \quad (+2.9\sigma)$	χ_{small}^2	$397.4 \pm 2.0 \quad (-0.2\sigma)$
c_{100}	$0.99963 \pm 0.00062 \quad (-0.1\sigma)$	r_{drag}	$143.7 \pm 1.7 \quad (-12.4\sigma)$	χ_{lowl}^2	$21.69 \pm 0.75 \quad (-1.4\sigma)$
c_{217}	$0.99830 \pm 0.00062 \quad (+0.1\sigma)$	k_{D}	$0.1431 \pm 0.0013 \quad (+6.7\sigma)$	χ_{plik}^2	$775.4 \pm 5.7 \quad (+0.5\sigma)$
H_0	$70.3 \pm 1.1 \quad (+4.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16187 \pm 0.00049 \quad (+3.7\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$4.0 \pm 2.5 \quad (-3.7\sigma)$
Ω_{Λ}	$0.7006 \pm 0.0062 \quad (+0.8\sigma)$	z_{eq}	$3339 \pm 25 \quad (-0.7\sigma)$	χ_{JLA}^2	$1034.82 \pm 0.12 \quad (-0.3\sigma)$
Ω_{m}	$0.2994 \pm 0.0062 \quad (-0.8\sigma)$	k_{eq}	$0.01047 \pm 0.00013 \quad (+3.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.042 \pm 0.056 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1481 \pm 0.0033 \quad (+6.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8252 \pm 0.0046 \quad (+0.7\sigma)$	χ_{MGS}^2	$2.12 \pm 0.54 \quad (+0.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1042 \pm 0.0037 \quad (+18.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4555 \pm 0.0024 \quad (+0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.87 \pm 0.64 \quad (-0.0\sigma)$
σ_8	$0.827 \pm 0.010 \quad (+3.1\sigma)$	$H(0.15)$	$75.6 \pm 1.1 \quad (+5.8\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.826 \pm 0.013 \quad (+1.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$617.3 \pm 9.4 \quad (-5.1\sigma)$	χ_{CMB}^2	$1204.5 \pm 5.7 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4523 \pm 0.0069 \quad (+1.0\sigma)$	$H(0.38)$	$85.8 \pm 1.2 \quad (+8.2\sigma)$	χ_{BAO}^2	$6.03 \pm 0.98 \quad (+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6114 \pm 0.0078 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1475 \pm 21 \quad (-5.8\sigma)$		
$\sigma_8/h^{0.5}$	$0.9857 \pm 0.0091 \quad (+0.7\sigma)$	$H(0.51)$	$92.6 \pm 1.2 \quad (+10.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2256.66; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -4.51; R - 1 = 0.01360$$

7.84 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022649	0.02266 ± 0.00019 (+1.3 σ)	$\Omega_{\mathrm{m}}h^3$	0.10061	0.1014 ± 0.0032 (+18.5 σ)	$100\theta_{\mathrm{s,eq}}$	0.45380	0.4539 ± 0.0030 (+0.5 σ)
$\Omega_{\mathrm{c}}h^2$	0.12182	0.1225 ± 0.0028 (+3.1 σ)	σ_8	0.8177	0.820 ± 0.011 (+1.5 σ)	$H(0.15)$	74.59	74.8 ± 1.1 (+3.3 σ)
$100\theta_{\mathrm{MC}}$	1.040761	1.04068 ± 0.00039 (−1.4 σ)	S_8	0.8203	0.822 ± 0.016 (+0.3 σ)	$D_{\mathrm{M}}(0.15)$	626.0	624.2 ± 9.9 (−2.9 σ)
τ	0.0578	0.0579 ± 0.0081 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4493	0.4504 ± 0.0086 (+0.3 σ)	$H(0.38)$	84.68	84.9 ± 1.1 (+4.7 σ)
N_{eff}	3.256	3.30 ± 0.16	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6061	0.6077 ± 0.0090 (+0.8 σ)	$D_{\mathrm{M}}(0.38)$	1495.1	1491 ± 22 (−3.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0551	3.058 ± 0.018 (+0.6 σ)	$\sigma_8/h^{0.5}$	0.9820	0.983 ± 0.012 (+0.3 σ)	$H(0.51)$	91.40	91.7 ± 1.1 (+6.2 σ)
n_{s}	0.9765	0.9770 ± 0.0068 (+2.0 σ)	$r_{\mathrm{drag}}h$	100.72	100.8 ± 1.1 (+0.6 σ)	$D_{\mathrm{M}}(0.51)$	1938.3	1933 ± 28 (−3.6 σ)
y_{cal}	1.00002	1.0008 ± 0.0025 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4160	2.419 ± 0.028 (−0.3 σ)	$H(0.61)$	97.03	97.3 ± 1.1 (+7.9 σ)
A_{217}^{CIB}	47.3	48 ± 7 (+0.2 σ)	z_{re}	8.03	8.03 ± 0.81 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2256.7	2251 ± 31 (−3.8 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.66	—	$10^9 A_{\mathrm{s}}$	2.1224	$2.129^{+0.036}_{-0.040}$ (+0.6 σ)	$H(2.33)$	238.72	239.3 ± 2.4 (+4.6 σ)
A_{143}^{tSZ}	6.26	$5.3^{+2.2}_{-2.0}$ (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8906	1.896 ± 0.016 (+1.6 σ)	$D_{\mathrm{M}}(2.33)$	5666	5651 ± 64 (−10.1 σ)
A_{100}^{PS}	255.9	263 ± 28 (+0.2 σ)	D_{40}	1212.9	1215 ± 14 (−0.8 σ)	$f\sigma_8(0.15)$	0.4547	0.4558 ± 0.0082 (+0.4 σ)
A_{143}^{PS}	51.3	48 ± 8 (+0.4 σ)	D_{220}	5731.2	5739 ± 39 (−0.0 σ)	$\sigma_8(0.15)$	0.7566	0.7588 ± 0.0099 (+1.6 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	51.0	43 ± 9 (+0.1 σ)	D_{810}	2540.0	2543 ± 14 (+0.3 σ)	$f\sigma_8(0.38)$	0.4753	0.4765 ± 0.0073 (+0.7 σ)
A_{217}^{PS}	118.6	114 ± 10 (−0.0 σ)	D_{1420}	817.08	817.1 ± 4.8 (−0.3 σ)	$\sigma_8(0.38)$	0.6717	0.6737 ± 0.0090 (+1.8 σ)
A^{kSZ}	1.69	< 4.87 (+0.2 σ)	D_{2000}	230.29	230.1 ± 1.8 (−0.8 σ)	$f\sigma_8(0.51)$	0.4751	0.4763 ± 0.0068 (+0.9 σ)
$A_{100}^{\mathrm{dustTT}}$	8.94	9.1 ± 1.8 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9765	0.9770 ± 0.0068 (+2.0 σ)	$\sigma_8(0.51)$	0.6291	0.6309 ± 0.0085 (+1.9 σ)
$A_{143}^{\mathrm{dustTT}}$	11.11	11.1 ± 1.8 (+0.1 σ)	Y_{P}	0.24827	0.2488 ± 0.0021 (+64.3 σ)	$f\sigma_8(0.61)$	0.4708	0.4721 ± 0.0065 (+1.0 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.63	18.8 ± 3.3 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24961	0.2501 ± 0.0021 (+64.3 σ)	$\sigma_8(0.61)$	0.5988	0.6006 ± 0.0081 (+1.9 σ)
$A_{217}^{\mathrm{dustTT}}$	94.1	93.6 ± 7.3 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6068	2.618 ± 0.043 (+2.1 σ)	$f\sigma_8(2.33)$	0.30231	0.3032 ± 0.0042 (+2.0 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1141	0.115 ± 0.038 (+0.0 σ)	Age/Gyr	13.568	13.53 ± 0.15 (−10.9 σ)	$\sigma_8(2.33)$	0.31212	0.3131 ± 0.0045 (+2.0 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1338	0.135 ± 0.030 (+0.0 σ)	z_*	1089.933	1090.02 ± 0.35 (+1.4 σ)	f_{2000}^{143}	29.98	30.8 ± 3.0 (+0.7 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.478	0.480 ± 0.085 (+0.0 σ)	r_*	142.73	142.4 ± 1.5 (−8.2 σ)	$f_{2000}^{143 \times 217}$	32.90	33.2 ± 2.0 (+0.8 σ)
$A_{143}^{\mathrm{dustTE}}$	0.222	0.225 ± 0.054 (+0.0 σ)	$100\theta_*$	1.040778	1.04068 ± 0.00047 (−2.0 σ)	f_{2000}^{217}	107.20	107.9 ± 1.9 (+0.7 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.662 ± 0.080 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.713	13.68 ± 0.14 (−8.1 σ)	χ_{simall}^2	396.61	397.6 ± 2.4 (+0.0 σ)
$A_{217}^{\mathrm{dustTE}}$	2.083	2.07 ± 0.27 (−0.0 σ)	z_{drag}	1060.89	1060.98 ± 0.63 (+3.1 σ)	χ_{lowl}^2	21.93	22.03 ± 0.89 (−1.0 σ)
c_{100}	0.99968	0.99965 ± 0.00062 (−0.0 σ)	r_{drag}	145.27	144.9 ± 1.5 (−8.6 σ)	χ_{plik}^2	2349.8	2365.3 ± 7.0 (+0.7 σ)
c_{217}	0.99820	0.99822 ± 0.00063 (+0.1 σ)	k_{D}	0.14222	0.1425 ± 0.0012 (+5.8 σ)	$\chi_{\mathrm{H073p45}}^2$	6.15	6.0 ± 3.3 (−2.2 σ)
H_0	69.33	69.5 ± 1.2 (+2.7 σ)	$100\theta_{\mathrm{D}}$	0.161081	0.16119 ± 0.00036 (+3.1 σ)	χ_{prior}^2	1.84	11.9 ± 4.7 (+0.0 σ)
Ω_{Λ}	0.6981	0.6983 ± 0.0084 (+0.7 σ)	z_{eq}	3357.6	3356 ± 31 (−0.5 σ)	χ_{CMB}^2	2768.3	2785.0 ± 6.7 (+0.5 σ)
Ω_{m}	0.3019	0.3017 ± 0.0084 (−0.7 σ)	k_{eq}	0.010391	0.01042 ± 0.00012 (+1.4 σ)			
$\Omega_{\mathrm{m}}h^2$	0.14511	0.1458 ± 0.0029 (+3.4 σ)	$100\theta_{\mathrm{eq}}$	0.8222	0.8224 ± 0.0060 (+0.6 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2776.34$; $\Delta\chi_{\mathrm{eff}}^2 = -1.60$; $\bar{\chi}_{\mathrm{eff}}^2 = 2802.87$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.30$; $R - 1 = 0.00770$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck.B: 396.62 (Δ 0.14) commander_dx12_v3.2.29: 21.93 (Δ -0.61) plik_rd12_HM_v22b_TTTEEE: 2349.80 (Δ 3.04) Hubble - H073p45: 6.15 (Δ -4.44)

7.85 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022656	0.02264 ± 0.00016	σ_8	0.8205	0.820 ± 0.011	$D_M(0.15)$	626.2	625.1 ± 8.5
$\Omega_c h^2$	0.12217	0.1226 ± 0.0028	S_8	0.8245	0.824 ± 0.013	$H(0.38)$	84.69	84.8 ± 1.0
$100\theta_{MC}$	1.040676	1.04068 ± 0.00039	$\sigma_8 \Omega_m^{0.5}$	0.4516	0.4511 ± 0.0074	$D_M(0.38)$	1495.4	1493 ± 19
τ	0.0587	$0.0576^{+0.0073}_{-0.0082}$	$\sigma_8 \Omega_m^{0.25}$	0.6087	0.6082 ± 0.0084	$H(0.51)$	91.42	91.6 ± 1.0
N_{eff}	3.266	3.29 ± 0.15	$\sigma_8/h^{0.5}$	0.9856	0.984 ± 0.011	$D_M(0.51)$	1938.5	1935 ± 24
$\ln(10^{10} A_s)$	3.0601	3.057 ± 0.018	$r_{\text{drag}} h$	100.57	100.62 ± 0.79	$H(0.61)$	97.06	97.2 ± 1.1
n_s	0.9763	0.9764 ± 0.0060	$\langle d^2 \rangle^{1/2}$	2.4243	2.421 ± 0.025	$D_M(0.61)$	2256.9	2253 ± 28
y_{cal}	1.00108	1.0007 ± 0.0025	z_{re}	8.12	8.00 ± 0.79	$H(2.33)$	238.98	239.3 ± 2.4
A_{217}^{CIB}	49.5	48 ± 7	$10^9 A_s$	2.1329	$2.127^{+0.036}_{-0.040}$	$D_M(2.33)$	5664	5655 ± 61
$\xi^{\text{tSZ} \times \text{CIB}}$	0.30	—	$10^9 A_s e^{-2\tau}$	1.8968	1.896 ± 0.016	$f\sigma_8(0.15)$	0.4569	0.4564 ± 0.0071
A_{143}^{tSZ}	7.10	$5.3^{+2.2}_{-2.0}$	D_{40}	1216.8	1216 ± 13	$\sigma_8(0.15)$	0.7590	0.7586 ± 0.0099
A_{100}^{PS}	254.2	263 ± 28	D_{220}	5745.1	5739 ± 38	$f\sigma_8(0.38)$	0.4774	0.4770 ± 0.0067
A_{143}^{PS}	47.2	48 ± 8	D_{810}	2546.1	2543 ± 13	$\sigma_8(0.38)$	0.6738	0.6735 ± 0.0089
$A_{143 \times 217}^{\text{PS}}$	45.2	42 ± 9	D_{1420}	818.81	817.0 ± 4.8	$f\sigma_8(0.51)$	0.4770	0.4766 ± 0.0065
A_{217}^{PS}	118.0	114 ± 10	D_{2000}	230.79	230.1 ± 1.8	$\sigma_8(0.51)$	0.6309	0.6307 ± 0.0084
A^{kSZ}	0.12	< 4.95	$n_{s,0.002}$	0.9763	0.9764 ± 0.0060	$f\sigma_8(0.61)$	0.4727	0.4723 ± 0.0063
A_{100}^{dustTT}	8.84	9.1 ± 1.8	Y_{P}	0.24840	0.2487 ± 0.0020	$\sigma_8(0.61)$	0.6006	0.6004 ± 0.0080
A_{143}^{dustTT}	10.97	11.1 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.24974	0.2500 ± 0.0020	$f\sigma_8(2.33)$	0.30315	0.3030 ± 0.0041
$A_{143 \times 217}^{\text{dustTT}}$	19.01	18.8 ± 3.3	$10^5 D/H$	2.6089	2.619 ± 0.043	$\sigma_8(2.33)$	0.31294	0.3128 ± 0.0043
A_{217}^{dustTT}	93.0	93.6 ± 7.3	Age/Gyr	13.561	13.54 ± 0.15	f_{2000}^{143}	29.70	30.8 ± 2.9
A_{100}^{dustTE}	0.1125	0.115 ± 0.038	z_*	1089.962	1090.03 ± 0.33	$f_{2000}^{143 \times 217}$	32.75	33.2 ± 2.0
$A_{100 \times 143}^{\text{dustTE}}$	0.1351	0.135 ± 0.030	r_*	142.59	142.4 ± 1.5	f_{2000}^{217}	107.37	107.9 ± 1.9
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.086	$100\theta_*$	1.040694	1.04068 ± 0.00047	χ_{small}^2	396.87	397.6 ± 2.3
A_{143}^{dustTE}	0.219	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.701	13.68 ± 0.14	χ_{lowl}^2	22.03	22.08 ± 0.79
$A_{143 \times 217}^{\text{dustTE}}$	0.660	0.663 ± 0.080	z_{drag}	1060.92	1060.94 ± 0.59	χ_{plik}^2	2349.0	2364.6 ± 6.7
A_{217}^{dustTE}	2.084	2.08 ± 0.26	r_{drag}	145.13	144.9 ± 1.5	χ_{H073p45}^2	6.25	6.2 ± 2.9
c_{100}	0.99965	0.99965 ± 0.00062	k_{D}	0.14234	0.1425 ± 0.0012	$\chi_{6\text{DF}}^2$	0.0003	0.027 ± 0.039
c_{217}	0.99820	0.99822 ± 0.00062	$100\theta_{\text{D}}$	0.161086	0.16118 ± 0.00036	χ_{MGS}^2	1.748	1.84 ± 0.49
H_0	69.30	69.43 ± 0.97	z_{eq}	3361.7	3360 ± 23	χ_{DR12BAO}^2	3.515	3.90 ± 0.67
Ω_{Λ}	0.6971	0.6974 ± 0.0061	k_{eq}	0.010411	0.01042 ± 0.00011	χ_{prior}^2	2.08	11.9 ± 4.7
Ω_{m}	0.3029	0.3026 ± 0.0061	$100\theta_{\text{eq}}$	0.82138	0.8217 ± 0.0044	χ_{BAO}^2	5.263	5.76 ± 0.67
$\Omega_{\text{m}} h^2$	0.14547	0.1459 ± 0.0029	$100\theta_{s,\text{eq}}$	0.45338	0.4536 ± 0.0022	χ_{CMB}^2	2767.9	2784.3 ± 6.4
$\Omega_{\text{m}} h^3$	0.10081	0.1013 ± 0.0031	$H(0.15)$	74.57	74.71 ± 0.98			

Best-fit $\chi_{\text{eff}}^2 = 2781.50$; $\bar{\chi}_{\text{eff}}^2 = 2808.11$; $R - 1 = 0.00961$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.52 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.87 commander_dx12_v3_2_29: 22.03 plik_rd12_HM_v22b_TTTEEE: 2349.01 Hubble - H073p45: 6.25

7.86 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022654	0.02265 ± 0.00016	σ_8	0.8186	0.820 ± 0.011	$D_M(0.15)$	625.3	624.9 ± 8.3
$\Omega_c h^2$	0.12222	0.1226 ± 0.0028	S_8	0.8214	0.823 ± 0.013	$H(0.38)$	84.78	84.86 ± 0.99
$100\theta_{MC}$	1.040711	1.04068 ± 0.00039	$\sigma_8 \Omega_m^{0.5}$	0.4499	0.4509 ± 0.0073	$D_M(0.38)$	1493.5	1492 ± 19
τ	0.0569	$0.0577^{+0.0073}_{-0.0082}$	$\sigma_8 \Omega_m^{0.25}$	0.6069	0.6081 ± 0.0084	$H(0.51)$	91.51	91.6 ± 1.0
N_{eff}	3.276	3.29 ± 0.15	$\sigma_8/h^{0.5}$	0.9825	0.984 ± 0.011	$D_M(0.51)$	1936.1	1935 ± 24
$\ln(10^{10} A_s)$	3.0556	3.058 ± 0.018	$r_{\text{drag}} h$	100.69	100.66 ± 0.76	$H(0.61)$	97.15	97.2 ± 1.1
n_s	0.9764	0.9765 ± 0.0059	$\langle d^2 \rangle^{1/2}$	2.4175	2.420 ± 0.024	$D_M(0.61)$	2254.1	2253 ± 27
y_{cal}	1.00066	1.0007 ± 0.0025	z_{re}	7.95	8.01 ± 0.79	$H(2.33)$	239.05	239.3 ± 2.3
A_{217}^{CIB}	50.2	48 ± 7	$10^9 A_s$	2.1233	$2.128^{+0.036}_{-0.040}$	$D_M(2.33)$	5659	5654 ± 61
$\xi^{\text{tSZ} \times \text{CIB}}$	0.11	—	$10^9 A_s e^{-2\tau}$	1.8948	1.896 ± 0.016	$f\sigma_8(0.15)$	0.4553	0.4562 ± 0.0070
A_{143}^{tSZ}	7.42	$5.3^{+2.2}_{-2.0}$	D_{40}	1215.1	1216 ± 13	$\sigma_8(0.15)$	0.7574	0.7587 ± 0.0099
A_{100}^{PS}	256.1	263 ± 28	D_{220}	5740.1	5739 ± 38	$f\sigma_8(0.38)$	0.4759	0.4769 ± 0.0067
A_{143}^{PS}	45.0	48 ± 8	D_{810}	2543.1	2543 ± 13	$\sigma_8(0.38)$	0.6724	0.6735 ± 0.0089
$A_{143 \times 217}^{\text{PS}}$	40.4	42 ± 9	D_{1420}	817.55	817.1 ± 4.8	$f\sigma_8(0.51)$	0.4756	0.4765 ± 0.0064
A_{217}^{PS}	116.3	114 ± 10	D_{2000}	230.29	230.1 ± 1.8	$\sigma_8(0.51)$	0.6297	0.6307 ± 0.0083
A^{kSZ}	0.00	< 4.95	$n_{s,0.002}$	0.9764	0.9765 ± 0.0059	$f\sigma_8(0.61)$	0.4714	0.4723 ± 0.0063
A_{100}^{dustTT}	8.91	9.1 ± 1.8	Y_{P}	0.24853	0.2487 ± 0.0020	$\sigma_8(0.61)$	0.5994	0.6004 ± 0.0080
A_{143}^{dustTT}	11.15	11.1 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.24987	0.2501 ± 0.0020	$f\sigma_8(2.33)$	0.30258	0.3031 ± 0.0041
$A_{143 \times 217}^{\text{dustTT}}$	19.60	18.8 ± 3.3	$10^5 D/H$	2.6127	2.619 ± 0.043	$\sigma_8(2.33)$	0.31240	0.3129 ± 0.0043
A_{217}^{dustTT}	94.3	93.6 ± 7.3	Age/Gyr	13.551	13.54 ± 0.14	f_{2000}^{143}	30.30	30.8 ± 2.9
A_{100}^{dustTE}	0.1136	0.115 ± 0.038	z_*	1089.979	1090.03 ± 0.33	$f_{2000}^{143 \times 217}$	33.04	33.2 ± 2.0
$A_{100 \times 143}^{\text{dustTE}}$	0.1339	0.135 ± 0.030	r_*	142.53	142.4 ± 1.5	f_{2000}^{217}	107.66	107.9 ± 1.9
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.481 ± 0.086	$100\theta_*$	1.040721	1.04068 ± 0.00047	χ_{small}^2	396.44	397.6 ± 2.3
A_{143}^{dustTE}	0.223	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.695	13.68 ± 0.14	χ_{lowl}^2	21.97	22.06 ± 0.78
$A_{143 \times 217}^{\text{dustTE}}$	0.660	0.663 ± 0.080	z_{drag}	1060.92	1060.95 ± 0.59	χ_{plik}^2	2349.6	2364.7 ± 6.6
A_{217}^{dustTE}	2.069	2.08 ± 0.26	r_{drag}	145.07	144.9 ± 1.5	χ_{H073p45}^2	5.93	6.1 ± 2.8
c_{100}	0.99968	0.99965 ± 0.00062	k_{D}	0.14237	0.1425 ± 0.0012	χ_{JLA}^2	1034.755	1034.83 ± 0.13
c_{217}	0.99821	0.99822 ± 0.00062	$100\theta_{\text{D}}$	0.161130	0.16118 ± 0.00036	$\chi_{6\text{DF}}^2$	0.0016	0.025 ± 0.036
H_0	69.41	69.46 ± 0.95	z_{eq}	3358.4	3359 ± 22	χ_{MGS}^2	1.819	1.86 ± 0.48
Ω_{Λ}	0.6979	0.6976 ± 0.0059	k_{eq}	0.010407	0.01042 ± 0.00011	χ_{DR12BAO}^2	3.464	3.85 ± 0.61
Ω_{m}	0.3021	0.3024 ± 0.0059	$100\theta_{\text{eq}}$	0.82200	0.8219 ± 0.0042	χ_{prior}^2	2.08	11.9 ± 4.7
$\Omega_{\text{m}} h^2$	0.14552	0.1459 ± 0.0029	$100\theta_{s,\text{eq}}$	0.45371	0.4536 ± 0.0022	χ_{BAO}^2	5.285	5.73 ± 0.64
$\Omega_{\text{m}} h^3$	0.10100	0.1013 ± 0.0031	$H(0.15)$	74.67	74.73 ± 0.96	χ_{CMB}^2	2768.0	2784.3 ± 6.3

Best-fit $\chi_{\text{eff}}^2 = 3816.05$; $\bar{\chi}_{\text{eff}}^2 = 3842.86$; $R - 1 = 0.00994$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.46 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.44 commander_dx12_v3_2_29: 21.97 plik_rd12_HM_v22b_TTTEEE: 2349.59 Hubble - H073p45: 5.93 SN - JLA Pantheon18: 1034.76

7.87 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022643	0.02265 ± 0.00019 (+1.2 σ)	$\Omega_{\mathrm{m}}h^3$	0.10031	0.1011 ± 0.0032 (+15.9 σ)	$100\theta_{\mathrm{s,eq}}$	0.45339	0.4536 ± 0.0028 (+0.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.12171	0.1223 ± 0.0027 (+3.2 σ)	σ_8	0.8189	0.8202 ± 0.0093 (+1.8 σ)	$H(0.15)$	74.44	74.7 ± 1.1 (+3.4 σ)
$100\theta_{\mathrm{MC}}$	1.040739	1.04070 ± 0.00039 (−1.3 σ)	S_8	0.8229	0.823 ± 0.013 (+0.3 σ)	$D_{\mathrm{M}}(0.15)$	627.2	625.5 ± 9.8 (−3.0 σ)
τ	0.0587	0.0587 ± 0.0078 (+0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4507	0.4510 ± 0.0069 (+0.3 σ)	$H(0.38)$	84.55	84.8 ± 1.1 (+4.8 σ)
N_{eff}	3.241	3.28 ± 0.16	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6075	0.6082 ± 0.0072 (+0.8 σ)	$D_{\mathrm{M}}(0.38)$	1498.0	1494 ± 22 (−3.4 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0583	3.059 ± 0.016 (+0.7 σ)	$\sigma_8/h^{0.5}$	0.9846	0.9845 ± 0.0091 (+0.3 σ)	$H(0.51)$	91.27	91.5 ± 1.1 (+6.1 σ)
n_{s}	0.9759	0.9761 ± 0.0067 (+2.0 σ)	$r_{\mathrm{drag}}h$	100.58	100.7 ± 1.0 (+0.7 σ)	$D_{\mathrm{M}}(0.51)$	1941.8	1937 ± 27 (−3.7 σ)
y_{cal}	1.00070	1.0009 ± 0.0025 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4227	2.423 ± 0.022 (−0.4 σ)	$H(0.61)$	96.90	97.2 ± 1.1 (+7.7 σ)
A_{217}^{CIB}	46.5	48 ± 7 (+0.2 σ)	z_{re}	8.12	8.10 ± 0.76 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2260.7	2255 ± 31 (−3.9 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.53	—	$10^9 A_{\mathrm{s}}$	2.1291	2.131 ± 0.035 (+0.7 σ)	$H(2.33)$	238.59	239.1 ± 2.3 (+4.8 σ)
A_{143}^{tSZ}	7.30	$5.3_{-2.0}^{+2.2}$ (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8931	1.895 ± 0.015 (+1.5 σ)	$D_{\mathrm{M}}(2.33)$	5673	5659 ± 64 (−9.4 σ)
A_{100}^{PS}	251.5	263 ± 28 (+0.2 σ)	D_{40}	1215.9	1217 ± 13 (−0.8 σ)	$f\sigma_8(0.15)$	0.4560	0.4563 ± 0.0065 (+0.4 σ)
A_{143}^{PS}	50.5	47 ± 8 (+0.3 σ)	D_{220}	5739.8	5743 ± 39 (−0.1 σ)	$\sigma_8(0.15)$	0.7576	0.7588 ± 0.0088 (+1.9 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	51.3	42 ± 9 (+0.0 σ)	D_{810}	2543.9	2543 ± 13 (+0.2 σ)	$f\sigma_8(0.38)$	0.4765	0.4769 ± 0.0058 (+0.8 σ)
A_{217}^{PS}	121.6	114 ± 10 (−0.0 σ)	D_{1420}	818.49	817.4 ± 4.8 (−0.3 σ)	$\sigma_8(0.38)$	0.6725	0.6736 ± 0.0081 (+2.1 σ)
A^{kSZ}	0.00	< 4.85 (+0.2 σ)	D_{2000}	230.81	230.2 ± 1.8 (−0.8 σ)	$f\sigma_8(0.51)$	0.4761	0.4766 ± 0.0055 (+1.0 σ)
$A_{100}^{\mathrm{dustTT}}$	9.03	9.0 ± 1.8 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9759	0.9761 ± 0.0067 (+2.0 σ)	$\sigma_8(0.51)$	0.6297	0.6308 ± 0.0078 (+2.1 σ)
$A_{143}^{\mathrm{dustTT}}$	11.37	11.0 ± 1.8 (+0.1 σ)	Y_{P}	0.24807	0.2485 ± 0.0021 (+57.1 σ)	$f\sigma_8(0.61)$	0.4718	0.4723 ± 0.0053 (+1.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.90	18.8 ± 3.3 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24940	0.2499 ± 0.0021 (+57.1 σ)	$\sigma_8(0.61)$	0.5994	0.6005 ± 0.0075 (+2.1 σ)
$A_{217}^{\mathrm{dustTT}}$	96.8	93.6 ± 7.3 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6027	2.614 ± 0.041 (+1.9 σ)	$f\sigma_8(2.33)$	0.30256	0.3031 ± 0.0039 (+2.2 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1139	0.115 ± 0.038 (+0.0 σ)	Age/Gyr	13.584	13.55 ± 0.15 (−10.0 σ)	$\sigma_8(2.33)$	0.31233	0.3130 ± 0.0043 (+2.2 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1338	0.135 ± 0.030 (+0.0 σ)	z_*	1089.915	1089.99 ± 0.33 (+1.3 σ)	f_{2000}^{143}	29.56	30.6 ± 2.9 (+0.6 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.482	0.482 ± 0.086 (−0.0 σ)	r_*	142.83	142.5 ± 1.5 (−8.5 σ)	$f_{2000}^{143 \times 217}$	32.66	33.1 ± 2.0 (+0.7 σ)
$A_{143}^{\mathrm{dustTE}}$	0.223	0.224 ± 0.054 (−0.0 σ)	$100\theta_*$	1.040777	1.04071 ± 0.00046 (−1.9 σ)	f_{2000}^{217}	107.19	107.8 ± 1.9 (+0.6 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.663 ± 0.080 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.724	13.69 ± 0.13 (−8.4 σ)	$\chi_{\mathrm{lensing}}^2$	9.02	9.54 ± 0.72 (+0.5 σ)
$A_{217}^{\mathrm{dustTE}}$	2.073	2.08 ± 0.27 (+0.0 σ)	z_{drag}	1060.85	1060.92 ± 0.63 (+2.7 σ)	χ_{small}^2	396.87	397.8 ± 2.4 (+0.1 σ)
c_{100}	0.99973	0.99966 ± 0.00062 (−0.0 σ)	r_{drag}	145.38	145.1 ± 1.5 (−8.8 σ)	χ_{lowl}^2	22.04	22.16 ± 0.86 (−1.0 σ)
c_{217}	0.99820	0.99821 ± 0.00062 (+0.0 σ)	k_{D}	0.14215	0.1424 ± 0.0011 (+5.5 σ)	χ_{plik}^2	2348.8	2364.2 ± 6.7 (+0.6 σ)
H_0	69.18	69.4 ± 1.1 (+2.9 σ)	$100\theta_{\mathrm{D}}$	0.161034	0.16114 ± 0.00035 (+2.7 σ)	$\chi_{\mathrm{H073p45}}^2$	6.61	6.4 ± 3.4 (−2.3 σ)
Ω_{Λ}	0.6970	0.6976 ± 0.0078 (+0.8 σ)	z_{eq}	3361.8	3359 ± 28 (−0.7 σ)	χ_{prior}^2	1.87	11.8 ± 4.7 (+0.0 σ)
Ω_{m}	0.3030	0.3024 ± 0.0078 (−0.8 σ)	k_{eq}	0.010394	0.01041 ± 0.00011 (+1.4 σ)	χ_{CMB}^2	2776.8	2793.7 ± 6.7 (+0.6 σ)
$\Omega_{\mathrm{m}}h^2$	0.14500	0.1456 ± 0.0027 (+3.5 σ)	$100\theta_{\mathrm{eq}}$	0.8214	0.8219 ± 0.0055 (+0.7 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2785.24$; $\Delta\chi_{\mathrm{eff}}^2 = -1.49$; $\bar{\chi}_{\mathrm{eff}}^2 = 2811.92$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.05$; $R - 1 = 0.01134$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.02 (Δ 0.30) simall_100x143_offlike5_EE_Aplanck.B: 396.87 (Δ -0.07) commander_dx12_v3.2.29: 22.04 (Δ -0.68) plik_rd12_HM_v22b_TTTEEE: 2348.83 (Δ 2.88) Hubble - H073p45: 6.61 (Δ -4.16)

7.88 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022622	0.02264 ± 0.00016 (+1.1 σ)	σ_8	0.8183	0.8200 ± 0.0093 (+1.8 σ)	$D_M(0.15)$	628.1	626.1 ± 8.5 (-3.4 σ)
$\Omega_c h^2$	0.12173	0.1223 ± 0.0026 (+4.1 σ)	S_8	0.8236	0.824 ± 0.011 (+0.6 σ)	$H(0.38)$	84.46	84.7 ± 1.0 (+5.5 σ)
$100\theta_{MC}$	1.040731	1.04070 ± 0.00039 (-1.5 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4511	0.4513 ± 0.0061 (+0.6 σ)	$D_M(0.38)$	1499.9	1495 ± 19 (-3.9 σ)
τ	0.0577	0.0584 ± 0.0074 (+0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6075	0.6083 ± 0.0070 (+1.1 σ)	$H(0.51)$	91.19	91.5 ± 1.0 (+7.0 σ)
N_{eff}	3.234	3.27 ± 0.15	$\sigma_8/h^{0.5}$	0.9845	0.9849 ± 0.0086 (+0.4 σ)	$D_M(0.51)$	1944.2	1938 ± 24 (-4.2 σ)
$\ln(10^{10} A_s)$	3.0565	3.059 ± 0.016 (+0.7 σ)	$r_{\text{drag}} h$	100.46	100.58 ± 0.76 (+0.6 σ)	$H(0.61)$	96.82	97.1 ± 1.1 (+8.7 σ)
n_s	0.9751	0.9756 ± 0.0059 (+1.9 σ)	$\langle d^2 \rangle^{1/2}$	2.4235	2.424 ± 0.021 (-0.3 σ)	$D_M(0.61)$	2263.3	2256 ± 28 (-4.5 σ)
y_{cal}	1.00093	1.0008 ± 0.0025 (+0.0 σ)	z_{re}	8.02	8.08 ± 0.73 (+0.2 σ)	$H(2.33)$	238.56	239.0 ± 2.3 (+5.9 σ)
A_{217}^{CIB}	48.9	48 ± 7 (+0.2 σ)	$10^9 A_s$	2.1252	2.130 ± 0.034 (+0.7 σ)	$D_M(2.33)$	5677	5663 ± 60 (-10.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	$10^9 A_s e^{-2\tau}$	1.8937	1.895 ± 0.015 (+1.6 σ)	$f\sigma_8(0.15)$	0.4563	0.4566 ± 0.0059 (+0.7 σ)
A_{143}^{tSZ}	7.32	$5.3_{-2.0}^{+2.2}$ (-0.1 σ)	D_{40}	1217.5	1218 ± 12 (-0.8 σ)	$\sigma_8(0.15)$	0.7569	0.7586 ± 0.0087 (+1.9 σ)
A_{100}^{PS}	253.7	263 ± 28 (+0.2 σ)	D_{220}	5741.7	5742 ± 38 (-0.1 σ)	$f\sigma_8(0.38)$	0.4765	0.4771 ± 0.0055 (+1.0 σ)
A_{143}^{PS}	46.9	47 ± 8 (+0.3 σ)	D_{810}	2544.4	2543 ± 13 (+0.2 σ)	$\sigma_8(0.38)$	0.6718	0.6734 ± 0.0079 (+2.0 σ)
$A_{143 \times 217}^{\text{PS}}$	44.6	42 ± 9 (+0.0 σ)	D_{1420}	818.51	817.3 ± 4.8 (-0.3 σ)	$f\sigma_8(0.51)$	0.4760	0.4767 ± 0.0054 (+1.2 σ)
A_{217}^{PS}	118.0	114 ± 10 (-0.0 σ)	D_{2000}	230.78	230.2 ± 1.8 (-0.8 σ)	$\sigma_8(0.51)$	0.6290	0.6305 ± 0.0075 (+2.0 σ)
A^{kSZ}	0.01	< 4.87 (+0.2 σ)	$n_{s,0.002}$	0.9751	0.9756 ± 0.0059 (+1.9 σ)	$f\sigma_8(0.61)$	0.4716	0.4724 ± 0.0053 (+1.4 σ)
A_{100}^{dustTT}	8.93	9.0 ± 1.8 (+0.1 σ)	Y_P	0.24797	0.2485 ± 0.0020 (+59.8 σ)	$\sigma_8(0.61)$	0.5987	0.6002 ± 0.0072 (+2.1 σ)
A_{143}^{dustTT}	11.10	11.0 ± 1.8 (+0.1 σ)	Y_P^{BBN}	0.24931	0.2498 ± 0.0020 (+59.8 σ)	$f\sigma_8(2.33)$	0.30217	0.3030 ± 0.0037 (+2.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.78	18.8 ± 3.3 (+0.1 σ)	10^5D/H	2.6042	2.614 ± 0.041 (+2.1 σ)	$\sigma_8(2.33)$	0.31188	0.3127 ± 0.0040 (+2.1 σ)
A_{217}^{dustTT}	94.8	93.6 ± 7.3 (+0.0 σ)	Age/Gyr	13.593	13.56 ± 0.14 (-11.0 σ)	f_{2000}^{143}	29.77	30.7 ± 2.9 (+0.6 σ)
A_{100}^{dustTE}	0.1143	0.115 ± 0.038 (+0.0 σ)	z_*	1089.937	1090.00 ± 0.32 (+1.7 σ)	$f_{2000}^{143 \times 217}$	32.72	33.1 ± 2.0 (+0.7 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1347	0.135 ± 0.030 (+0.0 σ)	r_*	142.88	142.6 ± 1.4 (-9.9 σ)	f_{2000}^{217}	107.31	107.8 ± 1.9 (+0.6 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.482 ± 0.086 (-0.0 σ)	$100\theta_*$	1.040769	1.04072 ± 0.00046 (-2.0 σ)	χ_{lensing}^2	9.02	9.48 ± 0.66 (+0.5 σ)
A_{143}^{dustTE}	0.221	0.224 ± 0.053 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.728	13.70 ± 0.13 (-9.5 σ)	χ_{small}^2	396.62	397.7 ± 2.2 (+0.0 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.664 ± 0.080 (-0.0 σ)	z_{drag}	1060.77	1060.89 ± 0.59 (+2.6 σ)	χ_{lowl}^2	22.11	22.20 ± 0.79 (-1.0 σ)
A_{217}^{dustTE}	2.074	2.08 ± 0.26 (+0.0 σ)	r_{drag}	145.44	145.1 ± 1.5 (-9.7 σ)	χ_{plik}^2	2348.4	2363.8 ± 6.5 (+0.5 σ)
c_{100}	0.99969	0.99966 ± 0.00062 (-0.0 σ)	k_D	0.14211	0.1423 ± 0.0011 (+5.7 σ)	χ_{H073p45}^2	6.95	6.5 ± 2.9 (-2.7 σ)
c_{217}	0.99823	0.99821 ± 0.00062 (+0.1 σ)	$100\theta_D$	0.161034	0.16113 ± 0.00035 (+2.8 σ)	$\chi_{6\text{DF}}^2$	0.0000	0.024 ± 0.035 (+0.0 σ)
H_0	69.08	69.32 ± 0.97 (+3.2 σ)	z_{eq}	3364.7	3361 ± 22 (-0.5 σ)	χ_{MGS}^2	1.677	1.81 ± 0.47 (+0.6 σ)
Ω_Λ	0.6961	0.6970 ± 0.0059 (+0.7 σ)	k_{eq}	0.010398	0.01041 ± 0.00010 (+1.9 σ)	χ_{DR12BAO}^2	3.569	3.88 ± 0.64 (-0.2 σ)
Ω_m	0.3039	0.3030 ± 0.0059 (-0.7 σ)	$100\theta_{\text{eq}}$	0.82076	0.8214 ± 0.0042 (+0.6 σ)	χ_{prior}^2	1.99	11.8 ± 4.7 (+0.1 σ)
$\Omega_m h^2$	0.14500	0.1456 ± 0.0027 (+4.5 σ)	$100\theta_{s,\text{eq}}$	0.45309	0.4534 ± 0.0021 (+0.5 σ)	χ_{CMB}^2	2776.2	2793.1 ± 6.4 (+0.5 σ)
$\Omega_m h^3$	0.10016	0.1009 ± 0.0031 (+15.6 σ)	$H(0.15)$	74.35	74.59 ± 0.97 (+3.9 σ)	χ_{BAO}^2	5.246	5.71 ± 0.61 (+0.1 σ)

Best-fit $\chi_{\text{eff}}^2 = 2790.37$; $\Delta\chi_{\text{eff}}^2 = -1.64$; $\bar{\chi}_{\text{eff}}^2 = 2817.17$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.07$; $R - 1 = 0.01178$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.68 (Δ 0.14) DR12BAO: 3.57 (Δ -0.13) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.02 (Δ 0.23) simall_100x143_offlike5_EE_Aplanck
396.62 (Δ 0.04) commander_dx12_v3_2.29: 22.11 (Δ -0.54) plik_rd12_HM_v22b.TTTEEE: 2348.44 (Δ 1.98) Hubble - H073p45: 6.95 (Δ -3.70)

7.89 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022634	0.02264 ± 0.00016 (+1.1 σ)	S_8	0.8219	0.824 ± 0.011 (+0.6 σ)	$D_M(0.38)$	1498.1	1495 ± 19 (−4.0 σ)
$\Omega_c h^2$	0.12172	0.1223 ± 0.0026 (+4.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4501	0.4512 ± 0.0060 (+0.6 σ)	$H(0.51)$	91.26	91.5 ± 1.0 (+7.3 σ)
$100\theta_{MC}$	1.040762	1.04070 ± 0.00039 (−1.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6067	0.6082 ± 0.0070 (+1.1 σ)	$D_M(0.51)$	1942.0	1937 ± 24 (−4.4 σ)
τ	0.0576	0.0585 ± 0.0074 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9832	0.9847 ± 0.0086 (+0.5 σ)	$H(0.61)$	96.90	97.1 ± 1.0 (+8.9 σ)
N_{eff}	3.240	3.27 ± 0.15	$r_{\text{drag}} h$	100.58	100.62 ± 0.73 (+0.6 σ)	$D_M(0.61)$	2260.8	2256 ± 27 (−4.7 σ)
$\ln(10^{10} A_s)$	3.0557	3.059 ± 0.016 (+0.7 σ)	$\langle d^2 \rangle^{1/2}$	2.4209	2.424 ± 0.020 (−0.2 σ)	$H(2.33)$	238.59	239.1 ± 2.3 (+6.1 σ)
n_s	0.9753	0.9758 ± 0.0058 (+2.0 σ)	z_{re}	8.01	8.09 ± 0.73 (+0.1 σ)	$D_M(2.33)$	5673	5661 ± 60 (−10.7 σ)
y_{cal}	1.00059	1.0008 ± 0.0025 (+0.0 σ)	$10^9 A_s$	2.1236	2.131 ± 0.034 (+0.7 σ)	$f\sigma_8(0.15)$	0.4554	0.4565 ± 0.0058 (+0.7 σ)
A_{217}^{CIB}	49.8	48 ± 7 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8924	1.895 ± 0.015 (+1.6 σ)	$\sigma_8(0.15)$	0.7565	0.7587 ± 0.0087 (+1.9 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.11	—	D_{40}	1216.6	1217 ± 12 (−0.8 σ)	$f\sigma_8(0.38)$	0.4759	0.4770 ± 0.0055 (+1.1 σ)
A_{143}^{tSZ}	7.38	$5.3_{-2.0}^{+2.2}$ (−0.1 σ)	D_{220}	5739.9	5742 ± 38 (−0.1 σ)	$\sigma_8(0.38)$	0.6715	0.6735 ± 0.0079 (+2.0 σ)
A_{100}^{PS}	255.1	263 ± 28 (+0.2 σ)	D_{810}	2542.5	2543 ± 13 (+0.2 σ)	$f\sigma_8(0.51)$	0.4755	0.4767 ± 0.0054 (+1.3 σ)
A_{143}^{PS}	44.2	47 ± 8 (+0.3 σ)	D_{1420}	817.77	817.3 ± 4.8 (−0.3 σ)	$\sigma_8(0.51)$	0.6288	0.6307 ± 0.0075 (+2.1 σ)
$A_{143 \times 217}^{\text{PS}}$	39.9	42 ± 9 (+0.0 σ)	D_{2000}	230.52	230.2 ± 1.8 (−0.8 σ)	$f\sigma_8(0.61)$	0.4711	0.4723 ± 0.0053 (+1.4 σ)
A_{217}^{PS}	116.4	114 ± 10 (−0.0 σ)	$n_{s,0.002}$	0.9753	0.9758 ± 0.0058 (+2.0 σ)	$\sigma_8(0.61)$	0.5986	0.6004 ± 0.0072 (+2.1 σ)
A^{kSZ}	0.00	< 4.88 (+0.2 σ)	Y_P	0.24806	0.2485 ± 0.0020 (+61.1 σ)	$f\sigma_8(2.33)$	0.30212	0.3030 ± 0.0037 (+2.1 σ)
A_{100}^{dustTT}	8.93	9.0 ± 1.8 (+0.1 σ)	Y_P^{BBN}	0.24940	0.2498 ± 0.0020 (+61.1 σ)	$\sigma_8(2.33)$	0.31188	0.3128 ± 0.0039 (+2.1 σ)
A_{143}^{dustTT}	11.09	11.0 ± 1.8 (+0.1 σ)	$10^5 D/H$	2.6043	2.614 ± 0.041 (+2.2 σ)	f_{2000}^{143}	29.89	30.7 ± 2.9 (+0.6 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.48	18.8 ± 3.3 (+0.1 σ)	Age/Gyr	13.584	13.56 ± 0.14 (−11.3 σ)	$f_{2000}^{143 \times 217}$	32.71	33.1 ± 2.0 (+0.7 σ)
A_{217}^{dustTT}	94.3	93.6 ± 7.3 (+0.0 σ)	z_*	1089.927	1090.00 ± 0.32 (+1.8 σ)	f_{2000}^{217}	107.43	107.8 ± 1.9 (+0.6 σ)
A_{100}^{dustTE}	0.1147	0.115 ± 0.038 (+0.0 σ)	r_*	142.84	142.5 ± 1.4 (−10.2 σ)	χ_{lensing}^2	9.06	9.48 ± 0.65 (+0.4 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.135 ± 0.030 (+0.0 σ)	$100\theta_*$	1.040793	1.04071 ± 0.00046 (−2.1 σ)	χ_{small}^2	396.60	397.7 ± 2.3 (+0.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.086 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.724	13.70 ± 0.13 (−9.8 σ)	χ_{lowl}^2	22.11	22.17 ± 0.78 (−1.0 σ)
A_{143}^{dustTE}	0.223	0.224 ± 0.053 (−0.0 σ)	z_{drag}	1060.81	1060.90 ± 0.58 (+2.7 σ)	χ_{plik}^2	2348.7	2363.9 ± 6.5 (+0.5 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.660	0.664 ± 0.080 (−0.0 σ)	r_{drag}	145.39	145.1 ± 1.5 (−10.0 σ)	χ_{H073p45}^2	6.63	6.4 ± 2.9 (−2.8 σ)
A_{217}^{dustTE}	2.069	2.08 ± 0.26 (+0.1 σ)	k_D	0.14214	0.1424 ± 0.0011 (+5.8 σ)	χ_{JLA}^2	1034.769	1034.83 ± 0.13 (−0.4 σ)
c_{100}	0.99970	0.99966 ± 0.00062 (−0.0 σ)	$100\theta_D$	0.161048	0.16114 ± 0.00035 (+2.8 σ)	$\chi_{6\text{DF}}^2$	0.0003	0.023 ± 0.033 (+0.0 σ)
c_{217}	0.99822	0.99821 ± 0.00062 (+0.1 σ)	z_{eq}	3361.8	3360 ± 21 (−0.5 σ)	χ_{MGS}^2	1.748	1.83 ± 0.46 (+0.6 σ)
H_0	69.17	69.36 ± 0.95 (+3.3 σ)	k_{eq}	0.010394	0.01041 ± 0.00010 (+2.0 σ)	χ_{DR12BAO}^2	3.504	3.84 ± 0.58 (−0.2 σ)
Ω_Λ	0.6970	0.6973 ± 0.0057 (+0.7 σ)	$100\theta_{\text{eq}}$	0.82134	0.8216 ± 0.0040 (+0.6 σ)	χ_{prior}^2	1.98	11.8 ± 4.7 (+0.1 σ)
Ω_m	0.3030	0.3027 ± 0.0057 (−0.7 σ)	$100\theta_{s,\text{eq}}$	0.45338	0.4535 ± 0.0021 (+0.5 σ)	χ_{CMB}^2	2776.5	2793.2 ± 6.4 (+0.5 σ)
$\Omega_m h^2$	0.14500	0.1456 ± 0.0027 (+4.7 σ)	$H(0.15)$	74.44	74.63 ± 0.95 (+4.0 σ)	χ_{BAO}^2	5.252	5.69 ± 0.58 (+0.2 σ)
$\Omega_m h^3$	0.10030	0.1010 ± 0.0030 (+15.8 σ)	$D_M(0.15)$	627.3	625.8 ± 8.3 (−3.5 σ)			
σ_8	0.8177	0.8200 ± 0.0093 (+1.8 σ)	$H(0.38)$	84.54	84.74 ± 0.99 (+5.7 σ)			

Best-fit $\chi_{\text{eff}}^2 = 3825.12$; $\Delta\chi_{\text{eff}}^2 = -1.71$; $\bar{\chi}_{\text{eff}}^2 = 3851.93$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.16$; $R - 1 = 0.01182$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.75 (Δ 0.21) DR12BAO: 3.50 (Δ -0.19) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.06 (Δ 0.32) simall_100x143_offlike5_EE_Aplanck 396.60 (Δ -0.32) commander_dx12_v3_2_29: 22.11 (Δ -0.57) plik_rd12_HM_v22b_TTTEEE: 2348.72 (Δ 2.54) Hubble - H073p45: 6.63 (Δ -4.01) SN - JLA Pantheon18: 1034.77 (Δ -0.07)

7.90 base_nnu_plikHM_TTTEE_lowl_lowE_Riess18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02266 \pm 0.00019 \quad (+1.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.1015 \pm 0.0032 \quad (+18.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4540 \pm 0.0030 \quad (+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1225 \pm 0.0028 \quad (+3.1\sigma)$	σ_8	$0.820 \pm 0.010 \quad (+1.6\sigma)$	$H(0.15)$	$74.8 \pm 1.1 \quad (+3.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04068 \pm 0.00039 \quad (-1.4\sigma)$	S_8	$0.823 \pm 0.016 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$624.1 \pm 9.8 \quad (-2.9\sigma)$
τ	$0.0584^{+0.0065}_{-0.0085} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0086 \quad (+0.3\sigma)$	$H(0.38)$	$84.9 \pm 1.1 \quad (+4.8\sigma)$
N_{eff}	3.30 ± 0.16	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6080 \pm 0.0089 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1491 \pm 22 \quad (-3.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.059^{+0.016}_{-0.019} \quad (+0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.012 \quad (+0.3\sigma)$	$H(0.51)$	$91.7 \pm 1.1 \quad (+6.3\sigma)$
n_{s}	$0.9771 \pm 0.0068 \quad (+2.0\sigma)$	$r_{\mathrm{drag}}h$	$100.8 \pm 1.1 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$1933 \pm 28 \quad (-3.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.420 \pm 0.028 \quad (-0.3\sigma)$	$H(0.61)$	$97.3 \pm 1.1 \quad (+8.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	z_{re}	$8.08^{+0.69}_{-0.82} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2250 \pm 31 \quad (-3.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.131^{+0.032}_{-0.041} \quad (+0.7\sigma)$	$H(2.33)$	$239.3 \pm 2.4 \quad (+4.7\sigma)$
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.896 \pm 0.016 \quad (+1.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5651 \pm 64 \quad (-10.3\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	D_{40}	$1215 \pm 14 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4559 \pm 0.0082 \quad (+0.4\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.4\sigma)$	D_{220}	$5739 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7592 \pm 0.0097 \quad (+1.8\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2543 \pm 14 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4767 \pm 0.0072 \quad (+0.7\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$817.1 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6741 \pm 0.0087 \quad (+1.9\sigma)$
A^{kSZ}	$< 4.86 \quad (+0.2\sigma)$	D_{2000}	$230.1 \pm 1.8 \quad (-0.9\sigma)$	$f\sigma_8(0.51)$	$0.4765 \pm 0.0067 \quad (+0.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.1 \pm 1.8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9771 \pm 0.0068 \quad (+2.0\sigma)$	$\sigma_8(0.51)$	$0.6313 \pm 0.0082 \quad (+2.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.1 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.2488 \pm 0.0021 \quad (+65.1\sigma)$	$f\sigma_8(0.61)$	$0.4723 \pm 0.0064 \quad (+1.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.8 \pm 3.3 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2502 \pm 0.0021 \quad (+65.1\sigma)$	$\sigma_8(0.61)$	$0.6010 \pm 0.0079 \quad (+2.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.043 \quad (+2.2\sigma)$	$f\sigma_8(2.33)$	$0.3034 \pm 0.0041 \quad (+2.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.53 \pm 0.15 \quad (-11.0\sigma)$	$\sigma_8(2.33)$	$0.3133 \pm 0.0044 \quad (+2.2\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	z_*	$1090.02 \pm 0.35 \quad (+1.5\sigma)$	f_{2000}^{143}	$30.8 \pm 3.0 \quad (+0.7\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.480 \pm 0.085 \quad (+0.0\sigma)$	r_*	$142.4 \pm 1.5 \quad (-8.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (+0.8\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.054 \quad (+0.0\sigma)$	$100\theta_*$	$1.04068 \pm 0.00047 \quad (-2.0\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.662 \pm 0.080 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.68 \pm 0.14 \quad (-8.2\sigma)$	χ_{small}^2	$397.6 \pm 2.4 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.07 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1060.98 \pm 0.63 \quad (+3.2\sigma)$	χ_{lowl}^2	$22.03 \pm 0.89 \quad (-1.0\sigma)$
c_{100}	$0.99965 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$144.9 \pm 1.5 \quad (-8.7\sigma)$	χ_{plik}^2	$2365.2 \pm 7.0 \quad (+0.7\sigma)$
c_{217}	$0.99822 \pm 0.00063 \quad (+0.1\sigma)$	k_{D}	$0.1425 \pm 0.0012 \quad (+5.9\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.0 \pm 3.3 \quad (-2.2\sigma)$
H_0	$69.6 \pm 1.1 \quad (+2.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16119 \pm 0.00036 \quad (+3.2\sigma)$	χ_{prior}^2	$11.9 \pm 4.7 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6985 \pm 0.0083 \quad (+0.7\sigma)$	z_{eq}	$3356 \pm 31 \quad (-0.6\sigma)$	χ_{CMB}^2	$2784.9 \pm 6.6 \quad (+0.6\sigma)$
Ω_{m}	$0.3015 \pm 0.0083 \quad (-0.7\sigma)$	k_{eq}	$0.01041 \pm 0.00012 \quad (+1.4\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1459 \pm 0.0029 \quad (+3.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8225 \pm 0.0060 \quad (+0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2802.74; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.14; R - 1 = 0.00708$$

7.91 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02265 ± 0.00016	σ_8	0.821 ± 0.010	$D_M(0.15)$	625.0 ± 8.4
$\Omega_c h^2$	0.1226 ± 0.0028	S_8	0.824 ± 0.013	$H(0.38)$	84.8 ± 1.0
$100\theta_{MC}$	1.04068 ± 0.00039	$\sigma_8 \Omega_m^{0.5}$	0.4513 ± 0.0073	$D_M(0.38)$	1493 ± 19
τ	$0.0582^{+0.0063}_{-0.0084}$	$\sigma_8 \Omega_m^{0.25}$	0.6085 ± 0.0083	$H(0.51)$	91.6 ± 1.0
N_{eff}	3.29 ± 0.15	$\sigma_8/h^{0.5}$	0.985 ± 0.010	$D_M(0.51)$	1935 ± 24
$\ln(10^{10} A_s)$	$3.058^{+0.015}_{-0.018}$	$r_{\text{drag}} h$	100.63 ± 0.79	$H(0.61)$	97.2 ± 1.1
n_s	0.9765 ± 0.0060	$\langle d^2 \rangle^{1/2}$	2.422 ± 0.024	$D_M(0.61)$	2253 ± 28
y_{cal}	1.0007 ± 0.0025	z_{re}	$8.06^{+0.67}_{-0.82}$	$H(2.33)$	239.3 ± 2.4
A_{217}^{CIB}	48 ± 7	$10^9 A_s$	$2.130^{+0.032}_{-0.040}$	$D_M(2.33)$	5655 ± 61
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.896 ± 0.016	$f\sigma_8(0.15)$	0.4566 ± 0.0070
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0}$	D_{40}	1216 ± 13	$\sigma_8(0.15)$	0.7591 ± 0.0096
A_{100}^{PS}	263 ± 28	D_{220}	5738 ± 39	$f\sigma_8(0.38)$	0.4772 ± 0.0066
A_{143}^{PS}	48 ± 8	D_{810}	2543 ± 13	$\sigma_8(0.38)$	0.6739 ± 0.0086
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.0 ± 4.8	$f\sigma_8(0.51)$	0.4769 ± 0.0063
A_{217}^{PS}	114 ± 10	D_{2000}	230.1 ± 1.8	$\sigma_8(0.51)$	0.6311 ± 0.0081
A^{kSZ}	< 4.94	$n_{s,0.002}$	0.9765 ± 0.0060	$f\sigma_8(0.61)$	0.4726 ± 0.0061
$A_{100}^{\text{dust}TT}$	9.1 ± 1.8	Y_P	0.2487 ± 0.0020	$\sigma_8(0.61)$	0.6007 ± 0.0078
$A_{143}^{\text{dust}TT}$	11.1 ± 1.8	Y_P^{BBN}	0.2500 ± 0.0020	$f\sigma_8(2.33)$	0.3032 ± 0.0040
$A_{143 \times 217}^{\text{dust}TT}$	18.8 ± 3.3	10^5D/H	2.619 ± 0.043	$\sigma_8(2.33)$	0.3130 ± 0.0042
$A_{217}^{\text{dust}TT}$	93.6 ± 7.3	Age/Gyr	13.54 ± 0.15	f_{2000}^{143}	30.8 ± 2.9
$A_{100}^{\text{dust}TE}$	0.115 ± 0.038	z_*	1090.03 ± 0.33	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	r_*	142.4 ± 1.5	f_{2000}^{217}	107.9 ± 1.9
$A_{100 \times 217}^{\text{dust}TE}$	0.482 ± 0.086	$100\theta_*$	1.04068 ± 0.00047	χ_{simall}^2	397.6 ± 2.3
$A_{143}^{\text{dust}TE}$	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.68 ± 0.14	χ_{lowl}^2	22.09 ± 0.79
$A_{143 \times 217}^{\text{dust}TE}$	0.664 ± 0.080	z_{drag}	1060.94 ± 0.59	χ_{plik}^2	2364.5 ± 6.6
$A_{217}^{\text{dust}TE}$	2.08 ± 0.26	r_{drag}	144.9 ± 1.5	χ_{H073p45}^2	6.2 ± 2.9
c_{100}	0.99965 ± 0.00062	k_D	0.1425 ± 0.0012	$\chi_{6\text{DF}}^2$	0.027 ± 0.039
c_{217}	0.99822 ± 0.00062	$100\theta_D$	0.16118 ± 0.00036	χ_{MGS}^2	1.84 ± 0.49
H_0	69.44 ± 0.97	z_{eq}	3360 ± 23	χ_{DR12BAO}^2	3.89 ± 0.66
Ω_Λ	0.6974 ± 0.0061	k_{eq}	0.01042 ± 0.00011	χ_{prior}^2	11.9 ± 4.7
Ω_m	0.3026 ± 0.0061	$100\theta_{\text{eq}}$	0.8217 ± 0.0044	χ_{BAO}^2	5.76 ± 0.67
$\Omega_m h^2$	0.1459 ± 0.0029	$100\theta_{s,\text{eq}}$	0.4536 ± 0.0022	χ_{CMB}^2	2784.2 ± 6.3
$\Omega_m h^3$	0.1013 ± 0.0031	$H(0.15)$	74.72 ± 0.97		

$$\bar{\chi}_{\text{eff}}^2 = 2807.99; R - 1 = 0.00955$$

7.92 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02265 ± 0.00016	σ_8	0.821 ± 0.010	$D_M(0.15)$	624.8 ± 8.3
$\Omega_c h^2$	0.1226 ± 0.0028	S_8	0.824 ± 0.013	$H(0.38)$	84.87 ± 0.99
$100\theta_{MC}$	1.04068 ± 0.00039	$\sigma_8 \Omega_m^{0.5}$	0.4511 ± 0.0072	$D_M(0.38)$	1492 ± 19
τ	$0.0582^{+0.0063}_{-0.0084}$	$\sigma_8 \Omega_m^{0.25}$	0.6084 ± 0.0083	$H(0.51)$	91.6 ± 1.0
N_{eff}	3.29 ± 0.15	$\sigma_8/h^{0.5}$	0.984 ± 0.010	$D_M(0.51)$	1934 ± 24
$\ln(10^{10} A_s)$	$3.059^{+0.015}_{-0.018}$	$r_{\text{drag}} h$	100.67 ± 0.76	$H(0.61)$	97.2 ± 1.1
n_s	0.9766 ± 0.0059	$\langle d^2 \rangle^{1/2}$	2.421 ± 0.024	$D_M(0.61)$	2252 ± 27
y_{cal}	1.0007 ± 0.0025	z_{re}	$8.07^{+0.67}_{-0.82}$	$H(2.33)$	239.3 ± 2.4
A_{217}^{CIB}	48 ± 7	$10^9 A_s$	$2.130^{+0.032}_{-0.040}$	$D_M(2.33)$	5654 ± 60
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.896 ± 0.016	$f\sigma_8(0.15)$	0.4565 ± 0.0070
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0}$	D_{40}	1216 ± 13	$\sigma_8(0.15)$	0.7591 ± 0.0096
A_{100}^{PS}	263 ± 28	D_{220}	5739 ± 39	$f\sigma_8(0.38)$	0.4771 ± 0.0066
A_{143}^{PS}	48 ± 8	D_{810}	2543 ± 13	$\sigma_8(0.38)$	0.6739 ± 0.0086
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.0 ± 4.8	$f\sigma_8(0.51)$	0.4768 ± 0.0063
A_{217}^{PS}	114 ± 10	D_{2000}	230.1 ± 1.8	$\sigma_8(0.51)$	0.6311 ± 0.0081
A^{kSZ}	< 4.95	$n_{s,0.002}$	0.9766 ± 0.0059	$f\sigma_8(0.61)$	0.4725 ± 0.0061
$A_{100}^{\text{dust}TT}$	9.1 ± 1.8	Y_P	0.2487 ± 0.0020	$\sigma_8(0.61)$	0.6008 ± 0.0078
$A_{143}^{\text{dust}TT}$	11.1 ± 1.8	Y_P^{BBN}	0.2501 ± 0.0020	$f\sigma_8(2.33)$	0.3033 ± 0.0040
$A_{143 \times 217}^{\text{dust}TT}$	18.8 ± 3.3	10^5D/H	2.619 ± 0.043	$\sigma_8(2.33)$	0.3131 ± 0.0042
$A_{217}^{\text{dust}TT}$	93.6 ± 7.3	Age/Gyr	13.54 ± 0.14	f_{2000}^{143}	30.8 ± 2.9
$A_{100}^{\text{dust}TE}$	0.115 ± 0.038	z_*	1090.03 ± 0.33	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	r_*	142.4 ± 1.5	f_{2000}^{217}	107.9 ± 1.9
$A_{100 \times 217}^{\text{dust}TE}$	0.482 ± 0.086	$100\theta_*$	1.04068 ± 0.00047	χ_{simall}^2	397.6 ± 2.3
$A_{143}^{\text{dust}TE}$	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.68 ± 0.14	χ_{lowl}^2	22.06 ± 0.78
$A_{143 \times 217}^{\text{dust}TE}$	0.663 ± 0.080	z_{drag}	1060.95 ± 0.59	χ_{plik}^2	2364.6 ± 6.6
$A_{217}^{\text{dust}TE}$	2.08 ± 0.26	r_{drag}	144.9 ± 1.5	χ_{H073p45}^2	6.1 ± 2.8
c_{100}	0.99965 ± 0.00062	k_D	0.1425 ± 0.0012	χ_{JLA}^2	1034.83 ± 0.13
c_{217}	0.99822 ± 0.00062	$100\theta_D$	0.16118 ± 0.00036	$\chi_{6\text{DF}}^2$	0.025 ± 0.036
H_0	69.47 ± 0.95	z_{eq}	3359 ± 22	χ_{MGS}^2	1.86 ± 0.48
Ω_Λ	0.6977 ± 0.0058	k_{eq}	0.01042 ± 0.00011	χ_{DR12BAO}^2	3.85 ± 0.60
Ω_m	0.3023 ± 0.0058	$100\theta_{\text{eq}}$	0.8219 ± 0.0042	χ_{prior}^2	11.9 ± 4.7
$\Omega_m h^2$	0.1459 ± 0.0029	$100\theta_{s,\text{eq}}$	0.4537 ± 0.0021	χ_{BAO}^2	5.73 ± 0.64
$\Omega_m h^3$	0.1014 ± 0.0031	$H(0.15)$	74.74 ± 0.96	χ_{CMB}^2	2784.3 ± 6.3

$\bar{\chi}_{\text{eff}}^2 = 3842.74$; $R - 1 = 0.00993$

7.93 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02265 \pm 0.00018 \quad (+1.2\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.1011 \pm 0.0032 \quad (+15.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4537 \pm 0.0028 \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1223 \pm 0.0027 \quad (+3.2\sigma)$	σ_8	$0.8204 \pm 0.0092 \quad (+1.8\sigma)$	$H(0.15)$	$74.7 \pm 1.1 \quad (+3.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04070 \pm 0.00039 \quad (-1.3\sigma)$	S_8	$0.823 \pm 0.013 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$625.3 \pm 9.7 \quad (-3.1\sigma)$
τ	$0.0590^{+0.0065}_{-0.0081} \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4510 \pm 0.0069 \quad (+0.3\sigma)$	$H(0.38)$	$84.8 \pm 1.1 \quad (+4.8\sigma)$
N_{eff}	3.28 ± 0.16	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6083 \pm 0.0072 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1494 \pm 22 \quad (-3.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.060^{+0.015}_{-0.017} \quad (+0.8\sigma)$	$\sigma_8/h^{0.5}$	$0.9847 \pm 0.0090 \quad (+0.3\sigma)$	$H(0.51)$	$91.5 \pm 1.1 \quad (+6.2\sigma)$
n_{s}	$0.9762 \pm 0.0066 \quad (+2.0\sigma)$	$r_{\mathrm{drag}}h$	$100.7 \pm 1.0 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1936 \pm 27 \quad (-3.8\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.022 \quad (-0.4\sigma)$	$H(0.61)$	$97.2 \pm 1.1 \quad (+7.7\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	z_{re}	$8.14^{+0.68}_{-0.77} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2254 \pm 31 \quad (-4.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.133^{+0.030}_{-0.037} \quad (+0.8\sigma)$	$H(2.33)$	$239.1 \pm 2.3 \quad (+4.9\sigma)$
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.895 \pm 0.015 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5659 \pm 64 \quad (-9.5\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	D_{40}	$1217 \pm 13 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.4564 \pm 0.0065 \quad (+0.4\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.3\sigma)$	D_{220}	$5742 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7590 \pm 0.0087 \quad (+2.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2543 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4770 \pm 0.0058 \quad (+0.8\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$817.3 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6739 \pm 0.0080 \quad (+2.2\sigma)$
A^{kSZ}	$< 4.86 \quad (+0.2\sigma)$	D_{2000}	$230.2 \pm 1.8 \quad (-0.8\sigma)$	$f\sigma_8(0.51)$	$0.4767 \pm 0.0054 \quad (+1.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9762 \pm 0.0066 \quad (+2.0\sigma)$	$\sigma_8(0.51)$	$0.6311 \pm 0.0076 \quad (+2.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.2486 \pm 0.0021 \quad (+57.5\sigma)$	$f\sigma_8(0.61)$	$0.4724 \pm 0.0053 \quad (+1.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.8 \pm 3.3 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2499 \pm 0.0021 \quad (+57.5\sigma)$	$\sigma_8(0.61)$	$0.6007 \pm 0.0074 \quad (+2.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614 \pm 0.041 \quad (+1.9\sigma)$	$f\sigma_8(2.33)$	$0.3033 \pm 0.0038 \quad (+2.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.55 \pm 0.15 \quad (-10.1\sigma)$	$\sigma_8(2.33)$	$0.3131 \pm 0.0042 \quad (+2.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.99 \pm 0.33 \quad (+1.3\sigma)$	f_{2000}^{143}	$30.6 \pm 2.9 \quad (+0.6\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (-0.0\sigma)$	r_*	$142.5 \pm 1.5 \quad (-8.6\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.0 \quad (+0.7\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04071 \pm 0.00046 \quad (-1.9\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.663 \pm 0.080 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.69 \pm 0.13 \quad (-8.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.53 \pm 0.70 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1060.93 \pm 0.63 \quad (+2.7\sigma)$	χ_{small}^2	$397.8 \pm 2.4 \quad (+0.1\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$145.1 \pm 1.5 \quad (-8.8\sigma)$	χ_{lowl}^2	$22.16 \pm 0.86 \quad (-1.1\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.1424 \pm 0.0011 \quad (+5.6\sigma)$	χ_{plik}^2	$2364.2 \pm 6.7 \quad (+0.6\sigma)$
H_0	$69.4 \pm 1.1 \quad (+2.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16114 \pm 0.00035 \quad (+2.7\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.4 \pm 3.4 \quad (-2.4\sigma)$
Ω_{Λ}	$0.6977 \pm 0.0077 \quad (+0.8\sigma)$	z_{eq}	$3359 \pm 28 \quad (-0.7\sigma)$	χ_{prior}^2	$11.8 \pm 4.7 \quad (+0.0\sigma)$
Ω_{m}	$0.3023 \pm 0.0077 \quad (-0.8\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+1.4\sigma)$	χ_{CMB}^2	$2793.6 \pm 6.7 \quad (+0.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1456 \pm 0.0027 \quad (+3.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8220 \pm 0.0055 \quad (+0.7\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2811.83$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.04$; $R - 1 = 0.01079$

7.94 base_nnu_plikHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02264 \pm 0.00016 \quad (+1.1\sigma)$	S_8	$0.824 \pm 0.011 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1494 \pm 19 \quad (-4.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1223 \pm 0.0027 \quad (+4.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0060 \quad (+0.6\sigma)$	$H(0.51)$	$91.5 \pm 1.0 \quad (+7.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04070 \pm 0.00039 \quad (-1.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6084 \pm 0.0069 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1937 \pm 24 \quad (-4.4\sigma)$
τ	$0.0588^{+0.0063}_{-0.0077} \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9849 \pm 0.0085 \quad (+0.5\sigma)$	$H(0.61)$	$97.1 \pm 1.0 \quad (+9.0\sigma)$
N_{eff}	3.28 ± 0.15	$r_{\mathrm{drag}}h$	$100.63 \pm 0.73 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2255 \pm 27 \quad (-4.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.059^{+0.014}_{-0.016} \quad (+0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.020 \quad (-0.3\sigma)$	$H(2.33)$	$239.1 \pm 2.3 \quad (+6.2\sigma)$
n_{s}	$0.9759 \pm 0.0058 \quad (+2.0\sigma)$	z_{re}	$8.12^{+0.66}_{-0.74} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5661 \pm 60 \quad (-10.8\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.132^{+0.030}_{-0.035} \quad (+0.7\sigma)$	$f\sigma_8(0.15)$	$0.4565 \pm 0.0058 \quad (+0.7\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.895 \pm 0.015 \quad (+1.6\sigma)$	$\sigma_8(0.15)$	$0.7589 \pm 0.0086 \quad (+2.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1217 \pm 12 \quad (-0.8\sigma)$	$f\sigma_8(0.38)$	$0.4771 \pm 0.0055 \quad (+1.1\sigma)$
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0} \quad (-0.1\sigma)$	D_{220}	$5742 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6737 \pm 0.0078 \quad (+2.1\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	D_{810}	$2543 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4768 \pm 0.0053 \quad (+1.3\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.3\sigma)$	D_{1420}	$817.3 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6309 \pm 0.0074 \quad (+2.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$230.2 \pm 1.8 \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.4725 \pm 0.0052 \quad (+1.4\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9759 \pm 0.0058 \quad (+2.0\sigma)$	$\sigma_8(0.61)$	$0.6005 \pm 0.0071 \quad (+2.2\sigma)$
A^{kSZ}	$< 4.88 \quad (+0.2\sigma)$	Y_{P}	$0.2485 \pm 0.0020 \quad (+61.2\sigma)$	$f\sigma_8(2.33)$	$0.3031 \pm 0.0036 \quad (+2.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2498 \pm 0.0020 \quad (+61.2\sigma)$	$\sigma_8(2.33)$	$0.3129 \pm 0.0039 \quad (+2.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614 \pm 0.041 \quad (+2.2\sigma)$	f_{2000}^{143}	$30.7 \pm 2.9 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.8 \pm 3.3 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.55 \pm 0.14 \quad (-11.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.0 \quad (+0.7\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1090.00 \pm 0.32 \quad (+1.8\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (+0.6\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	r_*	$142.5 \pm 1.4 \quad (-10.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.47 \pm 0.63 \quad (+0.5\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$100\theta_*$	$1.04071 \pm 0.00046 \quad (-2.1\sigma)$	χ_{small}^2	$397.7 \pm 2.3 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.70 \pm 0.13 \quad (-9.8\sigma)$	χ_{lowl}^2	$22.17 \pm 0.78 \quad (-1.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.053 \quad (-0.0\sigma)$	z_{drag}	$1060.90 \pm 0.58 \quad (+2.7\sigma)$	χ_{plik}^2	$2363.8 \pm 6.5 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	r_{drag}	$145.1 \pm 1.5 \quad (-10.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.4 \pm 2.8 \quad (-2.8\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.26 \quad (+0.1\sigma)$	k_{D}	$0.1424 \pm 0.0011 \quad (+5.8\sigma)$	χ_{JLA}^2	$1034.83 \pm 0.13 \quad (-0.4\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16114 \pm 0.00035 \quad (+2.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.023 \pm 0.033 \quad (+0.0\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.1\sigma)$	z_{eq}	$3360 \pm 21 \quad (-0.5\sigma)$	χ_{MGS}^2	$1.83 \pm 0.45 \quad (+0.6\sigma)$
H_0	$69.36 \pm 0.95 \quad (+3.3\sigma)$	k_{eq}	$0.01041 \pm 0.00010 \quad (+2.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.83 \pm 0.57 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6974 \pm 0.0056 \quad (+0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8217 \pm 0.0040 \quad (+0.6\sigma)$	χ_{prior}^2	$11.8 \pm 4.7 \quad (+0.0\sigma)$
Ω_{m}	$0.3026 \pm 0.0056 \quad (-0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4536 \pm 0.0020 \quad (+0.5\sigma)$	χ_{CMB}^2	$2793.1 \pm 6.4 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1456 \pm 0.0027 \quad (+4.7\sigma)$	$H(0.15)$	$74.63 \pm 0.95 \quad (+4.0\sigma)$	χ_{BAO}^2	$5.69 \pm 0.57 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1010 \pm 0.0031 \quad (+15.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$625.7 \pm 8.3 \quad (-3.5\sigma)$		
σ_8	$0.8203 \pm 0.0091 \quad (+1.9\sigma)$	$H(0.38)$	$84.75 \pm 0.98 \quad (+5.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3851.85; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.16; R - 1 = 0.01150$$

7.95 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022599	0.02261 ± 0.00018 (+1.2 σ)	S_8	0.8140	0.815 ± 0.016 (+0.3 σ)	$H(0.15)$	75.40	75.5 ± 1.2 (+4.3 σ)
$\Omega_c h^2$	0.12298	0.1231 ± 0.0031 (+3.9 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4459	0.4462 ± 0.0085 (+0.3 σ)	$D_M(0.15)$	618.8	619 ± 10 (−3.8 σ)
$100\theta_{MC}$	1.040534	1.04053 ± 0.00042 (−1.8 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6040	0.6044 ± 0.0091 (+0.9 σ)	$H(0.38)$	85.47	85.5 ± 1.2 (+6.1 σ)
τ	0.0553	0.0556 ± 0.0080 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9767	0.977 ± 0.012 (+0.2 σ)	$D_M(0.38)$	1479.3	1479 ± 24 (−4.3 σ)
N_{eff}	3.374	3.38 ± 0.18	$r_{\text{drag}} h$	101.37	101.4 ± 1.1 (+0.8 σ)	$H(0.51)$	92.18	92.2 ± 1.2 (+8.0 σ)
$\ln(10^{10} A_s)$	3.0526	3.053 ± 0.018 (+0.8 σ)	$\langle d^2 \rangle^{1/2}$	2.3988	2.399 ± 0.028 (−0.5 σ)	$D_M(0.51)$	1918.6	1918 ± 30 (−4.7 σ)
n_s	0.9799	0.9804 ± 0.0069 (+2.5 σ)	z_{re}	7.82	7.83 ± 0.81 (+0.1 σ)	$H(0.61)$	97.81	97.9 ± 1.3 (+10.1 σ)
y_{cal}	1.00057	1.0005 ± 0.0025 (−0.0 σ)	$10^9 A_s$	2.1171	2.119 ± 0.038 (+0.8 σ)	$D_M(0.61)$	2234.3	2233 ± 34 (−5.0 σ)
A_{100}^{PS}	246.6	247 ± 25 (+0.3 σ)	$10^9 A_s e^{-2\tau}$	1.8953	1.896 ± 0.017 (+2.0 σ)	$H(2.33)$	239.79	239.9 ± 2.6 (+5.8 σ)
A_{143}^{PS}	40.2	43 ± 9 (+0.6 σ)	D_{40}	1207.3	1207 ± 14 (−1.0 σ)	$D_M(2.33)$	5624	5621 ± 70 (−12.7 σ)
A_{217}^{PS}	98.5	101 ± 10 (−0.1 σ)	D_{220}	5726.2	5726 ± 39 (−0.1 σ)	$f\sigma_8(0.15)$	0.4516	0.4519 ± 0.0082 (+0.4 σ)
A_{217}^{CIB}	45.2	42 ± 7 (+0.3 σ)	D_{810}	2538.5	2539 ± 14 (+0.3 σ)	$\sigma_8(0.15)$	0.7575	0.758 ± 0.010 (+2.1 σ)
A_{143}^{tSZ}	4.90	$3.7_{-2.7}^{+1.7}$ (−0.1 σ)	D_{1420}	814.4	814.5 ± 5.1 (−0.5 σ)	$f\sigma_8(0.38)$	0.4734	0.4737 ± 0.0073 (+0.8 σ)
$r_{143 \times 217}^{\text{PS}}$	0.548	0.65 ± 0.12 (−0.1 σ)	D_{2000}	228.62	228.7 ± 2.0 (−1.3 σ)	$\sigma_8(0.38)$	0.6731	0.6736 ± 0.0092 (+2.3 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.720	> 0.482 (+0.2 σ)	$n_{s,0.002}$	0.9799	0.9804 ± 0.0069 (+2.5 σ)	$f\sigma_8(0.51)$	0.4737	0.4740 ± 0.0069 (+1.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.00	—	Y_P	0.24977	0.2499 ± 0.0023 (+76.7 σ)	$\sigma_8(0.51)$	0.6306	0.6311 ± 0.0088 (+2.4 σ)
A^{kSZ}	3.05	$5.2_{-2.3}^{+3.8}$ (+0.2 σ)	Y_P^{BBN}	0.25111	0.2512 ± 0.0023 (+76.7 σ)	$f\sigma_8(0.61)$	0.4699	0.4702 ± 0.0066 (+1.2 σ)
A_{100}^{dust}	1.017	1.02 ± 0.20 (+0.0 σ)	$10^5 D/H$	2.656	2.657 ± 0.051 (+2.9 σ)	$\sigma_8(0.61)$	0.6004	0.6009 ± 0.0084 (+2.5 σ)
A_{143}^{dust}	0.980	0.98 ± 0.18 (+0.1 σ)	Age/Gyr	13.468	13.46 ± 0.17 (−13.6 σ)	$f\sigma_8(2.33)$	0.30330	0.3036 ± 0.0043 (+2.6 σ)
A_{217}^{dust}	0.960	0.97 ± 0.10 (−0.1 σ)	z_*	1090.205	1090.22 ± 0.39 (+2.0 σ)	$\sigma_8(2.33)$	0.31339	0.3137 ± 0.0046 (+2.7 σ)
$A_{143 \times 217}^{\text{dust}}$	1.004	1.03 ± 0.16 (+0.0 σ)	r_*	141.92	141.9 ± 1.6 (−10.1 σ)	f_{2000}^{143}	32.35	32.0 ± 3.3 (+1.0 σ)
c_{100}	0.99752	0.9975 ± 0.0011 (−0.0 σ)	$100\theta_*$	1.04050	1.04049 ± 0.00050 (−2.6 σ)	f_{2000}^{217}	108.57	108.4 ± 2.2 (+1.0 σ)
c_{217}	1.00146	1.0013 ± 0.0016 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.639	13.63 ± 0.15 (−10.0 σ)	$f_{2000}^{143 \times 217}$	33.94	34.0 ± 2.3 (+1.1 σ)
c_{TE}	0.9988	0.9990 ± 0.0050 (+0.4 σ)	z_{drag}	1060.92	1060.97 ± 0.65 (+3.4 σ)	χ_{small}^2	396.09	397.2 ± 1.9 (+0.0 σ)
c_{EE}	0.9965	0.9965 ± 0.0055 (+0.8 σ)	r_{drag}	144.47	144.4 ± 1.7 (−10.3 σ)	χ_{lowl}^2	21.47	21.54 ± 0.77 (−1.2 σ)
H_0	70.17	70.2 ± 1.2 (+3.6 σ)	k_D	0.14261	0.1427 ± 0.0013 (+6.6 σ)	χ_{CamSpec}^2	11505.1	11520.7 ± 6.6 (+0.7 σ)
Ω_Λ	0.7030	0.7030 ± 0.0083 (+0.9 σ)	$100\theta_D$	0.161517	0.16153 ± 0.00044 (+4.1 σ)	χ_{H073p45}^2	3.91	4.3 ± 3.0 (−2.7 σ)
Ω_m	0.2970	0.2970 ± 0.0083 (−0.9 σ)	z_{eq}	3332.1	3332 ± 31 (−0.8 σ)	χ_{prior}^2	2.43	7.9 ± 3.5 (+0.0 σ)
$\Omega_m h^2$	0.14622	0.1464 ± 0.0031 (+4.3 σ)	k_{eq}	0.010391	0.01040 ± 0.00012 (+1.7 σ)	χ_{CMB}^2	11922.6	11939.4 ± 6.5 (+0.5 σ)
$\Omega_m h^3$	0.10260	0.1028 ± 0.0036 (+21.7 σ)	$100\theta_{\text{eq}}$	0.8266	0.8267 ± 0.0062 (+0.9 σ)			
σ_8	0.8182	0.819 ± 0.011 (+1.9 σ)	$100\theta_{s,\text{eq}}$	0.45616	0.4562 ± 0.0031 (+0.8 σ)			

Best-fit $\chi_{\text{eff}}^2 = 11928.99$; $\bar{\chi}_{\text{eff}}^2 = 11951.65$; $\Delta\chi_{\text{eff}}^2 = -2.61$; $R - 1 = 0.01475$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.09 commander_dx12.v3.2_29: 21.47 CamSpec like_10.7HM_1400_unified: 11505.09 Hubble - H073p45: 3.91

7.96 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02256 ± 0.00017	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4486 ± 0.0074	$H(0.38)$	85.2 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1232 ± 0.0031	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6061 ± 0.0085	$D_{\mathrm{M}}(0.38)$	1485 ± 21
$100\theta_{\mathrm{MC}}$	1.04052 ± 0.00042	$\sigma_8/h^{0.5}$	0.980 ± 0.011	$H(0.51)$	91.9 ± 1.2
τ	0.0549 ± 0.0079	$r_{\mathrm{drag}}h$	100.95 ± 0.81	$D_{\mathrm{M}}(0.51)$	1926 ± 27
N_{eff}	3.35 ± 0.18	$\langle d^2 \rangle^{1/2}$	2.407 ± 0.025	$H(0.61)$	97.6 ± 1.2
$\ln(10^{10}A_{\mathrm{s}})$	3.052 ± 0.018	z_{re}	7.77 ± 0.80	$D_{\mathrm{M}}(0.61)$	2243 ± 31
n_{s}	0.9784 ± 0.0062	$10^9 A_{\mathrm{s}}$	2.116 ± 0.038	$H(2.33)$	239.8 ± 2.6
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.896 ± 0.017	$D_{\mathrm{M}}(2.33)$	5635 ± 68
A_{100}^{PS}	246 ± 25	D_{40}	1210 ± 13	$f\sigma_8(0.15)$	0.4541 ± 0.0071
A_{143}^{PS}	43 ± 9	D_{220}	5723 ± 39	$\sigma_8(0.15)$	0.758 ± 0.010
A_{217}^{PS}	101 ± 10	D_{810}	2539 ± 14	$f\sigma_8(0.38)$	0.4752 ± 0.0068
A_{217}^{CIB}	42 ± 7	D_{1420}	814.4 ± 5.1	$\sigma_8(0.38)$	0.6729 ± 0.0092
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	D_{2000}	228.7 ± 2.0	$f\sigma_8(0.51)$	0.4751 ± 0.0065
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.12	$n_{\mathrm{s},0.002}$	0.9784 ± 0.0062	$\sigma_8(0.51)$	0.6303 ± 0.0086
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.480	Y_{P}	0.2495 ± 0.0023	$f\sigma_8(0.61)$	0.4710 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2508 ± 0.0023	$\sigma_8(0.61)$	0.6001 ± 0.0083
A^{kSZ}	$5.2^{+3.6}_{-2.5}$	$10^5 \mathrm{D}/\mathrm{H}$	2.656 ± 0.052	$f\sigma_8(2.33)$	0.3030 ± 0.0042
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.49 ± 0.16	$\sigma_8(2.33)$	0.3129 ± 0.0045
A_{143}^{dust}	0.97 ± 0.17	z_*	1090.25 ± 0.39	f_{2000}^{143}	31.9 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	r_*	142.0 ± 1.6	f_{2000}^{217}	108.3 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04050 ± 0.00051	$f_{2000}^{143 \times 217}$	33.9 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.65 ± 0.15	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0013 ± 0.0016	z_{drag}	1060.84 ± 0.62	χ_{lowl}^2	21.73 ± 0.74
c_{TE}	0.9987 ± 0.0050	r_{drag}	144.6 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	11519.5 ± 6.3
c_{EE}	0.9960 ± 0.0054	k_{D}	0.1426 ± 0.0013	$\chi_{\mathrm{H073p45}}^2$	5.2 ± 2.9
H_0	69.8 ± 1.1	$100\theta_{\mathrm{D}}$	0.16148 ± 0.00044	$\chi_{6\mathrm{DF}}^2$	0.036 ± 0.050
Ω_{Λ}	0.6998 ± 0.0062	z_{eq}	3344 ± 24	χ_{MGS}^2	2.04 ± 0.52
Ω_{m}	0.3002 ± 0.0062	k_{eq}	0.01042 ± 0.00012	$\chi_{\mathrm{DR12BAO}}^2$	3.84 ± 0.59
$\Omega_{\mathrm{m}}h^2$	0.1464 ± 0.0032	$100\theta_{\mathrm{eq}}$	0.8243 ± 0.0046	χ_{prior}^2	7.9 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.1022 ± 0.0035	$100\theta_{\mathrm{s,eq}}$	0.4550 ± 0.0023	χ_{BAO}^2	5.92 ± 0.87
σ_8	0.819 ± 0.011	$H(0.15)$	75.1 ± 1.1	χ_{CMB}^2	11938.4 ± 6.2
S_8	0.819 ± 0.013	$D_{\mathrm{M}}(0.15)$	621.7 ± 9.2		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.32; R - 1 = 0.01940$$

7.97 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02256 ± 0.00016	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4485 ± 0.0073	$H(0.38)$	85.2 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1232 ± 0.0031	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6060 ± 0.0085	$D_{\mathrm{M}}(0.38)$	1485 ± 21
$100\theta_{\mathrm{MC}}$	1.04052 ± 0.00042	$\sigma_8/h^{0.5}$	0.980 ± 0.010	$H(0.51)$	92.0 ± 1.1
τ	0.0550 ± 0.0079	$r_{\mathrm{drag}}h$	100.96 ± 0.78	$D_{\mathrm{M}}(0.51)$	1926 ± 26
N_{eff}	3.36 ± 0.18	$\langle d^2 \rangle^{1/2}$	2.406 ± 0.024	$H(0.61)$	97.6 ± 1.2
$\ln(10^{10}A_{\mathrm{s}})$	3.052 ± 0.018	z_{re}	7.77 ± 0.80	$D_{\mathrm{M}}(0.61)$	2242 ± 30
n_{s}	0.9785 ± 0.0061	$10^9 A_{\mathrm{s}}$	2.116 ± 0.038	$H(2.33)$	239.8 ± 2.6
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.896 ± 0.017	$D_{\mathrm{M}}(2.33)$	5635 ± 67
A_{100}^{PS}	246 ± 25	D_{40}	1210 ± 13	$f\sigma_8(0.15)$	0.4541 ± 0.0071
A_{143}^{PS}	43 ± 9	D_{220}	5723 ± 39	$\sigma_8(0.15)$	0.758 ± 0.010
A_{217}^{PS}	101 ± 10	D_{810}	2539 ± 14	$f\sigma_8(0.38)$	0.4751 ± 0.0067
A_{217}^{CIB}	42 ± 7	D_{1420}	814.4 ± 5.1	$\sigma_8(0.38)$	0.6730 ± 0.0092
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	D_{2000}	228.7 ± 2.0	$f\sigma_8(0.51)$	0.4751 ± 0.0065
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.12	$n_{\mathrm{s},0.002}$	0.9785 ± 0.0061	$\sigma_8(0.51)$	0.6303 ± 0.0086
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.480	Y_{P}	0.2495 ± 0.0023	$f\sigma_8(0.61)$	0.4710 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2508 ± 0.0023	$\sigma_8(0.61)$	0.6001 ± 0.0083
A^{kSZ}	$5.2^{+3.6}_{-2.5}$	$10^5 \mathrm{D}/\mathrm{H}$	2.656 ± 0.052	$f\sigma_8(2.33)$	0.3030 ± 0.0042
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.49 ± 0.16	$\sigma_8(2.33)$	0.3129 ± 0.0045
A_{143}^{dust}	0.97 ± 0.17	z_*	1090.25 ± 0.39	f_{2000}^{143}	31.9 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	r_*	142.0 ± 1.6	f_{2000}^{217}	108.3 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04050 ± 0.00051	$f_{2000}^{143 \times 217}$	33.9 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.65 ± 0.15	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0013 ± 0.0016	z_{drag}	1060.85 ± 0.61	χ_{lowl}^2	21.73 ± 0.72
c_{TE}	0.9987 ± 0.0050	r_{drag}	144.6 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	11519.6 ± 6.3
c_{EE}	0.9960 ± 0.0054	k_{D}	0.1426 ± 0.0013	$\chi_{\mathrm{H073p45}}^2$	5.1 ± 2.8
H_0	69.8 ± 1.0	$100\theta_{\mathrm{D}}$	0.16149 ± 0.00044	χ_{JLA}^2	1034.81 ± 0.11
Ω_{Λ}	0.6999 ± 0.0059	z_{eq}	3344 ± 23	$\chi_{6\mathrm{DF}}^2$	0.035 ± 0.048
Ω_{m}	0.3001 ± 0.0059	k_{eq}	0.01041 ± 0.00012	χ_{MGS}^2	2.05 ± 0.51
$\Omega_{\mathrm{m}}h^2$	0.1464 ± 0.0032	$100\theta_{\mathrm{eq}}$	0.8243 ± 0.0044	$\chi_{\mathrm{DR12BAO}}^2$	3.81 ± 0.55
$\Omega_{\mathrm{m}}h^3$	0.1023 ± 0.0035	$100\theta_{\mathrm{s,eq}}$	0.4550 ± 0.0022	χ_{prior}^2	7.9 ± 3.5
σ_8	0.819 ± 0.011	$H(0.15)$	75.1 ± 1.1	χ_{BAO}^2	5.90 ± 0.84
S_8	0.819 ± 0.013	$D_{\mathrm{M}}(0.15)$	621.6 ± 9.1	χ_{CMB}^2	11938.4 ± 6.2

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.06; R - 1 = 0.01918$$

7.98 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02259 \pm 0.00018 \quad (+1.3\sigma)$	S_8	$0.820 \pm 0.012 \quad (+0.3\sigma)$	$H(0.15)$	$75.2 \pm 1.2 \quad (+4.6\sigma)$
$\Omega_{\text{c}}h^2$	$0.1231 \pm 0.0029 \quad (+4.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4489 \pm 0.0068 \quad (+0.3\sigma)$	$D_{\text{M}}(0.15)$	$621 \pm 10 \quad (-4.1\sigma)$
$100\theta_{\text{MC}}$	$1.04053 \pm 0.00041 \quad (-1.6\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6071 \pm 0.0072 \quad (+1.0\sigma)$	$H(0.38)$	$85.3 \pm 1.2 \quad (+6.5\sigma)$
τ	$0.0576 \pm 0.0078 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9815 \pm 0.0089 \quad (+0.2\sigma)$	$D_{\text{M}}(0.38)$	$1483 \pm 23 \quad (-4.6\sigma)$
N_{eff}	3.36 ± 0.18	$r_{\text{drag}}h$	$101.1 \pm 1.0 \quad (+1.0\sigma)$	$H(0.51)$	$92.0 \pm 1.2 \quad (+8.3\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.058 \pm 0.016 \quad (+0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.411 \pm 0.022 \quad (-0.6\sigma)$	$D_{\text{M}}(0.51)$	$1923 \pm 29 \quad (-5.0\sigma)$
n_{s}	$0.9788 \pm 0.0068 \quad (+2.6\sigma)$	z_{re}	$8.04 \pm 0.77 \quad (+0.2\sigma)$	$H(0.61)$	$97.7 \pm 1.3 \quad (+10.4\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.129 \pm 0.035 \quad (+0.8\sigma)$	$D_{\text{M}}(0.61)$	$2240 \pm 34 \quad (-5.3\sigma)$
A_{100}^{PS}	$247 \pm 25 \quad (+0.4\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.897 \pm 0.016 \quad (+2.0\sigma)$	$H(2.33)$	$239.8 \pm 2.5 \quad (+6.1\sigma)$
A_{143}^{PS}	$43 \pm 9 \quad (+0.5\sigma)$	D_{40}	$1211 \pm 13 \quad (-1.0\sigma)$	$D_{\text{M}}(2.33)$	$5631 \pm 70 \quad (-12.7\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4545 \pm 0.0064 \quad (+0.4\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.3\sigma)$	D_{810}	$2541 \pm 14 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7598 \pm 0.0091 \quad (+2.4\sigma)$
A_{143}^{tSZ}	$3.7_{-2.6}^{+1.7} \quad (-0.1\sigma)$	D_{1420}	$815.0 \pm 5.1 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4759 \pm 0.0058 \quad (+0.9\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	D_{2000}	$228.9 \pm 2.0 \quad (-1.2\sigma)$	$\sigma_8(0.38)$	$0.6749 \pm 0.0084 \quad (+2.5\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$> 0.473 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9788 \pm 0.0068 \quad (+2.6\sigma)$	$f\sigma_8(0.51)$	$0.4760 \pm 0.0055 \quad (+1.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_{P}	$0.2496 \pm 0.0023 \quad (+74.6\sigma)$	$\sigma_8(0.51)$	$0.6322 \pm 0.0081 \quad (+2.6\sigma)$
A^{kSZ}	$5.1_{-2.7}^{+3.5} \quad (+0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2509 \pm 0.0023 \quad (+74.6\sigma)$	$f\sigma_8(0.61)$	$0.4720 \pm 0.0053 \quad (+1.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.653 \pm 0.051 \quad (+2.7\sigma)$	$\sigma_8(0.61)$	$0.6019 \pm 0.0078 \quad (+2.6\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	Age/Gyr	$13.48 \pm 0.17 \quad (-13.5\sigma)$	$f\sigma_8(2.33)$	$0.3040 \pm 0.0041 \quad (+2.7\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.1\sigma)$	z_*	$1090.22 \pm 0.38 \quad (+2.0\sigma)$	$\sigma_8(2.33)$	$0.3140 \pm 0.0044 \quad (+2.7\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.1\sigma)$	r_*	$142.0 \pm 1.6 \quad (-10.5\sigma)$	f_{2000}^{143}	$31.8 \pm 3.2 \quad (+0.9\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04050 \pm 0.00050 \quad (-2.3\sigma)$	f_{2000}^{217}	$108.3 \pm 2.2 \quad (+0.9\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.64 \pm 0.15 \quad (-10.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.8 \pm 2.3 \quad (+1.0\sigma)$
c_{TE}	$0.9986 \pm 0.0050 \quad (+0.4\sigma)$	z_{drag}	$1060.90 \pm 0.64 \quad (+3.3\sigma)$	χ_{lensing}^2	$9.92 \pm 0.96 \quad (+0.5\sigma)$
c_{EE}	$0.9962 \pm 0.0054 \quad (+0.8\sigma)$	r_{drag}	$144.5 \pm 1.7 \quad (-10.6\sigma)$	χ_{small}^2	$397.5 \pm 2.1 \quad (+0.0\sigma)$
H_0	$70.0 \pm 1.2 \quad (+3.9\sigma)$	k_{D}	$0.1426 \pm 0.0012 \quad (+6.5\sigma)$	χ_{lowl}^2	$21.79 \pm 0.80 \quad (-1.3\sigma)$
Ω_{Λ}	$0.7009 \pm 0.0078 \quad (+1.1\sigma)$	$100\theta_{\text{D}}$	$0.16148 \pm 0.00043 \quad (+3.8\sigma)$	χ_{CamSpec}^2	$11519.4 \pm 6.4 \quad (+0.7\sigma)$
Ω_{m}	$0.2991 \pm 0.0078 \quad (-1.1\sigma)$	z_{eq}	$3341 \pm 29 \quad (-1.0\sigma)$	χ_{H073p45}^2	$5.0 \pm 3.2 \quad (-3.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1463 \pm 0.0030 \quad (+4.5\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+1.7\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^3$	$0.1024 \pm 0.0036 \quad (+20.4\sigma)$	$100\theta_{\text{eq}}$	$0.8251 \pm 0.0057 \quad (+1.0\sigma)$	χ_{CMB}^2	$11948.6 \pm 6.6 \quad (+0.6\sigma)$
σ_8	$0.8209 \pm 0.0096 \quad (+2.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4553 \pm 0.0029 \quad (+1.0\sigma)$		

 $\bar{\chi}_{\text{eff}}^2 = 11961.40; \Delta\bar{\chi}_{\text{eff}}^2 = -2.22; R - 1 = 0.02109$

7.99 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02255 \pm 0.00016 \quad (+1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4501 \pm 0.0060 \quad (+0.7\sigma)$	$H(0.38)$	$85.1 \pm 1.1 \quad (+7.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1230 \pm 0.0030 \quad (+5.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6076 \pm 0.0070 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1488 \pm 21 \quad (-5.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04053 \pm 0.00042 \quad (-1.8\sigma)$	$\sigma_8/h^{0.5}$	$0.9826 \pm 0.0084 \quad (+0.4\sigma)$	$H(0.51)$	$91.8 \pm 1.1 \quad (+9.2\sigma)$
τ	$0.0568 \pm 0.0074 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$100.82 \pm 0.78 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1929 \pm 26 \quad (-5.5\sigma)$
N_{eff}	3.34 ± 0.17	$\langle d^2 \rangle^{1/2}$	$2.415 \pm 0.020 \quad (-0.4\sigma)$	$H(0.61)$	$97.5 \pm 1.2 \quad (+11.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.056 \pm 0.016 \quad (+0.7\sigma)$	z_{re}	$7.96 \pm 0.74 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2246 \pm 30 \quad (-5.9\sigma)$
n_{s}	$0.9775 \pm 0.0061 \quad (+2.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.125 \pm 0.033 \quad (+0.7\sigma)$	$H(2.33)$	$239.7 \pm 2.5 \quad (+7.4\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.897 \pm 0.016 \quad (+2.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5642 \pm 67 \quad (-13.4\sigma)$
A_{100}^{PS}	$246 \pm 25 \quad (+0.4\sigma)$	D_{40}	$1213 \pm 12 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.4556 \pm 0.0058 \quad (+0.8\sigma)$
A_{143}^{PS}	$43 \pm 9 \quad (+0.5\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7590 \pm 0.0089 \quad (+2.2\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2540 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4765 \pm 0.0055 \quad (+1.2\sigma)$
A_{217}^{CIB}	$41_{-8}^{+7} \quad (+0.3\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.6740 \pm 0.0082 \quad (+2.3\sigma)$
A_{143}^{tSZ}	$3.7_{-2.6}^{+1.7} \quad (-0.1\sigma)$	D_{2000}	$229.0 \pm 2.0 \quad (-1.2\sigma)$	$f\sigma_8(0.51)$	$0.4763 \pm 0.0054 \quad (+1.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9775 \pm 0.0061 \quad (+2.3\sigma)$	$\sigma_8(0.51)$	$0.6312 \pm 0.0077 \quad (+2.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.471 \quad (+0.1\sigma)$	Y_{P}	$0.2493 \pm 0.0022 \quad (+72.8\sigma)$	$f\sigma_8(0.61)$	$0.4721 \pm 0.0053 \quad (+1.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2506 \pm 0.0023 \quad (+72.8\sigma)$	$\sigma_8(0.61)$	$0.6009 \pm 0.0074 \quad (+2.4\sigma)$
A^{kSZ}	$5.1_{-2.8}^{+3.4} \quad (+0.2\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.652 \pm 0.051 \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.3034 \pm 0.0039 \quad (+2.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.51 \pm 0.16 \quad (-14.0\sigma)$	$\sigma_8(2.33)$	$0.3133 \pm 0.0041 \quad (+2.5\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	z_*	$1090.23 \pm 0.38 \quad (+2.4\sigma)$	f_{2000}^{143}	$31.7 \pm 3.2 \quad (+0.9\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.1\sigma)$	r_*	$142.1 \pm 1.6 \quad (-12.1\sigma)$	f_{2000}^{217}	$108.2 \pm 2.2 \quad (+0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.1\sigma)$	$100\theta_*$	$1.04052 \pm 0.00050 \quad (-2.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.3 \quad (+1.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.66 \pm 0.15 \quad (-11.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.80 \pm 0.83 \quad (+0.4\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	z_{drag}	$1060.80 \pm 0.60 \quad (+3.0\sigma)$	χ_{small}^2	$397.3 \pm 1.9 \quad (-0.1\sigma)$
c_{TE}	$0.9985 \pm 0.0050 \quad (+0.4\sigma)$	r_{drag}	$144.7 \pm 1.6 \quad (-11.6\sigma)$	χ_{lowl}^2	$21.90 \pm 0.76 \quad (-1.1\sigma)$
c_{EE}	$0.9959 \pm 0.0054 \quad (+0.7\sigma)$	k_{D}	$0.1425 \pm 0.0012 \quad (+6.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11518.7 \pm 6.2 \quad (+0.7\sigma)$
H_0	$69.7 \pm 1.1 \quad (+4.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16144 \pm 0.00043 \quad (+3.6\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.5 \pm 2.9 \quad (-3.3\sigma)$
Ω_{Λ}	$0.6988 \pm 0.0060 \quad (+0.9\sigma)$	z_{eq}	$3348 \pm 23 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.030 \pm 0.042 \quad (+0.3\sigma)$
Ω_{m}	$0.3012 \pm 0.0060 \quad (-0.9\sigma)$	k_{eq}	$0.01042 \pm 0.00011 \quad (+2.4\sigma)$	χ_{MGS}^2	$1.96 \pm 0.49 \quad (+0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1462 \pm 0.0030 \quad (+5.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8235 \pm 0.0044 \quad (+0.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.81 \pm 0.55 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1019 \pm 0.0034 \quad (+18.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4546 \pm 0.0022 \quad (+0.8\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
σ_8	$0.8203 \pm 0.0095 \quad (+2.1\sigma)$	$H(0.15)$	$75.0 \pm 1.1 \quad (+5.0\sigma)$	χ_{CMB}^2	$11947.7 \pm 6.3 \quad (+0.5\sigma)$
S_8	$0.822 \pm 0.011 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$622.9 \pm 9.2 \quad (-4.4\sigma)$	χ_{BAO}^2	$5.80 \pm 0.73 \quad (+0.4\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11966.84; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.97; R - 1 = 0.02276$$

7.100 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022562	0.02256 ± 0.00016 (+1.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6075	0.6076 ± 0.0070 (+1.3 σ)	$H(0.51)$	91.85	91.8 ± 1.1 (+9.4 σ)
$\Omega_{\mathrm{c}}h^2$	0.12317	0.1231 ± 0.0030 (+5.5 σ)	$\sigma_8/h^{0.5}$	0.9821	0.9826 ± 0.0083 (+0.4 σ)	$D_{\mathrm{M}}(0.51)$	1928.3	1929 ± 26 (−5.7 σ)
$100\theta_{\mathrm{MC}}$	1.040535	1.04053 ± 0.00041 (−1.8 σ)	$r_{\mathrm{drag}}h$	100.81	100.84 ± 0.75 (+0.7 σ)	$H(0.61)$	97.50	97.5 ± 1.2 (+11.5 σ)
τ	0.0560	0.0569 ± 0.0074 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4134	2.415 ± 0.020 (−0.4 σ)	$D_{\mathrm{M}}(0.61)$	2245.2	2246 ± 30 (−6.0 σ)
N_{eff}	3.343	3.34 ± 0.17	z_{re}	7.90	7.97 ± 0.73 (+0.0 σ)	$H(2.33)$	239.78	239.7 ± 2.5 (+7.7 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0548	3.056 ± 0.015 (+0.7 σ)	10^9A_{s}	2.1216	2.125 ± 0.033 (+0.7 σ)	$D_{\mathrm{M}}(2.33)$	5639	5641 ± 66 (−13.6 σ)
n_{s}	0.9775	0.9776 ± 0.0061 (+2.4 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8967	1.897 ± 0.016 (+2.1 σ)	$f\sigma_8(0.15)$	0.4555	0.4555 ± 0.0058 (+0.8 σ)
y_{cal}	1.00059	1.0007 ± 0.0025 (−0.1 σ)	D_{40}	1212.5	1213 ± 12 (−0.9 σ)	$\sigma_8(0.15)$	0.7587	0.7591 ± 0.0089 (+2.2 σ)
A_{100}^{PS}	245.5	246 ± 25 (+0.4 σ)	D_{220}	5727.4	5729 ± 39 (−0.1 σ)	$f\sigma_8(0.38)$	0.4763	0.4764 ± 0.0055 (+1.2 σ)
A_{143}^{PS}	40.5	43 ± 9 (+0.5 σ)	D_{810}	2539.4	2540 ± 14 (+0.2 σ)	$\sigma_8(0.38)$	0.6737	0.6741 ± 0.0081 (+2.3 σ)
A_{217}^{PS}	99.2	101 ± 10 (−0.1 σ)	D_{1420}	814.6	814.9 ± 5.1 (−0.5 σ)	$f\sigma_8(0.51)$	0.4762	0.4763 ± 0.0054 (+1.5 σ)
A_{217}^{CIB}	45.0	41_{-8}^{+7} (+0.3 σ)	D_{2000}	228.83	229.0 ± 2.0 (−1.3 σ)	$\sigma_8(0.51)$	0.6309	0.6313 ± 0.0077 (+2.4 σ)
A_{143}^{tSZ}	5.07	$3.7_{-2.6}^{+1.7}$ (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9775	0.9776 ± 0.0061 (+2.4 σ)	$f\sigma_8(0.61)$	0.4720	0.4721 ± 0.0053 (+1.6 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.557	0.65 ± 0.12 (−0.1 σ)	Y_{P}	0.24936	0.2493 ± 0.0022 (+74.0 σ)	$\sigma_8(0.61)$	0.6007	0.6010 ± 0.0074 (+2.4 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.730	> 0.470 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.25070	0.2506 ± 0.0022 (+74.0 σ)	$f\sigma_8(2.33)$	0.30324	0.3034 ± 0.0038 (+2.4 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.02	—	$10^5\mathrm{D}/\mathrm{H}$	2.652	2.652 ± 0.051 (+2.9 σ)	$\sigma_8(2.33)$	0.31312	0.3133 ± 0.0041 (+2.5 σ)
A^{kSZ}	2.66	$5.1_{-2.8}^{+3.4}$ (+0.2 σ)	Age/Gyr	13.503	13.51 ± 0.16 (−14.3 σ)	f_{2000}^{143}	32.12	31.7 ± 3.2 (+0.9 σ)
A_{100}^{dust}	1.018	1.01 ± 0.20 (+0.0 σ)	z_{*}	1090.239	1090.23 ± 0.38 (+2.5 σ)	f_{2000}^{217}	108.40	108.2 ± 2.2 (+0.9 σ)
A_{143}^{dust}	0.976	0.96 ± 0.17 (+0.1 σ)	r_{*}	142.04	142.1 ± 1.6 (−12.5 σ)	$f_{2000}^{143 \times 217}$	33.80	33.7 ± 2.3 (+1.0 σ)
A_{217}^{dust}	0.965	0.97 ± 0.10 (−0.1 σ)	$100\theta_{*}$	1.04052	1.04051 ± 0.00050 (−2.5 σ)	$\chi_{\mathrm{lensing}}^2$	9.46	9.80 ± 0.83 (+0.4 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.004	1.03 ± 0.16 (+0.1 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.651	13.66 ± 0.15 (−12.0 σ)	χ_{small}^2	396.28	397.3 ± 1.9 (−0.1 σ)
c_{100}	0.99758	0.9976 ± 0.0010 (−0.0 σ)	z_{drag}	1060.85	1060.81 ± 0.60 (+3.0 σ)	χ_{Iowl}^2	21.82	21.89 ± 0.75 (−1.1 σ)
c_{217}	1.00150	1.0013 ± 0.0016 (+0.1 σ)	r_{drag}	144.61	144.7 ± 1.6 (−11.9 σ)	$\chi_{\mathrm{CamSpec}}^2$	11503.8	11518.7 ± 6.2 (+0.6 σ)
c_{TE}	0.9983	0.9985 ± 0.0050 (+0.4 σ)	k_{D}	0.14254	0.1425 ± 0.0012 (+6.7 σ)	$\chi_{\mathrm{H073p45}}^2$	5.08	5.5 ± 2.9 (−3.4 σ)
c_{EE}	0.9957	0.9959 ± 0.0054 (+0.7 σ)	$100\theta_{\mathrm{D}}$	0.161447	0.16144 ± 0.00043 (+3.7 σ)	χ_{JLA}^2	1034.7450	1034.81 ± 0.11 (−0.4 σ)
H_0	69.71	69.7 ± 1.0 (+4.3 σ)	z_{eq}	3349.1	3348 ± 22 (−0.8 σ)	χ_{6DF}^2	0.0041	0.029 ± 0.040 (+0.3 σ)
Ω_{Λ}	0.6988	0.6990 ± 0.0058 (+0.9 σ)	k_{eq}	0.010423	0.01042 ± 0.00011 (+2.5 σ)	χ_{MGS}^2	1.892	1.97 ± 0.48 (+0.7 σ)
Ω_{m}	0.3012	0.3010 ± 0.0058 (−0.9 σ)	$100\theta_{\mathrm{eq}}$	0.82337	0.8237 ± 0.0042 (+0.8 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.432	3.79 ± 0.52 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14637	0.1463 ± 0.0030 (+5.9 σ)	$100\theta_{\mathrm{s,eq}}$	0.45449	0.4546 ± 0.0021 (+0.7 σ)	χ_{prior}^2	2.36	7.8 ± 3.5 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.10204	0.1020 ± 0.0034 (+19.1 σ)	$H(0.15)$	74.98	75.0 ± 1.0 (+5.2 σ)	χ_{CMB}^2	11931.3	11947.7 ± 6.3 (+0.5 σ)
σ_8	0.8200	0.8203 ± 0.0095 (+2.1 σ)	$D_{\mathrm{M}}(0.15)$	622.6	622.8 ± 9.0 (−4.6 σ)	χ_{BAO}^2	5.328	5.79 ± 0.70 (+0.5 σ)
S_8	0.8216	0.822 ± 0.011 (+0.7 σ)	$H(0.38)$	85.11	85.1 ± 1.1 (+7.4 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4500	0.4501 ± 0.0060 (+0.7 σ)	$D_{\mathrm{M}}(0.38)$	1487.3	1488 ± 21 (−5.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 12978.85$; $\bar{\chi}_{\mathrm{eff}}^2 = 13001.59$; $\Delta\chi_{\mathrm{eff}}^2 = -2.05$; $R - 1 = 0.02251$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.89 DR12BAO: 3.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.46 small_100x143.offlike5_EE_Aplanck_B: 396.28 commander_dx12.v3.2.29: 21.82 CamSpec like_10.7HM_1400_unified: 11503.77 Hubble - H073p45: 5.08 SN - JLA Pantheon18: 1034.74

7.101 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02261 \pm 0.00018 \quad (+1.2\sigma)$	S_8	$0.815 \pm 0.015 \quad (+0.3\sigma)$	$H(0.15)$	$75.5 \pm 1.2 \quad (+4.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1231 \pm 0.0031 \quad (+3.9\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4464 \pm 0.0085 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$618 \pm 10 \quad (-3.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04054 \pm 0.00042 \quad (-1.8\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6048 \pm 0.0089 \quad (+0.9\sigma)$	$H(0.38)$	$85.6 \pm 1.2 \quad (+6.2\sigma)$
τ	$0.0565^{+0.0060}_{-0.0083} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.978 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1478 \pm 23 \quad (-4.3\sigma)$
N_{eff}	3.38 ± 0.18	$r_{\mathrm{drag}}h$	$101.4 \pm 1.1 \quad (+0.8\sigma)$	$H(0.51)$	$92.3 \pm 1.2 \quad (+8.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.055^{+0.015}_{-0.018} \quad (+0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.401 \pm 0.027 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1917 \pm 30 \quad (-4.7\sigma)$
n_{s}	$0.9805 \pm 0.0069 \quad (+2.5\sigma)$	z_{re}	$7.92^{+0.65}_{-0.81} \quad (+0.1\sigma)$	$H(0.61)$	$97.9 \pm 1.3 \quad (+10.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.123^{+0.031}_{-0.039} \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2233 \pm 34 \quad (-5.0\sigma)$
A_{100}^{PS}	$247 \pm 25 \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.896 \pm 0.017 \quad (+2.0\sigma)$	$H(2.33)$	$239.9 \pm 2.6 \quad (+5.8\sigma)$
A_{143}^{PS}	$43 \pm 9 \quad (+0.6\sigma)$	D_{40}	$1207 \pm 14 \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5620 \pm 70 \quad (-12.8\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{220}	$5726 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4522 \pm 0.0081 \quad (+0.4\sigma)$
A_{217}^{CIB}	$42 \pm 7 \quad (+0.3\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7588 \pm 0.0099 \quad (+2.3\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	D_{1420}	$814.5 \pm 5.1 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4740 \pm 0.0072 \quad (+0.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	D_{2000}	$228.7 \pm 2.0 \quad (-1.3\sigma)$	$\sigma_8(0.38)$	$0.6742 \pm 0.0090 \quad (+2.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.481 \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.9805 \pm 0.0069 \quad (+2.5\sigma)$	$f\sigma_8(0.51)$	$0.4744 \pm 0.0067 \quad (+1.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.2499 \pm 0.0023 \quad (+77.3\sigma)$	$\sigma_8(0.51)$	$0.6317 \pm 0.0085 \quad (+2.7\sigma)$
A^{kSZ}	$5.2^{+3.8}_{-2.3} \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2512 \pm 0.0023 \quad (+77.3\sigma)$	$f\sigma_8(0.61)$	$0.4706 \pm 0.0064 \quad (+1.3\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.657 \pm 0.051 \quad (+2.9\sigma)$	$\sigma_8(0.61)$	$0.6015 \pm 0.0081 \quad (+2.8\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.46 \pm 0.17 \quad (-13.8\sigma)$	$f\sigma_8(2.33)$	$0.3038 \pm 0.0042 \quad (+2.9\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.1\sigma)$	z_*	$1090.21 \pm 0.39 \quad (+2.0\sigma)$	$\sigma_8(2.33)$	$0.3140 \pm 0.0045 \quad (+3.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$141.8 \pm 1.6 \quad (-10.1\sigma)$	f_{2000}^{143}	$32.0 \pm 3.3 \quad (+1.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04049 \pm 0.00050 \quad (-2.6\sigma)$	f_{2000}^{217}	$108.4 \pm 2.2 \quad (+1.0\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.63 \pm 0.15 \quad (-10.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.9 \pm 2.3 \quad (+1.1\sigma)$
c_{TE}	$0.9989 \pm 0.0050 \quad (+0.4\sigma)$	z_{drag}	$1060.98 \pm 0.64 \quad (+3.4\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (+0.0\sigma)$
c_{EE}	$0.9965 \pm 0.0055 \quad (+0.8\sigma)$	r_{drag}	$144.4 \pm 1.7 \quad (-10.3\sigma)$	χ_{lowl}^2	$21.54 \pm 0.77 \quad (-1.2\sigma)$
H_0	$70.2 \pm 1.2 \quad (+3.6\sigma)$	k_{D}	$0.1427 \pm 0.0013 \quad (+6.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11520.6 \pm 6.6 \quad (+0.7\sigma)$
Ω_{Λ}	$0.7032 \pm 0.0082 \quad (+0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16153 \pm 0.00044 \quad (+4.1\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$4.3 \pm 3.0 \quad (-2.7\sigma)$
Ω_{m}	$0.2968 \pm 0.0082 \quad (-0.9\sigma)$	z_{eq}	$3332 \pm 31 \quad (-0.8\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1464 \pm 0.0031 \quad (+4.3\sigma)$	k_{eq}	$0.01040 \pm 0.00012 \quad (+1.7\sigma)$	χ_{CMB}^2	$11939.3 \pm 6.4 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1029 \pm 0.0036 \quad (+21.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8268 \pm 0.0061 \quad (+0.9\sigma)$		
σ_8	$0.819 \pm 0.011 \quad (+2.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4563 \pm 0.0031 \quad (+0.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11951.46; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.54; R - 1 = 0.01420$$

7.102 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02256 ± 0.00017	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4489 ± 0.0073	$H(0.38)$	85.2 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1232 ± 0.0031	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6065 ± 0.0083	$D_{\mathrm{M}}(0.38)$	1485 ± 21
$100\theta_{\mathrm{MC}}$	1.04052 ± 0.00042	$\sigma_8/h^{0.5}$	0.981 ± 0.010	$H(0.51)$	92.0 ± 1.2
τ	$0.0559^{+0.0057}_{-0.0082}$	$r_{\mathrm{drag}}h$	100.97 ± 0.81	$D_{\mathrm{M}}(0.51)$	1926 ± 27
N_{eff}	3.35 ± 0.18	$\langle d^2 \rangle^{1/2}$	2.408 ± 0.024	$H(0.61)$	97.6 ± 1.2
$\ln(10^{10}A_{\mathrm{s}})$	$3.054^{+0.015}_{-0.018}$	z_{re}	$7.87^{+0.63}_{-0.82}$	$D_{\mathrm{M}}(0.61)$	2242 ± 31
n_{s}	0.9786 ± 0.0062	$10^9 A_{\mathrm{s}}$	$2.120^{+0.031}_{-0.038}$	$H(2.33)$	239.8 ± 2.6
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.896 ± 0.017	$D_{\mathrm{M}}(2.33)$	5635 ± 68
A_{100}^{PS}	246 ± 25	D_{40}	1210 ± 13	$f\sigma_8(0.15)$	0.4544 ± 0.0070
A_{143}^{PS}	43 ± 9	D_{220}	5723 ± 39	$\sigma_8(0.15)$	0.7584 ± 0.0099
A_{217}^{PS}	101 ± 10	D_{810}	2539 ± 14	$f\sigma_8(0.38)$	0.4756 ± 0.0066
A_{217}^{CIB}	42 ± 7	D_{1420}	814.4 ± 5.1	$\sigma_8(0.38)$	0.6736 ± 0.0089
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	D_{2000}	228.8 ± 2.0	$f\sigma_8(0.51)$	0.4755 ± 0.0064
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.12	$n_{\mathrm{s},0.002}$	0.9786 ± 0.0062	$\sigma_8(0.51)$	0.6309 ± 0.0084
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.478	Y_{P}	0.2495 ± 0.0023	$f\sigma_8(0.61)$	0.4714 ± 0.0062
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2508 ± 0.0023	$\sigma_8(0.61)$	0.6006 ± 0.0080
A^{kSZ}	$5.2^{+3.6}_{-2.6}$	$10^5 \mathrm{D}/\mathrm{H}$	2.655 ± 0.052	$f\sigma_8(2.33)$	0.3033 ± 0.0041
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.49 ± 0.16	$\sigma_8(2.33)$	0.3132 ± 0.0043
A_{143}^{dust}	0.97 ± 0.17	z_*	1090.25 ± 0.39	f_{2000}^{143}	31.8 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	r_*	142.0 ± 1.6	f_{2000}^{217}	108.3 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04050 ± 0.00051	$f_{2000}^{143 \times 217}$	33.8 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.65 ± 0.15	χ_{simall}^2	397.0 ± 1.8
c_{217}	1.0013 ± 0.0016	z_{drag}	1060.85 ± 0.62	χ_{lowl}^2	21.74 ± 0.74
c_{TE}	0.9986 ± 0.0050	r_{drag}	144.6 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	11519.4 ± 6.3
c_{EE}	0.9960 ± 0.0054	k_{D}	0.1426 ± 0.0013	$\chi_{\mathrm{H073p45}}^2$	5.1 ± 2.9
H_0	69.8 ± 1.1	$100\theta_{\mathrm{D}}$	0.16148 ± 0.00044	$\chi_{6\mathrm{DF}}^2$	0.037 ± 0.050
Ω_{Λ}	0.6999 ± 0.0061	z_{eq}	3344 ± 24	χ_{MGS}^2	2.05 ± 0.52
Ω_{m}	0.3001 ± 0.0061	k_{eq}	0.01041 ± 0.00012	$\chi_{\mathrm{DR12BAO}}^2$	3.84 ± 0.59
$\Omega_{\mathrm{m}}h^2$	0.1464 ± 0.0032	$100\theta_{\mathrm{eq}}$	0.8244 ± 0.0045	χ_{prior}^2	7.9 ± 3.5
$\Omega_{\mathrm{m}}h^3$	0.1023 ± 0.0035	$100\theta_{\mathrm{s,eq}}$	0.4550 ± 0.0023	χ_{BAO}^2	5.93 ± 0.88
σ_8	0.820 ± 0.011	$H(0.15)$	75.1 ± 1.1	χ_{CMB}^2	11938.2 ± 6.2
S_8	0.820 ± 0.013	$D_{\mathrm{M}}(0.15)$	621.6 ± 9.2		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.12; R - 1 = 0.01923$$

7.103 **base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_Pantheon18_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02257 ± 0.00016	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4489 ± 0.0072	$H(0.38)$	85.2 ± 1.1
$\Omega_{\mathrm{c}}h^2$	0.1232 ± 0.0031	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6065 ± 0.0083	$D_{\mathrm{M}}(0.38)$	1485 ± 21
$100\theta_{\mathrm{MC}}$	1.04052 ± 0.00042	$\sigma_8/h^{0.5}$	0.981 ± 0.010	$H(0.51)$	92.0 ± 1.1
τ	$0.0559^{+0.0057}_{-0.0082}$	$r_{\mathrm{drag}}h$	100.98 ± 0.78	$D_{\mathrm{M}}(0.51)$	1925 ± 26
N_{eff}	3.36 ± 0.18	$\langle d^2 \rangle^{1/2}$	2.408 ± 0.023	$H(0.61)$	97.6 ± 1.2
$\ln(10^{10}A_{\mathrm{s}})$	$3.054^{+0.015}_{-0.018}$	z_{re}	$7.87^{+0.63}_{-0.82}$	$D_{\mathrm{M}}(0.61)$	2242 ± 30
n_{s}	0.9786 ± 0.0061	$10^9 A_{\mathrm{s}}$	$2.120^{+0.031}_{-0.038}$	$H(2.33)$	239.8 ± 2.6
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.896 ± 0.017	$D_{\mathrm{M}}(2.33)$	5634 ± 67
A_{100}^{PS}	246 ± 25	D_{40}	1210 ± 13	$f\sigma_8(0.15)$	0.4544 ± 0.0070
A_{143}^{PS}	43 ± 9	D_{220}	5723 ± 39	$\sigma_8(0.15)$	0.7585 ± 0.0099
A_{217}^{PS}	101 ± 10	D_{810}	2539 ± 14	$f\sigma_8(0.38)$	0.4755 ± 0.0066
A_{217}^{CIB}	42 ± 7	D_{1420}	814.5 ± 5.1	$\sigma_8(0.38)$	0.6736 ± 0.0089
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	D_{2000}	228.8 ± 2.0	$f\sigma_8(0.51)$	0.4755 ± 0.0064
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.12	$n_{\mathrm{s},0.002}$	0.9786 ± 0.0061	$\sigma_8(0.51)$	0.6309 ± 0.0083
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.478	Y_{P}	0.2495 ± 0.0023	$f\sigma_8(0.61)$	0.4714 ± 0.0062
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2508 ± 0.0023	$\sigma_8(0.61)$	0.6007 ± 0.0080
A^{kSZ}	$5.2^{+3.6}_{-2.6}$	$10^5 \mathrm{D}/\mathrm{H}$	2.656 ± 0.052	$f\sigma_8(2.33)$	0.3033 ± 0.0041
A_{100}^{dust}	1.02 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.49 ± 0.16	$\sigma_8(2.33)$	0.3132 ± 0.0043
A_{143}^{dust}	0.97 ± 0.17	z_*	1090.24 ± 0.39	f_{2000}^{143}	31.8 ± 3.2
A_{217}^{dust}	0.97 ± 0.10	r_*	142.0 ± 1.6	f_{2000}^{217}	108.3 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04049 ± 0.00051	$f_{2000}^{143 \times 217}$	33.8 ± 2.3
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.65 ± 0.15	χ_{simall}^2	397.0 ± 1.8
c_{217}	1.0013 ± 0.0016	z_{drag}	1060.85 ± 0.61	χ_{lowl}^2	21.73 ± 0.73
c_{TE}	0.9986 ± 0.0050	r_{drag}	144.6 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	11519.4 ± 6.3
c_{EE}	0.9960 ± 0.0054	k_{D}	0.1426 ± 0.0013	$\chi_{\mathrm{H073p45}}^2$	5.1 ± 2.8
H_0	69.9 ± 1.0	$100\theta_{\mathrm{D}}$	0.16148 ± 0.00044	χ_{JLA}^2	1034.81 ± 0.11
Ω_{Λ}	0.7000 ± 0.0059	z_{eq}	3344 ± 23	$\chi_{6\mathrm{DF}}^2$	0.035 ± 0.048
Ω_{m}	0.3000 ± 0.0059	k_{eq}	0.01041 ± 0.00012	χ_{MGS}^2	2.06 ± 0.50
$\Omega_{\mathrm{m}}h^2$	0.1464 ± 0.0032	$100\theta_{\mathrm{eq}}$	0.8244 ± 0.0044	$\chi_{\mathrm{DR12BAO}}^2$	3.81 ± 0.55
$\Omega_{\mathrm{m}}h^3$	0.1023 ± 0.0035	$100\theta_{\mathrm{s,eq}}$	0.4550 ± 0.0022	χ_{prior}^2	7.9 ± 3.5
σ_8	0.820 ± 0.011	$H(0.15)$	75.1 ± 1.1	χ_{BAO}^2	5.90 ± 0.84
S_8	0.820 ± 0.013	$D_{\mathrm{M}}(0.15)$	621.5 ± 9.1	χ_{CMB}^2	11938.2 ± 6.2

$$\bar{\chi}_{\mathrm{eff}}^2 = 12991.86; R - 1 = 0.01898$$

7.104 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02259 \pm 0.00018 \quad (+1.3\sigma)$	S_8	$0.820 \pm 0.012 \quad (+0.3\sigma)$	$H(0.15)$	$75.2 \pm 1.2 \quad (+4.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1231 \pm 0.0029 \quad (+4.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4489 \pm 0.0068 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$621 \pm 10 \quad (-4.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04053 \pm 0.00041 \quad (-1.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6072 \pm 0.0072 \quad (+1.0\sigma)$	$H(0.38)$	$85.3 \pm 1.2 \quad (+6.5\sigma)$
τ	$0.0580^{+0.0064}_{-0.0081} \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9817 \pm 0.0088 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1483 \pm 23 \quad (-4.7\sigma)$
N_{eff}	3.36 ± 0.18	$r_{\mathrm{drag}}h$	$101.1 \pm 1.0 \quad (+1.0\sigma)$	$H(0.51)$	$92.1 \pm 1.2 \quad (+8.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.059^{+0.014}_{-0.016} \quad (+0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.412 \pm 0.022 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1923 \pm 29 \quad (-5.0\sigma)$
n_{s}	$0.9789 \pm 0.0068 \quad (+2.6\sigma)$	z_{re}	$8.08^{+0.68}_{-0.77} \quad (+0.2\sigma)$	$H(0.61)$	$97.7 \pm 1.3 \quad (+10.5\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.131^{+0.030}_{-0.036} \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2239 \pm 34 \quad (-5.4\sigma)$
A_{100}^{PS}	$247 \pm 25 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.897 \pm 0.016 \quad (+2.1\sigma)$	$H(2.33)$	$239.8 \pm 2.5 \quad (+6.2\sigma)$
A_{143}^{PS}	$43 \pm 9 \quad (+0.5\sigma)$	D_{40}	$1211 \pm 13 \quad (-1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5631 \pm 70 \quad (-12.8\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4546 \pm 0.0064 \quad (+0.4\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.3\sigma)$	D_{810}	$2541 \pm 14 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7601 \pm 0.0090 \quad (+2.5\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	D_{1420}	$815.0 \pm 5.1 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4760 \pm 0.0057 \quad (+0.9\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	D_{2000}	$228.9 \pm 2.0 \quad (-1.2\sigma)$	$\sigma_8(0.38)$	$0.6752 \pm 0.0083 \quad (+2.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.473 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9789 \pm 0.0068 \quad (+2.6\sigma)$	$f\sigma_8(0.51)$	$0.4761 \pm 0.0055 \quad (+1.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.2496 \pm 0.0023 \quad (+74.9\sigma)$	$\sigma_8(0.51)$	$0.6325 \pm 0.0079 \quad (+2.7\sigma)$
A^{kSZ}	$5.1^{+3.5}_{-2.7} \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2509 \pm 0.0023 \quad (+74.9\sigma)$	$f\sigma_8(0.61)$	$0.4721 \pm 0.0053 \quad (+1.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.653 \pm 0.050 \quad (+2.7\sigma)$	$\sigma_8(0.61)$	$0.6022 \pm 0.0076 \quad (+2.8\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.48 \pm 0.17 \quad (-13.6\sigma)$	$f\sigma_8(2.33)$	$0.3041 \pm 0.0040 \quad (+2.8\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.21 \pm 0.37 \quad (+2.0\sigma)$	$\sigma_8(2.33)$	$0.3141 \pm 0.0044 \quad (+2.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.1\sigma)$	r_*	$142.0 \pm 1.6 \quad (-10.6\sigma)$	f_{2000}^{143}	$31.7 \pm 3.2 \quad (+0.9\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04050 \pm 0.00050 \quad (-2.3\sigma)$	f_{2000}^{217}	$108.3 \pm 2.2 \quad (+0.9\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.64 \pm 0.15 \quad (-10.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.8 \pm 2.3 \quad (+1.0\sigma)$
c_{TE}	$0.9985 \pm 0.0050 \quad (+0.4\sigma)$	z_{drag}	$1060.91 \pm 0.64 \quad (+3.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.90 \pm 0.93 \quad (+0.6\sigma)$
c_{EE}	$0.9963 \pm 0.0054 \quad (+0.8\sigma)$	r_{drag}	$144.5 \pm 1.7 \quad (-10.7\sigma)$	χ_{small}^2	$397.5 \pm 2.1 \quad (+0.0\sigma)$
H_0	$70.0 \pm 1.2 \quad (+3.9\sigma)$	k_{D}	$0.1426 \pm 0.0012 \quad (+6.5\sigma)$	χ_{lowl}^2	$21.78 \pm 0.80 \quad (-1.3\sigma)$
Ω_{Λ}	$0.7010 \pm 0.0077 \quad (+1.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16148 \pm 0.00043 \quad (+3.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11519.4 \pm 6.4 \quad (+0.7\sigma)$
Ω_{m}	$0.2990 \pm 0.0077 \quad (-1.1\sigma)$	z_{eq}	$3340 \pm 29 \quad (-1.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$4.9 \pm 3.2 \quad (-3.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1463 \pm 0.0030 \quad (+4.5\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+1.7\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1024 \pm 0.0036 \quad (+20.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8252 \pm 0.0056 \quad (+1.0\sigma)$	χ_{CMB}^2	$11948.5 \pm 6.5 \quad (+0.6\sigma)$
σ_8	$0.8212 \pm 0.0095 \quad (+2.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4554 \pm 0.0028 \quad (+1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11961.28; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.23; R - 1 = 0.02116$$

7.105 base_nnu_CamSpecHM_TTTEEE_lowl_lowE_Riess18_post_BAO_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02256 \pm 0.00016 \quad (+1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6077 \pm 0.0069 \quad (+1.4\sigma)$	$H(0.51)$	$91.8 \pm 1.1 \quad (+9.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1230 \pm 0.0029 \quad (+5.5\sigma)$	$\sigma_8/h^{0.5}$	$0.9828 \pm 0.0082 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1929 \pm 26 \quad (-5.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04053 \pm 0.00041 \quad (-1.8\sigma)$	$r_{\mathrm{drag}}h$	$100.86 \pm 0.74 \quad (+0.7\sigma)$	$H(0.61)$	$97.5 \pm 1.2 \quad (+11.5\sigma)$
τ	$0.0573^{+0.0061}_{-0.0077} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.415 \pm 0.020 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2246 \pm 30 \quad (-6.1\sigma)$
N_{eff}	3.34 ± 0.17	z_{re}	$8.01^{+0.65}_{-0.75} \quad (+0.0\sigma)$	$H(2.33)$	$239.7 \pm 2.5 \quad (+7.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.057^{+0.014}_{-0.015} \quad (+0.7\sigma)$	$10^9 A_{\mathrm{s}}$	$2.127^{+0.029}_{-0.033} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5641 \pm 66 \quad (-13.6\sigma)$
n_{s}	$0.9777 \pm 0.0060 \quad (+2.4\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.896 \pm 0.016 \quad (+2.1\sigma)$	$f\sigma_8(0.15)$	$0.4556 \pm 0.0058 \quad (+0.8\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1213 \pm 12 \quad (-0.9\sigma)$	$\sigma_8(0.15)$	$0.7593 \pm 0.0088 \quad (+2.3\sigma)$
A_{100}^{PS}	$246 \pm 25 \quad (+0.4\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4765 \pm 0.0055 \quad (+1.3\sigma)$
A_{143}^{PS}	$43 \pm 9 \quad (+0.5\sigma)$	D_{810}	$2540 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6743 \pm 0.0080 \quad (+2.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4764 \pm 0.0053 \quad (+1.5\sigma)$
A_{217}^{CIB}	$41^{+7}_{-8} \quad (+0.3\sigma)$	D_{2000}	$229.0 \pm 2.0 \quad (-1.3\sigma)$	$\sigma_8(0.51)$	$0.6315 \pm 0.0076 \quad (+2.5\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9777 \pm 0.0060 \quad (+2.4\sigma)$	$f\sigma_8(0.61)$	$0.4722 \pm 0.0052 \quad (+1.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	Y_{P}	$0.2493 \pm 0.0022 \quad (+74.0\sigma)$	$\sigma_8(0.61)$	$0.6012 \pm 0.0073 \quad (+2.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.470 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2506 \pm 0.0022 \quad (+74.0\sigma)$	$f\sigma_8(2.33)$	$0.3035 \pm 0.0038 \quad (+2.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.652 \pm 0.051 \quad (+2.9\sigma)$	$\sigma_8(2.33)$	$0.3134 \pm 0.0040 \quad (+2.6\sigma)$
A^{kSZ}	$5.1^{+3.4}_{-2.8} \quad (+0.2\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.51 \pm 0.16 \quad (-14.3\sigma)$	f_{2000}^{143}	$31.7 \pm 3.2 \quad (+0.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1090.23 \pm 0.37 \quad (+2.5\sigma)$	f_{2000}^{217}	$108.2 \pm 2.2 \quad (+0.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	r_*	$142.1 \pm 1.6 \quad (-12.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.3 \quad (+1.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.1\sigma)$	$100\theta_*$	$1.04051 \pm 0.00050 \quad (-2.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.77 \pm 0.79 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.66 \pm 0.15 \quad (-12.0\sigma)$	χ_{small}^2	$397.3 \pm 1.9 \quad (-0.1\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	z_{drag}	$1060.81 \pm 0.60 \quad (+3.0\sigma)$	χ_{lowl}^2	$21.89 \pm 0.75 \quad (-1.1\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	r_{drag}	$144.7 \pm 1.6 \quad (-12.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11518.7 \pm 6.2 \quad (+0.6\sigma)$
c_{TE}	$0.9984 \pm 0.0050 \quad (+0.4\sigma)$	k_{D}	$0.1425 \pm 0.0012 \quad (+6.7\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.5 \pm 2.9 \quad (-3.5\sigma)$
c_{EE}	$0.9959 \pm 0.0054 \quad (+0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16144 \pm 0.00043 \quad (+3.7\sigma)$	χ_{JLA}^2	$1034.81 \pm 0.11 \quad (-0.4\sigma)$
H_0	$69.7 \pm 1.0 \quad (+4.4\sigma)$	z_{eq}	$3347 \pm 22 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.029 \pm 0.040 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6991 \pm 0.0057 \quad (+0.9\sigma)$	k_{eq}	$0.01041 \pm 0.00011 \quad (+2.5\sigma)$	χ_{MGS}^2	$1.98 \pm 0.48 \quad (+0.8\sigma)$
Ω_{m}	$0.3009 \pm 0.0057 \quad (-0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8237 \pm 0.0042 \quad (+0.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.78 \pm 0.51 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1462 \pm 0.0030 \quad (+5.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4547 \pm 0.0021 \quad (+0.8\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1020 \pm 0.0034 \quad (+19.1\sigma)$	$H(0.15)$	$75.0 \pm 1.0 \quad (+5.2\sigma)$	χ_{CMB}^2	$11947.6 \pm 6.2 \quad (+0.5\sigma)$
σ_8	$0.8206 \pm 0.0093 \quad (+2.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$622.7 \pm 9.0 \quad (-4.6\sigma)$	χ_{BAO}^2	$5.79 \pm 0.70 \quad (+0.5\sigma)$
S_8	$0.822 \pm 0.011 \quad (+0.7\sigma)$	$H(0.38)$	$85.1 \pm 1.1 \quad (+7.4\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4501 \pm 0.0059 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1488 \pm 21 \quad (-5.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 13001.46$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.07$; $R - 1 = 0.02255$

7.106 base_nnu_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022014	0.02206 ± 0.00032 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9910	0.990 ± 0.016 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	653.0	651 ± 23 $(+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11957	0.1197 ± 0.0041 (-0.4σ)	$r_{\mathrm{drag}}h$	98.12	98.4 ± 2.2 (-0.2σ)	$H(0.38)$	81.93	82.2 ± 2.3 (-0.7σ)
$100\theta_{\mathrm{MC}}$	1.04091	1.04088 ± 0.00058 $(+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4548	2.454 ± 0.046 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1554	1551 ± 50 $(+0.6\sigma)$
τ	0.0503	0.0515 ± 0.0081 (-0.0σ)	z_{re}	7.33	$7.43^{+0.85}_{-0.76}$ (-0.1σ)	$H(0.51)$	88.73	88.9 ± 2.3 (-0.9σ)
N_{eff}	2.968	2.99 ± 0.29	$10^9 A_{\mathrm{s}}$	2.0745	2.080 ± 0.044 (-0.2σ)	$D_{\mathrm{M}}(0.51)$	2012	2007 ± 62 $(+0.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	3.0323	3.035 ± 0.021 (-0.2σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8760	1.876 ± 0.023 (-0.3σ)	$H(0.61)$	94.40	94.6 ± 2.3 (-1.2σ)
n_{s}	0.9590	0.960 ± 0.014 (-0.5σ)	D_{40}	1236.1	1236 ± 22 $(+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	2339	2335 ± 70 $(+0.7\sigma)$
y_{cal}	1.00026	1.0004 ± 0.0025 $(+0.0\sigma)$	D_{220}	5703.1	5707 ± 41 $(+0.0\sigma)$	$H(2.33)$	235.66	235.8 ± 3.7 (-0.6σ)
A_{100}^{PS}	251.1	255 ± 28 (-0.0σ)	D_{810}	2531.0	2530 ± 14 (-0.1σ)	$D_{\mathrm{M}}(2.33)$	5813	5805 ± 130 $(+1.7\sigma)$
A_{143}^{tSZ}	5.91	$3.8^{+1.8}_{-2.7}$ $(+0.0\sigma)$	D_{1420}	813.0	812.7 ± 5.4 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4625	0.462 ± 0.012 (-0.0σ)
A^{kSZ}	0.8	—	D_{2000}	229.29	229.2 ± 2.4 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7444	0.745 ± 0.013 (-0.3σ)
A_{100}^{dust}	0.998	1.00 ± 0.20 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9590	0.960 ± 0.014 (-0.5σ)	$f\sigma_8(0.38)$	0.4781	0.4777 ± 0.0095 (-0.1σ)
A_{143}^{power}	11.77	$10.3^{+2.3}_{-2.8}$ (-0.0σ)	Y_{P}	0.24420	0.2444 ± 0.0041 (-8.7σ)	$\sigma_8(0.38)$	0.6586	0.659 ± 0.013 (-0.4σ)
A_{217}^{power}	10.90	$8.2^{+1.6}_{-3.2}$ (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24552	0.2458 ± 0.0041 (-8.7σ)	$f\sigma_8(0.51)$	0.4753	0.4751 ± 0.0085 (-0.1σ)
$A_{143 \times 217}^{\mathrm{power}}$	7.21	$4.3^{+1.6}_{-3.1}$ (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.626	2.625 ± 0.072 (-0.3σ)	$\sigma_8(0.51)$	0.6158	0.617 ± 0.012 (-0.4σ)
$\gamma_{143}^{\mathrm{power}}$	1.313	$1.32^{+0.41}_{-0.54}$ (-0.0σ)	Age/Gyr	13.914	13.90 ± 0.31 $(+1.8\sigma)$	$f\sigma_8(0.61)$	0.4694	0.4693 ± 0.0080 (-0.1σ)
$\gamma_{217}^{\mathrm{power}}$	1.33	$1.38^{+0.74}_{-0.62}$ $(+0.0\sigma)$	z_*	1090.259	1090.23 ± 0.50 (-0.2σ)	$\sigma_8(0.61)$	0.5856	0.587 ± 0.012 (-0.4σ)
$\gamma_{143 \times 217}^{\mathrm{power}}$	1.24	1.32 ± 0.59 (-0.0σ)	r_*	145.21	145.1 ± 2.6 $(+1.2\sigma)$	$f\sigma_8(2.33)$	0.2948	0.2954 ± 0.0065 (-0.5σ)
c_{100}	0.99804	0.9978 ± 0.0011 $(+0.0\sigma)$	$100\theta_*$	1.04117	1.04113 ± 0.00072 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.3034	0.3041 ± 0.0073 (-0.5σ)
c_{217}	0.99899	$0.9994^{+0.0012}_{-0.0017}$ (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.947	13.94 ± 0.24 $(+1.2\sigma)$	f_{2000}^{143}	23.13	23 ± 4 (-0.1σ)
H_0	66.30	66.6 ± 2.5 (-0.4σ)	z_{drag}	1059.02	1059.1 ± 1.1 (-0.5σ)	f_{2000}^{217}	16.74	16.7 ± 2.5 (-0.1σ)
Ω_{Λ}	0.6764	0.678 ± 0.019 (-0.2σ)	r_{drag}	148.00	147.9 ± 2.7 $(+1.2\sigma)$	$f_{2000}^{143 \times 217}$	11.07	10.9 ± 2.7 (-0.1σ)
Ω_{m}	0.3236	0.322 ± 0.019 $(+0.2\sigma)$	k_{D}	0.13994	0.1401 ± 0.0019 (-0.7σ)	χ_{small}^2	395.69	396.9 ± 1.6 (-0.0σ)
$\Omega_{\mathrm{m}}h^2$	0.14223	0.1424 ± 0.0042 (-0.4σ)	$100\theta_{\mathrm{D}}$	0.16097	0.16098 ± 0.00068 (-0.5σ)	χ_{lowl}^2	24.16	24.4 ± 2.3 $(+0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.0943	$0.0948^{+0.0053}_{-0.0061}$ (-2.2σ)	z_{eq}	3419	3414 ± 66 $(+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	6703.8	6716.4 ± 5.6 $(+0.0\sigma)$
σ_8	0.8069	0.808 ± 0.014 (-0.3σ)	k_{eq}	0.010381	0.01038 ± 0.00016 (-0.1σ)	χ_{prior}^2	1.29	5.3 ± 2.9 (-0.0σ)
S_8	0.8380	0.837 ± 0.025 $(+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	0.8092	0.810 ± 0.012 (-0.2σ)	χ_{CMB}^2	7123.7	7137.7 ± 5.4 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4590	0.458 ± 0.014 $(+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.4475	0.4481 ± 0.0063 (-0.2σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6086	0.608 ± 0.012 (-0.1σ)	$H(0.15)$	71.68	71.9 ± 2.4 (-0.5σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7124.98$; $\Delta\chi_{\mathrm{eff}}^2 = -0.13$; $\bar{\chi}_{\mathrm{eff}}^2 = 7142.96$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.76$; $R - 1 = 0.00706$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.69 (Δ -0.09) commander_dx12_v3_2_29: 24.16 (Δ 0.46) CamSpec like_10.7cleaned: 6703.83 (Δ -0.60)

7.107 base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02186	0.02200 ± 0.00066	D_{1420}	859	843 ± 100	$D_{\mathrm{M}}(0.51)$	2011	1999 ± 59
$\Omega_{\mathrm{c}}h^2$	0.1127	$0.115^{+0.011}_{-0.013}$	D_{2000}	242.0	240^{+25}_{-31}	$H(0.61)$	93.57	94.3 ± 3.1
$100\theta_{\mathrm{MC}}$	1.0384	1.040 ± 0.015	$n_{\mathrm{s},0.002}$	0.9566	0.956 ± 0.020	$D_{\mathrm{M}}(0.61)$	2341	2328 ± 70
N_{eff}	2.883	2.91 ± 0.27	Y_{P}	0.24296	0.2434 ± 0.0038	$H(2.33)$	230.4	232.3 ± 9.6
$\ln(10^{10}A_{\mathrm{s}})$	3.092	3.08 ± 0.10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24428	0.2447 ± 0.0038	$D_{\mathrm{M}}(2.33)$	5875	5838 ± 200
n_{s}	0.9566	0.956 ± 0.020	$10^5D/H$	2.626	2.610 ± 0.091	$f\sigma_8(0.15)$	0.4495	0.452 ± 0.018
H_0	66.82	67.2 ± 1.9	Age/Gyr	14.067	13.98 ± 0.48	$\sigma_8(0.15)$	0.7470	0.748 ± 0.017
Ω_{Λ}	0.6973	$0.695^{+0.018}_{-0.016}$	z_*	1089.75	1089.8 ± 1.1	$f\sigma_8(0.38)$	0.4698	0.471 ± 0.015
Ω_{m}	0.3027	$0.305^{+0.016}_{-0.018}$	r_*	147.63	146.8 ± 4.1	$\sigma_8(0.38)$	0.6631	0.664 ± 0.014
$\Omega_{\mathrm{m}}h^2$	0.1352	$0.138^{+0.011}_{-0.013}$	$100\theta_*$	1.0387	1.041 ± 0.015	$f\sigma_8(0.51)$	0.4694	0.471 ± 0.014
$\Omega_{\mathrm{m}}h^3$	0.0903	$0.0928^{+0.0091}_{-0.011}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.21	14.12 ± 0.55	$\sigma_8(0.51)$	0.6210	0.622 ± 0.013
σ_8	0.8074	0.809 ± 0.019	z_{drag}	1058.06	1058.6 ± 2.1	$f\sigma_8(0.61)$	0.4652	0.466 ± 0.013
S_8	0.8111	0.815 ± 0.035	r_{drag}	150.52	149.7 ± 4.3	$\sigma_8(0.61)$	0.5911	0.592 ± 0.013
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4442	0.447 ± 0.019	k_{D}	0.13755	0.1385 ± 0.0041	$f\sigma_8(2.33)$	0.2984	0.2988 ± 0.0063
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5989	0.601 ± 0.019	$100\theta_{\mathrm{D}}$	0.16070	0.1608 ± 0.0020	$\sigma_8(2.33)$	0.3081	0.3084 ± 0.0066
$\sigma_8/h^{0.5}$	0.9878	0.987 ± 0.020	z_{eq}	3286	3337^{+240}_{-290}	$\chi^2_{\mathrm{lensing}}$	7.84	9.9 ± 2.2
$r_{\mathrm{drag}}h$	100.58	100.5 ± 1.2	k_{eq}	0.00992	$0.01009^{+0.00074}_{-0.00089}$	χ^2_{Aver15}	0.024	0.9 ± 1.3
$\langle d^2 \rangle^{1/2}$	2.487	2.485 ± 0.053	$100\theta_{\mathrm{eq}}$	0.8310	0.826 ± 0.038	$\chi^2_{\mathrm{Cooke17}}$	0.007	0.9 ± 1.4
z_{re}	7.719	7.73 ± 0.23	$100\theta_{\mathrm{s,eq}}$	0.4590	0.456 ± 0.019	$\chi^2_{6\mathrm{DF}}$	0.0003	0.058 ± 0.082
10^9A_{s}	2.203	$2.19^{+0.20}_{-0.24}$	$H(0.15)$	71.90	72.3 ± 2.1	χ^2_{MGS}	1.75	1.81 ± 0.71
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.973	$1.96^{+0.18}_{-0.22}$	$D_{\mathrm{M}}(0.15)$	649.4	646 ± 18	$\chi^2_{\mathrm{DR12BAO}}$	3.53	4.4 ± 1.6
D_{40}	1325	1318^{+130}_{-150}	$H(0.38)$	81.65	82.2 ± 2.6	χ^2_{prior}	0.03	1.0 ± 1.4
D_{220}	6159	6121^{+800}_{-900}	$D_{\mathrm{M}}(0.38)$	1551.0	1543 ± 45	χ^2_{BAO}	5.28	6.3 ± 1.7
D_{810}	2685	2648 ± 300	$H(0.51)$	88.14	88.8 ± 2.9	χ^2_{Abund}	0.03	1.9 ± 1.9

Best-fit $\chi^2_{\mathrm{eff}} = 13.18$; $\bar{\chi}^2_{\mathrm{eff}} = 19.03$; $R - 1 = 0.01158$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.02 D.Cooke2017: 0.01 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.53 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.84

7.108 base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02194	0.02202 ± 0.00066	D_{2000}	243.5	243^{+22}_{-27}	$D_{\mathrm{M}}(0.61)$	2337	2331 ± 68
$\Omega_{\mathrm{c}}h^2$	0.1124	$0.1139^{+0.0095}_{-0.011}$	$n_{\mathrm{s},0.002}$	0.9561	0.956 ± 0.019	$H(2.33)$	230.3	231.4 ± 8.5
$100\theta_{\mathrm{MC}}$	1.0376	1.039 ± 0.013	Y_{P}	0.24327	0.2435 ± 0.0038	$D_{\mathrm{M}}(2.33)$	5871	5853 ± 190
N_{eff}	2.903	2.92 ± 0.26	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24459	0.2448 ± 0.0038	$f\sigma_{\mathrm{s}}(0.15)$	0.4487	0.450 ± 0.015
$\ln(10^{10}A_{\mathrm{s}})$	3.100	3.092 ± 0.087	$10^5\mathrm{D}/\mathrm{H}$	2.617	2.610 ± 0.091	$\sigma_{\mathrm{s}}(0.15)$	0.7476	0.748 ± 0.016
n_{s}	0.9561	0.956 ± 0.019	Age/Gyr	14.059	14.01 ± 0.45	$f\sigma_{\mathrm{s}}(0.38)$	0.4693	0.470 ± 0.014
H_0	66.96	67.2 ± 1.9	z_*	1089.65	1089.69 ± 0.98	$\sigma_{\mathrm{s}}(0.38)$	0.6638	0.664 ± 0.014
Ω_{Λ}	0.6989	0.698 ± 0.014	r_*	147.52	147.1 ± 3.9	$f\sigma_{\mathrm{s}}(0.51)$	0.4692	0.470 ± 0.013
Ω_{m}	0.3011	0.302 ± 0.014	$100\theta_*$	1.0380	1.039 ± 0.013	$\sigma_{\mathrm{s}}(0.51)$	0.6217	0.622 ± 0.013
$\Omega_{\mathrm{m}}h^2$	0.1350	$0.1365^{+0.0098}_{-0.011}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.213	14.17 ± 0.50	$f\sigma_{\mathrm{s}}(0.61)$	0.4651	0.466 ± 0.012
$\Omega_{\mathrm{m}}h^3$	0.0904	$0.0919^{+0.0085}_{-0.010}$	z_{drag}	1058.25	1058.5 ± 2.1	$\sigma_{\mathrm{s}}(0.61)$	0.5919	0.592 ± 0.013
σ_{s}	0.8079	0.808 ± 0.018	r_{drag}	150.39	150.0 ± 4.1	$f\sigma_{\mathrm{s}}(2.33)$	0.2989	0.2989 ± 0.0064
S_{s}	0.8093	0.811 ± 0.030	k_{D}	0.13767	0.1382 ± 0.0038	$\sigma_{\mathrm{s}}(2.33)$	0.3086	0.3086 ± 0.0066
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4433	0.444 ± 0.016	$100\theta_{\mathrm{D}}$	0.16055	0.1606 ± 0.0018	$\chi^2_{\mathrm{lensing}}$	7.78	9.6 ± 1.9
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5984	0.599 ± 0.017	z_{eq}	3273	3303^{+200}_{-230}	χ^2_{Aver15}	0.006	0.9 ± 1.3
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9873	0.986 ± 0.020	k_{eq}	0.00989	$0.00999^{+0.00065}_{-0.00073}$	$\chi^2_{\mathrm{Cooke17}}$	0.000	0.95 ± 1.4
$r_{\mathrm{drag}}h$	100.71	100.7 ± 1.1	$100\theta_{\mathrm{eq}}$	0.8331	0.831 ± 0.031	χ^2_{JLA}	1034.743	1035.14 ± 0.57
$\langle d^2 \rangle^{1/2}$	2.4931	2.488 ± 0.049	$100\theta_{\mathrm{s,eq}}$	0.4600	0.459 ± 0.016	$\chi^2_{6\mathrm{DF}}$	0.0017	0.047 ± 0.068
z_{re}	7.698	7.71 ± 0.20	$H(0.15)$	72.03	72.3 ± 2.1	χ^2_{MGS}	1.82	1.87 ± 0.65
10^9A_{s}	2.220	$2.21^{+0.17}_{-0.20}$	$D_{\mathrm{M}}(0.15)$	648.2	647 ± 18	$\chi^2_{\mathrm{DR12BAO}}$	3.54	4.4 ± 1.5
$10^9A_{\mathrm{s}}e^{-2\tau}$	1.989	$1.98^{+0.15}_{-0.18}$	$H(0.38)$	81.75	82.1 ± 2.4	χ^2_{prior}	0.038	0.96 ± 1.4
D_{40}	1338	1331^{+110}_{-130}	$D_{\mathrm{M}}(0.38)$	1548.4	1544 ± 44	χ^2_{BAO}	5.36	6.3 ± 1.6
D_{220}	6230	6202^{+650}_{-790}	$H(0.51)$	88.22	88.6 ± 2.7	χ^2_{Abund}	0.01	1.8 ± 1.9
D_{810}	2704	2680 ± 260	$D_{\mathrm{M}}(0.51)$	2008	2002 ± 58			
D_{1420}	864	854 ± 82	$H(0.61)$	93.65	94.0 ± 3.0			

Best-fit $\chi^2_{\mathrm{eff}} = 1047.92$; $\bar{\chi}^2_{\mathrm{eff}} = 1053.81$; $R - 1 = 0.01510$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.01 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.54 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.78 SN - JLA Pantheon18: 1034.74

7.109 base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02189	0.02198 ± 0.00068	D_{1420}	845.4	843 ± 44	$D_{\text{M}}(0.51)$	2003.3	1999 ± 49
$\Omega_{\text{c}}h^2$	0.1143	$0.1152^{+0.0052}_{-0.0060}$	D_{2000}	238.2	237 ± 14	$H(0.61)$	94.01	94.3 ± 2.2
$100\theta_{\text{MC}}$	1.04091	1.04089 ± 0.00061	$n_{\text{s},0.002}$	0.9551	0.954 ± 0.019	$D_{\text{M}}(0.61)$	2332	2327 ± 56
N_{eff}	2.878	2.91 ± 0.27	Y_{P}	0.24292	0.2434 ± 0.0039	$H(2.33)$	231.8	232.5 ± 5.2
$\ln(10^{10}A_{\text{s}})$	3.0766	3.075 ± 0.037	$Y_{\text{P}}^{\text{BBN}}$	0.24423	0.2447 ± 0.0039	$D_{\text{M}}(2.33)$	5847	5832 ± 130
n_{s}	0.9551	0.954 ± 0.019	$10^5\text{D}/\text{H}$	2.618	2.615 ± 0.093	$f\sigma_8(0.15)$	0.4518	0.4521 ± 0.0097
H_0	67.02	67.2 ± 1.7	Age/Gyr	13.999	13.96 ± 0.32	$\sigma_8(0.15)$	0.7483	0.749 ± 0.015
Ω_{Λ}	0.6952	0.6948 ± 0.0088	z_*	1089.86	1089.86 ± 0.64	$f\sigma_8(0.38)$	0.4716	0.4719 ± 0.0094
Ω_{m}	0.3048	0.3052 ± 0.0088	r_*	147.16	146.8 ± 3.3	$\sigma_8(0.38)$	0.6640	0.664 ± 0.014
$\Omega_{\text{m}}h^2$	0.1369	$0.1378^{+0.0057}_{-0.0065}$	$100\theta_*$	1.04127	1.04122 ± 0.00065	$f\sigma_8(0.51)$	0.4710	0.4712 ± 0.0092
$\Omega_{\text{m}}h^3$	0.0917	$0.0927^{+0.0056}_{-0.0067}$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.133	14.10 ± 0.31	$\sigma_8(0.51)$	0.6217	0.622 ± 0.013
σ_8	0.8090	0.809 ± 0.016	z_{drag}	1058.25	1058.5 ± 2.1	$f\sigma_8(0.61)$	0.4666	0.4668 ± 0.0091
S_8	0.8154	0.816 ± 0.018	r_{drag}	150.04	149.6 ± 3.5	$\sigma_8(0.61)$	0.5918	0.592 ± 0.012
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4466	0.4470 ± 0.0099	k_{D}	0.13809	0.1385 ± 0.0031	$f\sigma_8(2.33)$	0.2987	0.2988 ± 0.0064
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6011	0.601 ± 0.012	$100\theta_{\text{D}}$	0.16097	0.16096 ± 0.00073	$\sigma_8(2.33)$	0.3082	0.3083 ± 0.0067
$\sigma_8/h^{0.5}$	0.9883	0.987 ± 0.020	z_{eq}	3330.4	3336 ± 48	χ^2_{lensing}	7.99	9.2 ± 1.5
$r_{\text{drag}}h$	100.55	100.5 ± 1.1	k_{eq}	0.010050	$0.01009^{+0.00026}_{-0.00029}$	χ^2_{Aver15}	0.027	0.95 ± 1.4
$\langle d^2 \rangle^{1/2}$	2.4816	2.483 ± 0.040	$100\theta_{\text{eq}}$	0.8249	0.8241 ± 0.0077	χ^2_{Cooke17}	0.000	0.98 ± 1.4
z_{re}	7.747	7.74 ± 0.11	$100\theta_{\text{s,eq}}$	0.45579	0.4553 ± 0.0043	$\chi^2_{6\text{DF}}$	0.0002	0.055 ± 0.079
10^9A_{s}	2.168	2.166 ± 0.079	$H(0.15)$	72.14	72.4 ± 1.8	χ^2_{MGS}	1.75	1.80 ± 0.70
$10^9A_{\text{s}}e^{-2\tau}$	1.943	1.940 ± 0.071	$D_{\text{M}}(0.15)$	647.4	646 ± 16	χ^2_{DR12BAO}	3.37	4.3 ± 1.3
D_{40}	1305	1306 ± 57	$H(0.38)$	81.98	82.2 ± 2.0	χ^2_{prior}	0.06	2.0 ± 2.0
D_{220}	6027	6025 ± 240	$D_{\text{M}}(0.38)$	1545.6	1542 ± 38	χ^2_{BAO}	5.12	6.1 ± 1.4
D_{810}	2639	2632 ± 120	$H(0.51)$	88.53	88.8 ± 2.1	χ^2_{Abund}	0.03	1.9 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 13.20$; $\bar{\chi}^2_{\text{eff}} = 19.27$; $R - 1 = 0.00810$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.03 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.37 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged:
7.99

7.110 base_nnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02187	0.02199 ± 0.00069	D_{2000}	240.0	238 ± 14	$D_M(0.61)$	2334	2324 ± 56
$\Omega_c h^2$	0.1139	$0.1151^{+0.0052}_{-0.0060}$	$n_{s,0.002}$	0.9557	0.954 ± 0.019	$H(2.33)$	231.4	232.5 ± 5.2
$100\theta_{MC}$	1.04091	1.04089 ± 0.00062	Y_P	0.24271	0.2434 ± 0.0039	$D_M(2.33)$	5853	5829 ± 130
N_{eff}	2.864	2.92 ± 0.27	Y_P^{BBN}	0.24403	0.2448 ± 0.0039	$f\sigma_8(0.15)$	0.4519	0.4517 ± 0.0096
$\ln(10^{10} A_s)$	3.0818	3.077 ± 0.036	$10^5 D/H$	2.616	2.615 ± 0.093	$\sigma_8(0.15)$	0.7495	0.749 ± 0.015
n_s	0.9557	0.954 ± 0.019	Age/Gyr	14.014	13.96 ± 0.32	$f\sigma_8(0.38)$	0.4719	0.4717 ± 0.0094
H_0	67.00	67.3 ± 1.7	z_*	1089.83	1089.85 ± 0.63	$\sigma_8(0.38)$	0.6652	0.665 ± 0.014
Ω_Λ	0.6961	0.6958 ± 0.0082	r_*	147.37	146.8 ± 3.3	$f\sigma_8(0.51)$	0.4714	0.4712 ± 0.0092
Ω_m	0.3039	0.3042 ± 0.0082	$100\theta_*$	1.04127	1.04121 ± 0.00066	$\sigma_8(0.51)$	0.6229	0.622 ± 0.013
$\Omega_m h^2$	0.1364	$0.1378^{+0.0056}_{-0.0065}$	$D_M(z_*)/\text{Gpc}$	14.153	14.09 ± 0.31	$f\sigma_8(0.61)$	0.4671	0.4668 ± 0.0091
$\Omega_m h^3$	0.0914	$0.0928^{+0.0057}_{-0.0067}$	z_{drag}	1058.18	1058.6 ± 2.1	$\sigma_8(0.61)$	0.5929	0.592 ± 0.012
σ_8	0.8102	0.810 ± 0.016	r_{drag}	150.25	149.6 ± 3.6	$f\sigma_8(2.33)$	0.2993	0.2990 ± 0.0063
S_8	0.8155	0.815 ± 0.018	k_D	0.13792	0.1385 ± 0.0031	$\sigma_8(2.33)$	0.3089	0.3086 ± 0.0067
$\sigma_8 \Omega_m^{0.5}$	0.4467	0.4466 ± 0.0098	$100\theta_D$	0.16095	0.16097 ± 0.00073	χ^2_{lensing}	7.96	9.2 ± 1.5
$\sigma_8 \Omega_m^{0.25}$	0.6016	0.601 ± 0.012	z_{eq}	3325.6	3333 ± 47	χ^2_{Aver15}	0.047	0.9 ± 1.4
$\sigma_8/h^{0.5}$	0.9899	0.987 ± 0.020	k_{eq}	0.010025	$0.01009^{+0.00026}_{-0.00029}$	χ^2_{Cooke17}	0.001	0.98 ± 1.4
$r_{\text{drag}} h$	100.66	100.6 ± 1.1	$100\theta_{\text{eq}}$	0.8257	0.8248 ± 0.0074	χ^2_{JLA}	1034.786	1034.93 ± 0.27
$\langle d^2 \rangle^{1/2}$	2.4852	2.484 ± 0.040	$100\theta_{s,\text{eq}}$	0.45623	0.4557 ± 0.0041	$\chi^2_{6\text{DF}}$	0.0015	0.049 ± 0.069
z_{re}	7.741	7.74 ± 0.11	$H(0.15)$	72.11	72.4 ± 1.8	χ^2_{MGS}	1.82	1.86 ± 0.66
$10^9 A_s$	2.180	2.170 ± 0.078	$D_M(0.15)$	647.6	645 ± 16	χ^2_{DR12BAO}	3.335	4.1 ± 1.1
$10^9 A_s e^{-2\tau}$	1.953	1.944 ± 0.070	$H(0.38)$	81.92	82.3 ± 1.9	χ^2_{prior}	0.05	2.0 ± 2.0
D_{40}	1311	1308 ± 57	$D_M(0.38)$	1546.5	1540 ± 38	χ^2_{BAO}	5.16	6.0 ± 1.2
D_{220}	6063	6038 ± 230	$H(0.51)$	88.45	88.9 ± 2.1	χ^2_{Abund}	0.05	1.9 ± 1.9
D_{810}	2656	2637 ± 120	$D_M(0.51)$	2004.5	1997 ± 48			
D_{1420}	851.1	844 ± 44	$H(0.61)$	93.91	94.3 ± 2.2			

Best-fit $\chi^2_{\text{eff}} = 1048.00$; $\bar{\chi}^2_{\text{eff}} = 1054.11$; $R - 1 = 0.00939$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.05 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.33 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.96 SN - JLA Pantheon18: 1034.79

7.111 base_nnu_BAO_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02202	0.02208 ± 0.00072	r_*	134.9	130.7 ± 9.1	$H(0.51)$	98.2	$102.8^{+7.5}_{-9.5}$
$\Omega_{\text{c}}h^2$	0.1647	$0.192^{+0.037}_{-0.057}$	$100\theta_*$	1.0956	1.113 ± 0.037	$D_{\text{M}}(0.51)$	1844	1787 ± 120
$100\theta_{\text{MC}}$	1.0953	1.113 ± 0.037	$D_{\text{M}}(z_*)/\text{Gpc}$	12.32	11.8 ± 1.2	$H(0.61)$	105.0	$110.1^{+8.4}_{-11}$
N_{eff}	2.941	2.96 ± 0.28	z_{drag}	1062.07	1063.7 ± 3.7	$D_{\text{M}}(0.61)$	2139	2071 ± 150
H_0	71.21	$73.2^{+3.7}_{-4.4}$	r_{drag}	137.5	133.1 ± 9.4	$H(2.33)$	269.2	286^{+28}_{-35}
Ω_{Λ}	0.630	$0.604^{+0.057}_{-0.046}$	k_{D}	0.1516	$0.157^{+0.010}_{-0.012}$	$D_{\text{M}}(2.33)$	5213	5009 ± 440
Ω_{m}	0.370	$0.396^{+0.046}_{-0.057}$	$100\theta_{\text{D}}$	0.1682	0.1708 ± 0.0053	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1874	$0.215^{+0.037}_{-0.058}$	z_{eq}	4527	5183^{+900}_{-1000}	χ^2_{Cooke17}	0.00	1.1 ± 1.5
$\Omega_{\text{m}}h^3$	0.1335	$0.159^{+0.031}_{-0.053}$	k_{eq}	0.01372	$0.0157^{+0.0027}_{-0.0042}$	$\chi^2_{6\text{DF}}$	0.180	0.44 ± 0.45
$r_{\text{drag}}h$	97.91	97.1 ± 2.1	$100\theta_{\text{eq}}$	0.693	$0.657^{+0.074}_{-0.088}$	χ^2_{MGS}	0.719	0.69 ± 0.65
Y_{P}	0.24383	0.2440 ± 0.0041	$100\theta_{\text{s,eq}}$	0.3873	$0.368^{+0.040}_{-0.046}$	χ^2_{DR12BAO}	2.10	4.0 ± 1.8
$Y_{\text{P}}^{\text{BBN}}$	0.24516	0.2453 ± 0.0041	$H(0.15)$	77.8	$80.4^{+4.6}_{-5.7}$	χ^2_{BAO}	3.00	5.1 ± 2.0
$10^5\text{D}/\text{H}$	2.614	2.611 ± 0.096	$D_{\text{M}}(0.15)$	604.9	589 ± 35	χ^2_{Abund}	0.01	2.1 ± 2.1
Age/Gyr	12.47	12.0 ± 1.1	$H(0.38)$	90.1	$93.9^{+6.4}_{-8.0}$			
z_*	1093.95	$1095.7^{+3.0}_{-3.9}$	$D_{\text{M}}(0.38)$	1430	1387 ± 91			

Best-fit $\chi^2_{\text{eff}} = 3.01$; $\bar{\chi}^2_{\text{eff}} = 7.19$; $R - 1 = 0.02751$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.18 MGS: 0.72 DR12BAO: 2.10

7.112 base_nnu_BAO_Cooke17_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02197	$0.02212^{+0.00067}_{-0.00075}$	r_*	144.8	143.9 ± 5.2	$H(0.51)$	90.26	$91.1^{+3.6}_{-4.2}$
$\Omega_{\text{c}}h^2$	0.1218	$0.125^{+0.014}_{-0.019}$	$100\theta_*$	1.0496	1.052 ± 0.019	$D_{\text{M}}(0.51)$	1970	1956 ± 75
$100\theta_{\text{MC}}$	1.0494	1.052 ± 0.019	$D_{\text{M}}(z_*)/\text{Gpc}$	13.80	13.69 ± 0.70	$H(0.61)$	95.93	$96.9^{+4.0}_{-4.6}$
N_{eff}	2.937	2.98 ± 0.28	z_{drag}	1059.06	1059.6 ± 2.5	$D_{\text{M}}(0.61)$	2292	2276 ± 89
H_0	67.96	$68.5^{+2.2}_{-2.5}$	r_{drag}	147.6	146.6 ± 5.4	$H(2.33)$	237.8	240^{+12}_{-14}
Ω_{Λ}	0.6874	0.685 ± 0.020	k_{D}	0.1404	$0.1416^{+0.0051}_{-0.0058}$	$D_{\text{M}}(2.33)$	5726	5682 ± 260
Ω_{m}	0.3126	0.315 ± 0.020	$100\theta_{\text{D}}$	0.16215	0.1624 ± 0.0026	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1444	$0.148^{+0.015}_{-0.019}$	z_{eq}	3486	3555^{+330}_{-410}	χ^2_{Cooke17}	0.00	1.1 ± 1.5
$\Omega_{\text{m}}h^3$	0.0981	$0.102^{+0.012}_{-0.017}$	k_{eq}	0.01056	$0.0108^{+0.0010}_{-0.0013}$	χ^2_{JLA}	1035.11	1036.0 ± 1.7
$r_{\text{drag}}h$	100.32	100.3 ± 1.2	$100\theta_{\text{eq}}$	0.8041	0.799 ± 0.047	$\chi^2_{6\text{DF}}$	0.0003	0.052 ± 0.074
Y_{P}	0.24376	0.2443 ± 0.0040	$100\theta_{\text{s,eq}}$	0.4450	0.442 ± 0.024	χ^2_{MGS}	1.68	1.76 ± 0.67
$Y_{\text{P}}^{\text{BBN}}$	0.24508	0.2456 ± 0.0040	$H(0.15)$	73.29	$73.9^{+2.6}_{-2.9}$	χ^2_{DR12BAO}	2.97	4.0 ± 1.5
$10^5\text{D}/\text{H}$	2.623	2.612 ± 0.097	$D_{\text{M}}(0.15)$	637.8	633 ± 23	χ^2_{BAO}	4.65	5.8 ± 1.8
Age/Gyr	13.71	13.60 ± 0.62	$H(0.38)$	83.49	$84.3^{+3.2}_{-3.7}$	χ^2_{Abund}	0.01	2.1 ± 2.0
z_*	1090.48	$1090.6^{+1.3}_{-1.5}$	$D_{\text{M}}(0.38)$	1521	1510 ± 57			

Best-fit $\chi^2_{\text{eff}} = 1039.77$; $\bar{\chi}^2_{\text{eff}} = 1043.87$; $R - 1 = 0.00775$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.97 SN - JLA Pantheon18: 1035.11

7.113 base_nnu_BAO_Cooke17_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02192	$0.02201^{+0.00065}_{-0.00074}$	r_*	146.81	146.5 ± 3.4	$H(0.51)$	88.69	89.0 ± 2.2
$\Omega_{\text{c}}h^2$	0.1150	0.1158 ± 0.0059	$100\theta_*$	1.04123	1.04120 ± 0.00066	$D_{\text{M}}(0.51)$	2000	1995 ± 51
$100\theta_{\text{MC}}$	1.04090	1.04090 ± 0.00059	$D_{\text{M}}(z_*)/\text{Gpc}$	14.100	14.07 ± 0.32	$H(0.61)$	94.19	94.5 ± 2.3
N_{eff}	2.905	2.94 ± 0.28	z_{drag}	1058.41	1058.7 ± 2.1	$D_{\text{M}}(0.61)$	2328	2323 ± 58
H_0	67.11	67.3 ± 1.8	r_{drag}	149.67	149.3 ± 3.7	$H(2.33)$	232.3	233.0 ± 5.3
Ω_{Λ}	0.6945	0.6943 ± 0.0093	k_{D}	0.13839	0.1388 ± 0.0032	$D_{\text{M}}(2.33)$	5835	5821 ± 140
Ω_{m}	0.3055	0.3057 ± 0.0093	$100\theta_{\text{D}}$	0.16101	0.16100 ± 0.00075	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1376	0.1385 ± 0.0064	z_{eq}	3335.5	3341 ± 48	χ^2_{Cooke17}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^3$	0.0923	$0.0933^{+0.0060}_{-0.0070}$	k_{eq}	0.010084	0.01012 ± 0.00029	$\chi^2_{6\text{DF}}$	0.0001	0.059 ± 0.084
$r_{\text{drag}}h$	100.44	100.4 ± 1.2	$100\theta_{\text{eq}}$	0.8240	0.8235 ± 0.0079	χ^2_{MGS}	1.68	1.75 ± 0.72
Y_{P}	0.24330	0.2437 ± 0.0041	$100\theta_{\text{s,eq}}$	0.45532	0.4550 ± 0.0043	χ^2_{DR12BAO}	3.43	4.4 ± 1.5
$Y_{\text{P}}^{\text{BBN}}$	0.24462	0.2450 ± 0.0041	$H(0.15)$	72.25	72.5 ± 1.9	χ^2_{prior}	0.000	0.98 ± 1.4
$10^5\text{D}/\text{H}$	2.621	2.619 ± 0.095	$D_{\text{M}}(0.15)$	646.5	645 ± 17	χ^2_{BAO}	5.11	6.2 ± 1.5
Age/Gyr	13.971	13.94 ± 0.33	$H(0.38)$	82.13	82.4 ± 2.0	χ^2_{Abund}	0.01	2.0 ± 2.0
z_*	1089.91	1089.91 ± 0.65	$D_{\text{M}}(0.38)$	1543.2	1540 ± 40			

Best-fit $\chi^2_{\text{eff}} = 5.12$; $\bar{\chi}^2_{\text{eff}} = 9.22$; $R - 1 = 0.01015$

χ^2_{eff} : Abund - Yp_Aver2015: 0.01 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.43

7.114 base_nnu_BAO_Cooke17_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02195	0.02205 ± 0.00068	r_*	146.68	146.4 ± 3.3	$H(0.51)$	88.82	89.1 ± 2.1
$\Omega_{\text{c}}h^2$	0.1152	$0.1157^{+0.0054}_{-0.0061}$	$100\theta_*$	1.04125	1.04118 ± 0.00064	$D_{\text{M}}(0.51)$	1996.6	1992 ± 48
$100\theta_{\text{MC}}$	1.04093	1.04089 ± 0.00059	$D_{\text{M}}(z_*)/\text{Gpc}$	14.087	14.06 ± 0.32	$H(0.61)$	94.32	94.6 ± 2.2
N_{eff}	2.919	2.95 ± 0.27	z_{drag}	1058.48	1058.8 ± 2.1	$D_{\text{M}}(0.61)$	2324	2319 ± 55
H_0	67.24	67.4 ± 1.7	r_{drag}	149.53	149.2 ± 3.6	$H(2.33)$	232.5	233.0 ± 5.2
Ω_{Λ}	0.6954	0.6957 ± 0.0082	k_{D}	0.13849	0.1389 ± 0.0031	$D_{\text{M}}(2.33)$	5828	5816 ± 130
Ω_{m}	0.3046	0.3043 ± 0.0082	$100\theta_{\text{D}}$	0.16103	0.16097 ± 0.00073	χ^2_{Aver15}	0.000	0.96 ± 1.3
$\Omega_{\text{m}}h^2$	0.1378	$0.1384^{+0.0058}_{-0.0067}$	z_{eq}	3333.3	3336 ± 47	χ^2_{Cooke17}	0.002	0.98 ± 1.4
$\Omega_{\text{m}}h^3$	0.0926	$0.0934^{+0.0058}_{-0.0068}$	k_{eq}	0.010087	$0.01011^{+0.00027}_{-0.00030}$	χ^2_{JLA}	1034.802	1034.93 ± 0.26
$r_{\text{drag}}h$	100.55	100.6 ± 1.1	$100\theta_{\text{eq}}$	0.8245	0.8243 ± 0.0075	$\chi^2_{6\text{DF}}$	0.0002	0.049 ± 0.070
Y_{P}	0.24350	0.2438 ± 0.0039	$100\theta_{\text{s,eq}}$	0.45556	0.4554 ± 0.0041	χ^2_{MGS}	1.75	1.84 ± 0.67
$Y_{\text{P}}^{\text{BBN}}$	0.24482	0.2451 ± 0.0039	$H(0.15)$	72.39	72.6 ± 1.8	χ^2_{DR12BAO}	3.381	4.1 ± 1.1
$10^5\text{D}/\text{H}$	2.622	2.614 ± 0.093	$D_{\text{M}}(0.15)$	645.2	644 ± 16	χ^2_{prior}	0.003	0.96 ± 1.4
Age/Gyr	13.954	13.93 ± 0.32	$H(0.38)$	82.25	82.5 ± 1.9	χ^2_{BAO}	5.13	6.0 ± 1.3
z_*	1089.90	1089.85 ± 0.64	$D_{\text{M}}(0.38)$	1540.4	1537 ± 37	χ^2_{Abund}	0.00	1.9 ± 1.9

Best-fit $\chi^2_{\text{eff}} = 1039.94$; $\bar{\chi}^2_{\text{eff}} = 1043.87$; $R - 1 = 0.00476$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.38 SN - JLA Pantheon18: 1034.80

7.115 base_nnu_BAO_Cooke17Marc_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02179	0.02184 ± 0.00054	r_*	134.4	131.4 ± 8.8	$H(0.51)$	98.8	$102.0^{+7.1}_{-9.2}$
$\Omega_{\mathrm{c}}h^2$	0.1683	$0.188^{+0.036}_{-0.055}$	$100\theta_*$	1.0990	$1.110^{+0.039}_{-0.035}$	$D_{\mathrm{M}}(0.51)$	1837	1798 ± 120
$100\theta_{\mathrm{MC}}$	1.0987	$1.110^{+0.039}_{-0.035}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	12.23	$11.9^{+1.1}_{-1.3}$	$H(0.61)$	105.6	$109.2^{+8.0}_{-10}$
N_{eff}	2.945	2.97 ± 0.27	z_{drag}	1061.76	$1062.9^{+3.1}_{-3.6}$	$D_{\mathrm{M}}(0.61)$	2131	2084 ± 140
H_0	71.36	$72.8^{+3.4}_{-4.3}$	r_{drag}	137.0	134.0 ± 9.1	$H(2.33)$	271.4	283^{+27}_{-34}
Ω_{Λ}	0.626	$0.608^{+0.054}_{-0.048}$	k_{D}	0.1519	$0.1560^{+0.0098}_{-0.012}$	$D_{\mathrm{M}}(2.33)$	5183	5048 ± 430
Ω_{m}	0.374	$0.392^{+0.048}_{-0.054}$	$100\theta_{\mathrm{D}}$	0.1691	0.1708 ± 0.0053	$\chi^2_{\mathrm{Cooke17Marc}}$	0.000	0.99 ± 1.4
$\Omega_{\mathrm{m}}h^2$	0.1907	$0.211^{+0.036}_{-0.055}$	z_{eq}	4604	5067^{+900}_{-1000}	χ^2_{Aver15}	0.002	0.97 ± 1.3
$\Omega_{\mathrm{m}}h^3$	0.1361	$0.155^{+0.029}_{-0.050}$	k_{eq}	0.01396	$0.0154^{+0.0026}_{-0.0040}$	$\chi^2_{6\mathrm{DF}}$	0.202	0.42 ± 0.42
$r_{\mathrm{drag}}h$	97.75	97.2 ± 2.1	$100\theta_{\mathrm{eq}}$	0.687	$0.665^{+0.071}_{-0.091}$	χ^2_{MGS}	0.672	0.72 ± 0.66
Y_{P}	0.24376	0.2441 ± 0.0039	$100\theta_{\mathrm{s,eq}}$	0.3838	$0.372^{+0.038}_{-0.048}$	$\chi^2_{\mathrm{DR12BAO}}$	2.11	3.8 ± 1.7
$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24509	0.2454 ± 0.0039	$H(0.15)$	78.01	$79.9^{+4.3}_{-5.5}$	χ^2_{BAO}	2.98	5.0 ± 1.9
$10^5\mathrm{D}/\mathrm{H}$	2.6613	2.660 ± 0.043	$D_{\mathrm{M}}(0.15)$	603.3	592 ± 34	χ^2_{Abund}	0.00	2.0 ± 1.9
Age/Gyr	12.40	12.1 ± 1.0	$H(0.38)$	90.5	$93.3^{+6.0}_{-7.8}$			
z_*	1094.57	$1095.8^{+3.0}_{-3.7}$	$D_{\mathrm{M}}(0.38)$	1425	1396 ± 88			

Best-fit $\chi^2_{\mathrm{eff}} = 2.98$; $\bar{\chi}^2_{\mathrm{eff}} = 6.92$; $R - 1 = 0.01290$

χ^2_{eff} : Abund - D.Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.20 MGS: 0.67 DR12BAO: 2.11

7.116 base_nnu_BAO_Cooke17Marc_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02178	0.02183 ± 0.00055	r_*	145.1	144.3 ± 5.3	$H(0.51)$	90.02	$90.8^{+3.7}_{-4.2}$
$\Omega_{\mathrm{c}}h^2$	0.1211	$0.125^{+0.015}_{-0.018}$	$100\theta_*$	1.0490	1.052 ± 0.020	$D_{\mathrm{M}}(0.51)$	1975	1963 ± 77
$100\theta_{\mathrm{MC}}$	1.0486	1.052 ± 0.020	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.84	13.72 ± 0.72	$H(0.61)$	95.67	$96.6^{+4.1}_{-4.6}$
N_{eff}	2.938	2.97 ± 0.28	z_{drag}	1058.56	1058.9 ± 2.3	$D_{\mathrm{M}}(0.61)$	2298	2283 ± 91
H_0	67.79	$68.2^{+2.2}_{-2.6}$	r_{drag}	148.0	147.1 ± 5.6	$H(2.33)$	237.1	240^{+13}_{-14}
Ω_{Λ}	0.6876	0.684 ± 0.020	k_{D}	0.1399	$0.1409^{+0.0051}_{-0.0057}$	$D_{\mathrm{M}}(2.33)$	5741	5698 ± 270
Ω_{m}	0.3124	0.316 ± 0.020	$100\theta_{\mathrm{D}}$	0.16234	0.1628 ± 0.0026	$\chi^2_{\mathrm{Cooke17Marc}}$	0.000	1.0 ± 1.4
$\Omega_{\mathrm{m}}h^2$	0.1435	$0.148^{+0.015}_{-0.019}$	z_{eq}	3465	3547^{+330}_{-400}	χ^2_{Aver15}	0.00	1.0 ± 1.5
$\Omega_{\mathrm{m}}h^3$	0.0973	$0.101^{+0.012}_{-0.017}$	k_{eq}	0.01050	$0.0108^{+0.0010}_{-0.0013}$	χ^2_{JLA}	1035.10	1036.1 ± 1.8
$r_{\mathrm{drag}}h$	100.33	100.2 ± 1.2	$100\theta_{\mathrm{eq}}$	0.8065	$0.800^{+0.044}_{-0.049}$	$\chi^2_{6\mathrm{DF}}$	0.0002	0.053 ± 0.076
Y_{P}	0.24367	0.2440 ± 0.0040	$100\theta_{\mathrm{s,eq}}$	0.4464	0.443 ± 0.024	χ^2_{MGS}	1.68	1.73 ± 0.67
$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24499	0.2453 ± 0.0040	$H(0.15)$	73.10	$73.6^{+2.6}_{-2.9}$	$\chi^2_{\mathrm{DR12BAO}}$	2.98	3.9 ± 1.5
$10^5\mathrm{D}/\mathrm{H}$	2.6606	2.660 ± 0.043	$D_{\mathrm{M}}(0.15)$	639.5	636 ± 23	χ^2_{BAO}	4.66	5.7 ± 1.8
Age/Gyr	13.74	13.64 ± 0.64	$H(0.38)$	83.27	$84.0^{+3.3}_{-3.7}$	χ^2_{Abund}	0.00	2.0 ± 2.0
z_*	1090.67	$1090.9^{+1.3}_{-1.4}$	$D_{\mathrm{M}}(0.38)$	1525	1516 ± 58			

Best-fit $\chi^2_{\mathrm{eff}} = 1039.76$; $\bar{\chi}^2_{\mathrm{eff}} = 1043.83$; $R - 1 = 0.00422$

χ^2_{eff} : Abund - D.Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.98 SN - JLA Pantheon18: 1035.10

7.117 base_nnu_BAO_Cooke17Marc_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02172	0.02179 ± 0.00054	r_*	146.93	146.5 ± 3.3	$H(0.51)$	88.60	88.9 ± 2.1
$\Omega_{\text{c}}h^2$	0.1150	$0.1160^{+0.0054}_{-0.0061}$	$100\theta_*$	1.04128	1.04123 ± 0.00064	$D_{\text{M}}(0.51)$	2002.5	1998 ± 49
$100\theta_{\text{MC}}$	1.04093	1.04091 ± 0.00059	$D_{\text{M}}(z_*)/\text{Gpc}$	14.111	14.07 ± 0.32	$H(0.61)$	94.09	94.4 ± 2.2
N_{eff}	2.911	2.95 ± 0.28	z_{drag}	1057.95	1058.2 ± 1.9	$D_{\text{M}}(0.61)$	2331	2326 ± 56
H_0	67.01	67.2 ± 1.7	r_{drag}	149.86	149.4 ± 3.6	$H(2.33)$	232.2	233.0 ± 5.3
Ω_{Λ}	0.6940	0.6933 ± 0.0092	k_{D}	0.13801	0.1385 ± 0.0030	$D_{\text{M}}(2.33)$	5841	5826 ± 130
Ω_{m}	0.3060	0.3067 ± 0.0092	$100\theta_{\text{D}}$	0.161314	0.16133 ± 0.00038	$\chi^2_{\text{Cooke17Marc}}$	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1374	$0.1384^{+0.0059}_{-0.0066}$	z_{eq}	3328.7	3335 ± 47	χ^2_{Aver15}	0.006	0.98 ± 1.4
$\Omega_{\text{m}}h^3$	0.0921	$0.0931^{+0.0059}_{-0.0067}$	k_{eq}	0.010067	0.01011 ± 0.00029	$\chi^2_{6\text{DF}}$	0.0001	0.061 ± 0.086
$r_{\text{drag}}h$	100.43	100.3 ± 1.2	$100\theta_{\text{eq}}$	0.8248	0.8239 ± 0.0079	χ^2_{MGS}	1.68	1.71 ± 0.72
Y_{P}	0.24327	0.2438 ± 0.0040	$100\theta_{\text{s,eq}}$	0.45586	0.4553 ± 0.0043	χ^2_{DR12BAO}	3.40	4.4 ± 1.6
$Y_{\text{P}}^{\text{BBN}}$	0.24459	0.2451 ± 0.0040	$H(0.15)$	72.16	72.4 ± 1.8	χ^2_{prior}	0.003	0.98 ± 1.5
$10^5\text{D}/\text{H}$	2.6615	2.662 ± 0.043	$D_{\text{M}}(0.15)$	647.3	646 ± 16	χ^2_{BAO}	5.08	6.2 ± 1.5
Age/Gyr	13.984	13.95 ± 0.32	$H(0.38)$	82.03	82.3 ± 2.0	χ^2_{Abund}	0.01	2.0 ± 2.0
z_*	1090.171	1090.20 ± 0.35	$D_{\text{M}}(0.38)$	1545.2	1542 ± 38			

Best-fit $\chi^2_{\text{eff}} = 5.09$; $\bar{\chi}^2_{\text{eff}} = 9.16$; $R - 1 = 0.00593$
 χ^2_{eff} : Abund - D_Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.01 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.40

7.118 base_nnu_BAO_Cooke17Marc_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02177	0.02181 ± 0.00054	r_*	146.63	146.5 ± 3.3	$H(0.51)$	88.78	88.9 ± 2.1
$\Omega_{\text{c}}h^2$	0.1155	0.1159 ± 0.0058	$100\theta_*$	1.04122	1.04122 ± 0.00065	$D_{\text{M}}(0.51)$	1998.2	1996 ± 49
$100\theta_{\text{MC}}$	1.04089	1.04091 ± 0.00060	$D_{\text{M}}(z_*)/\text{Gpc}$	14.082	14.07 ± 0.32	$H(0.61)$	94.29	94.4 ± 2.2
N_{eff}	2.937	2.95 ± 0.28	z_{drag}	1058.10	1058.2 ± 1.9	$D_{\text{M}}(0.61)$	2326	2323 ± 56
H_0	67.16	67.3 ± 1.7	r_{drag}	149.54	149.4 ± 3.6	$H(2.33)$	232.6	232.9 ± 5.3
Ω_{Λ}	0.6941	0.6945 ± 0.0084	k_{D}	0.13828	0.1385 ± 0.0030	$D_{\text{M}}(2.33)$	5829	5823 ± 130
Ω_{m}	0.3059	0.3055 ± 0.0084	$100\theta_{\text{D}}$	0.161332	0.16133 ± 0.00038	$\chi^2_{\text{Cooke17Marc}}$	0.002	0.98 ± 1.4
$\Omega_{\text{m}}h^2$	0.1380	0.1383 ± 0.0063	z_{eq}	3330.1	3331 ± 44	χ^2_{Aver15}	0.000	0.99 ± 1.4
$\Omega_{\text{m}}h^3$	0.0927	0.0932 ± 0.0064	k_{eq}	0.010089	0.01010 ± 0.00028	χ^2_{JLA}	1034.833	1034.96 ± 0.29
$r_{\text{drag}}h$	100.43	100.5 ± 1.1	$100\theta_{\text{eq}}$	0.8246	$0.8247^{+0.0069}_{-0.0079}$	$\chi^2_{6\text{DF}}$	0.0001	0.050 ± 0.070
Y_{P}	0.24365	0.2438 ± 0.0040	$100\theta_{\text{s,eq}}$	0.45574	$0.4558^{+0.0038}_{-0.0043}$	χ^2_{MGS}	1.68	1.79 ± 0.68
$Y_{\text{P}}^{\text{BBN}}$	0.24497	0.2452 ± 0.0040	$H(0.15)$	72.32	72.5 ± 1.8	χ^2_{DR12BAO}	3.41	4.2 ± 1.2
$10^5\text{D}/\text{H}$	2.6625	2.660 ± 0.042	$D_{\text{M}}(0.15)$	645.9	645 ± 16	χ^2_{prior}	0.00	1.0 ± 1.4
Age/Gyr	13.955	13.94 ± 0.32	$H(0.38)$	82.21	82.4 ± 2.0	χ^2_{BAO}	5.09	6.0 ± 1.3
z_*	1090.186	1090.17 ± 0.34	$D_{\text{M}}(0.38)$	1541.8	1540 ± 38	χ^2_{Abund}	0.00	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 1039.92$; $\bar{\chi}^2_{\text{eff}} = 1043.97$; $R - 1 = 0.00670$
 χ^2_{eff} : Abund - D_Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.41 SN - JLA Pantheon18: 1034.83

7.119 base_nnu_BAO_Cooke17Adel_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02246	0.02254 ± 0.00064	r_*	136.5	130.6 ± 9.1	$H(0.51)$	96.8	$102.8^{+7.3}_{-9.7}$
$\Omega_{\text{c}}h^2$	0.1561	$0.191^{+0.036}_{-0.058}$	$100\theta_*$	1.0873	1.112 ± 0.038	$D_{\text{M}}(0.51)$	1864	1784 ± 120
$100\theta_{\text{MC}}$	1.0871	1.112 ± 0.038	$D_{\text{M}}(z_*)/\text{Gpc}$	12.56	$11.8^{+1.1}_{-1.3}$	$H(0.61)$	103.4	$110.1^{+8.2}_{-11}$
N_{eff}	2.919	2.95 ± 0.28	z_{drag}	1062.49	1064.6 ± 3.6	$D_{\text{M}}(0.61)$	2164	2068 ± 150
H_0	70.71	$73.4^{+3.6}_{-4.4}$	r_{drag}	139.0	132.9 ± 9.4	$H(2.33)$	263.5	285^{+27}_{-36}
Ω_{Λ}	0.641	$0.608^{+0.057}_{-0.047}$	k_{D}	0.1504	$0.158^{+0.010}_{-0.013}$	$D_{\text{M}}(2.33)$	5296	5009 ± 440
Ω_{m}	0.359	$0.392^{+0.047}_{-0.057}$	$100\theta_{\text{D}}$	0.1664	0.1699 ± 0.0053	$\chi^2_{\text{Cooke17Adel}}$	0.000	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1792	$0.214^{+0.036}_{-0.058}$	z_{eq}	4342	5170^{+900}_{-1000}	χ^2_{Aver15}	0.00	1.0 ± 1.5
$\Omega_{\text{m}}h^3$	0.1267	$0.159^{+0.030}_{-0.054}$	k_{eq}	0.01314	$0.0157^{+0.0026}_{-0.0042}$	$\chi^2_{6\text{DF}}$	0.137	0.42 ± 0.43
$r_{\text{drag}}h$	98.26	97.2 ± 2.1	$100\theta_{\text{eq}}$	0.710	$0.659^{+0.074}_{-0.092}$	χ^2_{MGS}	0.820	0.72 ± 0.66
Y_{P}	0.24371	0.2441 ± 0.0040	$100\theta_{\text{s,eq}}$	0.3959	$0.368^{+0.040}_{-0.048}$	χ^2_{DR12BAO}	2.18	3.9 ± 1.7
$Y_{\text{P}}^{\text{BBN}}$	0.24504	0.2454 ± 0.0041	$H(0.15)$	77.0	$80.6^{+4.5}_{-5.8}$	χ^2_{BAO}	3.14	5.0 ± 1.9
$10^5\text{D}/\text{H}$	2.526	2.523 ± 0.067	$D_{\text{M}}(0.15)$	610.0	587 ± 35	χ^2_{Abund}	0.00	2.0 ± 2.1
Age/Gyr	12.67	12.0 ± 1.1	$H(0.38)$	89.0	$94.0^{+6.2}_{-8.2}$			
z_*	1092.65	$1095.0^{+3.0}_{-3.8}$	$D_{\text{M}}(0.38)$	1444	1385 ± 91			

Best-fit $\chi^2_{\text{eff}} = 3.14$; $\bar{\chi}^2_{\text{eff}} = 7.04$; $R - 1 = 0.00760$

χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.14 MGS: 0.82 DR12BAO: 2.18

7.120 base_nnu_BAO_Cooke17Adel_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02245	$0.02252^{+0.00058}_{-0.00066}$	r_*	144.42	143.9 ± 4.9	$H(0.51)$	90.61	91.1 ± 3.7
$\Omega_{\text{c}}h^2$	0.1223	$0.125^{+0.015}_{-0.017}$	$100\theta_*$	1.0505	1.052 ± 0.019	$D_{\text{M}}(0.51)$	1962	1954 ± 71
$100\theta_{\text{MC}}$	1.0503	1.052 ± 0.019	$D_{\text{M}}(z_*)/\text{Gpc}$	13.75	$13.69^{+0.62}_{-0.71}$	$H(0.61)$	96.30	96.9 ± 4.1
N_{eff}	2.916	2.94 ± 0.27	z_{drag}	1060.20	1060.5 ± 2.3	$D_{\text{M}}(0.61)$	2283	2274 ± 84
H_0	68.23	68.6 ± 2.3	r_{drag}	147.0	146.5 ± 5.1	$H(2.33)$	238.6	240 ± 12
Ω_{Λ}	0.6877	0.686 ± 0.019	k_{D}	0.1415	0.1422 ± 0.0051	$D_{\text{M}}(2.33)$	5704	5680^{+230}_{-260}
Ω_{m}	0.3123	0.314 ± 0.019	$100\theta_{\text{D}}$	0.16152	0.1617 ± 0.0025	$\chi^2_{\text{Cooke17Adel}}$	0.000	0.96 ± 1.4
$\Omega_{\text{m}}h^2$	0.1454	$0.148^{+0.015}_{-0.017}$	z_{eq}	3521	3570 ± 350	χ^2_{Aver15}	0.001	0.97 ± 1.4
$\Omega_{\text{m}}h^3$	0.0992	$0.102^{+0.012}_{-0.015}$	k_{eq}	0.01065	0.0108 ± 0.0011	χ^2_{JLA}	1035.10	1035.9 ± 1.5
$r_{\text{drag}}h$	100.33	100.3 ± 1.1	$100\theta_{\text{eq}}$	0.8000	$0.798^{+0.040}_{-0.048}$	$\chi^2_{6\text{DF}}$	0.0002	0.049 ± 0.071
Y_{P}	0.24368	0.2439 ± 0.0039	$100\theta_{\text{s,eq}}$	0.4426	$0.441^{+0.021}_{-0.025}$	χ^2_{MGS}	1.68	1.77 ± 0.65
$Y_{\text{P}}^{\text{BBN}}$	0.24500	0.2452 ± 0.0039	$H(0.15)$	73.58	74.0 ± 2.6	χ^2_{DR12BAO}	2.98	3.9 ± 1.5
$10^5\text{D}/\text{H}$	2.526	2.522 ± 0.065	$D_{\text{M}}(0.15)$	635.3	633 ± 21	χ^2_{BAO}	4.66	5.8 ± 1.7
Age/Gyr	13.66	$13.60^{+0.55}_{-0.63}$	$H(0.38)$	83.81	84.3 ± 3.3	χ^2_{Abund}	0.00	1.9 ± 1.9
z_*	1089.90	1090.0 ± 1.3	$D_{\text{M}}(0.38)$	1515	1509 ± 54			

Best-fit $\chi^2_{\text{eff}} = 1039.76$; $\bar{\chi}^2_{\text{eff}} = 1043.57$; $R - 1 = 0.00588$

χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.98 SN - JLA Pantheon18: 1035.10

7.121 base_nnu_BAO_Cooke17Adel_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02242	0.02250 ± 0.00065	r_*	146.38	146.1 ± 3.5	$H(0.51)$	89.01	89.2 ± 2.2
$\Omega_{\text{c}}h^2$	0.1152	0.1159 ± 0.0061	$100\theta_*$	1.04121	1.04115 ± 0.00066	$D_{\text{M}}(0.51)$	1992	1988 ± 51
$100\theta_{\text{MC}}$	1.04094	1.04089 ± 0.00061	$D_{\text{M}}(z_*)/\text{Gpc}$	14.059	14.03 ± 0.33	$H(0.61)$	94.51	94.8 ± 2.3
N_{eff}	2.901	2.93 ± 0.29	z_{drag}	1059.59	1059.8 ± 2.1	$D_{\text{M}}(0.61)$	2319	2315 ± 59
H_0	67.39	67.6 ± 1.8	r_{drag}	149.06	148.7 ± 3.7	$H(2.33)$	233.0	233.5 ± 5.5
Ω_{Λ}	0.6954	0.6955 ± 0.0089	k_{D}	0.13941	0.1398 ± 0.0032	$D_{\text{M}}(2.33)$	5815	5804 ± 140
Ω_{m}	0.3046	0.3045 ± 0.0089	$100\theta_{\text{D}}$	0.16029	0.16028 ± 0.00055	$\chi^2_{\text{Cooke17Adel}}$	0.000	0.99 ± 1.4
$\Omega_{\text{m}}h^2$	0.1383	0.1391 ± 0.0066	z_{eq}	3355.1	3358 ± 49	χ^2_{Aver15}	0.00	1.1 ± 1.5
$\Omega_{\text{m}}h^3$	0.0932	$0.0941^{+0.0062}_{-0.0071}$	k_{eq}	0.010140	0.01017 ± 0.00030	$\chi^2_{6\text{DF}}$	0.0001	0.056 ± 0.079
$r_{\text{drag}}h$	100.45	100.5 ± 1.2	$100\theta_{\text{eq}}$	0.8219	0.8216 ± 0.0079	χ^2_{MGS}	1.68	1.76 ± 0.71
Y_{P}	0.24346	0.2438 ± 0.0041	$100\theta_{\text{s,eq}}$	0.45381	0.4536 ± 0.0043	χ^2_{DR12BAO}	3.51	4.4 ± 1.4
$Y_{\text{P}}^{\text{BBN}}$	0.24478	0.2451 ± 0.0041	$H(0.15)$	72.54	72.7 ± 1.9	χ^2_{prior}	0.00	1.0 ± 1.5
$10^5\text{D}/\text{H}$	2.526	2.524 ± 0.067	$D_{\text{M}}(0.15)$	643.8	643 ± 17	χ^2_{BAO}	5.19	6.2 ± 1.4
Age/Gyr	13.924	13.90 ± 0.34	$H(0.38)$	82.43	82.6 ± 2.1	χ^2_{Abund}	0.00	2.1 ± 2.1
z_*	1089.299	1089.28 ± 0.48	$D_{\text{M}}(0.38)$	1537.1	1534 ± 40			

Best-fit $\chi^2_{\text{eff}} = 5.19$; $\bar{\chi}^2_{\text{eff}} = 9.33$; $R - 1 = 0.00415$
 χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.51

7.122 base_nnu_BAO_Cooke17Adel_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02241	0.02252 ± 0.00064	r_*	146.56	$146.0^{+3.2}_{-3.5}$	$H(0.51)$	88.94	89.3 ± 2.1
$\Omega_{\text{c}}h^2$	0.1148	0.1159 ± 0.0059	$100\theta_*$	1.04119	1.04114 ± 0.00064	$D_{\text{M}}(0.51)$	1993.2	1986 ± 49
$100\theta_{\text{MC}}$	1.04090	1.04090 ± 0.00060	$D_{\text{M}}(z_*)/\text{Gpc}$	14.077	$14.03^{+0.30}_{-0.34}$	$H(0.61)$	94.43	94.8 ± 2.2
N_{eff}	2.889	2.94 ± 0.28	z_{drag}	1059.51	1059.9 ± 2.0	$D_{\text{M}}(0.61)$	2320	2313 ± 56
H_0	67.38	67.6 ± 1.7	r_{drag}	149.25	$148.7^{+3.4}_{-3.8}$	$H(2.33)$	232.6	233.6 ± 5.4
Ω_{Λ}	0.6963	0.6961 ± 0.0081	k_{D}	0.13925	0.1398 ± 0.0031	$D_{\text{M}}(2.33)$	5821	5801 ± 140
Ω_{m}	0.3037	0.3039 ± 0.0081	$100\theta_{\text{D}}$	0.16027	0.16028 ± 0.00054	$\chi^2_{\text{Cooke17Adel}}$	0.001	0.98 ± 1.4
$\Omega_{\text{m}}h^2$	0.1379	0.1391 ± 0.0064	z_{eq}	3350.0	3357 ± 46	χ^2_{Aver15}	0.005	0.99 ± 1.4
$\Omega_{\text{m}}h^3$	0.0929	0.0942 ± 0.0065	k_{eq}	0.010117	0.01017 ± 0.00029	χ^2_{JLA}	1034.781	1034.92 ± 0.25
$r_{\text{drag}}h$	100.56	100.5 ± 1.1	$100\theta_{\text{eq}}$	0.8227	0.8219 ± 0.0074	$\chi^2_{6\text{DF}}$	0.0003	0.047 ± 0.066
Y_{P}	0.24329	0.2439 ± 0.0040	$100\theta_{\text{s,eq}}$	0.45426	0.4538 ± 0.0041	χ^2_{MGS}	1.75	1.80 ± 0.65
$Y_{\text{P}}^{\text{BBN}}$	0.24461	0.2452 ± 0.0040	$H(0.15)$	72.52	72.8 ± 1.8	χ^2_{DR12BAO}	3.45	4.2 ± 1.2
$10^5\text{D}/\text{H}$	2.525	2.523 ± 0.066	$D_{\text{M}}(0.15)$	644.0	642 ± 16	χ^2_{prior}	0.000	0.99 ± 1.3
Age/Gyr	13.937	$13.89^{+0.30}_{-0.34}$	$H(0.38)$	82.38	82.7 ± 2.0	χ^2_{BAO}	5.20	6.1 ± 1.2
z_*	1089.266	1089.27 ± 0.47	$D_{\text{M}}(0.38)$	1537.7	1533 ± 38	χ^2_{Abund}	0.01	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 1039.99$; $\bar{\chi}^2_{\text{eff}} = 1043.96$; $R - 1 = 0.00918$
 χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.01 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.45 SN - JLA Pantheon18: 1034.78

8 nnu+meffsterile

8.1 base_nnu_meffsterile_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022161	0.02223 ± 0.00023 (+0.5 σ)	S_8	0.8374	$0.816^{+0.030}_{-0.026}$ (−1.0 σ)	$100\theta_{s,eq}$	0.4490	$0.4547^{+0.0044}_{-0.0080}$ (+1.4 σ)
$\Omega_c h^2$	0.12031	$0.1215^{+0.0041}_{-0.0032}$ (+0.4 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4587	$0.447^{+0.017}_{-0.014}$ (−1.0 σ)	$H(0.15)$	72.33	$72.52^{+0.85}_{-1.4}$ (+0.3 σ)
$100\theta_{MC}$	1.04072	1.04053 ± 0.00051 (−0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6101	$0.591^{+0.023}_{-0.015}$ (−1.7 σ)	$D_M(0.15)$	646.8	$646^{+13}_{-9.3}$ (−0.2 σ)
τ	0.0529	0.0525 ± 0.0080 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9918	$0.953^{+0.039}_{-0.023}$ (−2.5 σ)	$H(0.38)$	82.57	$83.02^{+0.54}_{-1.2}$ (+0.9 σ)
$m_{\nu, sterile}^{eff}$ [eV]	0.011	< 0.335	$r_{drag}h$	98.58	97.5 ± 2.1 (−0.6 σ)	$D_M(0.38)$	1540.7	1537^{+28}_{-18} (−0.4 σ)
N_{eff}	3.046	$3.223^{+0.041}_{-0.18}$	$\langle d^2 \rangle^{1/2}$	2.4513	2.448 ± 0.041 (−0.2 σ)	$H(0.51)$	89.36	$89.97^{+0.40}_{-1.1}$ (+1.5 σ)
$\ln(10^{10} A_s)$	3.0415	3.047 ± 0.017 (+0.4 σ)	z_{re}	7.59	7.60 ± 0.83 (+0.1 σ)	$D_M(0.51)$	1994.6	1988^{+34}_{-20} (−0.5 σ)
n_s	0.9637	$0.9657^{+0.0071}_{-0.0096}$ (+0.5 σ)	$10^9 A_s$	2.0936	2.105 ± 0.037 (+0.4 σ)	$H(0.61)$	95.04	$95.77^{+0.33}_{-1.1}$ (+2.2 σ)
y_{cal}	1.00030	1.0005 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8833	1.895 ± 0.016 (+0.8 σ)	$D_M(0.61)$	2320.0	2311^{+38}_{-21} (−0.6 σ)
A_{217}^{CIB}	48.9	49 ± 7 (+0.1 σ)	D_{40}	1231.0	1228 ± 19 (−0.4 σ)	$H(2.33)$	236.62	$239.8^{+1.9}_{-3.0}$ (+2.4 σ)
$\xi^{tSZ \times CIB}$	0.30	—	D_{220}	5711.9	5712 ± 41 (−0.0 σ)	$D_M(2.33)$	5776.1	5729^{+62}_{-19} (−3.0 σ)
A_{143}^{tSZ}	7.00	4.8 ± 2.0 (−0.1 σ)	D_{810}	2537.4	2539 ± 14 (+0.2 σ)	$f\sigma_8(0.15)$	0.4626	$0.451^{+0.017}_{-0.013}$ (−1.1 σ)
A_{100}^{PS}	254.4	269 ± 28 (+0.2 σ)	D_{1420}	815.1	813.2 ± 5.2 (−0.2 σ)	$\sigma_8(0.15)$	0.7492	$0.719^{+0.033}_{-0.018}$ (−4.0 σ)
A_{143}^{PS}	49.4	52 ± 8 (+0.4 σ)	D_{2000}	229.95	228.2 ± 2.0 (−0.8 σ)	$f\sigma_8(0.38)$	0.4792	$0.465^{+0.018}_{-0.012}$ (−1.6 σ)
$A_{143 \times 217}^{PS}$	46.5	45^{+9}_{-10} (+0.1 σ)	$n_{s,0.002}$	0.9637	$0.9657^{+0.0071}_{-0.0096}$ (+0.5 σ)	$\sigma_8(0.38)$	0.6632	$0.636^{+0.030}_{-0.017}$ (−4.5 σ)
A_{217}^{PS}	119.0	116 ± 10 (+0.0 σ)	Y_P	0.24531	$0.24765^{+0.00069}_{-0.0023}$ (+24.2 σ)	$f\sigma_8(0.51)$	0.4769	$0.461^{+0.018}_{-0.011}$ (−2.0 σ)
A^{kSZ}	0.02	< 5.54 (+0.2 σ)	Y_P^{BBN}	0.24664	$0.24899^{+0.00070}_{-0.0023}$ (+24.2 σ)	$\sigma_8(0.51)$	0.6203	$0.595^{+0.029}_{-0.016}$ (−4.7 σ)
A_{100}^{dustTT}	8.78	9.0 ± 1.8 (+0.0 σ)	$10^5 D/H$	2.625	$2.675^{+0.047}_{-0.056}$ (+1.0 σ)	$f\sigma_8(0.61)$	0.4712	$0.455^{+0.019}_{-0.011}$ (−2.3 σ)
A_{143}^{dustTT}	10.77	10.8 ± 1.8 (+0.0 σ)	Age/Gyr	13.826	$13.71^{+0.15}_{-0.045}$ (−3.2 σ)	$\sigma_8(0.61)$	0.5900	$0.565^{+0.028}_{-0.016}$ (−4.8 σ)
$A_{143 \times 217}^{dustTT}$	19.31	18.4 ± 3.3 (+0.0 σ)	z_*	1090.224	1090.63 ± 0.47 (+0.8 σ)	$f\sigma_8(2.33)$	0.2972	$0.285^{+0.014}_{-0.0080}$ (−4.7 σ)
A_{217}^{dustTT}	94.4	93.1 ± 7.4 (−0.0 σ)	r_*	144.48	$142.8^{+1.7}_{-0.84}$ (−3.5 σ)	$\sigma_8(2.33)$	0.3060	$0.293^{+0.015}_{-0.0088}$ (−4.9 σ)
c_{100}	0.99962	0.99960 ± 0.00061 (−0.0 σ)	$100\theta_*$	1.04093	1.04064 ± 0.00054 (−0.7 σ)	f_{2000}^{143}	30.40	33.1 ± 3.2 (+0.6 σ)
c_{217}	0.99823	0.99829 ± 0.00062 (+0.0 σ)	$D_M(z_*)/Gpc$	13.880	$13.72^{+0.15}_{-0.079}$ (−3.6 σ)	$f_{2000}^{143 \times 217}$	33.22	35.1 ± 2.3 (+0.7 σ)
H_0	66.97	$67.0^{+1.1}_{-1.5}$ (+0.1 σ)	z_{drag}	1059.47	$1060.03^{+0.56}_{-0.71}$ (+1.4 σ)	f_{2000}^{217}	107.62	109.5 ± 2.1 (+0.7 σ)
Ω_Λ	0.6806	$0.671^{+0.019}_{-0.016}$ (−0.6 σ)	r_{drag}	147.21	$145.5^{+1.7}_{-0.86}$ (−3.6 σ)	χ_{simall}^2	395.94	397.0 ± 1.8 (+0.0 σ)
Ω_m	0.3194	$0.329^{+0.016}_{-0.019}$ (+0.6 σ)	k_D	0.14058	$0.14192^{+0.00080}_{-0.0013}$ (+2.6 σ)	χ_{lowl}^2	23.58	23.5 ± 1.6 (−0.3 σ)
$\Omega_m h^2$	0.14324	$0.1474^{+0.0027}_{-0.0041}$ (+2.0 σ)	$100\theta_D$	0.161005	$0.16135^{+0.00031}_{-0.00047}$ (+1.0 σ)	χ_{plik}^2	758.8	774.5 ± 5.9 (+0.6 σ)
$\Omega_\nu h^2$	0.00077	$0.00372^{+0.00083}_{-0.0031}$	z_{eq}	3405	3355^{+73}_{-47} (−1.2 σ)	χ_{prior}^2	1.36	7.4 ± 3.7 (+0.0 σ)
$\Omega_m h^3$	0.09592	$0.09878^{+0.00095}_{-0.0031}$ (+6.3 σ)	k_{eq}	0.010393	$0.01039^{+0.00022}_{-0.00016}$ (−0.1 σ)	χ_{CMB}^2	1178.3	1195.0 ± 5.9 (+0.5 σ)
σ_8	0.8116	$0.780^{+0.035}_{-0.019}$ (−3.5 σ)	$100\theta_{eq}$	0.8122	$0.8232^{+0.0085}_{-0.015}$ (+1.4 σ)			

Best-fit $\chi_{eff}^2 = 1179.66$; $\Delta\chi_{eff}^2 = 0.08$; $\bar{\chi}_{eff}^2 = 1202.36$; $\Delta\bar{\chi}_{eff}^2 = 2.79$; $R - 1 = 0.01778$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.94 (Δ 0.06) commander_dx12_v3.2.29: 23.58 (Δ -0.02) plik_rd12_HM_v22_TT: 758.77 (Δ 0.03)

8.2 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022210	0.02221 ± 0.00022 (+0.4 σ)	S_8	0.8311	$0.819^{+0.023}_{-0.018}$ (−1.0 σ)	$100\theta_{s,eq}$	0.46004	$0.4541^{+0.0030}_{-0.0067}$ (+1.4 σ)
$\Omega_c h^2$	0.11605	$0.1216^{+0.0038}_{-0.0029}$ (+0.9 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4552	$0.448^{+0.013}_{-0.010}$ (−1.0 σ)	$H(0.15)$	72.55	$72.37^{+0.69}_{-1.1}$ (−0.1 σ)
$100\theta_{MC}$	1.04082	1.04053 ± 0.00050 (−0.6 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6073	$0.592^{+0.019}_{-0.012}$ (−2.2 σ)	$D_M(0.15)$	644.5	$647^{+11}_{-7.6}$ (+0.2 σ)
τ	0.0541	0.0529 ± 0.0077 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9880	$0.955^{+0.032}_{-0.018}$ (−3.4 σ)	$H(0.38)$	82.74	$82.89^{+0.43}_{-0.98}$ (+0.6 σ)
$m_{\nu, sterile}^{eff}$ [eV]	0.361	< 0.333	$r_{drag}h$	99.03	$97.3^{+1.9}_{-1.7}$ (−1.2 σ)	$D_M(0.38)$	1536.1	1539^{+23}_{-14} (+0.0 σ)
N_{eff}	3.047	$3.210^{+0.039}_{-0.16}$	$\langle d^2 \rangle^{1/2}$	2.4443	2.453 ± 0.029 (+0.2 σ)	$H(0.51)$	89.49	$89.85^{+0.32}_{-0.92}$ (+1.3 σ)
$\ln(10^{10} A_s)$	3.0425	3.048 ± 0.016 (+0.5 σ)	z_{re}	7.70	7.63 ± 0.80 (+0.1 σ)	$D_M(0.51)$	1989.2	1991^{+28}_{-16} (−0.1 σ)
n_s	0.9653	$0.9647^{+0.0061}_{-0.0079}$ (+0.3 σ)	$10^9 A_s$	2.0958	$2.107^{+0.031}_{-0.035}$ (+0.5 σ)	$H(0.61)$	95.14	$95.65^{+0.28}_{-0.91}$ (+2.0 σ)
y_{cal}	1.00022	1.0005 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8808	$1.895^{+0.013}_{-0.016}$ (+1.1 σ)	$D_M(0.61)$	2314.2	2315^{+31}_{-17} (−0.2 σ)
A_{217}^{CIB}	48.4	49 ± 7 (+0.1 σ)	D_{40}	1227.7	1230 ± 15 (−0.2 σ)	$H(2.33)$	236.32	$239.7^{+1.7}_{-2.9}$ (+3.5 σ)
$\xi^{tSZ \times CIB}$	0.34	—	D_{220}	5713.1	5714 ± 41 (−0.0 σ)	$D_M(2.33)$	5771.4	5735^{+52}_{-16} (−2.8 σ)
A_{143}^{tSZ}	7.00	4.8 ± 2.0 (−0.1 σ)	D_{810}	2536.9	2539 ± 14 (+0.2 σ)	$f\sigma_8(0.15)$	0.4595	$0.452^{+0.013}_{-0.0096}$ (−1.2 σ)
A_{100}^{PS}	253.0	269 ± 28 (+0.2 σ)	D_{1420}	815.6	813.3 ± 5.2 (−0.2 σ)	$\sigma_8(0.15)$	0.7481	$0.720^{+0.029}_{-0.017}$ (−5.1 σ)
A_{143}^{PS}	49.0	52 ± 8 (+0.4 σ)	D_{2000}	230.21	228.3 ± 2.0 (−0.7 σ)	$f\sigma_8(0.38)$	0.4768	$0.465^{+0.015}_{-0.0091}$ (−2.0 σ)
$A_{143 \times 217}^{PS}$	47.0	45^{+9}_{-10} (+0.2 σ)	$n_{s,0.002}$	0.9653	$0.9647^{+0.0061}_{-0.0079}$ (+0.3 σ)	$\sigma_8(0.38)$	0.6627	$0.636^{+0.027}_{-0.016}$ (−5.4 σ)
A_{217}^{PS}	119.3	116 ± 10 (+0.1 σ)	Y_P	0.24535	$0.24748^{+0.00065}_{-0.0020}$ (+24.4 σ)	$f\sigma_8(0.51)$	0.4749	$0.462^{+0.015}_{-0.0090}$ (−2.6 σ)
A^{kSZ}	0.02	< 5.46 (+0.1 σ)	Y_P^{BBN}	0.24667	$0.24881^{+0.00065}_{-0.0020}$ (+24.4 σ)	$\sigma_8(0.51)$	0.6200	$0.595^{+0.025}_{-0.016}$ (−5.4 σ)
A_{100}^{dustTT}	8.90	9.0 ± 1.8 (+0.0 σ)	$10^5 D/H$	2.616	$2.673^{+0.046}_{-0.056}$ (+1.1 σ)	$f\sigma_8(0.61)$	0.4696	$0.456^{+0.016}_{-0.0090}$ (−3.0 σ)
A_{143}^{dustTT}	10.87	10.8 ± 1.8 (+0.0 σ)	Age/Gyr	13.816	$13.73^{+0.12}_{-0.039}$ (−3.1 σ)	$\sigma_8(0.61)$	0.5898	$0.565^{+0.024}_{-0.015}$ (−5.4 σ)
$A_{143 \times 217}^{dustTT}$	19.37	18.4 ± 3.3 (+0.0 σ)	z_*	1090.112	$1090.63^{+0.40}_{-0.47}$ (+1.2 σ)	$f\sigma_8(2.33)$	0.2972	$0.285^{+0.012}_{-0.0078}$ (−5.1 σ)
A_{217}^{dustTT}	94.5	93.2 ± 7.4 (−0.0 σ)	r_*	144.58	$142.9^{+1.6}_{-0.78}$ (−4.7 σ)	$\sigma_8(2.33)$	0.3062	$0.293^{+0.013}_{-0.0086}$ (−5.1 σ)
c_{100}	0.99964	0.99960 ± 0.00061 (−0.0 σ)	$100\theta_*$	1.04102	1.04065 ± 0.00053 (−0.8 σ)	f_{2000}^{143}	29.97	33.0 ± 3.2 (+0.6 σ)
c_{217}	0.99824	0.99829 ± 0.00062 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.888	$13.73^{+0.14}_{-0.073}$ (−4.6 σ)	$f_{2000}^{143 \times 217}$	32.94	35.0 ± 2.2 (+0.7 σ)
H_0	67.23	$66.84^{+0.87}_{-1.2}$ (−0.3 σ)	z_{drag}	1059.55	$1059.99^{+0.54}_{-0.65}$ (+1.3 σ)	f_{2000}^{217}	107.36	109.5 ± 2.1 (+0.7 σ)
Ω_Λ	0.6842	$0.670^{+0.017}_{-0.013}$ (−1.3 σ)	r_{drag}	147.30	$145.5^{+1.6}_{-0.80}$ (−4.7 σ)	$\chi_{lensing}^2$	8.88	9.27 ± 0.94 (−0.2 σ)
Ω_m	0.3158	$0.330^{+0.013}_{-0.017}$ (+1.3 σ)	k_D	0.14052	$0.14187^{+0.00075}_{-0.0013}$ (+3.1 σ)	χ_{small}^2	396	502 ± 200 (+65.7 σ)
$\Omega_m h^2$	0.14274	$0.1474^{+0.0024}_{-0.0040}$ (+3.0 σ)	$100\theta_D$	0.160971	$0.16132^{+0.00030}_{-0.00044}$ (+1.0 σ)	χ_{lowl}^2	23.29	23.6 ± 1.3 (−0.1 σ)
$\Omega_\nu h^2$	0.00449	$0.00366^{+0.00080}_{-0.0030}$	z_{eq}	3303.3	3362^{+62}_{-33} (−1.1 σ)	χ_{plik}^2	759	668 ± 200 (−19.7 σ)
$\Omega_m h^3$	0.09597	$0.09853^{+0.00091}_{-0.0027}$ (+5.9 σ)	k_{eq}	0.010152	$0.01041^{+0.00020}_{-0.00013}$ (+0.2 σ)	χ_{prior}^2	1.35	7.3 ± 3.7 (+0.0 σ)
σ_8	0.8101	$0.781^{+0.030}_{-0.018}$ (−4.7 σ)	$100\theta_{eq}$	0.8333	$0.8219^{+0.0059}_{-0.013}$ (+1.4 σ)	χ_{CMB}^2	1187.2	1203.6 ± 5.9 (+0.5 σ)

Best-fit $\chi_{eff}^2 = 1188.51$; $\Delta\chi_{eff}^2 = -0.06$; $\bar{\chi}_{eff}^2 = 1210.94$; $\Delta\bar{\chi}_{eff}^2 = 2.53$; $R - 1 = 0.01963$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 (Δ -0.02) simall_100x143_offlike5_EE_Aplanck_B: 396.04 (Δ 0.18) commander_dx12_v3.2.29: 23.29 (Δ 0.06) plik_rd12_HM_v22.TT: 758.94 (Δ -0.38)

8.3 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02223 \pm 0.00023 \quad (+0.5\sigma)$	S_8	$0.817^{+0.030}_{-0.026} \quad (-1.0\sigma)$	$100\theta_{s,eq}$	$0.4549^{+0.0043}_{-0.0079} \quad (+1.4\sigma)$
$\Omega_c h^2$	$0.1215^{+0.0041}_{-0.0032} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.447^{+0.016}_{-0.014} \quad (-1.0\sigma)$	$H(0.15)$	$72.56^{+0.86}_{-1.4} \quad (+0.4\sigma)$
$100\theta_{MC}$	$1.04053 \pm 0.00051 \quad (-0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.023}_{-0.015} \quad (-1.8\sigma)$	$D_M(0.15)$	$646^{+13}_{-9.4} \quad (-0.2\sigma)$
τ	$0.0539^{+0.0050}_{-0.0082} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.954^{+0.038}_{-0.022} \quad (-2.5\sigma)$	$H(0.38)$	$83.06^{+0.54}_{-1.2} \quad (+0.9\sigma)$
$m_{\nu, sterile}^{eff} [eV]$	< 0.331	$r_{drag} h$	$97.5 \pm 2.1 \quad (-0.6\sigma)$	$D_M(0.38)$	$1536^{+28}_{-18} \quad (-0.4\sigma)$
N_{eff}	$3.225^{+0.042}_{-0.18}$	$\langle d^2 \rangle^{1/2}$	$2.449 \pm 0.041 \quad (-0.2\sigma)$	$H(0.51)$	$90.00^{+0.40}_{-1.2} \quad (+1.5\sigma)$
$\ln(10^{10} A_s)$	$3.049^{+0.013}_{-0.017} \quad (+0.4\sigma)$	z_{re}	$7.75^{+0.56}_{-0.82} \quad (+0.1\sigma)$	$D_M(0.51)$	$1987^{+35}_{-20} \quad (-0.5\sigma)$
n_s	$0.9661^{+0.0070}_{-0.0096} \quad (+0.6\sigma)$	$10^9 A_s$	$2.111^{+0.027}_{-0.037} \quad (+0.4\sigma)$	$H(0.61)$	$95.80^{+0.34}_{-1.1} \quad (+2.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.895 \pm 0.016 \quad (+0.8\sigma)$	$D_M(0.61)$	$2310^{+38}_{-21} \quad (-0.6\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{40}	$1227 \pm 19 \quad (-0.4\sigma)$	$H(2.33)$	$239.8^{+1.9}_{-3.0} \quad (+2.5\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5712 \pm 41 \quad (-0.0\sigma)$	$D_M(2.33)$	$5728^{+63}_{-19} \quad (-3.0\sigma)$
A_{143}^{tSZ}	$4.8 \pm 2.0 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.451^{+0.016}_{-0.013} \quad (-1.1\sigma)$
A_{100}^{PS}	$268 \pm 28 \quad (+0.2\sigma)$	D_{1420}	$813.2 \pm 5.2 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.721^{+0.033}_{-0.018} \quad (-4.2\sigma)$
A_{143}^{PS}	$52 \pm 8 \quad (+0.4\sigma)$	D_{2000}	$228.2 \pm 2.0 \quad (-0.8\sigma)$	$f\sigma_8(0.38)$	$0.465^{+0.018}_{-0.012} \quad (-1.6\sigma)$
$A_{143 \times 217}^{PS}$	$45^{+9}_{-10} \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9661^{+0.0070}_{-0.0096} \quad (+0.6\sigma)$	$\sigma_8(0.38)$	$0.637^{+0.030}_{-0.017} \quad (-4.9\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.0\sigma)$	Y_P	$0.24769^{+0.00072}_{-0.0023} \quad (+24.6\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.018}_{-0.011} \quad (-2.0\sigma)$
A^{kSZ}	$< 5.51 \quad (+0.2\sigma)$	Y_P^{BBN}	$0.24902^{+0.00072}_{-0.0023} \quad (+24.6\sigma)$	$\sigma_8(0.51)$	$0.596^{+0.029}_{-0.016} \quad (-5.2\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.674^{+0.048}_{-0.057} \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.018}_{-0.011} \quad (-2.3\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.71^{+0.15}_{-0.046} \quad (-3.3\sigma)$	$\sigma_8(0.61)$	$0.566^{+0.028}_{-0.015} \quad (-5.3\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.62 \pm 0.47 \quad (+0.8\sigma)$	$f\sigma_8(2.33)$	$0.286^{+0.014}_{-0.0079} \quad (-5.4\sigma)$
A_{217}^{dustTT}	$93.1 \pm 7.4 \quad (-0.0\sigma)$	r_*	$142.8^{+1.7}_{-0.85} \quad (-3.6\sigma)$	$\sigma_8(2.33)$	$0.293^{+0.015}_{-0.0086} \quad (-5.6\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	$1.04064^{+0.00057}_{-0.00051} \quad (-0.7\sigma)$	f_{2000}^{143}	$33.0 \pm 3.2 \quad (+0.7\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	$D_M(z_*)/Gpc$	$13.72^{+0.16}_{-0.080} \quad (-3.6\sigma)$	$f_{2000}^{143 \times 217}$	$35.1 \pm 2.3 \quad (+0.8\sigma)$
H_0	$67.1^{+1.1}_{-1.5} \quad (+0.2\sigma)$	z_{drag}	$1060.04^{+0.56}_{-0.71} \quad (+1.4\sigma)$	f_{2000}^{217}	$109.5 \pm 2.1 \quad (+0.7\sigma)$
Ω_Λ	$0.672^{+0.019}_{-0.016} \quad (-0.6\sigma)$	r_{drag}	$145.5^{+1.7}_{-0.87} \quad (-3.7\sigma)$	χ_{simall}^2	$396.9 \pm 1.8 \quad (+0.0\sigma)$
Ω_m	$0.328^{+0.016}_{-0.019} \quad (+0.6\sigma)$	k_D	$0.14192^{+0.00081}_{-0.0013} \quad (+2.6\sigma)$	χ_{lowl}^2	$23.4 \pm 1.6 \quad (-0.4\sigma)$
$\Omega_m h^2$	$0.1474^{+0.0027}_{-0.0041} \quad (+2.1\sigma)$	$100\theta_D$	$0.16136^{+0.00031}_{-0.00047} \quad (+1.1\sigma)$	χ_{plik}^2	$774.4 \pm 5.9 \quad (+0.6\sigma)$
$\Omega_\nu h^2$	$0.00369^{+0.00084}_{-0.0031}$	z_{eq}	$3354^{+72}_{-46} \quad (-1.2\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.09883^{+0.00097}_{-0.0031} \quad (+6.4\sigma)$	k_{eq}	$0.01039^{+0.00022}_{-0.00016} \quad (-0.1\sigma)$	χ_{CMB}^2	$1194.8 \pm 5.9 \quad (+0.5\sigma)$
σ_8	$0.781^{+0.035}_{-0.019} \quad (-3.7\sigma)$	$100\theta_{eq}$	$0.8235^{+0.0084}_{-0.015} \quad (+1.4\sigma)$		

$$\bar{\chi}_{eff}^2 = 1202.13; \Delta\bar{\chi}_{eff}^2 = 2.81; R - 1 = 0.02055$$

8.4 base_nnu_meffsterile_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02222 \pm 0.00022 \quad (+0.4\sigma)$	S_8	$0.819^{+0.023}_{-0.018} \quad (-1.0\sigma)$	$100\theta_{s,eq}$	$0.4542^{+0.0029}_{-0.0067} \quad (+1.4\sigma)$
$\Omega_c h^2$	$0.1215^{+0.0038}_{-0.0029} \quad (+1.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.448^{+0.013}_{-0.010} \quad (-1.0\sigma)$	$H(0.15)$	$72.42^{+0.68}_{-1.1} \quad (-0.1\sigma)$
$100\theta_{MC}$	$1.04054 \pm 0.00050 \quad (-0.6\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.019}_{-0.012} \quad (-2.2\sigma)$	$D_M(0.15)$	$647^{+11}_{-7.5} \quad (+0.2\sigma)$
τ	$0.0540^{+0.0051}_{-0.0080} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.955^{+0.032}_{-0.018} \quad (-3.4\sigma)$	$H(0.38)$	$82.93^{+0.42}_{-0.98} \quad (+0.6\sigma)$
$m_{\nu, sterile}^{eff} [eV]$	< 0.331	$r_{drag} h$	$97.4^{+1.9}_{-1.7} \quad (-1.3\sigma)$	$D_M(0.38)$	$1538^{+23}_{-14} \quad (+0.0\sigma)$
N_{eff}	$3.212^{+0.040}_{-0.16}$	$\langle d^2 \rangle^{1/2}$	$2.454 \pm 0.029 \quad (+0.2\sigma)$	$H(0.51)$	$89.88^{+0.31}_{-0.93} \quad (+1.3\sigma)$
$\ln(10^{10} A_s)$	$3.050^{+0.012}_{-0.016} \quad (+0.5\sigma)$	z_{re}	$7.76^{+0.57}_{-0.80} \quad (+0.1\sigma)$	$D_M(0.51)$	$1990^{+28}_{-16} \quad (-0.1\sigma)$
n_s	$0.9651^{+0.0059}_{-0.0079} \quad (+0.3\sigma)$	$10^9 A_s$	$2.111^{+0.025}_{-0.035} \quad (+0.5\sigma)$	$H(0.61)$	$95.68^{+0.27}_{-0.92} \quad (+2.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.895^{+0.013}_{-0.016} \quad (+1.2\sigma)$	$D_M(0.61)$	$2313^{+31}_{-16} \quad (-0.2\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{40}	$1229 \pm 15 \quad (-0.2\sigma)$	$H(2.33)$	$239.7^{+1.7}_{-2.9} \quad (+3.6\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5714 \pm 41 \quad (-0.0\sigma)$	$D_M(2.33)$	$5734^{+53}_{-16} \quad (-2.9\sigma)$
A_{143}^{tSZ}	$4.8 \pm 2.0 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.452^{+0.013}_{-0.0096} \quad (-1.2\sigma)$
A_{100}^{PS}	$268 \pm 28 \quad (+0.2\sigma)$	D_{1420}	$813.3 \pm 5.2 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.720^{+0.029}_{-0.017} \quad (-5.5\sigma)$
A_{143}^{PS}	$52 \pm 8 \quad (+0.4\sigma)$	D_{2000}	$228.3 \pm 2.0 \quad (-0.7\sigma)$	$f\sigma_8(0.38)$	$0.466^{+0.015}_{-0.0091} \quad (-2.0\sigma)$
$A_{143 \times 217}^{PS}$	$45^{+9}_{-10} \quad (+0.2\sigma)$	$n_{s,0.002}$	$0.9651^{+0.0059}_{-0.0079} \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.637^{+0.027}_{-0.016} \quad (-6.0\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.1\sigma)$	Y_P	$0.24751^{+0.00067}_{-0.0021} \quad (+25.0\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.015}_{-0.0090} \quad (-2.6\sigma)$
A^{kSZ}	$< 5.41 \quad (+0.1\sigma)$	Y_P^{BBN}	$0.24884^{+0.00067}_{-0.0021} \quad (+25.0\sigma)$	$\sigma_8(0.51)$	$0.595^{+0.025}_{-0.015} \quad (-6.1\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.672^{+0.046}_{-0.056} \quad (+1.1\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.016}_{-0.0090} \quad (-3.1\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.72^{+0.13}_{-0.039} \quad (-3.2\sigma)$	$\sigma_8(0.61)$	$0.566^{+0.024}_{-0.015} \quad (-6.1\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.62^{+0.40}_{-0.47} \quad (+1.2\sigma)$	$f\sigma_8(2.33)$	$0.285^{+0.012}_{-0.0078} \quad (-5.8\sigma)$
A_{217}^{dustTT}	$93.2 \pm 7.4 \quad (+0.0\sigma)$	r_*	$142.9^{+1.6}_{-0.79} \quad (-4.8\sigma)$	$\sigma_8(2.33)$	$0.293^{+0.013}_{-0.0086} \quad (-5.8\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	$1.04066 \pm 0.00053 \quad (-0.8\sigma)$	f_{2000}^{143}	$33.0 \pm 3.2 \quad (+0.6\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	$D_M(z_*)/Gpc$	$13.73^{+0.15}_{-0.074} \quad (-4.8\sigma)$	$f_{2000}^{143 \times 217}$	$35.0 \pm 2.2 \quad (+0.7\sigma)$
H_0	$66.90^{+0.87}_{-1.2} \quad (-0.3\sigma)$	z_{drag}	$1060.00^{+0.54}_{-0.65} \quad (+1.3\sigma)$	f_{2000}^{217}	$109.4 \pm 2.1 \quad (+0.7\sigma)$
Ω_Λ	$0.670^{+0.017}_{-0.013} \quad (-1.3\sigma)$	r_{drag}	$145.5^{+1.6}_{-0.81} \quad (-4.8\sigma)$	$\chi_{lensing}^2$	$9.25 \pm 0.93 \quad (-0.2\sigma)$
Ω_m	$0.330^{+0.013}_{-0.017} \quad (+1.3\sigma)$	k_D	$0.14187^{+0.00076}_{-0.0013} \quad (+3.2\sigma)$	χ_{simall}^2	$501 \pm 200 \quad (+65.0\sigma)$
$\Omega_m h^2$	$0.1474^{+0.0024}_{-0.0040} \quad (+3.1\sigma)$	$100\theta_D$	$0.16132^{+0.00031}_{-0.00045} \quad (+1.0\sigma)$	χ_{lowl}^2	$23.5 \pm 1.3 \quad (-0.1\sigma)$
$\Omega_\nu h^2$	$0.00364^{+0.00077}_{-0.0030}$	z_{eq}	$3360^{+61}_{-31} \quad (-1.1\sigma)$	χ_{plik}^2	$669 \pm 200 \quad (-19.5\sigma)$
$\Omega_m h^3$	$0.09857^{+0.00093}_{-0.0028} \quad (+6.0\sigma)$	k_{eq}	$0.01040^{+0.00020}_{-0.00013} \quad (+0.3\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.781^{+0.030}_{-0.018} \quad (-5.0\sigma)$	$100\theta_{eq}$	$0.8223^{+0.0056}_{-0.013} \quad (+1.4\sigma)$	χ_{CMB}^2	$1203.4 \pm 5.8 \quad (+0.5\sigma)$

$$\bar{\chi}_{eff}^2 = 1210.72; \Delta\bar{\chi}_{eff}^2 = 2.56; R - 1 = 0.02178$$

8.5 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022445	0.02243 ± 0.00016 (+0.5 σ)	$\Omega_m h^2$	0.14339	$0.1459^{+0.0017}_{-0.0028}$ (+2.1 σ)	k_{eq}	0.010384	$0.01035^{+0.00019}_{-0.00010}$ (−0.5 σ)
$\Omega_c h^2$	0.12030	$0.1199^{+0.0035}_{-0.0021}$ (−0.2 σ)	$\Omega_\nu h^2$	0.00065	$0.00353^{+0.00063}_{-0.0029}$	$100\theta_{\text{eq}}$	0.8150	$0.8239^{+0.0055}_{-0.014}$ (+2.0 σ)
$100\theta_{\text{MC}}$	1.040883	$1.04074^{+0.00035}_{-0.00031}$ (−0.5 σ)	$\Omega_m h^3$	0.09713	$0.09795^{+0.00059}_{-0.0018}$ (+5.6 σ)	$100\theta_{\text{s,eq}}$	0.4502	$0.4549^{+0.0028}_{-0.0075}$ (+2.0 σ)
τ	0.0602	0.0546 ± 0.0079 (+0.0 σ)	σ_8	0.8174	$0.783^{+0.030}_{-0.017}$ (−4.0 σ)	$H(0.15)$	73.05	$72.58^{+0.54}_{-0.76}$ (−0.1 σ)
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.000	< 0.323	S_8	0.8342	$0.813^{+0.027}_{-0.019}$ (−1.3 σ)	$D_{\text{M}}(0.15)$	639.9	$644.9^{+7.4}_{-5.8}$ (+0.2 σ)
N_{eff}	3.084	$3.152^{+0.024}_{-0.11}$	$\sigma_8 \Omega_m^{0.5}$	0.4569	$0.445^{+0.015}_{-0.010}$ (−1.3 σ)	$H(0.38)$	83.215	$82.97^{+0.33}_{-0.63}$ (+0.4 σ)
$\ln(10^{10} A_s)$	3.0581	3.049 ± 0.017 (+0.3 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6111	$0.590^{+0.021}_{-0.012}$ (−2.3 σ)	$D_{\text{M}}(0.38)$	1525.9	1535^{+15}_{-11} (+0.0 σ)
n_s	0.9687	$0.9655^{+0.0049}_{-0.0059}$ (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9932	$0.955^{+0.035}_{-0.018}$ (−3.0 σ)	$H(0.51)$	89.965	$89.86^{+0.25}_{-0.58}$ (+0.9 σ)
y_{cal}	1.00100	1.0008 ± 0.0025 (+0.1 σ)	$r_{\text{drag}} h$	99.40	$98.0^{+1.5}_{-1.2}$ (−0.9 σ)	$D_{\text{M}}(0.51)$	1976.5	1987^{+18}_{-12} (−0.1 σ)
A_{217}^{CIB}	45.5	47 ± 7 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4513	2.448 ± 0.028 (−0.0 σ)	$H(0.61)$	95.611	$95.60^{+0.21}_{-0.57}$ (+1.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.74	—	z_{re}	8.27	7.74 ± 0.80 (+0.1 σ)	$D_{\text{M}}(0.61)$	2299.8	2310^{+20}_{-13} (−0.1 σ)
A_{143}^{tSZ}	7.03	5.3 ± 2.0 (−0.1 σ)	$10^9 A_s$	2.1288	$2.110^{+0.032}_{-0.036}$ (+0.3 σ)	$H(2.33)$	236.96	$238.7^{+1.2}_{-2.1}$ (+2.5 σ)
A_{100}^{PS}	247.5	261 ± 28 (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8872	1.891 ± 0.013 (+0.6 σ)	$D_{\text{M}}(2.33)$	5744.7	5740^{+33}_{-11} (−2.3 σ)
A_{143}^{PS}	51.8	48 ± 8 (+0.3 σ)	D_{40}	1227.2	1230 ± 14 (−0.1 σ)	$f\sigma_8(0.15)$	0.4615	$0.449^{+0.015}_{-0.010}$ (−1.5 σ)
$A_{143 \times 217}^{\text{PS}}$	55.4	43 ± 9 (+0.1 σ)	D_{220}	5734.8	5733 ± 39 (+0.0 σ)	$\sigma_8(0.15)$	0.7552	$0.722^{+0.029}_{-0.016}$ (−4.3 σ)
A_{217}^{PS}	122.9	116 ± 10 (+0.0 σ)	D_{810}	2544.6	2542 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4797	$0.464^{+0.016}_{-0.0096}$ (−2.1 σ)
A^{kSZ}	0.00	< 4.66 (+0.1 σ)	D_{1420}	819.33	816.6 ± 4.8 (−0.1 σ)	$\sigma_8(0.38)$	0.6694	$0.639^{+0.026}_{-0.014}$ (−4.6 σ)
A_{100}^{dustTT}	8.81	9.0 ± 1.8 (+0.1 σ)	D_{2000}	231.71	230.0 ± 1.7 (−0.5 σ)	$f\sigma_8(0.51)$	0.4782	$0.461^{+0.016}_{-0.0094}$ (−2.5 σ)
A_{143}^{dustTT}	11.02	11.0 ± 1.8 (+0.1 σ)	$n_{\text{s},0.002}$	0.9687	$0.9655^{+0.0049}_{-0.0059}$ (+0.1 σ)	$\sigma_8(0.51)$	0.6264	$0.598^{+0.025}_{-0.013}$ (−4.7 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.27	18.8 ± 3.3 (+0.1 σ)	Y_{P}	0.24593	$0.24681^{+0.00044}_{-0.0013}$ (+24.3 σ)	$f\sigma_8(0.61)$	0.4731	$0.456^{+0.017}_{-0.0092}$ (−2.9 σ)
A_{217}^{dustTT}	95.7	93.8 ± 7.3 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24726	$0.24815^{+0.00044}_{-0.0013}$ (+24.3 σ)	$\sigma_8(0.61)$	0.5960	$0.568^{+0.024}_{-0.013}$ (−4.7 σ)
A_{100}^{dustTE}	0.1137	0.114 ± 0.038 (−0.0 σ)	10^5D/H	2.5849	$2.612^{+0.029}_{-0.034}$ (+0.9 σ)	$f\sigma_8(2.33)$	0.3004	$0.286^{+0.012}_{-0.0066}$ (−4.6 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1350	0.134 ± 0.029 (−0.0 σ)	Age/Gyr	13.753	$13.740^{+0.080}_{-0.026}$ (−2.5 σ)	$\sigma_8(2.33)$	0.3097	$0.295^{+0.013}_{-0.0071}$ (−4.8 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.480 ± 0.085 (−0.0 σ)	z_*	1089.891	$1090.16^{+0.29}_{-0.33}$ (+0.8 σ)	f_{2000}^{143}	28.47	30.8 ± 2.8 (+0.5 σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (−0.0 σ)	r_*	144.11	$143.3^{+1.1}_{-0.53}$ (−3.5 σ)	$f_{2000}^{143 \times 217}$	31.89	33.2 ± 1.9 (+0.6 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.666 ± 0.080 (−0.0 σ)	$100\theta_*$	1.041033	$1.04087^{+0.00037}_{-0.00032}$ (−0.7 σ)	f_{2000}^{217}	106.43	108.0 ± 1.9 (+0.5 σ)
A_{217}^{dustTE}	2.081	2.09 ± 0.27 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.843	$13.77^{+0.10}_{-0.050}$ (−3.5 σ)	χ_{small}^2	397.59	397.2 ± 2.0 (+0.0 σ)
c_{100}	0.99974	0.99966 ± 0.00061 (−0.0 σ)	z_{drag}	1060.162	$1060.33^{+0.35}_{-0.49}$ (+1.3 σ)	χ_{lowl}^2	23.02	23.4 ± 1.1 (−0.1 σ)
c_{217}	0.99817	0.99821 ± 0.00062 (+0.0 σ)	r_{drag}	146.74	$146.0^{+1.1}_{-0.54}$ (−3.6 σ)	χ_{plik}^2	2344.4	2362.4 ± 6.2 (+0.5 σ)
H_0	67.74	$67.14^{+0.68}_{-0.85}$ (−0.2 σ)	k_{D}	0.14115	$0.14178^{+0.00050}_{-0.00092}$ (+2.8 σ)	χ_{prior}^2	1.64	11.7 ± 4.7 (+0.0 σ)
Ω_Λ	0.6875	$0.676^{+0.013}_{-0.0094}$ (−0.9 σ)	$100\theta_{\text{D}}$	0.160784	$0.16090^{+0.00019}_{-0.00025}$ (+0.7 σ)	χ_{CMB}^2	2765.0	2783.1 ± 6.3 (+0.5 σ)
Ω_{m}	0.3125	$0.3239^{+0.0094}_{-0.013}$ (+0.9 σ)	z_{eq}	3393.7	3355^{+68}_{-30} (−1.7 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2766.68$; $\Delta\chi_{\text{eff}}^2 = 0.91$; $\bar{\chi}_{\text{eff}}^2 = 2794.77$; $\Delta\bar{\chi}_{\text{eff}}^2 = 3.00$; $R - 1 = 0.01444$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 397.59 (Δ 1.54) commander_dx12_v3.2.29: 23.02 (Δ -0.24) plik_rd12_HM_v22b_TTTEEE: 2344.43 (Δ -0.22)

8.6 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022389	$0.02242^{+0.00014}_{-0.00016}$ (+0.3 σ)	$\Omega_m h^2$	0.14291	$0.1459^{+0.0017}_{-0.0027}$ (+2.6 σ)	k_{eq}	0.009249	$0.01035^{+0.00017}_{-0.000097}$ (−0.4 σ)
$\Omega_c h^2$	0.09952	$0.1200^{+0.0032}_{-0.0020}$ (+0.0 σ)	$\Omega_\nu h^2$	0.02100	$0.00338^{+0.00084}_{-0.0027}$	$100\theta_{\text{eq}}$	0.9283	$0.8230^{+0.0051}_{-0.013}$ (+1.9 σ)
$100\theta_{\text{MC}}$	1.040940	$1.04074^{+0.00033}_{-0.00029}$ (−0.6 σ)	$\Omega_m h^3$	0.09635	$0.09787^{+0.00055}_{-0.0017}$ (+5.2 σ)	$100\theta_{\text{s,eq}}$	0.50955	$0.4545^{+0.0026}_{-0.0066}$ (+2.0 σ)
τ	0.0543	$0.0552^{+0.0070}_{-0.0079}$ (+0.1 σ)	σ_8	0.8065	$0.784^{+0.026}_{-0.016}$ (−4.5 σ)	$H(0.15)$	72.74	$72.56^{+0.50}_{-0.70}$ (−0.3 σ)
$m_{\nu, \text{sterile}}^{\text{eff}}$ [eV]	1.915	< 0.319	S_8	0.8256	$0.815^{+0.022}_{-0.016}$ (−1.3 σ)	$D_{\text{M}}(0.15)$	642.8	$645.2^{+6.8}_{-5.3}$ (+0.4 σ)
N_{eff}	3.054	$3.147^{+0.023}_{-0.10}$	$\sigma_8 \Omega_m^{0.5}$	0.4522	$0.446^{+0.012}_{-0.0087}$ (−1.3 σ)	$H(0.38)$	82.906	$82.95^{+0.31}_{-0.57}$ (+0.2 σ)
$\ln(10^{10} A_s)$	3.0438	$3.050^{+0.014}_{-0.016}$ (+0.4 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6039	$0.591^{+0.017}_{-0.011}$ (−2.5 σ)	$D_{\text{M}}(0.38)$	1532.4	1536^{+14}_{-10} (+0.2 σ)
n_s	0.9660	$0.9652^{+0.0045}_{-0.0056}$ (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9822	$0.957^{+0.029}_{-0.017}$ (−3.4 σ)	$H(0.51)$	89.658	$89.83^{+0.23}_{-0.53}$ (+0.7 σ)
y_{cal}	1.00046	1.0009 ± 0.0025 (+0.1 σ)	$r_{\text{drag}} h$	99.18	$98.0^{+1.4}_{-1.2}$ (−1.2 σ)	$D_{\text{M}}(0.51)$	1984.6	1987^{+17}_{-11} (+0.1 σ)
A_{217}^{CIB}	47.7	47 ± 7 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4444	2.451 ± 0.023 (+0.2 σ)	$H(0.61)$	95.304	$95.58^{+0.18}_{-0.52}$ (+1.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.33	—	z_{re}	7.68	7.80 ± 0.76 (+0.2 σ)	$D_{\text{M}}(0.61)$	2309.0	2311^{+18}_{-12} (+0.1 σ)
A_{143}^{tSZ}	7.30	5.3 ± 2.0 (−0.0 σ)	$10^9 A_s$	2.0984	$2.112^{+0.029}_{-0.034}$ (+0.4 σ)	$H(2.33)$	236.50	$238.6^{+1.2}_{-2.0}$ (+2.9 σ)
A_{100}^{PS}	250.6	262 ± 27 (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8823	1.891 ± 0.012 (+0.7 σ)	$D_{\text{M}}(2.33)$	5762.3	$5742^{+31}_{-9.7}$ (−2.1 σ)
A_{143}^{PS}	45.9	48 ± 8 (+0.3 σ)	D_{40}	1228.4	1231 ± 13 (−0.1 σ)	$f\sigma_8(0.15)$	0.4565	$0.450^{+0.012}_{-0.0086}$ (−1.5 σ)
$A_{143 \times 217}^{\text{PS}}$	44.8	43 ± 9 (+0.1 σ)	D_{220}	5729.5	5734 ± 39 (−0.0 σ)	$\sigma_8(0.15)$	0.7449	$0.723^{+0.024}_{-0.016}$ (−4.8 σ)
A_{217}^{PS}	118.6	116 ± 10 (+0.1 σ)	D_{810}	2539.8	2542 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4741	$0.465^{+0.013}_{-0.0087}$ (−2.3 σ)
A^{kSZ}	0.00	< 4.57 (+0.1 σ)	D_{1420}	817.6	816.6 ± 4.9 (−0.1 σ)	$\sigma_8(0.38)$	0.6600	$0.640^{+0.022}_{-0.014}$ (−5.0 σ)
A_{100}^{dustTT}	8.90	9.0 ± 1.8 (+0.1 σ)	D_{2000}	231.22	230.1 ± 1.7 (−0.5 σ)	$f\sigma_8(0.51)$	0.4724	$0.462^{+0.014}_{-0.0087}$ (−2.8 σ)
A_{143}^{dustTT}	11.04	11.0 ± 1.8 (+0.1 σ)	$n_{\text{s},0.002}$	0.9660	$0.9652^{+0.0045}_{-0.0056}$ (+0.1 σ)	$\sigma_8(0.51)$	0.6175	$0.598^{+0.021}_{-0.014}$ (−5.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.71	18.8 ± 3.2 (+0.1 σ)	Y_{P}	0.24551	$0.24675^{+0.00043}_{-0.0013}$ (+23.8 σ)	$f\sigma_8(0.61)$	0.4672	$0.456^{+0.014}_{-0.0087}$ (−3.2 σ)
A_{217}^{dustTT}	95.0	93.9 ± 7.3 (+0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24683	$0.24809^{+0.00043}_{-0.0013}$ (+23.8 σ)	$\sigma_8(0.61)$	0.5875	$0.569^{+0.020}_{-0.013}$ (−5.1 σ)
A_{100}^{dustTE}	0.1142	0.115 ± 0.038 (+0.0 σ)	10^5D/H	2.5846	$2.611^{+0.029}_{-0.034}$ (+0.9 σ)	$f\sigma_8(2.33)$	0.2961	$0.287^{+0.010}_{-0.0068}$ (−4.9 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1351	0.134 ± 0.029 (−0.0 σ)	Age/Gyr	13.7944	$13.744^{+0.073}_{-0.023}$ (−2.3 σ)	$\sigma_8(2.33)$	0.3052	$0.295^{+0.011}_{-0.0074}$ (−5.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.477 ± 0.084 (−0.0 σ)	z_*	1089.890	$1090.16^{+0.28}_{-0.32}$ (+1.0 σ)	f_{2000}^{143}	28.90	30.8 ± 2.8 (+0.4 σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (−0.0 σ)	r_*	144.45	$143.4^{+1.0}_{-0.53}$ (−4.0 σ)	$f_{2000}^{143 \times 217}$	31.96	$33.2^{+1.8}_{-2.1}$ (+0.5 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.664 ± 0.081 (−0.0 σ)	$100\theta_*$	1.041114	$1.04087^{+0.00036}_{-0.00030}$ (−0.7 σ)	f_{2000}^{217}	106.62	108.0 ± 1.9 (+0.5 σ)
A_{217}^{dustTE}	2.077	2.08 ± 0.27 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.874	$13.775^{+0.096}_{-0.050}$ (−4.0 σ)	χ_{lensing}^2	8.958	9.03 ± 0.70 (−0.3 σ)
c_{100}	0.99972	0.99966 ± 0.00061 (−0.0 σ)	z_{drag}	1059.971	$1060.31^{+0.34}_{-0.47}$ (+1.2 σ)	χ_{simall}^2	396	1646 ± 900 (+753.0 σ)
c_{217}	0.99819	0.99822 ± 0.00062 (+0.0 σ)	r_{drag}	147.10	$146.0^{+1.1}_{-0.54}$ (−4.1 σ)	χ_{lowl}^2	23.22	23.5 ± 1.0 (−0.0 σ)
H_0	67.42	$67.11^{+0.63}_{-0.79}$ (−0.5 σ)	k_{D}	0.14087	$0.14176^{+0.00051}_{-0.00088}$ (+3.0 σ)	χ_{plik}^2	2344	1113 ± 900 (−218.0 σ)
Ω_Λ	0.6856	$0.676^{+0.012}_{-0.0093}$ (−1.2 σ)	$100\theta_{\text{D}}$	0.160743	$0.16089^{+0.00019}_{-0.00024}$ (+0.8 σ)	χ_{prior}^2	1.81	11.6 ± 4.7 (+0.0 σ)
Ω_m	0.3144	$0.3240^{+0.0093}_{-0.012}$ (+1.2 σ)	z_{eq}	2910.2	3359^{+60}_{-27} (−1.6 σ)	χ_{CMB}^2	2772.3	2791.6 ± 6.3 (+0.4 σ)

Best-fit $\chi_{\text{eff}}^2 = 2774.15$; $\Delta\chi_{\text{eff}}^2 = -0.49$; $\bar{\chi}_{\text{eff}}^2 = 2803.21$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.51$; $R - 1 = 0.04894$
 χ_{eff}^2 : CMB - smicadx12.Dec5.ftl.mv2.ndclpp.p.teb.consext8: 8.96 (Δ 0.09) simall_100x143.offlike5.EE.Aplanck.B: 396.02 (Δ -0.03) commander.dx12.v3.2.29: 23.22 (Δ -0.03) plik.rd12.HM.v22b.TTTEEE: 2344.13 (Δ -0.80)

8.7 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02243 \pm 0.00016 \quad (+0.5\sigma)$	$\Omega_{\text{m}}h^2$	$0.1459^{+0.0017}_{-0.0029} \quad (+2.1\sigma)$	k_{eq}	$0.01035^{+0.00019}_{-0.00010} \quad (-0.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1200^{+0.0035}_{-0.0021} \quad (-0.2\sigma)$	$\Omega_{\nu}h^2$	$0.00351^{+0.00062}_{-0.0029}$	$100\theta_{\text{eq}}$	$0.8239^{+0.0056}_{-0.014} \quad (+2.0\sigma)$
$100\theta_{\text{MC}}$	$1.04074 \pm 0.00033 \quad (-0.5\sigma)$	$\Omega_{\text{m}}h^3$	$0.09797^{+0.00059}_{-0.0018} \quad (+5.6\sigma)$	$100\theta_{\text{s,eq}}$	$0.4549^{+0.0028}_{-0.0074} \quad (+2.0\sigma)$
τ	$0.0556^{+0.0056}_{-0.0082} \quad (+0.0\sigma)$	σ_8	$0.784^{+0.030}_{-0.016} \quad (-4.2\sigma)$	$H(0.15)$	$72.60^{+0.53}_{-0.76} \quad (-0.1\sigma)$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.321	S_8	$0.814^{+0.027}_{-0.019} \quad (-1.3\sigma)$	$D_{\text{M}}(0.15)$	$644.8^{+7.4}_{-5.7} \quad (+0.2\sigma)$
N_{eff}	$3.152^{+0.024}_{-0.11}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.446^{+0.015}_{-0.010} \quad (-1.3\sigma)$	$H(0.38)$	$82.98^{+0.33}_{-0.64} \quad (+0.4\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.051^{+0.013}_{-0.017} \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.591^{+0.021}_{-0.012} \quad (-2.3\sigma)$	$D_{\text{M}}(0.38)$	$1535^{+15}_{-11} \quad (+0.0\sigma)$
n_{s}	$0.9656^{+0.0049}_{-0.0059} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.956^{+0.035}_{-0.018} \quad (-3.1\sigma)$	$H(0.51)$	$89.87^{+0.25}_{-0.59} \quad (+0.9\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.1\sigma)$	$r_{\text{drag}}h$	$98.0^{+1.5}_{-1.2} \quad (-0.9\sigma)$	$D_{\text{M}}(0.51)$	$1986^{+18}_{-12} \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.450 \pm 0.028 \quad (-0.0\sigma)$	$H(0.61)$	$95.61^{+0.21}_{-0.58} \quad (+1.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.84^{+0.62}_{-0.81} \quad (+0.1\sigma)$	$D_{\text{M}}(0.61)$	$2310^{+20}_{-13} \quad (-0.2\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.113^{+0.026}_{-0.036} \quad (+0.3\sigma)$	$H(2.33)$	$238.7^{+1.2}_{-2.1} \quad (+2.5\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.1\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.891 \pm 0.013 \quad (+0.6\sigma)$	$D_{\text{M}}(2.33)$	$5740^{+34}_{-11} \quad (-2.3\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.3\sigma)$	D_{40}	$1230 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.015}_{-0.0099} \quad (-1.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5732 \pm 39 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.723^{+0.029}_{-0.015} \quad (-4.6\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2542 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.464^{+0.016}_{-0.0095} \quad (-2.2\sigma)$
A^{kSZ}	$< 4.62 \quad (+0.1\sigma)$	D_{1420}	$816.6 \pm 4.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.640^{+0.026}_{-0.014} \quad (-5.0\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.1\sigma)$	D_{2000}	$230.0 \pm 1.7 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.016}_{-0.0092} \quad (-2.6\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9656^{+0.0049}_{-0.0059} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.598^{+0.025}_{-0.013} \quad (-5.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.7 \pm 3.3 \quad (+0.1\sigma)$	Y_{P}	$0.24683^{+0.00044}_{-0.0014} \quad (+24.6\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.017}_{-0.0091} \quad (-2.9\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24816^{+0.00044}_{-0.0014} \quad (+24.6\sigma)$	$\sigma_8(0.61)$	$0.569^{+0.024}_{-0.013} \quad (-5.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	10^5D/H	$2.611^{+0.029}_{-0.034} \quad (+0.9\sigma)$	$f\sigma_8(2.33)$	$0.287^{+0.012}_{-0.0065} \quad (-5.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	Age/Gyr	$13.739^{+0.080}_{-0.027} \quad (-2.5\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.013}_{-0.0069} \quad (-5.3\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	z_*	$1090.16^{+0.29}_{-0.32} \quad (+0.8\sigma)$	f_{2000}^{143}	$30.7 \pm 2.8 \quad (+0.5\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	r_*	$143.3^{+1.1}_{-0.53} \quad (-3.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 1.9 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.666 \pm 0.081 \quad (-0.0\sigma)$	$100\theta_*$	$1.04087^{+0.00037}_{-0.00032} \quad (-0.7\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.6\sigma)$
A_{217}^{dustTE}	$2.09 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.77^{+0.10}_{-0.050} \quad (-3.5\sigma)$	χ_{small}^2	$397.2 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1060.33^{+0.35}_{-0.49} \quad (+1.4\sigma)$	χ_{lowl}^2	$23.4 \pm 1.1 \quad (-0.1\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$146.0^{+1.1}_{-0.54} \quad (-3.7\sigma)$	χ_{plik}^2	$2362.2 \pm 6.2 \quad (+0.5\sigma)$
H_0	$67.15^{+0.67}_{-0.85} \quad (-0.2\sigma)$	k_{D}	$0.14179^{+0.00050}_{-0.00093} \quad (+2.8\sigma)$	χ_{prior}^2	$11.7 \pm 4.7 \quad (+0.0\sigma)$
Ω_{Λ}	$0.676^{+0.013}_{-0.0093} \quad (-0.9\sigma)$	$100\theta_{\text{D}}$	$0.16089^{+0.00019}_{-0.00025} \quad (+0.8\sigma)$	χ_{CMB}^2	$2782.9 \pm 6.2 \quad (+0.5\sigma)$
Ω_{m}	$0.3238^{+0.0093}_{-0.013} \quad (+0.9\sigma)$	z_{eq}	$3355^{+67}_{-30} \quad (-1.7\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2794.57; \Delta\bar{\chi}_{\text{eff}}^2 = 3.04; R - 1 = 0.01250$$

8.8 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02243^{+0.00014}_{-0.00016} \quad (+0.3\sigma)$	$\Omega_{\text{m}}h^2$	$0.1458^{+0.0017}_{-0.0027} \quad (+2.6\sigma)$	k_{eq}	$0.01035^{+0.00017}_{-0.000097} \quad (-0.4\sigma)$
$\Omega_{\text{c}}h^2$	$0.1200^{+0.0032}_{-0.0020} \quad (+0.1\sigma)$	$\Omega_{\nu}h^2$	$0.00339^{+0.00084}_{-0.0027}$	$100\theta_{\text{eq}}$	$0.8232^{+0.0050}_{-0.013} \quad (+1.9\sigma)$
$100\theta_{\text{MC}}$	$1.04075^{+0.00033}_{-0.00029} \quad (-0.6\sigma)$	$\Omega_{\text{m}}h^3$	$0.09789^{+0.00056}_{-0.0017} \quad (+5.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4546^{+0.0026}_{-0.0065} \quad (+2.0\sigma)$
τ	$0.0559^{+0.0058}_{-0.0080} \quad (+0.1\sigma)$	σ_8	$0.784^{+0.026}_{-0.016} \quad (-4.8\sigma)$	$H(0.15)$	$72.57^{+0.50}_{-0.70} \quad (-0.3\sigma)$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.320	S_8	$0.815^{+0.022}_{-0.016} \quad (-1.3\sigma)$	$D_{\text{M}}(0.15)$	$645.0^{+6.8}_{-5.3} \quad (+0.4\sigma)$
N_{eff}	$3.148^{+0.023}_{-0.10}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.446^{+0.012}_{-0.0087} \quad (-1.3\sigma)$	$H(0.38)$	$82.96^{+0.31}_{-0.57} \quad (+0.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.051^{+0.012}_{-0.016} \quad (+0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.592^{+0.017}_{-0.011} \quad (-2.6\sigma)$	$D_{\text{M}}(0.38)$	$1535^{+14}_{-10} \quad (+0.3\sigma)$
n_{s}	$0.9654^{+0.0045}_{-0.0056} \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.957^{+0.029}_{-0.017} \quad (-3.5\sigma)$	$H(0.51)$	$89.84^{+0.23}_{-0.53} \quad (+0.7\sigma)$
y_{cal}	$1.0009 \pm 0.0026 \quad (+0.1\sigma)$	$r_{\text{drag}}h$	$98.0^{+1.4}_{-1.2} \quad (-1.2\sigma)$	$D_{\text{M}}(0.51)$	$1987^{+17}_{-11} \quad (+0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.451 \pm 0.022 \quad (+0.2\sigma)$	$H(0.61)$	$95.59^{+0.18}_{-0.53} \quad (+1.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.86^{+0.63}_{-0.79} \quad (+0.2\sigma)$	$D_{\text{M}}(0.61)$	$2311^{+18}_{-12} \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.3^{+2.1}_{-1.9} \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	$2.115^{+0.025}_{-0.034} \quad (+0.4\sigma)$	$H(2.33)$	$238.6^{+1.2}_{-2.0} \quad (+3.0\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.1\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.891 \pm 0.012 \quad (+0.7\sigma)$	$D_{\text{M}}(2.33)$	$5741^{+31}_{-9.8} \quad (-2.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.3\sigma)$	D_{40}	$1231 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.450^{+0.012}_{-0.0086} \quad (-1.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5734 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.724^{+0.025}_{-0.015} \quad (-5.1\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.1\sigma)$	D_{810}	$2542 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.465^{+0.013}_{-0.0086} \quad (-2.4\sigma)$
A^{kSZ}	$< 4.54 \quad (+0.1\sigma)$	D_{1420}	$816.6 \pm 4.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.640^{+0.022}_{-0.014} \quad (-5.5\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.1\sigma)$	D_{2000}	$230.1 \pm 1.7 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.014}_{-0.0086} \quad (-2.9\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9654^{+0.0045}_{-0.0056} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.599^{+0.021}_{-0.014} \quad (-5.6\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.8 \pm 3.2 \quad (+0.1\sigma)$	Y_{P}	$0.24677^{+0.00044}_{-0.0013} \quad (+24.2\sigma)$	$f\sigma_8(0.61)$	$0.457^{+0.014}_{-0.0086} \quad (-3.3\sigma)$
A_{217}^{dustTT}	$93.9 \pm 7.2 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24810^{+0.00044}_{-0.0013} \quad (+24.2\sigma)$	$\sigma_8(0.61)$	$0.569^{+0.020}_{-0.013} \quad (-5.6\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	10^5D/H	$2.611^{+0.029}_{-0.034} \quad (+1.0\sigma)$	$f\sigma_8(2.33)$	$0.287^{+0.010}_{-0.0068} \quad (-5.4\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	Age/Gyr	$13.742^{+0.073}_{-0.023} \quad (-2.3\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.011}_{-0.0073} \quad (-5.5\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.477 \pm 0.084 \quad (-0.0\sigma)$	z_*	$1090.16^{+0.28}_{-0.32} \quad (+1.0\sigma)$	f_{2000}^{143}	$30.8 \pm 2.8 \quad (+0.4\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	r_*	$143.4^{+1.0}_{-0.54} \quad (-4.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2^{+1.8}_{-2.0} \quad (+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.664 \pm 0.082 \quad (-0.0\sigma)$	$100\theta_*$	$1.04088^{+0.00036}_{-0.00030} \quad (-0.7\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.5\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.775^{+0.097}_{-0.051} \quad (-4.1\sigma)$	χ_{lensing}^2	$9.01 \pm 0.68 \quad (-0.3\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1060.32^{+0.35}_{-0.47} \quad (+1.2\sigma)$	χ_{simall}^2	$1645 \pm 900 \quad (+740.8\sigma)$
c_{217}	$0.99822 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$146.0^{+1.1}_{-0.55} \quad (-4.2\sigma)$	χ_{lowl}^2	$23.5 \pm 1.0 \quad (-0.0\sigma)$
H_0	$67.13^{+0.63}_{-0.78} \quad (-0.5\sigma)$	k_{D}	$0.14176^{+0.00052}_{-0.00088} \quad (+3.0\sigma)$	χ_{plik}^2	$1114 \pm 900 \quad (-218.3\sigma)$
Ω_{Λ}	$0.676^{+0.012}_{-0.0092} \quad (-1.2\sigma)$	$100\theta_{\text{D}}$	$0.16089^{+0.00019}_{-0.00024} \quad (+0.8\sigma)$	χ_{prior}^2	$11.6 \pm 4.7 \quad (+0.0\sigma)$
Ω_{m}	$0.3238^{+0.0092}_{-0.012} \quad (+1.2\sigma)$	z_{eq}	$3358^{+60}_{-27} \quad (-1.6\sigma)$	χ_{CMB}^2	$2791.5 \pm 6.2 \quad (+0.4\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 2803.10; \Delta\bar{\chi}_{\text{eff}}^2 = 2.59; R - 1 = 0.04623$$

8.9 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022298	0.02237 ± 0.00017 (+0.5 σ)	$\Omega_m h^3$	0.09691	$0.09813^{+0.00067}_{-0.0022}$ (+6.5 σ)	$100\theta_{\text{eq}}$	0.8160	$0.8265^{+0.0054}_{-0.014}$ (+2.0 σ)
$\Omega_c h^2$	0.12021	$0.1198^{+0.0036}_{-0.0025}$ (+0.1 σ)	σ_8	0.8114	$0.778^{+0.031}_{-0.017}$ (−4.0 σ)	$100\theta_{\text{s,eq}}$	0.45084	$0.4563^{+0.0028}_{-0.0072}$ (+2.0 σ)
$100\theta_{\text{MC}}$	1.040842	$1.04068^{+0.00038}_{-0.00034}$ (−0.6 σ)	S_8	0.8281	$0.805^{+0.027}_{-0.019}$ (−1.4 σ)	$H(0.15)$	73.00	$72.79^{+0.56}_{-0.87}$ (+0.1 σ)
τ	0.0547	0.0528 ± 0.0080 (−0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4536	$0.441^{+0.015}_{-0.010}$ (−1.4 σ)	$D_{\text{M}}(0.15)$	640.4	$642.9^{+8.2}_{-6.0}$ (−0.0 σ)
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.001	< 0.319	$\sigma_8 \Omega_m^{0.25}$	0.6067	$0.586^{+0.021}_{-0.013}$ (−2.3 σ)	$H(0.38)$	83.15	$83.14^{+0.35}_{-0.75}$ (+0.7 σ)
N_{eff}	3.089	< 3.21	$\sigma_8/h^{0.5}$	0.9862	$0.948^{+0.035}_{-0.019}$ (−3.1 σ)	$D_{\text{M}}(0.38)$	1527.0	1531^{+17}_{-11} (−0.2 σ)
$\ln(10^{10} A_{\text{s}})$	3.0445	3.043 ± 0.017 (+0.2 σ)	$r_{\text{drag}} h$	99.44	$98.3^{+1.6}_{-1.3}$ (−0.9 σ)	$H(0.51)$	89.898	$90.00^{+0.26}_{-0.72}$ (+1.3 σ)
n_{s}	0.9671	$0.9674^{+0.0051}_{-0.0067}$ (+0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4372	2.430 ± 0.030 (−0.2 σ)	$D_{\text{M}}(0.51)$	1978.0	1982^{+21}_{-13} (−0.3 σ)
y_{cal}	1.00062	1.0005 ± 0.0026 (+0.0 σ)	z_{re}	7.75	7.56 ± 0.82 (+0.1 σ)	$H(0.61)$	95.539	$95.73^{+0.23}_{-0.71}$ (+2.0 σ)
A_{100}^{PS}	238.8	244 ± 25 (+0.2 σ)	$10^9 A_{\text{s}}$	2.1000	2.096 ± 0.036 (+0.2 σ)	$D_{\text{M}}(0.61)$	2301.5	2305^{+23}_{-13} (−0.4 σ)
A_{143}^{PS}	44.7	42 ± 8 (+0.3 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8822	$1.886^{+0.013}_{-0.014}$ (+0.6 σ)	$H(2.33)$	236.77	$238.6^{+1.3}_{-2.4}$ (+2.8 σ)
A_{217}^{PS}	102.0	101 ± 10 (−0.1 σ)	D_{40}	1225.7	1222 ± 15 (−0.3 σ)	$D_{\text{M}}(2.33)$	5749.0	5734^{+41}_{-13} (−2.9 σ)
A_{217}^{CIB}	42.1	41 ± 7 (+0.2 σ)	D_{220}	5718.9	5717 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4581	$0.445^{+0.015}_{-0.010}$ (−1.5 σ)
A_{143}^{tSZ}	4.79	$3.7^{+1.7}_{-2.7}$ (−0.1 σ)	D_{810}	2536.7	2536 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7497	$0.718^{+0.029}_{-0.016}$ (−4.2 σ)
$r_{143 \times 217}^{\text{PS}}$	0.682	0.65 ± 0.12 (−0.0 σ)	D_{1420}	815.34	814.4 ± 5.0 (−0.3 σ)	$f\sigma_8(0.38)$	0.4762	$0.460^{+0.016}_{-0.0098}$ (−2.1 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.695	$0.58^{+0.40}_{-0.14}$ (+0.1 σ)	D_{2000}	229.99	229.0 ± 1.8 (−0.7 σ)	$\sigma_8(0.38)$	0.6645	$0.636^{+0.026}_{-0.015}$ (−4.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$n_{\text{s}, 0.002}$	0.9671	$0.9674^{+0.0051}_{-0.0067}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.4747	$0.458^{+0.016}_{-0.0097}$ (−2.5 σ)
A^{kSZ}	3.0	—	Y_{P}	0.24594	$0.24711^{+0.00054}_{-0.0017}$ (+27.3 σ)	$\sigma_8(0.51)$	0.6218	$0.595^{+0.025}_{-0.014}$ (−4.6 σ)
A_{100}^{dust}	1.006	1.01 ± 0.20 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24727	$0.24844^{+0.00054}_{-0.0017}$ (+27.3 σ)	$f\sigma_8(0.61)$	0.4697	$0.453^{+0.016}_{-0.0097}$ (−2.8 σ)
A_{143}^{dust}	0.969	0.97 ± 0.17 (+0.0 σ)	10^5D/H	2.6141	$2.632^{+0.034}_{-0.045}$ (+1.1 σ)	$\sigma_8(0.61)$	0.5916	$0.566^{+0.024}_{-0.014}$ (−4.7 σ)
A_{217}^{dust}	0.966	0.97 ± 0.10 (−0.1 σ)	Age/Gyr	13.763	$13.726^{+0.098}_{-0.031}$ (−3.2 σ)	$f\sigma_8(2.33)$	0.2983	$0.285^{+0.012}_{-0.0071}$ (−4.6 σ)
$A_{143 \times 217}^{\text{dust}}$	1.021	1.03 ± 0.16 (+0.0 σ)	z_*	1090.071	$1090.25^{+0.32}_{-0.39}$ (+0.9 σ)	$\sigma_8(2.33)$	0.3075	$0.293^{+0.013}_{-0.0075}$ (−4.7 σ)
c_{100}	0.99762	0.9975 ± 0.0010 (−0.0 σ)	r_*	144.22	$143.3^{+1.3}_{-0.60}$ (−4.0 σ)	f_{2000}^{143}	30.60	31.4 ± 3.1 (+0.6 σ)
c_{217}	1.00124	1.0012 ± 0.0016 (+0.1 σ)	$100\theta_*$	1.041009	$1.04080^{+0.00043}_{-0.00034}$ (−0.9 σ)	f_{2000}^{217}	107.24	108.0 ± 2.1 (+0.6 σ)
c_{TE}	0.99690	0.9975 ± 0.0050 (+0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.853	$13.77^{+0.12}_{-0.056}$ (−4.0 σ)	$f_{2000}^{143 \times 217}$	32.81	33.5 ± 2.2 (+0.7 σ)
c_{EE}	0.9933	0.9932 ± 0.0052 (+0.2 σ)	z_{drag}	1059.818	$1060.19^{+0.39}_{-0.53}$ (+1.4 σ)	χ_{small}^2	396.18	397.0 ± 1.8 (+0.0 σ)
H_0	67.69	$67.37^{+0.71}_{-0.95}$ (−0.1 σ)	r_{drag}	146.90	$146.0^{+1.3}_{-0.61}$ (−4.1 σ)	χ_{lowl}^2	23.00	22.9 ± 1.1 (−0.3 σ)
Ω_{Λ}	0.6876	$0.679^{+0.013}_{-0.010}$ (−0.9 σ)	k_{D}	0.14085	$0.14163^{+0.00056}_{-0.0010}$ (+3.0 σ)	χ_{CamSpec}^2	11500.0	11517.5 ± 6.2 (+0.5 σ)
Ω_{m}	0.3124	$0.321^{+0.010}_{-0.013}$ (+0.9 σ)	$100\theta_{\text{D}}$	0.161005	$0.16107^{+0.00022}_{-0.00035}$ (+1.0 σ)	χ_{prior}^2	2.23	7.9 ± 3.5 (+0.0 σ)
$\Omega_{\text{m}} h^2$	0.14316	$0.1457^{+0.0019}_{-0.0032}$ (+2.4 σ)	z_{eq}	3385.9	3339^{+64}_{-29} (−1.7 σ)	χ_{CMB}^2	11919.1	11937.4 ± 6.2 (+0.5 σ)
$\Omega_{\nu} h^2$	0.00065	$0.00349^{+0.00065}_{-0.0028}$	k_{eq}	0.010364	$0.01031^{+0.00019}_{-0.00011}$ (−0.4 σ)			

Best-fit $\chi_{\text{eff}}^2 = 11921.37$; $\Delta\chi_{\text{eff}}^2 = 0.61$; $\bar{\chi}_{\text{eff}}^2 = 11945.34$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.88$; $R - 1 = 0.02481$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.18 (Δ 0.28) commander_dx12_v3.2.29: 23.00 (Δ 0.00) CamSpec like_10.7HM_1400_unified: 11499.96 (Δ 0.31)

8.10 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02234 \pm 0.00016 \quad (+0.3\sigma)$	$\Omega_{\text{m}}h^3$	$0.09796^{+0.00058}_{-0.0020} \quad (+6.0\sigma)$	$100\theta_{\text{eq}}$	$0.8241^{+0.0046}_{-0.012} \quad (+1.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1201^{+0.0033}_{-0.0024} \quad (+0.4\sigma)$	σ_8	$0.783^{+0.025}_{-0.016} \quad (-4.3\sigma)$	$100\theta_{\text{s,eq}}$	$0.4551^{+0.0024}_{-0.0062} \quad (+1.9\sigma)$
$100\theta_{\text{MC}}$	$1.04066^{+0.00037}_{-0.00033} \quad (-0.7\sigma)$	S_8	$0.812^{+0.021}_{-0.015} \quad (-1.2\sigma)$	$H(0.15)$	$72.65^{+0.51}_{-0.79} \quad (-0.1\sigma)$
τ	$0.0544^{+0.0069}_{-0.0078} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.445^{+0.011}_{-0.0084} \quad (-1.2\sigma)$	$D_{\text{M}}(0.15)$	$644.3^{+7.5}_{-5.5} \quad (+0.2\sigma)$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.299	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.590^{+0.017}_{-0.011} \quad (-2.4\sigma)$	$H(0.38)$	$83.02^{+0.31}_{-0.68} \quad (+0.5\sigma)$
N_{eff}	< 3.19	$\sigma_8/h^{0.5}$	$0.955^{+0.028}_{-0.017} \quad (-3.3\sigma)$	$D_{\text{M}}(0.38)$	$1534^{+16}_{-10} \quad (+0.0\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.047 \pm 0.016 \quad (+0.4\sigma)$	$r_{\text{drag}}h$	$98.1^{+1.5}_{-1.2} \quad (-1.2\sigma)$	$H(0.51)$	$89.89^{+0.22}_{-0.65} \quad (+1.1\sigma)$
n_{s}	$0.9663^{+0.0049}_{-0.0062} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.024 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1985^{+19}_{-12} \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	z_{re}	$7.73 \pm 0.78 \quad (+0.2\sigma)$	$H(0.61)$	$95.64^{+0.19}_{-0.65} \quad (+1.8\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.2\sigma)$	$10^9 A_{\text{s}}$	$2.105^{+0.030}_{-0.034} \quad (+0.4\sigma)$	$D_{\text{M}}(0.61)$	$2309^{+21}_{-12} \quad (-0.2\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (+0.3\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.888^{+0.012}_{-0.014} \quad (+0.8\sigma)$	$H(2.33)$	$238.6^{+1.2}_{-2.3} \quad (+3.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 13 \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	$5739^{+38}_{-10} \quad (-2.7\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.2\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.012}_{-0.0082} \quad (-1.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.723^{+0.024}_{-0.015} \quad (-4.6\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.12 \quad (-0.0\sigma)$	D_{1420}	$814.7 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0083} \quad (-2.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.39}_{-0.16} \quad (+0.1\sigma)$	D_{2000}	$229.2 \pm 1.8 \quad (-0.6\sigma)$	$\sigma_8(0.38)$	$0.639^{+0.022}_{-0.014} \quad (-4.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s}, 0.002}$	$0.9663^{+0.0049}_{-0.0062} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.461^{+0.013}_{-0.0085} \quad (-2.7\sigma)$
A^{kSZ}	—	Y_{P}	$0.24696^{+0.00047}_{-0.0015} \quad (+25.6\sigma)$	$\sigma_8(0.51)$	$0.598^{+0.021}_{-0.014} \quad (-4.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24829^{+0.00047}_{-0.0015} \quad (+25.6\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.0085} \quad (-3.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	10^5D/H	$2.632^{+0.033}_{-0.044} \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.569^{+0.020}_{-0.013} \quad (-4.8\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	Age/Gyr	$13.737^{+0.090}_{-0.025} \quad (-2.9\sigma)$	$f\sigma_8(2.33)$	$0.287^{+0.010}_{-0.0068} \quad (-4.6\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1090.28^{+0.30}_{-0.38} \quad (+1.1\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.011}_{-0.0073} \quad (-4.7\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$143.4^{+1.2}_{-0.55} \quad (-4.4\sigma)$	f_{2000}^{143}	$31.2 \pm 3.1 \quad (+0.5\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	$100\theta_*$	$1.04079^{+0.00042}_{-0.00033} \quad (-0.9\sigma)$	f_{2000}^{217}	$108.0 \pm 2.1 \quad (+0.6\sigma)$
c_{TE}	$0.9972 \pm 0.0050 \quad (+0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.77^{+0.11}_{-0.051} \quad (-4.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.2 \quad (+0.6\sigma)$
c_{EE}	$0.9931 \pm 0.0051 \quad (+0.2\sigma)$	z_{drag}	$1060.14^{+0.37}_{-0.49} \quad (+1.2\sigma)$	χ_{lensing}^2	$9.25 \pm 0.93 \quad (-0.1\sigma)$
H_0	$67.22^{+0.65}_{-0.86} \quad (-0.3\sigma)$	r_{drag}	$146.0^{+1.2}_{-0.55} \quad (-4.4\sigma)$	χ_{simall}^2	$397.1 \pm 1.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.677^{+0.012}_{-0.0094} \quad (-1.2\sigma)$	k_{D}	$0.14161^{+0.00052}_{-0.00097} \quad (+3.0\sigma)$	χ_{lowl}^2	$23.2 \pm 1.0 \quad (-0.1\sigma)$
Ω_{m}	$0.3228^{+0.0094}_{-0.012} \quad (+1.2\sigma)$	$100\theta_{\text{D}}$	$0.16106^{+0.00021}_{-0.00034} \quad (+1.0\sigma)$	χ_{CamSpec}^2	$11516.6 \pm 5.8 \quad (+0.4\sigma)$
$\Omega_{\text{m}}h^2$	$0.1458^{+0.0018}_{-0.0030} \quad (+2.7\sigma)$	z_{eq}	$3351^{+56}_{-25} \quad (-1.5\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\nu}h^2$	$0.00329^{+0.00064}_{-0.0026}$	k_{eq}	$0.01034^{+0.00017}_{-0.00010} \quad (-0.2\sigma)$	χ_{CMB}^2	$11946.1 \pm 6.1 \quad (+0.4\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11954.00; \Delta\bar{\chi}_{\text{eff}}^2 = 2.56; R - 1 = 0.02353$$

8.11 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02237 \pm 0.00017 \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}} h^3$	$0.09816^{+0.00069}_{-0.0022} \quad (+6.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8266^{+0.0054}_{-0.014} \quad (+1.9\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1198^{+0.0036}_{-0.0025} \quad (+0.2\sigma)$	σ_8	$0.779^{+0.031}_{-0.017} \quad (-4.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4564^{+0.0028}_{-0.0071} \quad (+2.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04068^{+0.00039}_{-0.00034} \quad (-0.7\sigma)$	S_8	$0.806^{+0.027}_{-0.019} \quad (-1.4\sigma)$	$H(0.15)$	$72.81^{+0.56}_{-0.87} \quad (+0.1\sigma)$
τ	$0.0543^{+0.0048}_{-0.0082} \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.441^{+0.015}_{-0.010} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.7^{+8.3}_{-6.1} \quad (-0.0\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.318	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.586^{+0.021}_{-0.012} \quad (-2.4\sigma)$	$H(0.38)$	$83.16^{+0.35}_{-0.76} \quad (+0.7\sigma)$
N_{eff}	< 3.21	$\sigma_8/h^{0.5}$	$0.949^{+0.035}_{-0.019} \quad (-3.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531^{+18}_{-11} \quad (-0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.017} \quad (+0.3\sigma)$	$r_{\mathrm{drag}} h$	$98.4^{+1.6}_{-1.3} \quad (-0.9\sigma)$	$H(0.51)$	$90.01^{+0.26}_{-0.73} \quad (+1.3\sigma)$
n_{s}	$0.9676^{+0.0051}_{-0.0067} \quad (+0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.029 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981^{+21}_{-13} \quad (-0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0026 \quad (+0.0\sigma)$	z_{re}	$7.72^{+0.54}_{-0.83} \quad (+0.0\sigma)$	$H(0.61)$	$95.74^{+0.23}_{-0.72} \quad (+2.0\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.025}_{-0.036} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304^{+24}_{-13} \quad (-0.4\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.886 \pm 0.014 \quad (+0.7\sigma)$	$H(2.33)$	$238.6^{+1.4}_{-2.4} \quad (+2.8\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{40}	$1222 \pm 15 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5733^{+42}_{-13} \quad (-2.9\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.2\sigma)$	D_{220}	$5717 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.445^{+0.015}_{-0.0099} \quad (-1.5\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.719^{+0.029}_{-0.016} \quad (-4.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.0\sigma)$	D_{1420}	$814.4 \pm 5.0 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.461^{+0.016}_{-0.0097} \quad (-2.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.40}_{-0.14} \quad (+0.1\sigma)$	D_{2000}	$229.1 \pm 1.8 \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.637^{+0.026}_{-0.015} \quad (-5.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s}, 0.002}$	$0.9676^{+0.0051}_{-0.0067} \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.459^{+0.016}_{-0.0096} \quad (-2.6\sigma)$
A^{kSZ}	—	Y_{P}	$0.24713^{+0.00055}_{-0.0017} \quad (+27.6\sigma)$	$\sigma_8(0.51)$	$0.595^{+0.025}_{-0.014} \quad (-5.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24847^{+0.00055}_{-0.0017} \quad (+27.6\sigma)$	$f\sigma_8(0.61)$	$0.453^{+0.016}_{-0.0095} \quad (-3.0\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.632^{+0.034}_{-0.045} \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.566^{+0.024}_{-0.013} \quad (-5.4\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.72^{+0.10}_{-0.031} \quad (-3.2\sigma)$	$f\sigma_8(2.33)$	$0.286^{+0.012}_{-0.0069} \quad (-5.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1090.24^{+0.32}_{-0.39} \quad (+0.9\sigma)$	$\sigma_8(2.33)$	$0.294^{+0.013}_{-0.0074} \quad (-5.6\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	r_*	$143.3^{+1.3}_{-0.62} \quad (-4.0\sigma)$	f_{2000}^{143}	$31.4 \pm 3.1 \quad (+0.6\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	$100\theta_*$	$1.04080^{+0.00043}_{-0.00034} \quad (-0.9\sigma)$	f_{2000}^{217}	$108.0 \pm 2.1 \quad (+0.6\sigma)$
c_{TE}	$0.9974 \pm 0.0050 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.77^{+0.12}_{-0.058} \quad (-4.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.2 \quad (+0.7\sigma)$
c_{EE}	$0.9932 \pm 0.0052 \quad (+0.2\sigma)$	z_{drag}	$1060.20^{+0.40}_{-0.53} \quad (+1.4\sigma)$	χ_{simall}^2	$396.9 \pm 1.8 \quad (+0.0\sigma)$
H_0	$67.39^{+0.71}_{-0.96} \quad (-0.1\sigma)$	r_{drag}	$146.0^{+1.3}_{-0.63} \quad (-4.2\sigma)$	χ_{lowl}^2	$22.9 \pm 1.1 \quad (-0.3\sigma)$
Ω_{Λ}	$0.679^{+0.013}_{-0.010} \quad (-0.9\sigma)$	k_{D}	$0.14164^{+0.00058}_{-0.0010} \quad (+3.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11517.4 \pm 6.1 \quad (+0.5\sigma)$
Ω_{m}	$0.321^{+0.010}_{-0.013} \quad (+0.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16107^{+0.00022}_{-0.00035} \quad (+1.1\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1457^{+0.0020}_{-0.0032} \quad (+2.4\sigma)$	z_{eq}	$3339^{+63}_{-29} \quad (-1.7\sigma)$	χ_{CMB}^2	$11937.2 \pm 6.1 \quad (+0.5\sigma)$
$\Omega_{\nu} h^2$	$0.00348^{+0.00065}_{-0.0028}$	k_{eq}	$0.01031^{+0.00019}_{-0.00011} \quad (-0.4\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11945.16; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.97; R - 1 = 0.02558$$

8.12 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}} h^2$	$0.02235 \pm 0.00016 \quad (+0.3\sigma)$	$\Omega_{\text{m}} h^3$	$0.09799^{+0.00060}_{-0.0020} \quad (+6.0\sigma)$	$100\theta_{\text{eq}}$	$0.8243^{+0.0046}_{-0.012} \quad (+1.8\sigma)$
$\Omega_{\text{c}} h^2$	$0.1201^{+0.0033}_{-0.0024} \quad (+0.4\sigma)$	σ_8	$0.784^{+0.026}_{-0.016} \quad (-4.6\sigma)$	$100\theta_{\text{s,eq}}$	$0.4552^{+0.0023}_{-0.0062} \quad (+1.9\sigma)$
$100\theta_{\text{MC}}$	$1.04066^{+0.00038}_{-0.00033} \quad (-0.7\sigma)$	S_8	$0.812^{+0.021}_{-0.015} \quad (-1.2\sigma)$	$H(0.15)$	$72.67^{+0.51}_{-0.79} \quad (-0.1\sigma)$
τ	$0.0553^{+0.0053}_{-0.0080} \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.445^{+0.012}_{-0.0083} \quad (-1.2\sigma)$	$D_{\text{M}}(0.15)$	$644.1^{+7.5}_{-5.5} \quad (+0.2\sigma)$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.298	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.590^{+0.017}_{-0.011} \quad (-2.4\sigma)$	$H(0.38)$	$83.04^{+0.30}_{-0.68} \quad (+0.5\sigma)$
N_{eff}	< 3.19	$\sigma_8/h^{0.5}$	$0.955^{+0.028}_{-0.016} \quad (-3.4\sigma)$	$D_{\text{M}}(0.38)$	$1533^{+16}_{-10} \quad (+0.1\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.049^{+0.012}_{-0.016} \quad (+0.5\sigma)$	$r_{\text{drag}} h$	$98.2^{+1.5}_{-1.2} \quad (-1.2\sigma)$	$H(0.51)$	$89.91^{+0.22}_{-0.65} \quad (+1.1\sigma)$
n_{s}	$0.9665^{+0.0048}_{-0.0062} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.442 \pm 0.023 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1985^{+19}_{-11} \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	z_{re}	$7.82^{+0.58}_{-0.81} \quad (+0.2\sigma)$	$H(0.61)$	$95.65^{+0.18}_{-0.65} \quad (+1.8\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.2\sigma)$	$10^9 A_{\text{s}}$	$2.109^{+0.025}_{-0.034} \quad (+0.5\sigma)$	$D_{\text{M}}(0.61)$	$2308^{+21}_{-12} \quad (-0.2\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (+0.3\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.888^{+0.012}_{-0.014} \quad (+0.8\sigma)$	$H(2.33)$	$238.6^{+1.2}_{-2.3} \quad (+3.3\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 13 \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	$5738^{+38}_{-10} \quad (-2.7\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.2\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.012}_{-0.0081} \quad (-1.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.723^{+0.024}_{-0.015} \quad (-4.9\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.12 \quad (-0.0\sigma)$	D_{1420}	$814.7 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0082} \quad (-2.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.39}_{-0.16} \quad (+0.1\sigma)$	D_{2000}	$229.2 \pm 1.8 \quad (-0.6\sigma)$	$\sigma_8(0.38)$	$0.640^{+0.022}_{-0.014} \quad (-5.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s}, 0.002}$	$0.9665^{+0.0048}_{-0.0062} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.462^{+0.013}_{-0.0083} \quad (-2.7\sigma)$
A^{kSZ}	—	Y_{P}	$0.24698^{+0.00049}_{-0.0015} \quad (+26.1\sigma)$	$\sigma_8(0.51)$	$0.598^{+0.021}_{-0.013} \quad (-5.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24831^{+0.00049}_{-0.0015} \quad (+26.1\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.0084} \quad (-3.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	10^5D/H	$2.632^{+0.033}_{-0.044} \quad (+1.1\sigma)$	$\sigma_8(0.61)$	$0.569^{+0.020}_{-0.013} \quad (-5.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	Age/Gyr	$13.735^{+0.090}_{-0.025} \quad (-3.0\sigma)$	$f\sigma_8(2.33)$	$0.287^{+0.010}_{-0.0067} \quad (-5.1\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1090.27^{+0.30}_{-0.38} \quad (+1.1\sigma)$	$\sigma_8(2.33)$	$0.295^{+0.011}_{-0.0072} \quad (-5.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$143.4^{+1.2}_{-0.56} \quad (-4.5\sigma)$	f_{2000}^{143}	$31.2 \pm 3.1 \quad (+0.5\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	$100\theta_*$	$1.04079^{+0.00042}_{-0.00033} \quad (-0.9\sigma)$	f_{2000}^{217}	$107.9 \pm 2.1 \quad (+0.6\sigma)$
c_{TE}	$0.9972 \pm 0.0050 \quad (+0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.77^{+0.11}_{-0.052} \quad (-4.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.2 \quad (+0.6\sigma)$
c_{EE}	$0.9930 \pm 0.0051 \quad (+0.2\sigma)$	z_{drag}	$1060.15^{+0.37}_{-0.49} \quad (+1.2\sigma)$	χ_{lensing}^2	$9.21 \pm 0.88 \quad (-0.1\sigma)$
H_0	$67.24^{+0.64}_{-0.86} \quad (-0.3\sigma)$	r_{drag}	$146.0^{+1.2}_{-0.57} \quad (-4.5\sigma)$	χ_{simall}^2	$397.1 \pm 1.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.677^{+0.012}_{-0.0093} \quad (-1.2\sigma)$	k_{D}	$0.14162^{+0.00053}_{-0.00098} \quad (+3.1\sigma)$	χ_{lowl}^2	$23.2 \pm 1.0 \quad (-0.1\sigma)$
Ω_{m}	$0.3226^{+0.0093}_{-0.012} \quad (+1.2\sigma)$	$100\theta_{\text{D}}$	$0.16106^{+0.00021}_{-0.00034} \quad (+1.0\sigma)$	χ_{CamSpec}^2	$11516.5 \pm 5.8 \quad (+0.5\sigma)$
$\Omega_{\text{m}} h^2$	$0.1457^{+0.0018}_{-0.0031} \quad (+2.8\sigma)$	z_{eq}	$3350^{+56}_{-25} \quad (-1.6\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\nu} h^2$	$0.00329^{+0.00065}_{-0.0026}$	k_{eq}	$0.01034^{+0.00017}_{-0.00010} \quad (-0.2\sigma)$	χ_{CMB}^2	$11946.0 \pm 6.1 \quad (+0.5\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11953.86; \Delta\bar{\chi}_{\text{eff}}^2 = 2.61; R - 1 = 0.02344$$

8.13 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}} h^2$	0.022314	0.02235 ± 0.00021 (+0.7 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4502	$0.441^{+0.015}_{-0.010}$ (−1.1 σ)	$D_{\text{M}}(0.15)$	636.1	$633^{+12}_{-6.0}$ (−1.7 σ)
$\Omega_{\text{c}} h^2$	0.11991	$0.1203^{+0.0044}_{-0.0035}$ (+1.1 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6047	$0.591^{+0.020}_{-0.012}$ (−1.5 σ)	$H(0.38)$	83.52	$83.98^{+0.54}_{-1.3}$ (+2.9 σ)
$100\theta_{\text{MC}}$	1.04093	$1.04074^{+0.00054}_{-0.00047}$ (−0.6 σ)	$\sigma_8/h^{0.5}$	0.9835	$0.957^{+0.031}_{-0.016}$ (−2.2 σ)	$D_{\text{M}}(0.38)$	1518.2	1511^{+26}_{-13} (−2.0 σ)
τ	0.0557	0.0548 ± 0.0082 (+0.1 σ)	$r_{\text{drag}} h$	100.10	99.8 ± 1.0 (+0.0 σ)	$H(0.51)$	90.23	$90.75^{+0.51}_{-1.3}$ (+3.7 σ)
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.001	< 0.165	$\langle d^2 \rangle^{1/2}$	2.4279	2.412 ± 0.030 (−0.6 σ)	$D_{\text{M}}(0.51)$	1967.3	1958^{+33}_{-15} (−2.2 σ)
N_{eff}	3.118	< 3.30	z_{re}	7.85	7.77 ± 0.84 (+0.2 σ)	$H(0.61)$	95.84	$96.41^{+0.50}_{-1.4}$ (+4.6 σ)
$\ln(10^{10} A_{\text{s}})$	3.0484	3.048 ± 0.019 (+0.4 σ)	$10^9 A_{\text{s}}$	2.1083	$2.107^{+0.036}_{-0.040}$ (+0.4 σ)	$D_{\text{M}}(0.61)$	2289.7	2279^{+38}_{-17} (−2.3 σ)
n_{s}	0.9701	$0.9728^{+0.0061}_{-0.0088}$ (+1.5 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8858	$1.888^{+0.013}_{-0.019}$ (+0.9 σ)	$H(2.33)$	236.69	$238.5^{+1.4}_{-3.1}$ (+3.5 σ)
y_{cal}	1.00131	1.0006 ± 0.0025 (+0.0 σ)	D_{40}	1223.1	1215 ± 16 (−0.8 σ)	$D_{\text{M}}(2.33)$	5734	5699^{+78}_{-28} (−5.5 σ)
A_{217}^{CIB}	49.8	49 ± 7 (+0.1 σ)	D_{220}	5730.6	5720 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4552	$0.446^{+0.015}_{-0.0098}$ (−1.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.20	—	D_{810}	2543.0	2538 ± 14 (+0.2 σ)	$\sigma_8(0.15)$	0.7509	$0.732^{+0.025}_{-0.015}$ (−2.0 σ)
A_{143}^{tSZ}	7.10	4.9 ± 2.0 (−0.1 σ)	D_{1420}	817.5	814.3 ± 5.0 (−0.2 σ)	$f\sigma_8(0.38)$	0.4745	$0.464^{+0.016}_{-0.0095}$ (−1.4 σ)
A_{100}^{PS}	255.9	267 ± 28 (+0.1 σ)	D_{2000}	230.48	228.7 ± 1.9 (−0.7 σ)	$\sigma_8(0.38)$	0.6660	$0.649^{+0.023}_{-0.014}$ (−2.1 σ)
A_{143}^{PS}	48.0	51 ± 8 (+0.4 σ)	$n_{\text{s}, 0.002}$	0.9701	$0.9728^{+0.0061}_{-0.0088}$ (+1.5 σ)	$f\sigma_8(0.51)$	0.4736	$0.463^{+0.016}_{-0.0093}$ (−1.5 σ)
$A_{143 \times 217}^{\text{PS}}$	43.9	44^{+9}_{-10} (+0.1 σ)	Y_{P}	0.24634	$0.24796^{+0.00086}_{-0.0026}$ (+31.2 σ)	$\sigma_8(0.51)$	0.6235	$0.607^{+0.021}_{-0.013}$ (−2.1 σ)
A_{217}^{PS}	118.0	115 ± 10 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24767	$0.24930^{+0.00086}_{-0.0026}$ (+31.2 σ)	$f\sigma_8(0.61)$	0.4689	$0.458^{+0.015}_{-0.0091}$ (−1.6 σ)
A^{kSZ}	0.01	< 5.56 (+0.2 σ)	$10^5 \text{D}/\text{H}$	2.621	$2.658^{+0.046}_{-0.065}$ (+1.1 σ)	$\sigma_8(0.61)$	0.5934	$0.578^{+0.020}_{-0.012}$ (−2.1 σ)
A_{100}^{dustTT}	8.89	9.1 ± 1.9 (+0.1 σ)	Age/Gyr	13.728	$13.64^{+0.19}_{-0.067}$ (−5.8 σ)	$f\sigma_8(2.33)$	0.2993	$0.292^{+0.010}_{-0.0063}$ (−1.9 σ)
A_{143}^{dustTT}	10.79	10.8 ± 1.8 (+0.0 σ)	z_*	1090.053	$1090.29^{+0.35}_{-0.45}$ (+0.9 σ)	$\sigma_8(2.33)$	0.3088	$0.301^{+0.011}_{-0.0067}$ (−2.0 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.20	18.4 ± 3.3 (+0.0 σ)	r_*	144.14	$143.1^{+1.9}_{-0.73}$ (−5.4 σ)	f_{2000}^{143}	30.59	32.6 ± 3.2 (+0.6 σ)
A_{217}^{dustTT}	94.2	93.3 ± 7.3 (−0.0 σ)	$100\theta_*$	1.04108	$1.04083^{+0.00063}_{-0.00049}$ (−0.9 σ)	$f_{2000}^{143 \times 217}$	33.32	34.7 ± 2.2 (+0.7 σ)
c_{100}	0.99967	0.99961 ± 0.00061 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.845	$13.75^{+0.18}_{-0.069}$ (−5.1 σ)	f_{2000}^{217}	107.92	109.1 ± 2.1 (+0.6 σ)
c_{217}	0.99826	0.99829 ± 0.00062 (+0.0 σ)	z_{drag}	1059.86	$1060.16^{+0.54}_{-0.76}$ (+1.5 σ)	χ_{small}^2	396.28	397.2 ± 2.0 (+0.0 σ)
H_0	68.18	$68.47^{+0.67}_{-1.3}$ (+1.6 σ)	r_{drag}	146.82	$145.8^{+2.0}_{-0.77}$ (−5.1 σ)	χ_{lowl}^2	22.61	22.3 ± 1.1 (−0.9 σ)
Ω_{Λ}	0.6927	0.6903 ± 0.0079 (+0.1 σ)	k_{D}	0.14084	$0.14157^{+0.00068}_{-0.0015}$ (+2.9 σ)	χ_{plik}^2	760.1	775.2 ± 6.0 (+0.5 σ)
Ω_{m}	0.3073	0.3097 ± 0.0079 (−0.1 σ)	$100\theta_{\text{D}}$	0.161116	$0.16141^{+0.00036}_{-0.00058}$ (+1.5 σ)	$\chi_{6\text{DF}}^2$	0.0062	0.063 ± 0.082 (+0.0 σ)
$\Omega_{\text{m}} h^2$	0.14288	$0.1451^{+0.0018}_{-0.0038}$ (+2.8 σ)	z_{eq}	3366.1	3321^{+59}_{-25} (−1.9 σ)	χ_{MGS}^2	1.47	1.36 ± 0.56 (+0.0 σ)
$\Omega_{\nu} h^2$	0.00065	$0.002500^{+0.000091}_{-0.0019}$	k_{eq}	0.010323	$0.01029^{+0.00021}_{-0.00013}$ (−0.1 σ)	χ_{DR12BAO}^2	3.79	4.9 ± 1.8 (+0.1 σ)
$\Omega_{\text{m}} h^3$	0.09741	$0.0994^{+0.0013}_{-0.0039}$ (+7.6 σ)	$100\theta_{\text{eq}}$	0.8197	$0.8294^{+0.0042}_{-0.013}$ (+2.1 σ)	χ_{prior}^2	1.65	7.4 ± 3.7 (−0.0 σ)
σ_8	0.8121	$0.792^{+0.027}_{-0.016}$ (−2.0 σ)	$100\theta_{\text{s,eq}}$	0.45278	$0.4578^{+0.0021}_{-0.0065}$ (+2.1 σ)	χ_{BAO}^2	5.27	6.3 ± 1.5 (+0.1 σ)
S_8	0.8220	$0.804^{+0.027}_{-0.019}$ (−1.1 σ)	$H(0.15)$	73.44	$73.79^{+0.61}_{-1.3}$ (+1.9 σ)	χ_{CMB}^2	1179.0	1194.7 ± 5.8 (+0.4 σ)

Best-fit $\chi_{\text{eff}}^2 = 1185.94$; $\Delta\chi_{\text{eff}}^2 = 0.20$; $\bar{\chi}_{\text{eff}}^2 = 1208.40$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.37$; $R - 1 = 0.03028$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.19) DR12BAO: 3.79 (Δ -0.40) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.28 (Δ 0.39) commander_dx12_v3_2_29: 22.61 (Δ -0.22) plik_rd12_HM_v22_TT: 760.13 (Δ 0.03)

8.14 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022246	0.02236 ± 0.00021	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4472	$0.440^{+0.014}_{-0.0099}$	$D_{\mathrm{M}}(0.15)$	639.5	$632^{+12}_{-6.1}$
$\Omega_{\mathrm{c}} h^2$	0.11894	$0.1204^{+0.0043}_{-0.0036}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6002	$0.591^{+0.019}_{-0.012}$	$H(0.38)$	83.12	$84.08^{+0.57}_{-1.4}$
$100\theta_{\mathrm{MC}}$	1.04093	$1.04074^{+0.00054}_{-0.00047}$	$\sigma_8/h^{0.5}$	0.9780	$0.957^{+0.030}_{-0.016}$	$D_{\mathrm{M}}(0.38)$	1525.9	1509^{+26}_{-13}
τ	0.0525	0.0549 ± 0.0082	$r_{\mathrm{drag}} h$	99.98	99.93 ± 0.95	$H(0.51)$	89.81	$90.84^{+0.55}_{-1.4}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	0.000	< 0.153	$\langle d^2 \rangle^{1/2}$	2.4181	2.409 ± 0.029	$D_{\mathrm{M}}(0.51)$	1977.2	1955^{+33}_{-16}
N_{eff}	3.062	< 3.31	z_{re}	7.51	7.78 ± 0.84	$H(0.61)$	95.40	$96.50^{+0.54}_{-1.4}$
$\ln(10^{10} A_{\mathrm{s}})$	3.0364	3.048 ± 0.019	$10^9 A_{\mathrm{s}}$	2.0831	$2.108^{+0.036}_{-0.041}$	$D_{\mathrm{M}}(0.61)$	2301.1	2275^{+38}_{-18}
n_{s}	0.9679	$0.9735^{+0.0062}_{-0.0088}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8754	$1.888^{+0.014}_{-0.019}$	$H(2.33)$	235.79	$238.5^{+1.4}_{-3.2}$
y_{cal}	1.00006	1.0006 ± 0.0025	D_{40}	1220.8	1214 ± 15	$D_{\mathrm{M}}(2.33)$	5759	5694^{+81}_{-31}
A_{217}^{CIB}	50.4	49 ± 7	D_{220}	5713.1	5721 ± 40	$f\sigma_8(0.15)$	0.4521	$0.445^{+0.015}_{-0.0096}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.12	—	D_{810}	2534.2	2538 ± 14	$\sigma_8(0.15)$	0.7445	$0.733^{+0.024}_{-0.015}$
A_{143}^{tSZ}	7.14	4.9 ± 2.0	D_{1420}	815.0	814.3 ± 5.0	$f\sigma_8(0.38)$	0.4710	$0.464^{+0.015}_{-0.0093}$
A_{100}^{PS}	256.2	267 ± 28	D_{2000}	229.83	228.7 ± 2.0	$\sigma_8(0.38)$	0.6603	$0.650^{+0.022}_{-0.014}$
A_{143}^{PS}	46.1	51 ± 8	$n_{\mathrm{s}, 0.002}$	0.9679	$0.9735^{+0.0062}_{-0.0088}$	$f\sigma_8(0.51)$	0.4699	$0.463^{+0.015}_{-0.0091}$
$A_{143 \times 217}^{\mathrm{PS}}$	41.3	44^{+9}_{-10}	Y_{P}	0.24556	$0.24808^{+0.00094}_{-0.0027}$	$\sigma_8(0.51)$	0.6180	$0.609^{+0.020}_{-0.013}$
A_{217}^{PS}	116.1	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24689	$0.24942^{+0.00095}_{-0.0027}$	$f\sigma_8(0.61)$	0.4652	$0.459^{+0.015}_{-0.0090}$
A^{kSZ}	0.09	< 5.56	$10^5 \mathrm{D}/\mathrm{H}$	2.615	$2.659^{+0.047}_{-0.066}$	$\sigma_8(0.61)$	0.5882	$0.579^{+0.020}_{-0.012}$
$A_{100}^{\mathrm{dustTT}}$	8.88	9.1 ± 1.9	Age/Gyr	13.788	$13.63^{+0.19}_{-0.074}$	$f\sigma_8(2.33)$	0.2967	$0.2927^{+0.0099}_{-0.0061}$
$A_{143}^{\mathrm{dustTT}}$	10.81	10.8 ± 1.8	z_*	1090.003	$1090.28^{+0.35}_{-0.46}$	$\sigma_8(2.33)$	0.3060	$0.302^{+0.010}_{-0.0066}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.10	18.4 ± 3.3	r_*	144.72	$143.1^{+2.0}_{-0.79}$	χ_{small}^2	396	312 ± 200
$A_{217}^{\mathrm{dustTT}}$	93.9	93.3 ± 7.3	$100\theta_*$	1.04112	$1.04082^{+0.00064}_{-0.00050}$	χ_{lowl}^2	22.70	107 ± 200
c_{100}	0.99966	0.99961 ± 0.00061	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.900	$13.74^{+0.19}_{-0.074}$	χ_{plik}^2	760.5	775.3 ± 5.9
c_{217}	0.99829	0.99829 ± 0.00062	z_{drag}	1059.59	$1060.20^{+0.54}_{-0.78}$	χ_{JLA}^2	1034.919	1035.04 ± 0.33
H_0	67.81	$68.59^{+0.68}_{-1.3}$	r_{drag}	147.43	$145.7^{+2.1}_{-0.83}$	$\chi_{6\mathrm{DF}}^2$	0.011	0.36 ± 0.63
Ω_{Λ}	0.6916	0.6914 ± 0.0074	k_{D}	0.14035	$0.14161^{+0.00072}_{-0.0015}$	χ_{MGS}^2	1.41	1.13 ± 0.76
Ω_{m}	0.3084	0.3086 ± 0.0074	$100\theta_{\mathrm{D}}$	0.161026	$0.16142^{+0.00038}_{-0.00059}$	$\chi_{\mathrm{DR12BAO}}^2$	3.91	4.6 ± 1.5
$\Omega_{\mathrm{m}} h^2$	0.14183	$0.1451^{+0.0019}_{-0.0039}$	z_{eq}	3366.6	3320^{+56}_{-24}	χ_{prior}^2	1.49	7.4 ± 3.7
$\Omega_{\nu} h^2$	0.00065	$0.002364^{+0.000086}_{-0.0018}$	k_{eq}	0.010286	$0.01029^{+0.00020}_{-0.00013}$	χ_{BAO}^2	5.33	6.1 ± 1.2
$\Omega_{\mathrm{m}} h^3$	0.09618	$0.0996^{+0.0014}_{-0.0041}$	$100\theta_{\mathrm{eq}}$	0.8194	$0.8294^{+0.0042}_{-0.012}$	χ_{CMB}^2	1179.0	1194.7 ± 5.8
σ_8	0.8053	$0.793^{+0.026}_{-0.016}$	$100\theta_{\mathrm{s}, \mathrm{eq}}$	0.45265	$0.4578^{+0.0021}_{-0.0061}$			
S_8	0.8166	$0.804^{+0.026}_{-0.018}$	$H(0.15)$	73.06	$73.90^{+0.63}_{-1.3}$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2220.73$; $\bar{\chi}_{\mathrm{eff}}^2 = 2243.31$; $R - 1 = 0.02477$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.91 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.81 commander_dx12_v3.2.29: 22.70 plik_rd12_HM_v22_TT: 760.48
SN - JLA Pantheon18: 1034.92

8.15 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	$0.588^{+0.020}_{-0.012}$	$D_M(0.38)$	$1520^{+18}_{-9.9}$
$\Omega_c h^2$	$0.1187^{+0.0040}_{-0.0026}$	$\sigma_8/h^{0.5}$	$0.955^{+0.031}_{-0.016}$	$H(0.51)$	$90.25^{+0.30}_{-0.87}$
$100\theta_{MC}$	1.04086 ± 0.00046	$r_{drag}h$	99.66 ± 0.97	$D_M(0.51)$	1969^{+22}_{-12}
τ	0.0544 ± 0.0081	$\langle d^2 \rangle^{1/2}$	2.417 ± 0.029	$H(0.61)$	$95.90^{+0.27}_{-0.87}$
$m_{\nu, sterile}^{eff} [eV]$	< 0.203	z_{re}	7.71 ± 0.83	$D_M(0.61)$	2292^{+25}_{-12}
N_{eff}	< 3.19	$10^9 A_s$	2.099 ± 0.037	$H(2.33)$	$237.39^{+0.97}_{-2.1}$
$\ln(10^{10} A_s)$	3.044 ± 0.017	$10^9 A_s e^{-2\tau}$	$1.883^{+0.012}_{-0.015}$	$D_M(2.33)$	5729^{+50}_{-15}
n_s	$0.9699^{+0.0052}_{-0.0067}$	D_{40}	1219 ± 14	$f\sigma_8(0.15)$	$0.444^{+0.015}_{-0.0098}$
y_{cal}	1.0006 ± 0.0025	D_{220}	5720 ± 40	$\sigma_8(0.15)$	$0.728^{+0.024}_{-0.013}$
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	$0.462^{+0.015}_{-0.0092}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	814.6 ± 5.0	$\sigma_8(0.38)$	$0.645^{+0.022}_{-0.012}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.1 ± 1.8	$f\sigma_8(0.51)$	$0.461^{+0.015}_{-0.0088}$
A_{100}^{PS}	265 ± 28	$n_{s,0.002}$	$0.9699^{+0.0052}_{-0.0067}$	$\sigma_8(0.51)$	$0.604^{+0.020}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_P	$0.24694^{+0.00040}_{-0.0016}$	$f\sigma_8(0.61)$	$0.456^{+0.015}_{-0.0085}$
$A_{143 \times 217}^{PS}$	44^{+9}_{-10}	Y_P^{BBN}	$0.24827^{+0.00040}_{-0.0016}$	$\sigma_8(0.61)$	$0.575^{+0.020}_{-0.011}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	$2.640^{+0.040}_{-0.051}$	$f\sigma_8(2.33)$	$0.2902^{+0.0099}_{-0.0054}$
A^{kSZ}	< 5.28	Age/Gyr	$13.72^{+0.12}_{-0.035}$	$\sigma_8(2.33)$	$0.299^{+0.010}_{-0.0057}$
A_{100}^{dustTT}	9.0 ± 1.9	z_*	$1090.17^{+0.32}_{-0.37}$	f_{2000}^{143}	32.0 ± 3.0
A_{143}^{dustTT}	10.8 ± 1.8	r_*	$143.8^{+1.2}_{-0.43}$	$f_{2000}^{143 \times 217}$	34.2 ± 2.1
$A_{143 \times 217}^{dustTT}$	18.4 ± 3.3	$100\theta_*$	$1.04099^{+0.00052}_{-0.00044}$	f_{2000}^{217}	108.7 ± 2.0
A_{217}^{dustTT}	93.4 ± 7.3	$D_M(z_*)/Gpc$	$13.81^{+0.11}_{-0.042}$	χ_{small}^2	310 ± 200
c_{100}	0.99960 ± 0.00061	z_{drag}	$1059.92^{+0.49}_{-0.57}$	χ_{lowl}^2	109 ± 200
c_{217}	0.99828 ± 0.00062	r_{drag}	$146.5^{+1.3}_{-0.46}$	χ_{plik}^2	774.3 ± 5.7
H_0	$68.04^{+0.57}_{-0.91}$	k_D	$0.14106^{+0.00053}_{-0.00097}$	χ_{Aver15}^2	0.84 ± 0.83
Ω_Λ	0.6891 ± 0.0076	$100\theta_D$	$0.16122^{+0.00029}_{-0.00043}$	χ_{6DF}^2	0.34 ± 0.57
Ω_m	0.3109 ± 0.0076	z_{eq}	3317^{+69}_{-24}	χ_{MGS}^2	1.02 ± 0.70
$\Omega_m h^2$	$0.1439^{+0.0014}_{-0.0026}$	k_{eq}	$0.01023^{+0.00021}_{-0.00011}$	$\chi_{DR12BAO}^2$	5.0 ± 1.8
$\Omega_\nu h^2$	$0.002830^{+0.000013}_{-0.0022}$	$100\theta_{eq}$	$0.8303^{+0.0040}_{-0.015}$	χ_{prior}^2	7.4 ± 3.7
$\Omega_m h^3$	$0.09788^{+0.00065}_{-0.0024}$	$100\theta_{s,eq}$	$0.4583^{+0.0020}_{-0.0077}$	χ_{BAO}^2	6.4 ± 1.5
σ_8	$0.787^{+0.026}_{-0.015}$	$H(0.15)$	$73.34^{+0.49}_{-0.89}$	χ_{CMB}^2	1194.1 ± 5.7
S_8	$0.802^{+0.027}_{-0.019}$	$D_M(0.15)$	$637.3^{+8.0}_{-4.9}$		
$\sigma_8 \Omega_m^{0.5}$	$0.439^{+0.015}_{-0.010}$	$H(0.38)$	$83.50^{+0.36}_{-0.87}$		

$\bar{\chi}_{eff}^2 = 1208.67$; $R - 1 = 0.03995$

8.16 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02231 ± 0.00019	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.587^{+0.020}_{-0.011}$	$D_{\mathrm{M}}(0.38)$	$1521^{+17}_{-9.6}$
$\Omega_{\mathrm{c}}h^2$	$0.1185^{+0.0039}_{-0.0024}$	$\sigma_8/h^{0.5}$	$0.954^{+0.031}_{-0.016}$	$H(0.51)$	$90.20^{+0.28}_{-0.80}$
$100\theta_{\mathrm{MC}}$	1.04088 ± 0.00045	$r_{\mathrm{drag}}h$	99.66 ± 0.96	$D_{\mathrm{M}}(0.51)$	1970^{+21}_{-11}
τ	0.0545 ± 0.0081	$\langle d^2 \rangle^{1/2}$	2.417 ± 0.029	$H(0.61)$	$95.84^{+0.25}_{-0.80}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.212	z_{re}	7.71 ± 0.83	$D_{\mathrm{M}}(0.61)$	2293^{+24}_{-12}
N_{eff}	< 3.17	$10^9 A_{\mathrm{s}}$	2.099 ± 0.037	$H(2.33)$	$237.24^{+0.95}_{-1.9}$
$\ln(10^{10} A_{\mathrm{s}})$	3.044 ± 0.017	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882^{+0.012}_{-0.014}$	$D_{\mathrm{M}}(2.33)$	5732^{+45}_{-14}
n_{s}	$0.9696^{+0.0051}_{-0.0065}$	D_{40}	1220 ± 14	$f\sigma_8(0.15)$	$0.443^{+0.015}_{-0.0097}$
y_{cal}	1.0006 ± 0.0025	D_{220}	5721 ± 39	$\sigma_8(0.15)$	$0.727^{+0.025}_{-0.013}$
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	$0.461^{+0.015}_{-0.0090}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814.8 ± 4.9	$\sigma_8(0.38)$	$0.645^{+0.022}_{-0.012}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.2 ± 1.7	$f\sigma_8(0.51)$	$0.460^{+0.015}_{-0.0086}$
A_{100}^{PS}	265 ± 28	$n_{\mathrm{s}, 0.002}$	$0.9696^{+0.0051}_{-0.0065}$	$\sigma_8(0.51)$	$0.603^{+0.021}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_{P}	$0.24680^{+0.00035}_{-0.0014}$	$f\sigma_8(0.61)$	$0.455^{+0.015}_{-0.0084}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+9}_{-10}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24813^{+0.00035}_{-0.0015}$	$\sigma_8(0.61)$	$0.574^{+0.020}_{-0.010}$
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	$2.634^{+0.037}_{-0.044}$	$f\sigma_8(2.33)$	$0.290^{+0.010}_{-0.0053}$
A^{kSZ}	< 5.20	$\mathrm{Age}/\mathrm{Gyr}$	$13.72^{+0.11}_{-0.032}$	$\sigma_8(2.33)$	$0.299^{+0.010}_{-0.0056}$
$A_{100}^{\mathrm{dustTT}}$	9.0 ± 1.9	z_*	1090.14 ± 0.31	f_{2000}^{143}	31.8 ± 2.9
$A_{143}^{\mathrm{dustTT}}$	10.8 ± 1.8	r_*	$143.9^{+1.1}_{-0.41}$	$f_{2000}^{143 \times 217}$	34.1 ± 2.0
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.4 ± 3.3	$100\theta_*$	$1.04102^{+0.00049}_{-0.00043}$	f_{2000}^{217}	108.6 ± 1.9
$A_{217}^{\mathrm{dustTT}}$	93.4 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.82^{+0.10}_{-0.040}$	χ_{small}^2	313 ± 200
c_{100}	0.99960 ± 0.00061	z_{drag}	$1059.92^{+0.46}_{-0.55}$	χ_{lowl}^2	107 ± 200
c_{217}	0.99828 ± 0.00062	r_{drag}	$146.6^{+1.2}_{-0.44}$	χ_{plik}^2	774.2 ± 5.7
H_0	$68.00^{+0.55}_{-0.86}$	k_{D}	$0.14101^{+0.00051}_{-0.00091}$	χ_{Aver15}^2	0.76 ± 0.71
Ω_{Λ}	0.6892 ± 0.0075	$100\theta_{\mathrm{D}}$	$0.16118^{+0.00027}_{-0.00037}$	$\chi_{\mathrm{Cooke17}}^2$	0.22 ± 0.34
Ω_{m}	0.3108 ± 0.0075	z_{eq}	3316^{+71}_{-24}	$\chi_{6\mathrm{DF}}^2$	0.33 ± 0.56
$\Omega_{\mathrm{m}}h^2$	$0.1437^{+0.0014}_{-0.0024}$	k_{eq}	$0.01022^{+0.00021}_{-0.00010}$	χ_{MGS}^2	1.03 ± 0.69
$\Omega_{\nu}h^2$	$0.00290^{+0.00017}_{-0.0023}$	$100\theta_{\mathrm{eq}}$	$0.8306^{+0.0040}_{-0.015}$	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.8
$\Omega_{\mathrm{m}}h^3$	$0.09770^{+0.00060}_{-0.0022}$	$100\theta_{\mathrm{s,eq}}$	$0.4585^{+0.0021}_{-0.0078}$	χ_{prior}^2	7.4 ± 3.7
σ_8	$0.787^{+0.026}_{-0.014}$	$H(0.15)$	$73.30^{+0.47}_{-0.83}$	χ_{BAO}^2	6.4 ± 1.5
S_8	$0.801^{+0.027}_{-0.018}$	$D_{\mathrm{M}}(0.15)$	$637.7^{+7.6}_{-4.8}$	χ_{CMB}^2	1194.0 ± 5.6
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.438^{+0.015}_{-0.010}$	$H(0.38)$	$83.45^{+0.34}_{-0.80}$	χ_{Abund}^2	0.98 ± 0.93

$$\bar{\chi}_{\mathrm{eff}}^2 = 1208.67; R - 1 = 0.03900$$

8.17 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235 \pm 0.00021 \quad (+0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.441^{+0.015}_{-0.010} \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$633^{+12}_{-6.0} \quad (-1.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1203^{+0.0044}_{-0.0035} \quad (+1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.591^{+0.020}_{-0.012} \quad (-1.5\sigma)$	$H(0.38)$	$83.99^{+0.54}_{-1.3} \quad (+2.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04074^{+0.00054}_{-0.00047} \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.958^{+0.031}_{-0.016} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511^{+26}_{-13} \quad (-2.0\sigma)$
τ	$0.0559^{+0.0057}_{-0.0086} \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.8 \pm 1.0 \quad (+0.0\sigma)$	$H(0.51)$	$90.77^{+0.51}_{-1.4} \quad (+3.8\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.165	$\langle d^2 \rangle^{1/2}$	$2.414 \pm 0.029 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$1957^{+33}_{-15} \quad (-2.2\sigma)$
N_{eff}	< 3.30	z_{re}	$7.88^{+0.64}_{-0.85} \quad (+0.2\sigma)$	$H(0.61)$	$96.43^{+0.50}_{-1.4} \quad (+4.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.014}_{-0.019} \quad (+0.5\sigma)$	10^9A_{s}	$2.111^{+0.030}_{-0.041} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2278^{+38}_{-17} \quad (-2.3\sigma)$
n_{s}	$0.9730^{+0.0061}_{-0.0088} \quad (+1.5\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.888^{+0.014}_{-0.019} \quad (+0.9\sigma)$	$H(2.33)$	$238.5^{+1.4}_{-3.1} \quad (+3.5\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1215 \pm 16 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5698^{+79}_{-29} \quad (-5.5\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{220}	$5720 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.446^{+0.015}_{-0.0096} \quad (-1.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.733^{+0.025}_{-0.015} \quad (-2.2\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{1420}	$814.3 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.464^{+0.016}_{-0.0092} \quad (-1.4\sigma)$
A_{100}^{PS}	$267 \pm 28 \quad (+0.1\sigma)$	D_{2000}	$228.7 \pm 2.0 \quad (-0.7\sigma)$	$\sigma_8(0.38)$	$0.650^{+0.022}_{-0.013} \quad (-2.3\sigma)$
A_{143}^{PS}	$51 \pm 8 \quad (+0.4\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9730^{+0.0061}_{-0.0088} \quad (+1.5\sigma)$	$f\sigma_8(0.51)$	$0.463^{+0.015}_{-0.0090} \quad (-1.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44^{+9}_{-10} \quad (+0.1\sigma)$	Y_{P}	$0.24799^{+0.00087}_{-0.0026} \quad (+31.6\sigma)$	$\sigma_8(0.51)$	$0.608^{+0.021}_{-0.013} \quad (-2.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24933^{+0.00087}_{-0.0026} \quad (+31.6\sigma)$	$f\sigma_8(0.61)$	$0.459^{+0.015}_{-0.0089} \quad (-1.7\sigma)$
A^{kSZ}	$< 5.54 \quad (+0.2\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.658^{+0.046}_{-0.065} \quad (+1.2\sigma)$	$\sigma_8(0.61)$	$0.579^{+0.020}_{-0.012} \quad (-2.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.1 \pm 1.9 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.64^{+0.19}_{-0.068} \quad (-5.8\sigma)$	$f\sigma_8(2.33)$	$0.292^{+0.010}_{-0.0061} \quad (-2.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.29^{+0.35}_{-0.45} \quad (+0.9\sigma)$	$\sigma_8(2.33)$	$0.301^{+0.011}_{-0.0066} \quad (-2.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	r_*	$143.1^{+1.9}_{-0.74} \quad (-5.4\sigma)$	f_{2000}^{143}	$32.6 \pm 3.2 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.3 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04082^{+0.00063}_{-0.00049} \quad (-0.9\sigma)$	$f_{2000}^{143 \times 217}$	$34.7 \pm 2.2 \quad (+0.7\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.75^{+0.18}_{-0.070} \quad (-5.2\sigma)$	f_{2000}^{217}	$109.1 \pm 2.1 \quad (+0.6\sigma)$
c_{217}	$0.99829 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1060.18^{+0.53}_{-0.77} \quad (+1.5\sigma)$	χ_{simall}^2	$397.2 \pm 2.0 \quad (+0.0\sigma)$
H_0	$68.49^{+0.68}_{-1.3} \quad (+1.6\sigma)$	r_{drag}	$145.7^{+2.0}_{-0.78} \quad (-5.2\sigma)$	χ_{lowl}^2	$22.3 \pm 1.1 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0079 \quad (+0.1\sigma)$	k_{D}	$0.14159^{+0.00069}_{-0.0015} \quad (+2.9\sigma)$	χ_{plik}^2	$775.0 \pm 5.9 \quad (+0.6\sigma)$
Ω_{m}	$0.3096 \pm 0.0079 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16141^{+0.00037}_{-0.00058} \quad (+1.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.062 \pm 0.081 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1452^{+0.0019}_{-0.0038} \quad (+2.8\sigma)$	z_{eq}	$3320^{+59}_{-24} \quad (-1.9\sigma)$	χ_{MGS}^2	$1.37 \pm 0.56 \quad (+0.0\sigma)$
$\Omega_{\nu}h^2$	$0.002495^{+0.000085}_{-0.0019}$	k_{eq}	$0.01029^{+0.00021}_{-0.00013} \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0994^{+0.0013}_{-0.0039} \quad (+7.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8294^{+0.0041}_{-0.012} \quad (+2.1\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.793^{+0.027}_{-0.016} \quad (-2.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4578^{+0.0021}_{-0.0065} \quad (+2.1\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (+0.1\sigma)$
S_8	$0.805^{+0.027}_{-0.018} \quad (-1.1\sigma)$	$H(0.15)$	$73.81^{+0.61}_{-1.3} \quad (+1.9\sigma)$	χ_{CMB}^2	$1194.5 \pm 5.8 \quad (+0.4\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1208.20$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.44$; $R - 1 = 0.02851$

8.18 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00021	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.019}_{-0.012}$	$D_M(0.38)$	1509^{+26}_{-13}
$\Omega_c h^2$	0.1204 ± 0.0043	$\sigma_8/h^{0.5}$	$0.958^{+0.030}_{-0.015}$	$H(0.51)$	$90.86^{+0.55}_{-1.4}$
$100\theta_{MC}$	$1.04074^{+0.00054}_{-0.00047}$	$r_{drag}h$	99.94 ± 0.95	$D_M(0.51)$	1955^{+33}_{-16}
τ	$0.0559^{+0.0058}_{-0.0085}$	$\langle d^2 \rangle^{1/2}$	2.411 ± 0.029	$H(0.61)$	$96.52^{+0.55}_{-1.4}$
$m_{\nu, sterile}^{eff} [eV]$	< 0.152	z_{re}	$7.89^{+0.64}_{-0.85}$	$D_M(0.61)$	2275^{+38}_{-18}
N_{eff}	< 3.32	$10^9 A_s$	$2.112^{+0.030}_{-0.041}$	$H(2.33)$	$238.5^{+1.5}_{-3.3}$
$\ln(10^{10} A_s)$	$3.050^{+0.015}_{-0.019}$	$10^9 A_s e^{-2\tau}$	$1.888^{+0.014}_{-0.019}$	$D_M(2.33)$	5693^{+81}_{-32}
n_s	$0.9737^{+0.0062}_{-0.0087}$	D_{40}	1214 ± 15	$f\sigma_8(0.15)$	$0.446^{+0.014}_{-0.0094}$
y_{cal}	1.0006 ± 0.0025	D_{220}	5721 ± 40	$\sigma_8(0.15)$	$0.734^{+0.024}_{-0.015}$
A_{217}^{CIB}	49 ± 7	D_{810}	2538 ± 14	$f\sigma_8(0.38)$	$0.465^{+0.015}_{-0.0092}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	814.3 ± 5.0	$\sigma_8(0.38)$	$0.651^{+0.022}_{-0.013}$
A_{143}^{tSZ}	4.9 ± 2.0	D_{2000}	228.7 ± 2.0	$f\sigma_8(0.51)$	$0.464^{+0.015}_{-0.0090}$
A_{100}^{PS}	267 ± 28	$n_{s,0.002}$	$0.9737^{+0.0062}_{-0.0087}$	$\sigma_8(0.51)$	$0.609^{+0.020}_{-0.013}$
A_{143}^{PS}	51 ± 8	Y_P	$0.24811^{+0.00095}_{-0.0027}$	$f\sigma_8(0.61)$	$0.459^{+0.015}_{-0.0088}$
$A_{143 \times 217}^{PS}$	44^{+9}_{-10}	Y_P^{BBN}	$0.24945^{+0.00096}_{-0.0028}$	$\sigma_8(0.61)$	$0.580^{+0.019}_{-0.012}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	$2.659^{+0.047}_{-0.066}$	$f\sigma_8(2.33)$	$0.2930^{+0.0098}_{-0.0061}$
A^{kSZ}	< 5.55	Age/Gyr	$13.63^{+0.19}_{-0.075}$	$\sigma_8(2.33)$	$0.302^{+0.010}_{-0.0065}$
A_{100}^{dustTT}	9.1 ± 1.9	z_*	$1090.28^{+0.35}_{-0.46}$	f_{2000}^{143}	32.6 ± 3.2
A_{143}^{dustTT}	10.8 ± 1.8	r_*	$143.0^{+2.0}_{-0.80}$	$f_{2000}^{143 \times 217}$	34.7 ± 2.3
$A_{143 \times 217}^{dustTT}$	18.5 ± 3.3	$100\theta_*$	$1.04081^{+0.00064}_{-0.00050}$	f_{2000}^{217}	109.1 ± 2.1
A_{217}^{dustTT}	93.3 ± 7.3	$D_M(z_*)/Gpc$	$13.74^{+0.19}_{-0.076}$	χ_{small}^2	312 ± 200
c_{100}	0.99961 ± 0.00062	z_{drag}	$1060.22^{+0.54}_{-0.78}$	χ_{lowl}^2	107 ± 200
c_{217}	0.99829 ± 0.00062	r_{drag}	$145.7^{+2.1}_{-0.84}$	χ_{plik}^2	775.2 ± 5.9
H_0	$68.61^{+0.69}_{-1.3}$	k_D	$0.14163^{+0.00073}_{-0.0015}$	χ_{JLA}^2	1035.03 ± 0.33
Ω_Λ	0.6915 ± 0.0074	$100\theta_D$	$0.16142^{+0.00038}_{-0.00059}$	χ_{6DF}^2	0.36 ± 0.63
Ω_m	0.3085 ± 0.0074	z_{eq}	3320^{+55}_{-24}	χ_{MGS}^2	1.13 ± 0.76
$\Omega_m h^2$	$0.1452^{+0.0019}_{-0.0040}$	k_{eq}	$0.01029^{+0.00020}_{-0.00013}$	$\chi_{DR12BAO}^2$	4.6 ± 1.5
$\Omega_\nu h^2$	$0.002357^{+0.000088}_{-0.0018}$	$100\theta_{eq}$	$0.8294^{+0.0042}_{-0.012}$	χ_{prior}^2	7.4 ± 3.7
$\Omega_m h^3$	$0.0996^{+0.0014}_{-0.0041}$	$100\theta_{s,eq}$	$0.4578^{+0.0021}_{-0.0061}$	χ_{BAO}^2	6.1 ± 1.2
σ_8	$0.794^{+0.026}_{-0.016}$	$H(0.15)$	$73.92^{+0.64}_{-1.3}$	χ_{CMB}^2	1194.6 ± 5.7
S_8	$0.805^{+0.026}_{-0.018}$	$D_M(0.15)$	$632^{+12}_{-6.2}$		
$\sigma_8 \Omega_m^{0.5}$	$0.441^{+0.014}_{-0.0098}$	$H(0.38)$	$84.10^{+0.58}_{-1.4}$		

$$\bar{\chi}_{eff}^2 = 2243.12; R - 1 = 0.02260$$

8.19 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02231 ± 0.00020	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.589^{+0.020}_{-0.011}$	$D_{\mathrm{M}}(0.38)$	$1520^{+18}_{-9.9}$
$\Omega_{\mathrm{c}} h^2$	$0.1187^{+0.0040}_{-0.0026}$	$\sigma_8 / h^{0.5}$	$0.956^{+0.031}_{-0.016}$	$H(0.51)$	$90.27^{+0.30}_{-0.87}$
$100\theta_{\mathrm{MC}}$	1.04086 ± 0.00046	$r_{\mathrm{drag}} h$	99.68 ± 0.97	$D_{\mathrm{M}}(0.51)$	1969^{+22}_{-12}
τ	$0.0556^{+0.0056}_{-0.0084}$	$\langle d^2 \rangle^{1/2}$	2.419 ± 0.028	$H(0.61)$	$95.91^{+0.27}_{-0.88}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.201	z_{re}	$7.83^{+0.62}_{-0.85}$	$D_{\mathrm{M}}(0.61)$	2291^{+25}_{-12}
N_{eff}	< 3.19	$10^9 A_{\mathrm{s}}$	$2.104^{+0.028}_{-0.037}$	$H(2.33)$	$237.40^{+0.99}_{-2.1}$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.014}_{-0.018}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883^{+0.012}_{-0.015}$	$D_{\mathrm{M}}(2.33)$	5728^{+50}_{-15}
n_{s}	$0.9701^{+0.0052}_{-0.0067}$	D_{40}	1219 ± 14	$f\sigma_8(0.15)$	$0.444^{+0.015}_{-0.0097}$
y_{cal}	1.0006 ± 0.0025	D_{220}	5720 ± 40	$\sigma_8(0.15)$	$0.729^{+0.024}_{-0.013}$
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	$0.462^{+0.015}_{-0.0090}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814.6 ± 5.0	$\sigma_8(0.38)$	$0.646^{+0.022}_{-0.012}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.1 ± 1.8	$f\sigma_8(0.51)$	$0.461^{+0.015}_{-0.0086}$
A_{100}^{PS}	265 ± 28	$n_{\mathrm{s}, 0.002}$	$0.9701^{+0.0052}_{-0.0067}$	$\sigma_8(0.51)$	$0.605^{+0.020}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_{P}	$0.24696^{+0.00041}_{-0.0016}$	$f\sigma_8(0.61)$	$0.456^{+0.015}_{-0.0083}$
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+9}_{-10}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24829^{+0.00041}_{-0.0016}$	$\sigma_8(0.61)$	$0.575^{+0.019}_{-0.011}$
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	$2.639^{+0.040}_{-0.052}$	$f\sigma_8(2.33)$	$0.2905^{+0.0098}_{-0.0053}$
A^{kSZ}	< 5.26	$\mathrm{Age}/\mathrm{Gyr}$	$13.71^{+0.12}_{-0.035}$	$\sigma_8(2.33)$	$0.299^{+0.010}_{-0.0056}$
$A_{100}^{\mathrm{dustTT}}$	9.0 ± 1.9	z_*	$1090.17^{+0.32}_{-0.37}$	f_{2000}^{143}	32.0 ± 3.0
$A_{143}^{\mathrm{dustTT}}$	10.8 ± 1.8	r_*	$143.8^{+1.2}_{-0.44}$	$f_{2000}^{143 \times 217}$	34.2 ± 2.1
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.4 ± 3.3	$100\theta_*$	$1.04099^{+0.00052}_{-0.00044}$	f_{2000}^{217}	108.7 ± 2.0
$A_{217}^{\mathrm{dustTT}}$	93.4 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.81^{+0.12}_{-0.043}$	χ_{small}^2	311 ± 200
c_{100}	0.99960 ± 0.00061	z_{drag}	$1059.93^{+0.49}_{-0.57}$	χ_{lowl}^2	109 ± 200
c_{217}	0.99828 ± 0.00062	r_{drag}	$146.5^{+1.3}_{-0.47}$	χ_{plik}^2	774.2 ± 5.7
H_0	$68.06^{+0.57}_{-0.91}$	k_{D}	$0.14107^{+0.00054}_{-0.00097}$	χ_{Aver15}^2	0.85 ± 0.84
Ω_{Λ}	0.6893 ± 0.0076	$100\theta_{\mathrm{D}}$	$0.16122^{+0.00030}_{-0.00043}$	$\chi_{6\mathrm{DF}}^2$	0.35 ± 0.57
Ω_{m}	0.3107 ± 0.0076	z_{eq}	3316^{+69}_{-23}	χ_{MGS}^2	1.02 ± 0.70
$\Omega_{\mathrm{m}} h^2$	$0.1439^{+0.0015}_{-0.0026}$	k_{eq}	$0.01023^{+0.00021}_{-0.00011}$	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.8
$\Omega_{\nu} h^2$	$0.0028251^{+0.0000012}_{-0.0022}$	$100\theta_{\mathrm{eq}}$	$0.8304^{+0.0039}_{-0.015}$	χ_{prior}^2	7.4 ± 3.7
$\Omega_{\mathrm{m}} h^3$	$0.09791^{+0.00066}_{-0.0024}$	$100\theta_{\mathrm{s,eq}}$	$0.4584^{+0.0020}_{-0.0076}$	χ_{BAO}^2	6.4 ± 1.5
σ_8	$0.788^{+0.026}_{-0.014}$	$H(0.15)$	$73.36^{+0.49}_{-0.89}$	χ_{CMB}^2	1193.9 ± 5.6
S_8	$0.802^{+0.027}_{-0.018}$	$D_{\mathrm{M}}(0.15)$	$637.2^{+8.1}_{-4.9}$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.439^{+0.015}_{-0.010}$	$H(0.38)$	$83.52^{+0.36}_{-0.87}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1208.49; R - 1 = 0.03891$$

8.20 base_nnu_meffsterile_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02232 ± 0.00019	$\sigma_8 \Omega_m^{0.25}$	$0.588^{+0.020}_{-0.011}$	$D_M(0.38)$	$1521^{+17}_{-9.5}$
$\Omega_c h^2$	$0.1185^{+0.0039}_{-0.0024}$	$\sigma_8/h^{0.5}$	$0.955^{+0.031}_{-0.016}$	$H(0.51)$	$90.21^{+0.28}_{-0.80}$
$100\theta_{MC}$	1.04089 ± 0.00045	$r_{drag}h$	99.68 ± 0.96	$D_M(0.51)$	1970^{+21}_{-11}
τ	$0.0556^{+0.0056}_{-0.0084}$	$\langle d^2 \rangle^{1/2}$	2.419 ± 0.028	$H(0.61)$	$95.85^{+0.25}_{-0.80}$
$m_{\nu, sterile}^{eff} [eV]$	< 0.210	z_{re}	$7.83^{+0.62}_{-0.85}$	$D_M(0.61)$	2292^{+24}_{-12}
N_{eff}	< 3.17	$10^9 A_s$	$2.103^{+0.028}_{-0.037}$	$H(2.33)$	$237.25^{+0.96}_{-1.9}$
$\ln(10^{10} A_s)$	$3.046^{+0.013}_{-0.018}$	$10^9 A_s e^{-2\tau}$	$1.882^{+0.012}_{-0.014}$	$D_M(2.33)$	5731^{+46}_{-14}
n_s	$0.9697^{+0.0051}_{-0.0065}$	D_{40}	1220 ± 14	$f\sigma_8(0.15)$	$0.444^{+0.015}_{-0.0096}$
y_{cal}	1.0006 ± 0.0025	D_{220}	5721 ± 39	$\sigma_8(0.15)$	$0.728^{+0.024}_{-0.013}$
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	$0.462^{+0.015}_{-0.0088}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	814.8 ± 4.9	$\sigma_8(0.38)$	$0.645^{+0.022}_{-0.011}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.2 ± 1.8	$f\sigma_8(0.51)$	$0.460^{+0.015}_{-0.0084}$
A_{100}^{PS}	265 ± 28	$n_{s,0.002}$	$0.9697^{+0.0051}_{-0.0065}$	$\sigma_8(0.51)$	$0.604^{+0.020}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_P	$0.24682^{+0.00037}_{-0.0015}$	$f\sigma_8(0.61)$	$0.456^{+0.015}_{-0.0082}$
$A_{143 \times 217}^{PS}$	44 ± 9	Y_P^{BBN}	$0.24815^{+0.00037}_{-0.0015}$	$\sigma_8(0.61)$	$0.575^{+0.019}_{-0.010}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	$2.634^{+0.037}_{-0.044}$	$f\sigma_8(2.33)$	$0.2902^{+0.0098}_{-0.0051}$
A^{kSZ}	< 5.19	Age/Gyr	$13.72^{+0.11}_{-0.032}$	$\sigma_8(2.33)$	$0.299^{+0.010}_{-0.0054}$
A_{100}^{dustTT}	9.0 ± 1.9	z_*	1090.13 ± 0.31	f_{2000}^{143}	31.8 ± 2.9
A_{143}^{dustTT}	10.8 ± 1.8	r_*	$143.9^{+1.1}_{-0.42}$	$f_{2000}^{143 \times 217}$	34.1 ± 2.0
$A_{143 \times 217}^{dustTT}$	18.4 ± 3.3	$100\theta_*$	$1.04102^{+0.00049}_{-0.00043}$	f_{2000}^{217}	108.6 ± 1.9
A_{217}^{dustTT}	93.4 ± 7.3	$D_M(z_*)/Gpc$	$13.82^{+0.11}_{-0.041}$	χ_{small}^2	313 ± 200
c_{100}	0.99960 ± 0.00061	z_{drag}	$1059.93^{+0.46}_{-0.56}$	χ_{lowl}^2	107 ± 200
c_{217}	0.99828 ± 0.00062	r_{drag}	$146.6^{+1.2}_{-0.45}$	χ_{plik}^2	774.0 ± 5.6
H_0	$68.01^{+0.55}_{-0.87}$	k_D	$0.14102^{+0.00052}_{-0.00091}$	χ_{Aver15}^2	0.77 ± 0.72
Ω_Λ	0.6893 ± 0.0075	$100\theta_D$	$0.16118^{+0.00027}_{-0.00037}$	$\chi_{Cooke17}^2$	0.22 ± 0.34
Ω_m	0.3107 ± 0.0075	z_{eq}	3315^{+70}_{-24}	χ_{6DF}^2	0.34 ± 0.57
$\Omega_m h^2$	$0.1437^{+0.0014}_{-0.0024}$	k_{eq}	$0.01022^{+0.00021}_{-0.00010}$	χ_{MGS}^2	1.03 ± 0.70
$\Omega_\nu h^2$	$0.00290^{+0.00016}_{-0.0023}$	$100\theta_{eq}$	$0.8307^{+0.0039}_{-0.015}$	$\chi_{DR12BAO}^2$	5.0 ± 1.8
$\Omega_m h^3$	$0.09773^{+0.00061}_{-0.0022}$	$100\theta_{s,eq}$	$0.4585^{+0.0020}_{-0.0078}$	χ_{prior}^2	7.4 ± 3.7
σ_8	$0.787^{+0.026}_{-0.014}$	$H(0.15)$	$73.32^{+0.47}_{-0.84}$	χ_{BAO}^2	6.3 ± 1.5
S_8	$0.801^{+0.027}_{-0.018}$	$D_M(0.15)$	$637.5^{+7.6}_{-4.8}$	χ_{CMB}^2	1193.8 ± 5.6
$\sigma_8 \Omega_m^{0.5}$	$0.439^{+0.015}_{-0.010}$	$H(0.38)$	$83.47^{+0.34}_{-0.81}$	χ_{Abund}^2	0.99 ± 0.93

$$\bar{\chi}_{eff}^2 = 1208.48; R - 1 = 0.03789$$

8.21 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022412	0.02250 ± 0.00015 (+0.6 σ)	$\Omega_\nu h^2$	0.00386	$0.00272^{+0.00050}_{-0.0022}$	$100\theta_{s,eq}$	0.45952	$0.4565^{+0.0019}_{-0.0070}$ (+2.5 σ)
$\Omega_c h^2$	0.11606	$0.1187^{+0.0034}_{-0.0022}$ (-0.6 σ)	$\Omega_m h^3$	0.09632	$0.09773^{+0.00033}_{-0.0017}$ (+4.9 σ)	$H(0.15)$	72.95	$73.21^{+0.38}_{-0.67}$ (+0.7 σ)
$100\theta_{MC}$	1.041014	1.04091 ± 0.00032 (-0.3 σ)	σ_8	0.8085	$0.792^{+0.023}_{-0.014}$ (-2.6 σ)	$D_M(0.15)$	640.7	$638.6^{+6.2}_{-3.9}$ (-0.6 σ)
τ	0.0546	$0.0564^{+0.0069}_{-0.0083}$ (+0.1 σ)	S_8	0.8229	$0.808^{+0.023}_{-0.016}$ (-1.3 σ)	$H(0.38)$	83.056	$83.39^{+0.25}_{-0.64}$ (+1.2 σ)
$m_{\nu, sterile}^{eff}$ [eV]	0.302	< 0.220	$\sigma_8 \Omega_m^{0.5}$	0.4507	$0.443^{+0.013}_{-0.0087}$ (-1.3 σ)	$D_M(0.38)$	1528.1	$1523^{+14}_{-7.6}$ (-0.7 σ)
N_{eff}	3.0471	< 3.14	$\sigma_8 \Omega_m^{0.25}$	0.6037	$0.592^{+0.017}_{-0.010}$ (-1.9 σ)	$H(0.51)$	89.770	$90.15^{+0.19}_{-0.62}$ (+1.7 σ)
$\ln(10^{10} A_s)$	3.0434	$3.049^{+0.015}_{-0.017}$ (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9828	$0.961^{+0.027}_{-0.015}$ (-2.4 σ)	$D_M(0.51)$	1979.7	$1972^{+17}_{-8.7}$ (-0.8 σ)
n_s	0.96775	$0.9687^{+0.0043}_{-0.0056}$ (+0.5 σ)	$r_{drag} h$	99.64	99.42 ± 0.83 (-0.3 σ)	$H(0.61)$	95.387	$95.81^{+0.16}_{-0.62}$ (+2.2 σ)
y_{cal}	1.00074	1.0008 ± 0.0025 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4324	2.430 ± 0.025 (-0.2 σ)	$D_M(0.61)$	2303.7	$2295^{+19}_{-9.3}$ (-0.9 σ)
A_{217}^{CIB}	47.9	47 ± 7 (+0.1 σ)	z_{re}	7.69	7.87 ± 0.79 (+0.1 σ)	$H(2.33)$	236.13	$237.42^{+0.71}_{-1.6}$ (+2.0 σ)
$\xi^{tSZ \times CIB}$	0.33	—	$10^9 A_s$	2.0976	$2.110^{+0.032}_{-0.036}$ (+0.2 σ)	$D_M(2.33)$	5759.0	$5733^{+35}_{-8.0}$ (-2.9 σ)
A_{143}^{tSZ}	7.17	5.4 ± 2.0 (-0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8806	1.885 ± 0.012 (+0.4 σ)	$f\sigma_8(0.15)$	0.4554	$0.447^{+0.013}_{-0.0084}$ (-1.4 σ)
A_{100}^{PS}	251.0	260 ± 28 (+0.1 σ)	D_{40}	1225.0	1225 ± 13 (-0.2 σ)	$\sigma_8(0.15)$	0.7472	$0.732^{+0.022}_{-0.013}$ (-2.6 σ)
A_{143}^{PS}	45.9	47 ± 8 (+0.2 σ)	D_{220}	5731.6	5738 ± 39 (+0.1 σ)	$f\sigma_8(0.38)$	0.4738	$0.465^{+0.013}_{-0.0082}$ (-1.8 σ)
$A_{143 \times 217}^{PS}$	44.5	43 ± 9 (+0.1 σ)	D_{810}	2541.0	2541 ± 13 (+0.1 σ)	$\sigma_8(0.38)$	0.6624	$0.648^{+0.019}_{-0.011}$ (-2.7 σ)
A_{217}^{PS}	118.3	115 ± 10 (+0.0 σ)	D_{1420}	818.57	817.3 ± 4.7 (-0.1 σ)	$f\sigma_8(0.51)$	0.4725	$0.463^{+0.013}_{-0.0080}$ (-2.0 σ)
A^{kSZ}	0.00	< 4.45 (+0.1 σ)	D_{2000}	231.47	230.6 ± 1.6 (-0.4 σ)	$\sigma_8(0.51)$	0.6199	$0.607^{+0.018}_{-0.011}$ (-2.7 σ)
A_{100}^{dustTT}	8.91	9.0 ± 1.8 (+0.1 σ)	$n_{s,0.002}$	0.96775	$0.9687^{+0.0043}_{-0.0056}$ (+0.5 σ)	$f\sigma_8(0.61)$	0.4676	$0.459^{+0.013}_{-0.0078}$ (-2.1 σ)
A_{143}^{dustTT}	10.97	11.0 ± 1.8 (+0.0 σ)	Y_P	0.24543	$0.24655^{+0.00022}_{-0.0011}$ (+22.0 σ)	$\sigma_8(0.61)$	0.5899	$0.577^{+0.017}_{-0.010}$ (-2.7 σ)
$A_{143 \times 217}^{dustTT}$	19.48	18.7 ± 3.2 (+0.0 σ)	Y_P^{BBN}	0.24675	$0.24788^{+0.00022}_{-0.0011}$ (+22.0 σ)	$f\sigma_8(2.33)$	0.2974	$0.2914^{+0.0088}_{-0.0053}$ (-2.6 σ)
A_{217}^{dustTT}	94.6	93.7 ± 7.3 (-0.0 σ)	$10^5 D/H$	2.5782	$2.591^{+0.025}_{-0.032}$ (+0.6 σ)	$\sigma_8(2.33)$	0.3067	$0.3002^{+0.0092}_{-0.0056}$ (-2.7 σ)
A_{100}^{dustTE}	0.1123	0.114 ± 0.038 (+0.0 σ)	Age/Gyr	13.787	$13.725^{+0.083}_{-0.019}$ (-3.1 σ)	f_{2000}^{143}	28.79	30.1 ± 2.8 (+0.3 σ)
$A_{100 \times 143}^{dustTE}$	0.1341	0.135 ± 0.029 (-0.0 σ)	z_*	1089.804	$1089.89^{+0.23}_{-0.26}$ (+0.4 σ)	$f_{2000}^{143 \times 217}$	31.88	32.6 ± 1.9 (+0.4 σ)
$A_{100 \times 217}^{dustTE}$	0.482	0.481 ± 0.085 (+0.0 σ)	r_*	144.59	$143.83^{+0.90}_{-0.28}$ (-3.1 σ)	f_{2000}^{217}	106.57	107.4 ± 1.8 (+0.4 σ)
A_{143}^{dustTE}	0.223	0.224 ± 0.054 (-0.0 σ)	$100\theta_*$	1.041192	$1.04104^{+0.00036}_{-0.00030}$ (-0.5 σ)	χ_{small}^2	396.05	397.4 ± 2.2 (+0.0 σ)
$A_{143 \times 217}^{dustTE}$	0.663	0.664 ± 0.081 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.887	$13.816^{+0.084}_{-0.027}$ (-3.1 σ)	χ_{lowl}^2	22.87	22.90 ± 0.92 (-0.3 σ)
A_{217}^{dustTE}	2.081	2.08 ± 0.27 (-0.0 σ)	z_{drag}	1059.971	$1060.34^{+0.33}_{-0.45}$ (+1.2 σ)	χ_{plik}^2	2345.2	2362.0 ± 6.2 (+0.4 σ)
c_{100}	0.99971	0.99966 ± 0.00061 (-0.0 σ)	r_{drag}	147.24	$146.44^{+0.94}_{-0.29}$ (-3.2 σ)	χ_{6DF}^2	0.0300	0.077 ± 0.085 (+0.3 σ)
c_{217}	0.99820	0.99820 ± 0.00063 (+0.0 σ)	k_D	0.14074	$0.14138^{+0.00034}_{-0.00076}$ (+2.1 σ)	χ_{MGS}^2	1.217	1.15 ± 0.43 (-0.2 σ)
H_0	67.67	$67.89^{+0.45}_{-0.70}$ (+0.5 σ)	$100\theta_D$	0.160740	$0.16084^{+0.00017}_{-0.00027}$ (+0.7 σ)	$\chi_{DR12BAO}^2$	4.44	5.4 ± 1.8 (+0.3 σ)
Ω_Λ	0.6892	0.6876 ± 0.0066 (-0.2 σ)	z_{eq}	3308.6	3337^{+63}_{-21} (-2.2 σ)	χ_{prior}^2	1.83	11.7 ± 4.6 (+0.0 σ)
Ω_m	0.3108	0.3124 ± 0.0066 (+0.2 σ)	k_{eq}	0.010157	$0.01027^{+0.00018}_{-0.000096}$ (-0.9 σ)	χ_{BAO}^2	5.68	6.6 ± 1.5 (+0.3 σ)
$\Omega_m h^2$	0.14233	$0.1440^{+0.0011}_{-0.0020}$ (+1.6 σ)	$100\theta_{eq}$	0.8326	$0.8269^{+0.0037}_{-0.013}$ (+2.5 σ)	χ_{CMB}^2	2764.1	2782.3 ± 6.1 (+0.4 σ)

Best-fit $\chi_{eff}^2 = 2771.63$; $\Delta\chi_{eff}^2 = -0.28$; $\bar{\chi}_{eff}^2 = 2800.57$; $\Delta\bar{\chi}_{eff}^2 = 2.66$; $R - 1 = 0.01553$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.44 (Δ 0.02) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.15) commander_dx12_v3_2_29: 22.87 (Δ 0.00) plik_rd12_HM_v22b_TTTEEE: 2345.20 (Δ -0.30)

8.22 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022440	0.02251 ± 0.00015	$\Omega_m h^3$	0.09635	$0.09781^{+0.00032}_{-0.0018}$	$D_M(0.15)$	640.0	$637.7^{+6.4}_{-3.7}$
$\Omega_c h^2$	0.11887	$0.1187^{+0.0035}_{-0.0023}$	σ_8	0.8111	$0.792^{+0.023}_{-0.014}$	$H(0.38)$	83.108	$83.47^{+0.24}_{-0.67}$
$100\theta_{MC}$	1.041020	1.04092 ± 0.00032	S_8	0.8243	$0.807^{+0.023}_{-0.016}$	$D_M(0.38)$	1526.8	$1521^{+14}_{-7.2}$
τ	0.0585	$0.0566^{+0.0069}_{-0.0083}$	$\sigma_8 \Omega_m^{0.5}$	0.4515	$0.442^{+0.013}_{-0.0085}$	$H(0.51)$	89.813	$90.22^{+0.18}_{-0.66}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.025	< 0.211	$\sigma_8 \Omega_m^{0.25}$	0.6051	$0.592^{+0.017}_{-0.010}$	$D_M(0.51)$	1978.0	$1970^{+17}_{-8.3}$
N_{eff}	3.0462	< 3.14	$\sigma_8/h^{0.5}$	0.9854	$0.961^{+0.027}_{-0.015}$	$H(0.61)$	95.424	$95.87^{+0.15}_{-0.65}$
$\ln(10^{10} A_s)$	3.0505	$3.049^{+0.015}_{-0.017}$	$r_{\text{drag}} h$	99.76	99.57 ± 0.80	$D_M(0.61)$	2301.9	$2293^{+20}_{-8.8}$
n_s	0.96715	$0.9692^{+0.0042}_{-0.0056}$	$\langle d^2 \rangle^{1/2}$	2.4400	2.428 ± 0.024	$H(2.33)$	236.07	$237.37^{+0.69}_{-1.6}$
y_{cal}	1.00052	1.0007 ± 0.0025	z_{re}	8.07	7.88 ± 0.78	$D_M(2.33)$	5757.3	$5730^{+37}_{-7.8}$
A_{217}^{CIB}	48.2	47 ± 7	$10^9 A_s$	2.1127	$2.110^{+0.032}_{-0.037}$	$f\sigma_8(0.15)$	0.4562	$0.447^{+0.013}_{-0.0084}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	$10^9 A_s e^{-2\tau}$	1.8796	$1.884^{+0.012}_{-0.013}$	$\sigma_8(0.15)$	0.7497	$0.732^{+0.022}_{-0.013}$
A_{143}^{tSZ}	7.23	$5.4^{+2.2}_{-2.0}$	D_{40}	1227.8	1224 ± 13	$f\sigma_8(0.38)$	0.4749	$0.465^{+0.013}_{-0.0082}$
A_{100}^{PS}	251.4	260 ± 28	D_{220}	5737.7	5739 ± 39	$\sigma_8(0.38)$	0.6647	$0.649^{+0.019}_{-0.012}$
A_{143}^{PS}	46.4	47 ± 8	D_{810}	2539.4	2540 ± 13	$f\sigma_8(0.51)$	0.4737	$0.463^{+0.013}_{-0.0080}$
$A_{143 \times 217}^{\text{PS}}$	44.9	43 ± 9	D_{1420}	817.80	817.3 ± 4.7	$\sigma_8(0.51)$	0.6221	$0.607^{+0.018}_{-0.011}$
A_{217}^{PS}	118.0	115 ± 10	D_{2000}	231.26	230.6 ± 1.6	$f\sigma_8(0.61)$	0.4689	$0.458^{+0.013}_{-0.0079}$
A^{kSZ}	0.00	< 4.51	$n_{s,0.002}$	0.96715	$0.9692^{+0.0042}_{-0.0056}$	$\sigma_8(0.61)$	0.5920	$0.578^{+0.017}_{-0.011}$
A_{100}^{dustTT}	8.79	9.0 ± 1.8	Y_P	0.24542	$0.24660^{+0.00021}_{-0.0012}$	$f\sigma_8(2.33)$	0.2986	$0.2917^{+0.0088}_{-0.0054}$
A_{143}^{dustTT}	11.04	11.0 ± 1.8	Y_P^{BBN}	0.24675	$0.24793^{+0.00022}_{-0.0012}$	$\sigma_8(2.33)$	0.3079	$0.3006^{+0.0092}_{-0.0057}$
$A_{143 \times 217}^{\text{dustTT}}$	19.71	18.6 ± 3.3	$10^5 D/H$	2.5727	$2.590^{+0.025}_{-0.033}$	f_{2000}^{143}	29.04	30.1 ± 2.8
A_{217}^{dustTT}	94.7	93.6 ± 7.3	Age/Gyr	13.784	$13.719^{+0.087}_{-0.018}$	$f_{2000}^{143 \times 217}$	32.04	32.6 ± 1.9
A_{100}^{dustTE}	0.1136	0.113 ± 0.038	z_*	1089.756	$1089.87^{+0.22}_{-0.26}$	f_{2000}^{217}	106.65	107.4 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.1337	0.135 ± 0.030	r_*	144.60	$143.83^{+0.94}_{-0.28}$	χ_{small}^2	397	291 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.480 ± 0.084	$100\theta_*$	1.041203	$1.04105^{+0.00036}_{-0.00030}$	χ_{lowl}^2	23	129 ± 200
A_{143}^{dustTE}	0.223	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.888	$13.816^{+0.088}_{-0.027}$	χ_{plik}^2	2344.6	2362.3 ± 6.2
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.663 ± 0.082	z_{drag}	1060.047	$1060.36^{+0.32}_{-0.47}$	χ_{JLA}^2	1034.977	1035.12 ± 0.33
A_{217}^{dustTE}	2.069	2.07 ± 0.27	r_{drag}	147.24	$146.44^{+0.98}_{-0.29}$	$\chi_{6\text{DF}}^2$	0.022	0.40 ± 0.59
c_{100}	0.99970	0.99966 ± 0.00061	k_D	0.14076	$0.14138^{+0.00034}_{-0.00079}$	χ_{MGS}^2	1.28	0.89 ± 0.63
c_{217}	0.99820	0.99820 ± 0.00063	$100\theta_D$	0.160706	$0.16084^{+0.00018}_{-0.00028}$	χ_{DR12BAO}^2	4.25	5.0 ± 1.6
H_0	67.75	$68.00^{+0.43}_{-0.72}$	z_{eq}	3376.8	3335^{+63}_{-19}	χ_{prior}^2	1.78	11.7 ± 4.6
Ω_Λ	0.6902	0.6888 ± 0.0063	k_{eq}	0.010311	$0.01026^{+0.00019}_{-0.000095}$	χ_{BAO}^2	5.56	6.3 ± 1.3
Ω_m	0.3098	0.3112 ± 0.0063	$100\theta_{\text{eq}}$	0.8183	$0.8275^{+0.0034}_{-0.013}$	χ_{CMB}^2	2764.7	2782.5 ± 6.1
$\Omega_m h^2$	0.14222	$0.1438^{+0.0011}_{-0.0021}$	$100\theta_{s,\text{eq}}$	0.45195	$0.4567^{+0.0017}_{-0.0070}$			
$\Omega_\nu h^2$	0.00091	$0.00266^{+0.00045}_{-0.0022}$	$H(0.15)$	73.02	$73.30^{+0.36}_{-0.70}$			

Best-fit $\chi_{\text{eff}}^2 = 3806.99$; $\bar{\chi}_{\text{eff}}^2 = 3835.68$; $R - 1 = 0.01641$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.25 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.96 commander_dx12_v3_2_29: 23.15 plik_rd12_HM_v22b_TTTEEE: 2344.56 SN - JLA Pantheon18: 1034.98

8.23 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02249 ± 0.00014	$\Omega_m h^3$	$0.09743^{+0.00026}_{-0.0013}$	$D_M(0.15)$	$639.2^{+5.4}_{-3.9}$
$\Omega_c h^2$	$0.1183^{+0.0034}_{-0.0020}$	σ_8	$0.790^{+0.023}_{-0.013}$	$H(0.38)$	$83.30^{+0.26}_{-0.52}$
$100\theta_{MC}$	1.04094 ± 0.00030	S_8	$0.807^{+0.023}_{-0.016}$	$D_M(0.38)$	$1524^{+12}_{-7.7}$
τ	$0.0562^{+0.0069}_{-0.0082}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.013}_{-0.0087}$	$H(0.51)$	$90.06^{+0.20}_{-0.51}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.242	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.017}_{-0.010}$	$D_M(0.51)$	$1974^{+14}_{-8.9}$
N_{eff}	$3.1146^{+0.0072}_{-0.068}$	$\sigma_8/h^{0.5}$	$0.960^{+0.027}_{-0.015}$	$H(0.61)$	$95.71^{+0.15}_{-0.50}$
$\ln(10^{10} A_s)$	3.048 ± 0.016	$r_{\text{drag}} h$	99.41 ± 0.82	$D_M(0.61)$	$2297^{+16}_{-9.5}$
n_s	$0.9681^{+0.0042}_{-0.0050}$	$\langle d^2 \rangle^{1/2}$	2.431 ± 0.025	$H(2.33)$	$237.18^{+0.70}_{-1.3}$
y_{cal}	1.0007 ± 0.0025	z_{re}	7.85 ± 0.77	$D_M(2.33)$	$5739^{+28}_{-7.2}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.108^{+0.031}_{-0.036}$	$f\sigma_8(0.15)$	$0.446^{+0.013}_{-0.0085}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	$0.730^{+0.021}_{-0.013}$
A_{143}^{tSZ}	$5.4^{+2.2}_{-2.0}$	D_{40}	1225 ± 13	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0082}$
A_{100}^{PS}	259 ± 28	D_{220}	5738 ± 39	$\sigma_8(0.38)$	$0.647^{+0.019}_{-0.011}$
A_{143}^{PS}	47 ± 8	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	$0.463^{+0.013}_{-0.0080}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.3 ± 4.7	$\sigma_8(0.51)$	$0.606^{+0.018}_{-0.011}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.6 ± 1.6	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.0078}$
A^{kSZ}	< 4.44	$n_{s,0.002}$	$0.9681^{+0.0042}_{-0.0050}$	$\sigma_8(0.61)$	$0.576^{+0.017}_{-0.010}$
A_{100}^{dustTT}	9.0 ± 1.8	Y_{P}	$0.24635^{+0.00017}_{-0.00090}$	$f\sigma_8(2.33)$	$0.2908^{+0.0087}_{-0.0052}$
A_{143}^{dustTT}	10.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	$0.24768^{+0.00017}_{-0.00090}$	$\sigma_8(2.33)$	$0.2996^{+0.0090}_{-0.0054}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$10^5 \text{D}/\text{H}$	$2.588^{+0.025}_{-0.030}$	f_{2000}^{143}	30.0 ± 2.8
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	$13.739^{+0.067}_{-0.016}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	$1089.87^{+0.22}_{-0.25}$	f_{2000}^{217}	107.4 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.98^{+0.74}_{-0.26}$	χ_{small}^2	292 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.084	$100\theta_*$	1.04108 ± 0.00032	χ_{lowl}^2	129 ± 200
A_{143}^{dustTE}	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	$13.830^{+0.069}_{-0.025}$	χ_{plik}^2	2361.8 ± 6.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.082	z_{drag}	$1060.28^{+0.32}_{-0.40}$	χ_{Aver15}^2	0.53 ± 0.40
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.60^{+0.77}_{-0.27}$	χ_{6DF}^2	0.39 ± 0.55
c_{100}	0.99966 ± 0.00061	k_{D}	$0.14127^{+0.00033}_{-0.00063}$	χ_{MGS}^2	0.84 ± 0.60
c_{217}	0.99820 ± 0.00063	$100\theta_{\text{D}}$	$0.16081^{+0.00017}_{-0.00024}$	χ_{DR12BAO}^2	5.3 ± 1.8
H_0	$67.82^{+0.46}_{-0.61}$	z_{eq}	3334^{+67}_{-22}	χ_{prior}^2	11.7 ± 4.6
Ω_{Λ}	0.6875 ± 0.0065	k_{eq}	$0.01025^{+0.00019}_{-0.000090}$	χ_{BAO}^2	6.6 ± 1.5
Ω_{m}	0.3125 ± 0.0065	$100\theta_{\text{eq}}$	$0.8277^{+0.0040}_{-0.014}$	χ_{CMB}^2	2782.1 ± 6.0
$\Omega_{\text{m}} h^2$	$0.1437^{+0.0011}_{-0.0017}$	$100\theta_{\text{s,eq}}$	$0.4569^{+0.0021}_{-0.0074}$		
$\Omega_{\nu} h^2$	$0.00287^{+0.00058}_{-0.0024}$	$H(0.15)$	$73.13^{+0.38}_{-0.57}$		

$$\bar{\chi}_{\text{eff}}^2 = 2800.91; R - 1 = 0.01503$$

8.24 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014	$\Omega_m h^3$	$0.09744^{+0.00028}_{-0.0014}$	$D_M(0.15)$	$639.4^{+5.4}_{-3.9}$
$\Omega_c h^2$	$0.1184^{+0.0034}_{-0.0019}$	σ_8	$0.791^{+0.023}_{-0.013}$	$H(0.38)$	$83.30^{+0.26}_{-0.53}$
$100\theta_{MC}$	1.04093 ± 0.00030	S_8	$0.807^{+0.023}_{-0.016}$	$D_M(0.38)$	$1525^{+12}_{-7.6}$
τ	$0.0562^{+0.0069}_{-0.0082}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.013}_{-0.0087}$	$H(0.51)$	$90.05^{+0.19}_{-0.52}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.240	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.017}_{-0.010}$	$D_M(0.51)$	$1975^{+14}_{-8.8}$
N_{eff}	$3.1160^{+0.0079}_{-0.069}$	$\sigma_8/h^{0.5}$	$0.960^{+0.027}_{-0.015}$	$H(0.61)$	$95.71^{+0.15}_{-0.51}$
$\ln(10^{10} A_s)$	3.048 ± 0.016	$r_{\text{drag}} h$	99.39 ± 0.82	$D_M(0.61)$	$2298^{+16}_{-9.4}$
n_s	$0.9681^{+0.0042}_{-0.0050}$	$\langle d^2 \rangle^{1/2}$	2.431 ± 0.025	$H(2.33)$	$237.21^{+0.71}_{-1.3}$
y_{cal}	1.0007 ± 0.0025	z_{re}	7.84 ± 0.77	$D_M(2.33)$	$5739^{+29}_{-7.3}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.107^{+0.031}_{-0.036}$	$f\sigma_8(0.15)$	$0.447^{+0.013}_{-0.0085}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	$0.730^{+0.021}_{-0.013}$
A_{143}^{tSZ}	$5.4^{+2.2}_{-2.0}$	D_{40}	1225 ± 13	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0082}$
A_{100}^{PS}	260 ± 28	D_{220}	5737 ± 38	$\sigma_8(0.38)$	$0.647^{+0.019}_{-0.011}$
A_{143}^{PS}	47 ± 8	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	$0.463^{+0.013}_{-0.0080}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.2 ± 4.7	$\sigma_8(0.51)$	$0.606^{+0.018}_{-0.011}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.5 ± 1.6	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.0078}$
A^{kSZ}	< 4.46	$n_{s,0.002}$	$0.9681^{+0.0042}_{-0.0050}$	$\sigma_8(0.61)$	$0.576^{+0.017}_{-0.010}$
A_{100}^{dustTT}	9.0 ± 1.8	Y_P	$0.24636^{+0.00018}_{-0.00092}$	$f\sigma_8(2.33)$	$0.2908^{+0.0087}_{-0.0052}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24769^{+0.00018}_{-0.00092}$	$\sigma_8(2.33)$	$0.2996^{+0.0091}_{-0.0054}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$10^5 D/H$	$2.590^{+0.024}_{-0.029}$	f_{2000}^{143}	30.1 ± 2.8
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	$13.739^{+0.068}_{-0.017}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.89 ± 0.23	f_{2000}^{217}	107.4 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.97^{+0.75}_{-0.27}$	χ_{small}^2	290 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.084	$100\theta_*$	1.04107 ± 0.00032	χ_{lowl}^2	130 ± 200
A_{143}^{dustTE}	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	$13.829^{+0.070}_{-0.026}$	χ_{plik}^2	2361.7 ± 6.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.082	z_{drag}	$1060.26^{+0.32}_{-0.40}$	χ_{Aver15}^2	0.54 ± 0.40
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.59^{+0.78}_{-0.28}$	χ_{Cooke17}^2	0.17 ± 0.19
c_{100}	0.99966 ± 0.00061	k_D	$0.14127^{+0.00034}_{-0.00065}$	$\chi_{6\text{DF}}^2$	0.39 ± 0.55
c_{217}	0.99820 ± 0.00063	$100\theta_D$	$0.16082^{+0.00017}_{-0.00023}$	χ_{MGS}^2	0.82 ± 0.59
H_0	$67.80^{+0.45}_{-0.62}$	z_{eq}	3335^{+67}_{-21}	χ_{DR12BAO}^2	5.4 ± 1.8
Ω_Λ	0.6873 ± 0.0064	k_{eq}	$0.01026^{+0.00019}_{-0.000089}$	χ_{prior}^2	11.7 ± 4.6
Ω_m	0.3127 ± 0.0064	$100\theta_{\text{eq}}$	$0.8275^{+0.0039}_{-0.014}$	χ_{BAO}^2	6.6 ± 1.5
$\Omega_m h^2$	$0.1437^{+0.0011}_{-0.0017}$	$100\theta_{s,\text{eq}}$	$0.4568^{+0.0020}_{-0.0074}$	χ_{CMB}^2	2782.0 ± 6.0
$\Omega_\nu h^2$	$0.00285^{+0.00058}_{-0.0024}$	$H(0.15)$	$73.12^{+0.38}_{-0.58}$	χ_{Abund}^2	0.70 ± 0.42

$$\bar{\chi}_{\text{eff}}^2 = 2801.05; R - 1 = 0.01420$$

8.25 base_nnu_meffsterile_plikHM_TTTEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02250 \pm 0.00015 \quad (+0.6\sigma)$	$\Omega_\nu h^2$	$0.00272^{+0.00048}_{-0.0022}$	$100\theta_{s,eq}$	$0.4565^{+0.0019}_{-0.0070} \quad (+2.5\sigma)$
$\Omega_c h^2$	$0.1187^{+0.0034}_{-0.0022} \quad (-0.6\sigma)$	$\Omega_m h^3$	$0.09775^{+0.00033}_{-0.0017} \quad (+4.9\sigma)$	$H(0.15)$	$73.22^{+0.38}_{-0.67} \quad (+0.7\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00032 \quad (-0.3\sigma)$	σ_8	$0.792^{+0.023}_{-0.013} \quad (-2.7\sigma)$	$D_M(0.15)$	$638.5^{+6.2}_{-3.9} \quad (-0.6\sigma)$
τ	$0.0570^{+0.0057}_{-0.0085} \quad (+0.1\sigma)$	S_8	$0.808^{+0.023}_{-0.016} \quad (-1.4\sigma)$	$H(0.38)$	$83.40^{+0.25}_{-0.64} \quad (+1.2\sigma)$
$m_{\nu, sterile}^{eff} [eV]$	< 0.219	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.013}_{-0.0086} \quad (-1.4\sigma)$	$D_M(0.38)$	$1523^{+14}_{-7.6} \quad (-0.7\sigma)$
N_{eff}	< 3.14	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.017}_{-0.010} \quad (-1.9\sigma)$	$H(0.51)$	$90.16^{+0.19}_{-0.63} \quad (+1.7\sigma)$
$\ln(10^{10} A_s)$	$3.050^{+0.013}_{-0.017} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.961^{+0.027}_{-0.014} \quad (-2.4\sigma)$	$D_M(0.51)$	$1972^{+17}_{-8.7} \quad (-0.8\sigma)$
n_s	$0.9688^{+0.0043}_{-0.0056} \quad (+0.5\sigma)$	$r_{drag} h$	$99.43 \pm 0.83 \quad (-0.3\sigma)$	$H(0.61)$	$95.82^{+0.16}_{-0.62} \quad (+2.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.024 \quad (-0.2\sigma)$	$D_M(0.61)$	$2295^{+19}_{-9.3} \quad (-0.9\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	z_{re}	$7.93^{+0.63}_{-0.83} \quad (+0.1\sigma)$	$H(2.33)$	$237.43^{+0.72}_{-1.6} \quad (+2.1\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s$	$2.112^{+0.028}_{-0.037} \quad (+0.2\sigma)$	$D_M(2.33)$	$5733^{+35}_{-8.1} \quad (-2.9\sigma)$
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9} \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.885 \pm 0.012 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.447^{+0.013}_{-0.0083} \quad (-1.5\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (+0.1\sigma)$	D_{40}	$1225 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.732^{+0.022}_{-0.012} \quad (-2.8\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5738 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.465^{+0.013}_{-0.0080} \quad (-1.8\sigma)$
$A_{143 \times 217}^{PS}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.649^{+0.019}_{-0.011} \quad (-2.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$817.3 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.464^{+0.013}_{-0.0078} \quad (-2.0\sigma)$
A^{kSZ}	$< 4.43 \quad (+0.1\sigma)$	D_{2000}	$230.6 \pm 1.6 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.607^{+0.018}_{-0.011} \quad (-2.9\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9688^{+0.0043}_{-0.0056} \quad (+0.5\sigma)$	$f\sigma_8(0.61)$	$0.459^{+0.013}_{-0.0077} \quad (-2.2\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.24656^{+0.00022}_{-0.0011} \quad (+22.3\sigma)$	$\sigma_8(0.61)$	$0.578^{+0.017}_{-0.010} \quad (-3.0\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.7 \pm 3.2 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.24789^{+0.00022}_{-0.0011} \quad (+22.3\sigma)$	$f\sigma_8(2.33)$	$0.2916^{+0.0088}_{-0.0052} \quad (-2.9\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.591^{+0.025}_{-0.033} \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3004^{+0.0091}_{-0.0055} \quad (-2.9\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	Age/Gyr	$13.724^{+0.084}_{-0.019} \quad (-3.1\sigma)$	f_{2000}^{143}	$30.0 \pm 2.8 \quad (+0.3\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.89^{+0.23}_{-0.26} \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 1.9 \quad (+0.4\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	r_*	$143.83^{+0.91}_{-0.28} \quad (-3.2\sigma)$	f_{2000}^{217}	$107.4 \pm 1.8 \quad (+0.4\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104^{+0.00036}_{-0.00030} \quad (-0.5\sigma)$	χ_{simall}^2	$397.4 \pm 2.3 \quad (+0.0\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.664 \pm 0.081 \quad (-0.0\sigma)$	$D_M(z_*)/Gpc$	$13.816^{+0.085}_{-0.027} \quad (-3.1\sigma)$	χ_{lowl}^2	$22.90 \pm 0.92 \quad (-0.3\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1060.34^{+0.33}_{-0.45} \quad (+1.2\sigma)$	χ_{plik}^2	$2361.9 \pm 6.2 \quad (+0.4\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$146.44^{+0.94}_{-0.30} \quad (-3.2\sigma)$	χ_{6DF}^2	$0.076 \pm 0.084 \quad (+0.3\sigma)$
c_{217}	$0.99820 \pm 0.00063 \quad (+0.0\sigma)$	k_D	$0.14139^{+0.00034}_{-0.00076} \quad (+2.1\sigma)$	χ_{MGS}^2	$1.15 \pm 0.44 \quad (-0.3\sigma)$
H_0	$67.90^{+0.45}_{-0.70} \quad (+0.5\sigma)$	$100\theta_D$	$0.16084^{+0.00017}_{-0.00027} \quad (+0.7\sigma)$	$\chi_{DR12BAO}^2$	$5.3 \pm 1.8 \quad (+0.3\sigma)$
Ω_Λ	$0.6877 \pm 0.0066 \quad (-0.2\sigma)$	z_{eq}	$3337^{+63}_{-21} \quad (-2.2\sigma)$	χ_{prior}^2	$11.7 \pm 4.6 \quad (+0.0\sigma)$
Ω_m	$0.3123 \pm 0.0066 \quad (+0.2\sigma)$	k_{eq}	$0.01027^{+0.00019}_{-0.000096} \quad (-0.9\sigma)$	χ_{BAO}^2	$6.6 \pm 1.5 \quad (+0.3\sigma)$
$\Omega_m h^2$	$0.1440^{+0.0011}_{-0.0020} \quad (+1.7\sigma)$	$100\theta_{eq}$	$0.8270^{+0.0037}_{-0.013} \quad (+2.5\sigma)$	χ_{CMB}^2	$2782.2 \pm 6.1 \quad (+0.4\sigma)$

$$\bar{\chi}_{eff}^2 = 2800.45; \Delta\bar{\chi}_{eff}^2 = 2.74; R - 1 = 0.01583$$

8.26 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02251 ± 0.00015	$\Omega_m h^3$	$0.09783^{+0.00033}_{-0.0018}$	$D_M(0.15)$	$637.6^{+6.4}_{-3.7}$
$\Omega_c h^2$	$0.1187^{+0.0035}_{-0.0023}$	σ_8	$0.793^{+0.023}_{-0.014}$	$H(0.38)$	$83.47^{+0.24}_{-0.67}$
$100\theta_{MC}$	1.04092 ± 0.00032	S_8	$0.807^{+0.023}_{-0.015}$	$D_M(0.38)$	$1521^{+14}_{-7.2}$
τ	$0.0571^{+0.0058}_{-0.0085}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.013}_{-0.0085}$	$H(0.51)$	$90.23^{+0.18}_{-0.66}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.210	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.017}_{-0.010}$	$D_M(0.51)$	$1970^{+17}_{-8.3}$
N_{eff}	< 3.14	$\sigma_8/h^{0.5}$	$0.961^{+0.027}_{-0.014}$	$H(0.61)$	$95.87^{+0.15}_{-0.66}$
$\ln(10^{10} A_s)$	$3.050^{+0.014}_{-0.017}$	$r_{\text{drag}} h$	99.58 ± 0.80	$D_M(0.61)$	$2292^{+20}_{-8.8}$
n_s	$0.9693^{+0.0042}_{-0.0056}$	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.024	$H(2.33)$	$237.38^{+0.69}_{-1.6}$
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.94^{+0.64}_{-0.83}$	$D_M(2.33)$	$5730^{+37}_{-7.9}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.112^{+0.028}_{-0.037}$	$f\sigma_8(0.15)$	$0.447^{+0.013}_{-0.0083}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.884 ± 0.013	$\sigma_8(0.15)$	$0.732^{+0.022}_{-0.013}$
A_{143}^{tSZ}	$5.4^{+2.2}_{-2.0}$	D_{40}	1224 ± 13	$f\sigma_8(0.38)$	$0.465^{+0.013}_{-0.0080}$
A_{100}^{PS}	260 ± 28	D_{220}	5739 ± 39	$\sigma_8(0.38)$	$0.649^{+0.019}_{-0.011}$
A_{143}^{PS}	47 ± 8	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	$0.464^{+0.013}_{-0.0079}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.3 ± 4.7	$\sigma_8(0.51)$	$0.608^{+0.018}_{-0.011}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.6 ± 1.6	$f\sigma_8(0.61)$	$0.459^{+0.013}_{-0.0078}$
A^{kSZ}	< 4.48	$n_{s,0.002}$	$0.9693^{+0.0042}_{-0.0056}$	$\sigma_8(0.61)$	$0.578^{+0.017}_{-0.010}$
A_{100}^{dustTT}	9.0 ± 1.8	Y_P	$0.24661^{+0.00022}_{-0.0012}$	$f\sigma_8(2.33)$	$0.2919^{+0.0088}_{-0.0053}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24794^{+0.00022}_{-0.0012}$	$\sigma_8(2.33)$	$0.3007^{+0.0092}_{-0.0056}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$10^5 D/H$	$2.590^{+0.025}_{-0.033}$	f_{2000}^{143}	30.0 ± 2.8
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	$13.718^{+0.088}_{-0.018}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
A_{100}^{dustTE}	0.113 ± 0.038	z_*	$1089.87^{+0.22}_{-0.27}$	f_{2000}^{217}	107.4 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.83^{+0.94}_{-0.28}$	χ_{small}^2	291 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.480 ± 0.084	$100\theta_*$	$1.04104^{+0.00036}_{-0.00030}$	χ_{lowl}^2	129 ± 200
A_{143}^{dustTE}	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	$13.816^{+0.089}_{-0.027}$	χ_{plik}^2	2362.2 ± 6.2
$A_{143 \times 217}^{\text{dustTE}}$	0.663 ± 0.082	z_{drag}	$1060.37^{+0.32}_{-0.47}$	χ_{JLA}^2	1035.12 ± 0.33
A_{217}^{dustTE}	2.07 ± 0.27	r_{drag}	$146.43^{+0.98}_{-0.29}$	$\chi_{6\text{DF}}^2$	0.40 ± 0.59
c_{100}	0.99966 ± 0.00061	k_D	$0.14139^{+0.00034}_{-0.00079}$	χ_{MGS}^2	0.89 ± 0.64
c_{217}	0.99819 ± 0.00063	$100\theta_D$	$0.16084^{+0.00018}_{-0.00028}$	χ_{DR12BAO}^2	5.0 ± 1.6
H_0	$68.00^{+0.43}_{-0.72}$	z_{eq}	3334^{+63}_{-19}	χ_{prior}^2	11.7 ± 4.6
Ω_Λ	0.6889 ± 0.0063	k_{eq}	$0.01026^{+0.00019}_{-0.000095}$	χ_{BAO}^2	6.3 ± 1.3
Ω_m	0.3111 ± 0.0063	$100\theta_{\text{eq}}$	$0.8275^{+0.0033}_{-0.013}$	χ_{CMB}^2	2782.4 ± 6.1
$\Omega_m h^2$	$0.1439^{+0.0011}_{-0.0021}$	$100\theta_{s,\text{eq}}$	$0.4567^{+0.0017}_{-0.0070}$		
$\Omega_\nu h^2$	$0.00267^{+0.00044}_{-0.0022}$	$H(0.15)$	$73.31^{+0.36}_{-0.70}$		

$$\bar{\chi}_{\text{eff}}^2 = 3835.56; R - 1 = 0.01701$$

8.27 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02249 ± 0.00014	$\Omega_m h^3$	$0.09744^{+0.00027}_{-0.0013}$	$D_M(0.15)$	$639.2^{+5.4}_{-3.9}$
$\Omega_c h^2$	$0.1183^{+0.0034}_{-0.0020}$	σ_8	$0.791^{+0.023}_{-0.013}$	$H(0.38)$	$83.31^{+0.26}_{-0.52}$
$100\theta_{MC}$	1.04094 ± 0.00030	S_8	$0.807^{+0.023}_{-0.016}$	$D_M(0.38)$	$1524^{+12}_{-7.7}$
τ	$0.0568^{+0.0058}_{-0.0084}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.013}_{-0.0087}$	$H(0.51)$	$90.06^{+0.20}_{-0.51}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.241	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.017}_{-0.010}$	$D_M(0.51)$	$1974^{+14}_{-8.9}$
N_{eff}	$3.1151^{+0.0073}_{-0.068}$	$\sigma_8/h^{0.5}$	$0.960^{+0.027}_{-0.015}$	$H(0.61)$	$95.72^{+0.16}_{-0.50}$
$\ln(10^{10} A_s)$	$3.049^{+0.013}_{-0.017}$	$r_{\text{drag}} h$	99.42 ± 0.82	$D_M(0.61)$	$2297^{+16}_{-9.5}$
n_s	$0.9682^{+0.0041}_{-0.0050}$	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.024	$H(2.33)$	$237.18^{+0.70}_{-1.3}$
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.91^{+0.63}_{-0.82}$	$D_M(2.33)$	$5739^{+28}_{-7.3}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.110^{+0.027}_{-0.036}$	$f\sigma_8(0.15)$	$0.447^{+0.013}_{-0.0084}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	$0.731^{+0.021}_{-0.012}$
A_{143}^{tSZ}	$5.4^{+2.2}_{-2.0}$	D_{40}	1225 ± 13	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0081}$
A_{100}^{PS}	259 ± 28	D_{220}	5738 ± 39	$\sigma_8(0.38)$	$0.648^{+0.019}_{-0.011}$
A_{143}^{PS}	47 ± 8	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	$0.463^{+0.013}_{-0.0079}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.3 ± 4.7	$\sigma_8(0.51)$	$0.606^{+0.018}_{-0.010}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.6 ± 1.6	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.0077}$
A^{kSZ}	< 4.42	$n_{s,0.002}$	$0.9682^{+0.0041}_{-0.0050}$	$\sigma_8(0.61)$	$0.577^{+0.017}_{-0.0099}$
A_{100}^{dustTT}	9.0 ± 1.8	Y_P	$0.24636^{+0.00017}_{-0.00090}$	$f\sigma_8(2.33)$	$0.2910^{+0.0087}_{-0.0051}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24769^{+0.00017}_{-0.00091}$	$\sigma_8(2.33)$	$0.2998^{+0.0090}_{-0.0053}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$10^5 D/H$	$2.588^{+0.025}_{-0.030}$	f_{2000}^{143}	30.0 ± 2.8
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	$13.739^{+0.067}_{-0.016}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	$1089.87^{+0.22}_{-0.25}$	f_{2000}^{217}	107.3 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.98^{+0.74}_{-0.26}$	χ_{small}^2	292 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.084	$100\theta_*$	1.04108 ± 0.00032	χ_{lowl}^2	128 ± 200
A_{143}^{dustTE}	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	$13.830^{+0.070}_{-0.025}$	χ_{plik}^2	2361.7 ± 6.1
$A_{143 \times 217}^{\text{dustTE}}$	0.663 ± 0.082	z_{drag}	$1060.28^{+0.32}_{-0.40}$	χ_{Aver15}^2	0.53 ± 0.40
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.59^{+0.77}_{-0.27}$	$\chi_{6\text{DF}}^2$	0.39 ± 0.55
c_{100}	0.99966 ± 0.00061	k_D	$0.14127^{+0.00033}_{-0.00064}$	χ_{MGS}^2	0.84 ± 0.60
c_{217}	0.99819 ± 0.00063	$100\theta_D$	$0.16080^{+0.00017}_{-0.00024}$	χ_{DR12BAO}^2	5.3 ± 1.8
H_0	$67.82^{+0.46}_{-0.61}$	z_{eq}	3333^{+68}_{-21}	χ_{prior}^2	11.7 ± 4.6
Ω_Λ	0.6876 ± 0.0065	k_{eq}	$0.01025^{+0.00019}_{-0.000090}$	χ_{BAO}^2	6.6 ± 1.5
Ω_m	0.3124 ± 0.0065	$100\theta_{\text{eq}}$	$0.8278^{+0.0040}_{-0.014}$	χ_{CMB}^2	2782.0 ± 6.0
$\Omega_m h^2$	$0.1437^{+0.0011}_{-0.0017}$	$100\theta_{s,\text{eq}}$	$0.4569^{+0.0020}_{-0.0075}$		
$\Omega_\nu h^2$	$0.00287^{+0.00057}_{-0.0024}$	$H(0.15)$	$73.14^{+0.38}_{-0.57}$		

$\bar{\chi}_{\text{eff}}^2 = 2800.77$; $R - 1 = 0.01526$

8.28 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014	$\Omega_m h^3$	$0.09745^{+0.00028}_{-0.0014}$	$D_M(0.15)$	$639.3^{+5.4}_{-3.9}$
$\Omega_c h^2$	$0.1184^{+0.0034}_{-0.0019}$	σ_8	$0.791^{+0.023}_{-0.013}$	$H(0.38)$	$83.30^{+0.26}_{-0.53}$
$100\theta_{MC}$	1.04093 ± 0.00030	S_8	$0.807^{+0.023}_{-0.016}$	$D_M(0.38)$	$1524^{+12}_{-7.6}$
τ	$0.0568^{+0.0057}_{-0.0083}$	$\sigma_8 \Omega_m^{0.5}$	$0.442^{+0.013}_{-0.0086}$	$H(0.51)$	$90.06^{+0.20}_{-0.52}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.240	$\sigma_8 \Omega_m^{0.25}$	$0.591^{+0.017}_{-0.010}$	$D_M(0.51)$	$1975^{+14}_{-8.8}$
N_{eff}	$3.1165^{+0.0080}_{-0.070}$	$\sigma_8/h^{0.5}$	$0.961^{+0.027}_{-0.015}$	$H(0.61)$	$95.71^{+0.15}_{-0.51}$
$\ln(10^{10} A_s)$	$3.049^{+0.013}_{-0.017}$	$r_{\text{drag}} h$	99.39 ± 0.82	$D_M(0.61)$	$2298^{+16}_{-9.4}$
n_s	$0.9682^{+0.0041}_{-0.0050}$	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.024	$H(2.33)$	$237.21^{+0.72}_{-1.3}$
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.91^{+0.63}_{-0.82}$	$D_M(2.33)$	$5739^{+29}_{-7.4}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.110^{+0.027}_{-0.036}$	$f\sigma_8(0.15)$	$0.447^{+0.013}_{-0.0084}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	$0.731^{+0.021}_{-0.012}$
A_{143}^{tSZ}	$5.4^{+2.2}_{-2.0}$	D_{40}	1225 ± 13	$f\sigma_8(0.38)$	$0.464^{+0.013}_{-0.0081}$
A_{100}^{PS}	260 ± 28	D_{220}	5737 ± 39	$\sigma_8(0.38)$	$0.648^{+0.019}_{-0.011}$
A_{143}^{PS}	47 ± 8	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	$0.463^{+0.013}_{-0.0078}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.2 ± 4.7	$\sigma_8(0.51)$	$0.606^{+0.018}_{-0.010}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.5 ± 1.6	$f\sigma_8(0.61)$	$0.458^{+0.013}_{-0.0076}$
A^{kSZ}	< 4.44	$n_{s,0.002}$	$0.9682^{+0.0041}_{-0.0050}$	$\sigma_8(0.61)$	$0.577^{+0.017}_{-0.0099}$
A_{100}^{dustTT}	9.0 ± 1.8	Y_P	$0.24637^{+0.00018}_{-0.00092}$	$f\sigma_8(2.33)$	$0.2910^{+0.0087}_{-0.0051}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24770^{+0.00018}_{-0.00093}$	$\sigma_8(2.33)$	$0.2998^{+0.0091}_{-0.0053}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	$10^5 D/H$	$2.590^{+0.024}_{-0.029}$	f_{2000}^{143}	30.0 ± 2.8
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	$13.739^{+0.069}_{-0.017}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	$1089.89^{+0.22}_{-0.24}$	f_{2000}^{217}	107.4 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.96^{+0.75}_{-0.27}$	χ_{small}^2	290 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.084	$100\theta_*$	1.04107 ± 0.00032	χ_{lowl}^2	130 ± 200
A_{143}^{dustTE}	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	$13.828^{+0.071}_{-0.026}$	χ_{plik}^2	2361.6 ± 6.1
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.082	z_{drag}	$1060.27^{+0.32}_{-0.40}$	χ_{Aver15}^2	0.54 ± 0.41
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.58^{+0.79}_{-0.28}$	χ_{Cooke17}^2	0.17 ± 0.19
c_{100}	0.99966 ± 0.00061	k_D	$0.14127^{+0.00034}_{-0.00065}$	$\chi_{6\text{DF}}^2$	0.39 ± 0.55
c_{217}	0.99820 ± 0.00063	$100\theta_D$	$0.16082^{+0.00017}_{-0.00023}$	χ_{MGS}^2	0.83 ± 0.59
H_0	$67.81^{+0.45}_{-0.62}$	z_{eq}	3334^{+67}_{-21}	χ_{DR12BAO}^2	5.4 ± 1.8
Ω_Λ	0.6874 ± 0.0064	k_{eq}	$0.01026^{+0.00019}_{-0.000089}$	χ_{prior}^2	11.7 ± 4.6
Ω_m	0.3126 ± 0.0064	$100\theta_{\text{eq}}$	$0.8276^{+0.0039}_{-0.014}$	χ_{BAO}^2	6.6 ± 1.5
$\Omega_m h^2$	$0.1437^{+0.0011}_{-0.0017}$	$100\theta_{s,\text{eq}}$	$0.4568^{+0.0020}_{-0.0074}$	χ_{CMB}^2	2781.9 ± 6.0
$\Omega_\nu h^2$	$0.00286^{+0.00057}_{-0.0024}$	$H(0.15)$	$73.12^{+0.38}_{-0.58}$	χ_{Abund}^2	0.71 ± 0.42

$$\bar{\chi}_{\text{eff}}^2 = 2800.91; R - 1 = 0.01453$$

8.29 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022350	0.02243 ± 0.00016 (+0.6 σ)	σ_8	0.8062	$0.788_{-0.015}^{+0.025}$ (−2.6 σ)	$H(0.15)$	73.00	$73.42_{-0.86}^{+0.38}$ (+1.1 σ)
$\Omega_c h^2$	0.11484	$0.1187_{-0.0027}^{+0.0039}$ (−0.2 σ)	S_8	0.8184	$0.801_{-0.016}^{+0.024}$ (−1.4 σ)	$D_M(0.15)$	640.1	$636.6_{-4.0}^{+7.8}$ (−1.0 σ)
$100\theta_{MC}$	1.040969	$1.04082_{-0.00032}^{+0.00038}$ (−0.5 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4483	$0.439_{-0.0089}^{+0.013}$ (−1.4 σ)	$H(0.38)$	83.07	$83.57_{-0.85}^{+0.27}$ (+1.8 σ)
τ	0.0538	0.0545 ± 0.0078 (+0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6012	$0.588_{-0.011}^{+0.018}$ (−2.0 σ)	$D_M(0.38)$	1527.2	$1519_{-7.8}^{+17}$ (−1.2 σ)
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	0.380	< 0.210	$\sigma_8/h^{0.5}$	0.9795	$0.955_{-0.015}^{+0.028}$ (−2.5 σ)	$H(0.51)$	89.76	$90.32_{-0.84}^{+0.22}$ (+2.4 σ)
N_{eff}	3.047	< 3.18	$r_{\text{drag}} h$	99.86	99.70 ± 0.87 (−0.1 σ)	$D_M(0.51)$	1978.7	$1967_{-9.0}^{+22}$ (−1.3 σ)
$\ln(10^{10} A_s)$	3.0404	$3.044_{-0.018}^{+0.016}$ (+0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4251	2.415 ± 0.026 (−0.4 σ)	$H(0.61)$	95.36	$95.97_{-0.84}^{+0.20}$ (+3.1 σ)
n_s	0.9680	$0.9704_{-0.0064}^{+0.0048}$ (+0.8 σ)	z_{re}	7.62	7.70 ± 0.80 (+0.1 σ)	$D_M(0.61)$	2302.8	$2290_{-9.6}^{+25}$ (−1.4 σ)
y_{cal}	1.00091	1.0006 ± 0.0025 (+0.0 σ)	$10^9 A_s$	2.0913	$2.098_{-0.037}^{+0.032}$ (+0.3 σ)	$H(2.33)$	235.81	$237.47_{-2.0}^{+0.82}$ (+2.5 σ)
A_{100}^{PS}	234.6	243 ± 25 (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8778	$1.881_{-0.015}^{+0.012}$ (+0.5 σ)	$D_M(2.33)$	5761.3	5725_{-11}^{+47} (−3.9 σ)
A_{143}^{PS}	43.8	41 ± 8 (+0.3 σ)	D_{40}	1222.9	1218 ± 13 (−0.4 σ)	$f\sigma_8(0.15)$	0.4530	$0.444_{-0.0087}^{+0.013}$ (−1.5 σ)
A_{217}^{PS}	104.5	102 ± 10 (−0.0 σ)	D_{220}	5725.8	5723 ± 39 (+0.0 σ)	$\sigma_8(0.15)$	0.7452	$0.728_{-0.014}^{+0.023}$ (−2.7 σ)
A_{217}^{CIB}	41.8	41 ± 7 (+0.1 σ)	D_{810}	2538.5	2536 ± 14 (+0.1 σ)	$f\sigma_8(0.38)$	0.4718	$0.462_{-0.0086}^{+0.014}$ (−1.8 σ)
A_{143}^{tSZ}	5.70	$3.8_{-2.6}^{+1.8}$ (−0.0 σ)	D_{1420}	817.40	815.2 ± 4.9 (−0.2 σ)	$\sigma_8(0.38)$	0.6609	$0.646_{-0.012}^{+0.020}$ (−2.7 σ)
$r_{143 \times 217}^{\text{PS}}$	0.693	0.65 ± 0.13 (−0.1 σ)	D_{2000}	230.94	229.5 ± 1.7 (−0.5 σ)	$f\sigma_8(0.51)$	0.4707	$0.461_{-0.0084}^{+0.014}$ (−2.0 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.709	$0.58_{-0.13}^{+0.41}$ (+0.1 σ)	$n_{s,0.002}$	0.9680	$0.9704_{-0.0064}^{+0.0048}$ (+0.8 σ)	$\sigma_8(0.51)$	0.6186	$0.604_{-0.012}^{+0.019}$ (−2.7 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.48	—	Y_P	0.24540	$0.24694_{-0.0015}^{+0.00037}$ (+27.0 σ)	$f\sigma_8(0.61)$	0.4659	$0.456_{-0.0083}^{+0.014}$ (−2.1 σ)
A^{kSZ}	1.2	—	Y_P^{BBN}	0.24673	$0.24827_{-0.0015}^{+0.00037}$ (+27.0 σ)	$\sigma_8(0.61)$	0.5886	$0.575_{-0.011}^{+0.018}$ (−2.7 σ)
A_{100}^{dust}	1.010	1.02 ± 0.20 (+0.0 σ)	$10^5 D/H$	2.5898	$2.615_{-0.042}^{+0.029}$ (+0.9 σ)	$f\sigma_8(2.33)$	0.2969	$0.2904_{-0.0057}^{+0.0094}$ (−2.6 σ)
A_{143}^{dust}	0.958	0.97 ± 0.17 (+0.0 σ)	Age/Gyr	13.793	$13.71_{-0.027}^{+0.11}$ (−4.2 σ)	$\sigma_8(2.33)$	0.3062	$0.2992_{-0.0061}^{+0.0098}$ (−2.7 σ)
A_{217}^{dust}	0.975	0.97 ± 0.10 (−0.0 σ)	z_*	1089.848	$1090.01_{-0.31}^{+0.25}$ (+0.6 σ)	f_{2000}^{143}	29.45	30.8 ± 3.0 (+0.4 σ)
$A_{143 \times 217}^{\text{dust}}$	1.030	1.03 ± 0.16 (−0.0 σ)	r_*	144.74	$143.7_{-0.38}^{+1.2}$ (−4.0 σ)	f_{2000}^{217}	106.55	107.6 ± 2.0 (+0.4 σ)
c_{100}	0.99777	0.9975 ± 0.0011 (+0.0 σ)	$100\theta_*$	1.041155	$1.04094_{-0.00031}^{+0.00044}$ (−0.7 σ)	$f_{2000}^{143 \times 217}$	31.94	33.0 ± 2.1 (+0.5 σ)
c_{217}	1.00120	1.0012 ± 0.0016 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.901	$13.81_{-0.036}^{+0.11}$ (−3.9 σ)	χ_{simall}^2	395.95	397.1 ± 1.8 (+0.0 σ)
c_{TE}	0.99685	0.9975 ± 0.0050 (+0.1 σ)	z_{drag}	1059.818	$1060.20_{-0.53}^{+0.37}$ (+1.3 σ)	χ_{lowl}^2	22.71	22.47 ± 0.90 (−0.5 σ)
c_{EE}	0.9925	0.9936 ± 0.0052 (+0.2 σ)	r_{drag}	147.41	$146.4_{-0.40}^{+1.2}$ (−4.0 σ)	χ_{CamSpec}^2	11500.3	11517.3 ± 6.1 (+0.5 σ)
H_0	67.75	$68.11_{-0.88}^{+0.46}$ (+0.9 σ)	k_D	0.14051	$0.14129_{-0.00096}^{+0.00040}$ (+2.4 σ)	$\chi_{6\text{DF}}^2$	0.0162	0.058 ± 0.072 (+0.2 σ)
Ω_Λ	0.6909	0.6897 ± 0.0068 (−0.1 σ)	$100\theta_D$	0.160831	$0.16104_{-0.00037}^{+0.00021}$ (+1.0 σ)	χ_{MGS}^2	1.343	1.30 ± 0.48 (−0.1 σ)
Ω_m	0.3091	0.3103 ± 0.0068 (+0.1 σ)	z_{eq}	3277.8	3321_{-18}^{+64} (−2.4 σ)	χ_{DR12BAO}^2	4.08	4.9 ± 1.6 (+0.2 σ)
$\Omega_m h^2$	0.14188	$0.1439_{-0.0026}^{+0.0012}$ (+2.0 σ)	k_{eq}	0.010078	$0.01024_{-0.00010}^{+0.00020}$ (−0.9 σ)	χ_{prior}^2	2.07	7.9 ± 3.5 (+0.0 σ)
$\Omega_\nu h^2$	0.00469	$0.00280_{-0.0022}^{+0.00020}$	$100\theta_{\text{eq}}$	0.8388	$0.8298_{-0.014}^{+0.0031}$ (+2.7 σ)	χ_{BAO}^2	5.44	6.2 ± 1.3 (+0.3 σ)
$\Omega_m h^3$	0.09612	$0.09804_{-0.0023}^{+0.00051}$ (+6.2 σ)	$100\theta_{s,\text{eq}}$	0.46280	$0.4580_{-0.0072}^{+0.0016}$ (+2.7 σ)	χ_{CMB}^2	11919.0	11936.9 ± 6.1 (+0.4 σ)

Best-fit $\chi_{\text{eff}}^2 = 11926.47$; $\bar{\chi}_{\text{eff}}^2 = 11950.99$; $\Delta\chi_{\text{eff}}^2 = 2.71$; $R - 1 = 0.01562$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.08 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.95 commander_dx12.v3.2.29: 22.71 CamSpec like_10.7HM_1400_unified: 11500.30

8.30 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243^{+0.00015}_{-0.00016}$	S_8	$0.801^{+0.024}_{-0.016}$	$H(0.38)$	$83.63^{+0.27}_{-0.86}$
$\Omega_c h^2$	$0.1186^{+0.0040}_{-0.0028}$	$\sigma_8 \Omega_m^{0.5}$	$0.438^{+0.013}_{-0.0087}$	$D_M(0.38)$	$1517^{+17}_{-7.6}$
$100\theta_{MC}$	$1.04083^{+0.00038}_{-0.00032}$	$\sigma_8 \Omega_m^{0.25}$	$0.588^{+0.018}_{-0.011}$	$H(0.51)$	$90.37^{+0.22}_{-0.86}$
τ	0.0547 ± 0.0078	$\sigma_8/h^{0.5}$	$0.955^{+0.028}_{-0.015}$	$D_M(0.51)$	$1966^{+22}_{-8.8}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.201	$r_{\text{drag}} h$	99.82 ± 0.83	$H(0.61)$	$96.00^{+0.21}_{-0.86}$
N_{eff}	< 3.18	$\langle d^2 \rangle^{1/2}$	2.413 ± 0.025	$D_M(0.61)$	$2288^{+25}_{-9.4}$
$\ln(10^{10} A_s)$	$3.044^{+0.016}_{-0.018}$	z_{re}	7.71 ± 0.79	$H(2.33)$	$237.41^{+0.79}_{-2.1}$
n_s	$0.9708^{+0.0048}_{-0.0063}$	$10^9 A_s$	$2.099^{+0.032}_{-0.037}$	$D_M(2.33)$	5723^{+48}_{-12}
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.881^{+0.012}_{-0.015}$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.0085}$
A_{100}^{PS}	243 ± 25	D_{40}	1218 ± 13	$\sigma_8(0.15)$	$0.729^{+0.023}_{-0.014}$
A_{143}^{PS}	41 ± 8	D_{220}	5724 ± 39	$f\sigma_8(0.38)$	$0.462^{+0.014}_{-0.0084}$
A_{217}^{PS}	102 ± 10	D_{810}	2536 ± 14	$\sigma_8(0.38)$	$0.646^{+0.020}_{-0.012}$
A_{217}^{CIB}	41 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.461^{+0.014}_{-0.0083}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6}$	D_{2000}	229.6 ± 1.7	$\sigma_8(0.51)$	$0.605^{+0.019}_{-0.012}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9708^{+0.0048}_{-0.0063}$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.0082}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.41}_{-0.13}$	Y_P	$0.24696^{+0.00037}_{-0.0016}$	$\sigma_8(0.61)$	$0.576^{+0.018}_{-0.011}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24829^{+0.00037}_{-0.0016}$	$f\sigma_8(2.33)$	$0.2907^{+0.0093}_{-0.0056}$
A^{kSZ}	—	$10^5 D/H$	$2.615^{+0.029}_{-0.042}$	$\sigma_8(2.33)$	$0.2996^{+0.0097}_{-0.0060}$
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	$13.70^{+0.11}_{-0.028}$	f_{2000}^{143}	30.8 ± 3.0
A_{143}^{dust}	0.96 ± 0.17	z_*	$1090.00^{+0.25}_{-0.32}$	f_{2000}^{217}	107.6 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$143.7^{+1.2}_{-0.37}$	$f_{2000}^{143 \times 217}$	33.0 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04095^{+0.00044}_{-0.00032}$	χ_{small}^2	397.1 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.81^{+0.11}_{-0.035}$	χ_{lowl}^2	22.41 ± 0.88
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.21^{+0.36}_{-0.54}$	χ_{CamSpec}^2	11517.4 ± 6.1
c_{TE}	0.9975 ± 0.0050	r_{drag}	$146.4^{+1.3}_{-0.39}$	χ_{JLA}^2	1035.04 ± 0.30
c_{EE}	0.9937 ± 0.0051	k_D	$0.14127^{+0.00038}_{-0.00098}$	$\chi_{6\text{DF}}^2$	0.048 ± 0.062
H_0	$68.20^{+0.45}_{-0.88}$	$100\theta_D$	$0.16104^{+0.00021}_{-0.00038}$	χ_{MGS}^2	1.37 ± 0.47
Ω_Λ	0.6907 ± 0.0065	z_{eq}	3319^{+64}_{-17}	χ_{DR12BAO}^2	4.6 ± 1.4
Ω_m	0.3093 ± 0.0065	k_{eq}	$0.01024^{+0.00020}_{-0.00010}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_m h^2$	$0.1438^{+0.0012}_{-0.0026}$	$100\theta_{\text{eq}}$	$0.8302^{+0.0030}_{-0.014}$	χ_{BAO}^2	6.1 ± 1.1
$\Omega_\nu h^2$	$0.00274^{+0.00021}_{-0.0021}$	$100\theta_{s,\text{eq}}$	$0.4582^{+0.0015}_{-0.0071}$	χ_{CMB}^2	11936.9 ± 6.1
$\Omega_m h^3$	$0.09809^{+0.00053}_{-0.0023}$	$H(0.15)$	$73.49^{+0.38}_{-0.87}$		
σ_8	$0.788^{+0.024}_{-0.014}$	$D_M(0.15)$	$635.9^{+7.8}_{-3.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 12985.86; R - 1 = 0.01581$$

8.31 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02241 ± 0.00015	S_8	$0.799^{+0.024}_{-0.016}$	$H(0.38)$	$83.38^{+0.26}_{-0.61}$
$\Omega_c h^2$	$0.1179^{+0.0038}_{-0.0022}$	$\sigma_8 \Omega_m^{0.5}$	$0.438^{+0.013}_{-0.0089}$	$D_M(0.38)$	$1522^{+13}_{-7.7}$
$100\theta_{MC}$	1.04087 ± 0.00033	$\sigma_8 \Omega_m^{0.25}$	$0.587^{+0.018}_{-0.011}$	$H(0.51)$	$90.12^{+0.20}_{-0.60}$
τ	0.0544 ± 0.0078	$\sigma_8/h^{0.5}$	$0.953^{+0.028}_{-0.016}$	$D_M(0.51)$	$1972^{+16}_{-8.9}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.245	$r_{\text{drag}} h$	99.67 ± 0.84	$H(0.61)$	$95.76^{+0.15}_{-0.60}$
N_{eff}	< 3.14	$\langle d^2 \rangle^{1/2}$	2.417 ± 0.025	$D_M(0.61)$	$2295^{+18}_{-9.4}$
$\ln(10^{10} A_s)$	3.042 ± 0.017	z_{re}	7.68 ± 0.80	$H(2.33)$	$237.00^{+0.70}_{-1.6}$
n_s	$0.9693^{+0.0045}_{-0.0054}$	$10^9 A_s$	$2.095^{+0.032}_{-0.036}$	$D_M(2.33)$	$5737^{+34}_{-7.5}$
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.879^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.0087}$
A_{100}^{PS}	242 ± 25	D_{40}	1220 ± 13	$\sigma_8(0.15)$	$0.726^{+0.022}_{-0.013}$
A_{143}^{PS}	41 ± 8	D_{220}	5723 ± 39	$f\sigma_8(0.38)$	$0.461^{+0.014}_{-0.0084}$
A_{217}^{PS}	102 ± 10	D_{810}	2536 ± 14	$\sigma_8(0.38)$	$0.644^{+0.020}_{-0.012}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.459^{+0.014}_{-0.0082}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{2000}	229.7 ± 1.7	$\sigma_8(0.51)$	$0.603^{+0.019}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9693^{+0.0045}_{-0.0054}$	$f\sigma_8(0.61)$	$0.455^{+0.014}_{-0.0081}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.42}_{-0.13}$	Y_P	$0.24651^{+0.00020}_{-0.0011}$	$\sigma_8(0.61)$	$0.573^{+0.018}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24785^{+0.00020}_{-0.0011}$	$f\sigma_8(2.33)$	$0.2895^{+0.0092}_{-0.0053}$
A^{kSZ}	4.9 ± 2.7	$10^5 D/H$	$2.608^{+0.028}_{-0.035}$	$\sigma_8(2.33)$	$0.2983^{+0.0096}_{-0.0056}$
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	$13.735^{+0.081}_{-0.017}$	f_{2000}^{143}	30.6 ± 2.9
A_{143}^{dust}	0.96 ± 0.17	z_*	$1089.96^{+0.24}_{-0.28}$	f_{2000}^{217}	107.4 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.03^{+0.89}_{-0.27}$	$f_{2000}^{143 \times 217}$	32.8 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04101^{+0.00037}_{-0.00030}$	χ_{simall}^2	397.1 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.836^{+0.083}_{-0.026}$	χ_{lowl}^2	22.60 ± 0.88
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.09^{+0.34}_{-0.45}$	χ_{CamSpec}^2	11516.9 ± 6.0
c_{TE}	0.9973 ± 0.0050	r_{drag}	$146.68^{+0.92}_{-0.28}$	χ_{Aver15}^2	0.61 ± 0.54
c_{EE}	0.9932 ± 0.0050	k_D	$0.14106^{+0.00034}_{-0.00074}$	$\chi_{6\text{DF}}^2$	0.058 ± 0.071
H_0	$67.95^{+0.46}_{-0.69}$	$100\theta_D$	$0.16097^{+0.00020}_{-0.00029}$	χ_{MGS}^2	1.29 ± 0.46
Ω_Λ	0.6894 ± 0.0066	z_{eq}	3316^{+71}_{-21}	χ_{DR12BAO}^2	4.9 ± 1.5
Ω_m	0.3106 ± 0.0066	k_{eq}	$0.01021^{+0.00020}_{-0.000095}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_m h^2$	$0.1434^{+0.0011}_{-0.0020}$	$100\theta_{\text{eq}}$	$0.8308^{+0.0037}_{-0.015}$	χ_{BAO}^2	6.2 ± 1.3
$\Omega_\nu h^2$	$0.00303^{+0.00027}_{-0.0024}$	$100\theta_{s,\text{eq}}$	$0.4585^{+0.0019}_{-0.0080}$	χ_{CMB}^2	11936.5 ± 6.0
$\Omega_m h^3$	$0.09742^{+0.00031}_{-0.0016}$	$H(0.15)$	$73.25^{+0.38}_{-0.65}$		
σ_8	$0.786^{+0.024}_{-0.014}$	$D_M(0.15)$	$638.1^{+6.0}_{-3.9}$		

$$\bar{\chi}_{\text{eff}}^2 = 11951.21; R - 1 = 0.01810$$

8.32 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02240 ± 0.00015	S_8	$0.799^{+0.024}_{-0.016}$	$H(0.38)$	$83.37^{+0.26}_{-0.61}$
$\Omega_c h^2$	$0.1179^{+0.0038}_{-0.0021}$	$\sigma_8 \Omega_m^{0.5}$	$0.438^{+0.013}_{-0.0088}$	$D_M(0.38)$	$1522^{+13}_{-7.6}$
$100\theta_{MC}$	1.04087 ± 0.00032	$\sigma_8 \Omega_m^{0.25}$	$0.587^{+0.017}_{-0.011}$	$H(0.51)$	$90.11^{+0.20}_{-0.60}$
τ	0.0544 ± 0.0078	$\sigma_8/h^{0.5}$	$0.953^{+0.028}_{-0.015}$	$D_M(0.51)$	$1972^{+16}_{-8.8}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.245	$r_{\text{drag}} h$	99.66 ± 0.83	$H(0.61)$	$95.74^{+0.16}_{-0.59}$
N_{eff}	< 3.14	$\langle d^2 \rangle^{1/2}$	2.417 ± 0.025	$D_M(0.61)$	$2295^{+18}_{-9.3}$
$\ln(10^{10} A_s)$	3.042 ± 0.017	z_{re}	7.67 ± 0.80	$H(2.33)$	$236.98^{+0.71}_{-1.5}$
n_s	$0.9692^{+0.0045}_{-0.0054}$	$10^9 A_s$	$2.095^{+0.032}_{-0.036}$	$D_M(2.33)$	$5738^{+34}_{-7.6}$
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.879^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.0086}$
A_{100}^{PS}	243 ± 25	D_{40}	1220 ± 13	$\sigma_8(0.15)$	$0.726^{+0.023}_{-0.013}$
A_{143}^{PS}	41 ± 8	D_{220}	5722 ± 39	$f\sigma_8(0.38)$	$0.461^{+0.014}_{-0.0083}$
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$\sigma_8(0.38)$	$0.644^{+0.020}_{-0.011}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.459^{+0.014}_{-0.0081}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{2000}	229.7 ± 1.7	$\sigma_8(0.51)$	$0.603^{+0.019}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9692^{+0.0045}_{-0.0054}$	$f\sigma_8(0.61)$	$0.455^{+0.014}_{-0.0080}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.42}_{-0.13}$	Y_P	$0.24650^{+0.00021}_{-0.0011}$	$\sigma_8(0.61)$	$0.573^{+0.018}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24783^{+0.00022}_{-0.0011}$	$f\sigma_8(2.33)$	$0.2894^{+0.0092}_{-0.0052}$
A^{kSZ}	—	$10^5 D/H$	$2.609^{+0.027}_{-0.033}$	$\sigma_8(2.33)$	$0.2982^{+0.0096}_{-0.0055}$
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	$13.737^{+0.079}_{-0.017}$	f_{2000}^{143}	30.6 ± 2.9
A_{143}^{dust}	0.96 ± 0.17	z_*	1089.97 ± 0.25	f_{2000}^{217}	107.5 ± 1.9
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.05^{+0.87}_{-0.28}$	$f_{2000}^{143 \times 217}$	32.8 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04102^{+0.00036}_{-0.00030}$	χ_{simall}^2	397.1 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.837^{+0.081}_{-0.026}$	χ_{lowl}^2	22.61 ± 0.88
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.08^{+0.34}_{-0.44}$	χ_{CamSpec}^2	11516.8 ± 5.9
c_{TE}	0.9973 ± 0.0050	r_{drag}	$146.69^{+0.91}_{-0.29}$	χ_{Aver15}^2	0.60 ± 0.51
c_{EE}	0.9933 ± 0.0050	k_D	$0.14105^{+0.00034}_{-0.00073}$	χ_{Cooke17}^2	0.12 ± 0.17
H_0	$67.94^{+0.45}_{-0.68}$	$100\theta_D$	$0.16097^{+0.00019}_{-0.00028}$	$\chi_{6\text{DF}}^2$	0.058 ± 0.071
Ω_Λ	0.6893 ± 0.0065	z_{eq}	3317^{+71}_{-21}	χ_{MGS}^2	1.28 ± 0.46
Ω_m	0.3107 ± 0.0065	k_{eq}	$0.01021^{+0.00020}_{-0.000092}$	χ_{DR12BAO}^2	4.9 ± 1.5
$\Omega_m h^2$	$0.1434^{+0.0011}_{-0.0020}$	$100\theta_{\text{eq}}$	$0.8308^{+0.0037}_{-0.015}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_\nu h^2$	$0.00303^{+0.00027}_{-0.0024}$	$100\theta_{s,\text{eq}}$	$0.4585^{+0.0019}_{-0.0080}$	χ_{BAO}^2	6.2 ± 1.3
$\Omega_m h^3$	$0.09739^{+0.00033}_{-0.0016}$	$H(0.15)$	$73.23^{+0.38}_{-0.65}$	χ_{CMB}^2	11936.5 ± 6.0
σ_8	$0.786^{+0.024}_{-0.014}$	$D_M(0.15)$	$638.3^{+6.0}_{-3.8}$	χ_{Abund}^2	0.72 ± 0.57

$$\bar{\chi}_{\text{eff}}^2 = 11951.25; R - 1 = 0.01822$$

8.33 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243 \pm 0.00016 \quad (+0.6\sigma)$	σ_8	$0.789^{+0.024}_{-0.015} \quad (-2.9\sigma)$	$H(0.15)$	$73.43^{+0.38}_{-0.86} \quad (+1.1\sigma)$
$\Omega_c h^2$	$0.1187^{+0.0039}_{-0.0027} \quad (-0.2\sigma)$	S_8	$0.802^{+0.024}_{-0.016} \quad (-1.5\sigma)$	$D_M(0.15)$	$636.5^{+7.8}_{-3.9} \quad (-1.0\sigma)$
$100\theta_{MC}$	$1.04082^{+0.00038}_{-0.00031} \quad (-0.5\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.439^{+0.013}_{-0.0089} \quad (-1.5\sigma)$	$H(0.38)$	$83.58^{+0.27}_{-0.85} \quad (+1.8\sigma)$
τ	$0.0556^{+0.0056}_{-0.0080} \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.589^{+0.017}_{-0.011} \quad (-2.1\sigma)$	$D_M(0.38)$	$1518^{+17}_{-7.7} \quad (-1.2\sigma)$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.209	$\sigma_8/h^{0.5}$	$0.956^{+0.028}_{-0.015} \quad (-2.7\sigma)$	$H(0.51)$	$90.33^{+0.22}_{-0.85} \quad (+2.4\sigma)$
N_{eff}	< 3.18	$r_{\text{drag}} h$	$99.71 \pm 0.87 \quad (-0.2\sigma)$	$D_M(0.51)$	$1967^{+22}_{-8.9} \quad (-1.3\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.018} \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.417 \pm 0.025 \quad (-0.4\sigma)$	$H(0.61)$	$95.97^{+0.20}_{-0.84} \quad (+3.2\sigma)$
n_s	$0.9705^{+0.0048}_{-0.0064} \quad (+0.8\sigma)$	z_{re}	$7.81^{+0.61}_{-0.80} \quad (+0.1\sigma)$	$D_M(0.61)$	$2289^{+25}_{-9.5} \quad (-1.4\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s$	$2.103^{+0.026}_{-0.037} \quad (+0.3\sigma)$	$H(2.33)$	$237.47^{+0.83}_{-2.1} \quad (+2.6\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.881^{+0.012}_{-0.015} \quad (+0.5\sigma)$	$D_M(2.33)$	$5725^{+47}_{-11} \quad (-4.0\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.3\sigma)$	D_{40}	$1218 \pm 13 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.444^{+0.013}_{-0.0087} \quad (-1.5\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5723 \pm 39 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.729^{+0.023}_{-0.014} \quad (-3.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.462^{+0.014}_{-0.0085} \quad (-1.9\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.7} \quad (-0.0\sigma)$	D_{1420}	$815.2 \pm 4.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.646^{+0.020}_{-0.012} \quad (-3.1\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	D_{2000}	$229.6 \pm 1.7 \quad (-0.6\sigma)$	$f\sigma_8(0.51)$	$0.461^{+0.014}_{-0.0084} \quad (-2.1\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.40}_{-0.14} \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9705^{+0.0048}_{-0.0064} \quad (+0.8\sigma)$	$\sigma_8(0.51)$	$0.605^{+0.019}_{-0.012} \quad (-3.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.24695^{+0.00037}_{-0.0015} \quad (+27.2\sigma)$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.0083} \quad (-2.3\sigma)$
A^{kSZ}	—	Y_P^{BBN}	$0.24828^{+0.00037}_{-0.0016} \quad (+27.2\sigma)$	$\sigma_8(0.61)$	$0.576^{+0.018}_{-0.011} \quad (-3.2\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.615^{+0.029}_{-0.042} \quad (+0.9\sigma)$	$f\sigma_8(2.33)$	$0.2907^{+0.0093}_{-0.0057} \quad (-3.0\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	Age/Gyr	$13.71^{+0.11}_{-0.027} \quad (-4.2\sigma)$	$\sigma_8(2.33)$	$0.2995^{+0.0097}_{-0.0061} \quad (-3.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.01^{+0.25}_{-0.31} \quad (+0.6\sigma)$	f_{2000}^{143}	$30.8 \pm 3.0 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$143.7^{+1.2}_{-0.38} \quad (-4.0\sigma)$	f_{2000}^{217}	$107.6 \pm 2.0 \quad (+0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04094^{+0.00044}_{-0.00031} \quad (-0.7\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 2.1 \quad (+0.5\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.81^{+0.11}_{-0.036} \quad (-3.9\sigma)$	χ_{simall}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9974 \pm 0.0050 \quad (+0.1\sigma)$	z_{drag}	$1060.20^{+0.37}_{-0.53} \quad (+1.3\sigma)$	χ_{lowl}^2	$22.48 \pm 0.90 \quad (-0.5\sigma)$
c_{EE}	$0.9936 \pm 0.0052 \quad (+0.3\sigma)$	r_{drag}	$146.4^{+1.2}_{-0.40} \quad (-4.0\sigma)$	χ_{CamSpec}^2	$11517.2 \pm 6.0 \quad (+0.5\sigma)$
H_0	$68.13^{+0.46}_{-0.88} \quad (+0.9\sigma)$	k_D	$0.14129^{+0.00040}_{-0.00097} \quad (+2.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.057 \pm 0.072 \quad (+0.2\sigma)$
Ω_Λ	$0.6898 \pm 0.0068 \quad (-0.1\sigma)$	$100\theta_D$	$0.16104^{+0.00021}_{-0.00037} \quad (+1.1\sigma)$	χ_{MGS}^2	$1.31 \pm 0.48 \quad (-0.1\sigma)$
Ω_m	$0.3102 \pm 0.0068 \quad (+0.1\sigma)$	z_{eq}	$3321^{+64}_{-18} \quad (-2.3\sigma)$	χ_{DR12BAO}^2	$4.9 \pm 1.6 \quad (+0.3\sigma)$
$\Omega_m h^2$	$0.1439^{+0.0012}_{-0.0026} \quad (+2.1\sigma)$	k_{eq}	$0.01024^{+0.00020}_{-0.00010} \quad (-0.8\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_\nu h^2$	$0.00278^{+0.00032}_{-0.0023}$	$100\theta_{\text{eq}}$	$0.8298^{+0.0032}_{-0.014} \quad (+2.7\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (+0.3\sigma)$
$\Omega_m h^3$	$0.09806^{+0.00052}_{-0.0023} \quad (+6.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4580^{+0.0016}_{-0.0071} \quad (+2.7\sigma)$	χ_{CMB}^2	$11936.7 \pm 6.0 \quad (+0.4\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11950.77; \Delta\bar{\chi}_{\text{eff}}^2 = 2.78; R - 1 = 0.01713$$

8.34 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02244 ± 0.00016	S_8	$0.801^{+0.023}_{-0.016}$	$H(0.38)$	$83.64^{+0.27}_{-0.86}$
$\Omega_c h^2$	$0.1187^{+0.0039}_{-0.0028}$	$\sigma_8 \Omega_m^{0.5}$	$0.439^{+0.013}_{-0.0087}$	$D_M(0.38)$	$1517^{+18}_{-7.5}$
$100\theta_{MC}$	$1.04083^{+0.00038}_{-0.00032}$	$\sigma_8 \Omega_m^{0.25}$	$0.589^{+0.017}_{-0.011}$	$H(0.51)$	$90.38^{+0.22}_{-0.86}$
τ	$0.0557^{+0.0056}_{-0.0079}$	$\sigma_8/h^{0.5}$	$0.956^{+0.027}_{-0.015}$	$D_M(0.51)$	$1965^{+22}_{-8.7}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.201	$r_{\text{drag}} h$	99.83 ± 0.83	$H(0.61)$	$96.01^{+0.21}_{-0.86}$
N_{eff}	< 3.18	$\langle d^2 \rangle^{1/2}$	2.415 ± 0.024	$D_M(0.61)$	$2287^{+25}_{-9.4}$
$\ln(10^{10} A_s)$	$3.046^{+0.013}_{-0.018}$	z_{re}	$7.82^{+0.61}_{-0.79}$	$H(2.33)$	$237.41^{+0.80}_{-2.1}$
n_s	$0.9709^{+0.0048}_{-0.0064}$	$10^9 A_s$	$2.103^{+0.026}_{-0.037}$	$D_M(2.33)$	5723^{+49}_{-12}
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.881^{+0.012}_{-0.015}$	$f\sigma_8(0.15)$	$0.444^{+0.013}_{-0.0085}$
A_{100}^{PS}	243 ± 25	D_{40}	1218 ± 13	$\sigma_8(0.15)$	$0.730^{+0.022}_{-0.014}$
A_{143}^{PS}	41 ± 8	D_{220}	5724 ± 39	$f\sigma_8(0.38)$	$0.462^{+0.014}_{-0.0084}$
A_{217}^{PS}	102 ± 10	D_{810}	2536 ± 14	$\sigma_8(0.38)$	$0.647^{+0.020}_{-0.012}$
A_{217}^{CIB}	41 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.461^{+0.014}_{-0.0083}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{2000}	229.6 ± 1.7	$\sigma_8(0.51)$	$0.606^{+0.019}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9709^{+0.0048}_{-0.0064}$	$f\sigma_8(0.61)$	$0.456^{+0.014}_{-0.0081}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.40}_{-0.14}$	Y_P	$0.24698^{+0.00038}_{-0.0016}$	$\sigma_8(0.61)$	$0.576^{+0.018}_{-0.011}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24831^{+0.00038}_{-0.0016}$	$f\sigma_8(2.33)$	$0.2910^{+0.0092}_{-0.0056}$
A^{kSZ}	—	$10^5 D/H$	$2.614^{+0.029}_{-0.042}$	$\sigma_8(2.33)$	$0.2999^{+0.0096}_{-0.0059}$
A_{100}^{dust}	1.02 ± 0.19	Age/Gyr	$13.70^{+0.11}_{-0.028}$	f_{2000}^{143}	30.8 ± 3.0
A_{143}^{dust}	0.96 ± 0.17	z_*	$1089.99^{+0.25}_{-0.32}$	f_{2000}^{217}	107.6 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$143.7^{+1.2}_{-0.38}$	$f_{2000}^{143 \times 217}$	33.0 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04095^{+0.00044}_{-0.00032}$	χ_{small}^2	397.0 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.81^{+0.11}_{-0.036}$	χ_{lowl}^2	22.42 ± 0.89
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.21^{+0.37}_{-0.54}$	χ_{CamSpec}^2	11517.3 ± 6.0
c_{TE}	0.9974 ± 0.0050	r_{drag}	$146.4^{+1.3}_{-0.40}$	χ_{JLA}^2	1035.04 ± 0.30
c_{EE}	0.9936 ± 0.0052	k_D	$0.14128^{+0.00039}_{-0.00099}$	χ_{6DF}^2	0.047 ± 0.061
H_0	$68.21^{+0.45}_{-0.88}$	$100\theta_D$	$0.16104^{+0.00021}_{-0.00038}$	χ_{MGS}^2	1.37 ± 0.47
Ω_Λ	0.6908 ± 0.0065	z_{eq}	3319^{+63}_{-18}	χ_{DR12BAO}^2	4.6 ± 1.4
Ω_m	0.3092 ± 0.0065	k_{eq}	$0.01024^{+0.00020}_{-0.00010}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_m h^2$	$0.1438^{+0.0012}_{-0.0026}$	$100\theta_{\text{eq}}$	$0.8302^{+0.0030}_{-0.013}$	χ_{BAO}^2	6.1 ± 1.1
$\Omega_\nu h^2$	$0.00272^{+0.00029}_{-0.0022}$	$100\theta_{s,\text{eq}}$	$0.4582^{+0.0015}_{-0.0070}$	χ_{CMB}^2	11936.7 ± 6.0
$\Omega_m h^3$	$0.09811^{+0.00055}_{-0.0023}$	$H(0.15)$	$73.50^{+0.37}_{-0.87}$		
σ_8	$0.789^{+0.024}_{-0.014}$	$D_M(0.15)$	$635.8^{+7.8}_{-3.8}$		

$$\bar{\chi}_{\text{eff}}^2 = 12985.64; R - 1 = 0.01787$$

8.35 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02241 ± 0.00015	S_8	$0.800^{+0.024}_{-0.016}$	$H(0.38)$	$83.39^{+0.26}_{-0.61}$
$\Omega_c h^2$	$0.1179^{+0.0038}_{-0.0023}$	$\sigma_8 \Omega_m^{0.5}$	$0.438^{+0.013}_{-0.0089}$	$D_M(0.38)$	$1522^{+13}_{-7.6}$
$100\theta_{MC}$	$1.04087^{+0.00034}_{-0.00031}$	$\sigma_8 \Omega_m^{0.25}$	$0.587^{+0.017}_{-0.011}$	$H(0.51)$	$90.13^{+0.20}_{-0.60}$
τ	$0.0556^{+0.0055}_{-0.0079}$	$\sigma_8/h^{0.5}$	$0.954^{+0.028}_{-0.016}$	$D_M(0.51)$	$1972^{+16}_{-8.8}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.244	$r_{\text{drag}} h$	99.68 ± 0.84	$H(0.61)$	$95.76^{+0.16}_{-0.60}$
N_{eff}	< 3.14	$\langle d^2 \rangle^{1/2}$	2.419 ± 0.024	$D_M(0.61)$	$2294^{+18}_{-9.4}$
$\ln(10^{10} A_s)$	$3.044^{+0.012}_{-0.017}$	z_{re}	$7.80^{+0.60}_{-0.79}$	$H(2.33)$	$237.00^{+0.70}_{-1.6}$
n_s	$0.9694^{+0.0045}_{-0.0054}$	$10^9 A_s$	$2.100^{+0.025}_{-0.036}$	$D_M(2.33)$	$5737^{+34}_{-7.5}$
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.879^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.0087}$
A_{100}^{PS}	242 ± 25	D_{40}	1220 ± 13	$\sigma_8(0.15)$	$0.727^{+0.022}_{-0.013}$
A_{143}^{PS}	41 ± 8	D_{220}	5722 ± 39	$f\sigma_8(0.38)$	$0.461^{+0.014}_{-0.0085}$
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$\sigma_8(0.38)$	$0.645^{+0.020}_{-0.012}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.460^{+0.014}_{-0.0082}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{2000}	229.7 ± 1.7	$\sigma_8(0.51)$	$0.603^{+0.019}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9694^{+0.0045}_{-0.0054}$	$f\sigma_8(0.61)$	$0.455^{+0.014}_{-0.0080}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.40}_{-0.15}$	Y_P	$0.24652^{+0.00021}_{-0.0011}$	$\sigma_8(0.61)$	$0.574^{+0.018}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24785^{+0.00021}_{-0.0011}$	$f\sigma_8(2.33)$	$0.2898^{+0.0091}_{-0.0053}$
A^{kSZ}	—	$10^5 D/H$	$2.608^{+0.028}_{-0.035}$	$\sigma_8(2.33)$	$0.2986^{+0.0095}_{-0.0056}$
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	$13.734^{+0.081}_{-0.017}$	f_{2000}^{143}	30.6 ± 2.9
A_{143}^{dust}	0.96 ± 0.17	z_*	$1089.96^{+0.24}_{-0.28}$	f_{2000}^{217}	107.4 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.03^{+0.90}_{-0.27}$	$f_{2000}^{143 \times 217}$	32.8 ± 2.1
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04101^{+0.00037}_{-0.00030}$	χ_{simall}^2	397.0 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.836^{+0.084}_{-0.026}$	χ_{lowl}^2	22.61 ± 0.88
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.10^{+0.35}_{-0.44}$	χ_{CamSpec}^2	11516.7 ± 5.9
c_{TE}	0.9972 ± 0.0050	r_{drag}	$146.68^{+0.93}_{-0.28}$	χ_{Aver15}^2	0.62 ± 0.54
c_{EE}	0.9932 ± 0.0050	k_D	$0.14107^{+0.00035}_{-0.00074}$	$\chi_{6\text{DF}}^2$	0.057 ± 0.070
H_0	$67.96^{+0.45}_{-0.69}$	$100\theta_D$	$0.16097^{+0.00020}_{-0.00029}$	χ_{MGS}^2	1.29 ± 0.46
Ω_Λ	0.6895 ± 0.0066	z_{eq}	3316^{+71}_{-21}	χ_{DR12BAO}^2	4.9 ± 1.5
Ω_m	0.3105 ± 0.0066	k_{eq}	$0.01021^{+0.00020}_{-0.000096}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_m h^2$	$0.1434^{+0.0011}_{-0.0020}$	$100\theta_{\text{eq}}$	$0.8308^{+0.0037}_{-0.015}$	χ_{BAO}^2	6.2 ± 1.2
$\Omega_\nu h^2$	$0.00301^{+0.00027}_{-0.0024}$	$100\theta_{s,\text{eq}}$	$0.4585^{+0.0019}_{-0.0079}$	χ_{CMB}^2	11936.3 ± 5.9
$\Omega_m h^3$	$0.09744^{+0.00032}_{-0.0016}$	$H(0.15)$	$73.26^{+0.38}_{-0.65}$		
σ_8	$0.787^{+0.024}_{-0.014}$	$D_M(0.15)$	$638.0^{+6.0}_{-3.9}$		

$$\bar{\chi}_{\text{eff}}^2 = 11950.98; R - 1 = 0.01936$$

8.36 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02240 ± 0.00015	S_8	$0.800^{+0.023}_{-0.016}$	$H(0.38)$	$83.38^{+0.26}_{-0.61}$
$\Omega_c h^2$	$0.1179^{+0.0038}_{-0.0022}$	$\sigma_8 \Omega_m^{0.5}$	$0.438^{+0.013}_{-0.0088}$	$D_M(0.38)$	$1522^{+13}_{-7.5}$
$100\theta_{MC}$	1.04087 ± 0.00032	$\sigma_8 \Omega_m^{0.25}$	$0.587^{+0.017}_{-0.011}$	$H(0.51)$	$90.12^{+0.20}_{-0.60}$
τ	$0.0555^{+0.0055}_{-0.0079}$	$\sigma_8/h^{0.5}$	$0.954^{+0.028}_{-0.015}$	$D_M(0.51)$	$1972^{+16}_{-8.7}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.244	$r_{\text{drag}} h$	99.67 ± 0.83	$H(0.61)$	$95.75^{+0.16}_{-0.60}$
N_{eff}	< 3.14	$\langle d^2 \rangle^{1/2}$	2.419 ± 0.024	$D_M(0.61)$	$2295^{+18}_{-9.3}$
$\ln(10^{10} A_s)$	$3.044^{+0.012}_{-0.017}$	z_{re}	$7.80^{+0.60}_{-0.79}$	$H(2.33)$	$236.98^{+0.72}_{-1.5}$
n_s	$0.9693^{+0.0045}_{-0.0054}$	$10^9 A_s$	$2.100^{+0.025}_{-0.036}$	$D_M(2.33)$	$5737^{+34}_{-7.7}$
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	$1.879^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.443^{+0.013}_{-0.0086}$
A_{100}^{PS}	242 ± 25	D_{40}	1220 ± 13	$\sigma_8(0.15)$	$0.727^{+0.022}_{-0.013}$
A_{143}^{PS}	41 ± 8	D_{220}	5722 ± 39	$f\sigma_8(0.38)$	$0.461^{+0.014}_{-0.0083}$
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$\sigma_8(0.38)$	$0.645^{+0.020}_{-0.011}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.460^{+0.014}_{-0.0081}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	D_{2000}	229.7 ± 1.7	$\sigma_8(0.51)$	$0.603^{+0.019}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9693^{+0.0045}_{-0.0054}$	$f\sigma_8(0.61)$	$0.455^{+0.014}_{-0.0080}$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.40}_{-0.14}$	Y_P	$0.24651^{+0.00022}_{-0.0011}$	$\sigma_8(0.61)$	$0.574^{+0.018}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24784^{+0.00022}_{-0.0011}$	$f\sigma_8(2.33)$	$0.2898^{+0.0091}_{-0.0052}$
A^{kSZ}	—	$10^5 D/H$	$2.608^{+0.027}_{-0.033}$	$\sigma_8(2.33)$	$0.2986^{+0.0095}_{-0.0055}$
A_{100}^{dust}	1.02 ± 0.20	Age/Gyr	$13.736^{+0.080}_{-0.018}$	f_{2000}^{143}	30.6 ± 2.9
A_{143}^{dust}	0.96 ± 0.17	z_*	$1089.96^{+0.23}_{-0.26}$	f_{2000}^{217}	107.4 ± 1.9
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.04^{+0.88}_{-0.28}$	$f_{2000}^{143 \times 217}$	32.8 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	$1.04101^{+0.00036}_{-0.00030}$	χ_{simall}^2	397.0 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.837^{+0.082}_{-0.027}$	χ_{lowl}^2	22.62 ± 0.88
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.08^{+0.34}_{-0.44}$	χ_{CamSpec}^2	11516.6 ± 5.9
c_{TE}	0.9972 ± 0.0050	r_{drag}	$146.69^{+0.92}_{-0.29}$	χ_{Aver15}^2	0.61 ± 0.51
c_{EE}	0.9932 ± 0.0050	k_D	$0.14105^{+0.00035}_{-0.00073}$	χ_{Cooke17}^2	0.12 ± 0.17
H_0	$67.95^{+0.45}_{-0.68}$	$100\theta_D$	$0.16097^{+0.00019}_{-0.00028}$	$\chi_{6\text{DF}}^2$	0.057 ± 0.070
Ω_Λ	0.6894 ± 0.0065	z_{eq}	3317^{+71}_{-21}	χ_{MGS}^2	1.29 ± 0.46
Ω_m	0.3106 ± 0.0065	k_{eq}	$0.01021^{+0.00020}_{-0.000093}$	χ_{DR12BAO}^2	4.9 ± 1.5
$\Omega_m h^2$	$0.1434^{+0.0011}_{-0.0020}$	$100\theta_{\text{eq}}$	$0.8308^{+0.0037}_{-0.015}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_\nu h^2$	$0.00301^{+0.00027}_{-0.0024}$	$100\theta_{s,\text{eq}}$	$0.4585^{+0.0019}_{-0.0079}$	χ_{BAO}^2	6.2 ± 1.2
$\Omega_m h^3$	$0.09740^{+0.00034}_{-0.0016}$	$H(0.15)$	$73.24^{+0.37}_{-0.65}$	χ_{CMB}^2	11936.2 ± 5.9
σ_8	$0.787^{+0.024}_{-0.014}$	$D_M(0.15)$	$638.2^{+6.0}_{-3.8}$	χ_{Abund}^2	0.73 ± 0.57

$$\bar{\chi}_{\text{eff}}^2 = 11951.02; R - 1 = 0.01932$$

8.37 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022264	0.02232 ± 0.00021 (+0.6 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6054	$0.596^{+0.015}_{-0.0093}$ (−1.3 σ)	$D_{\mathrm{M}}(0.38)$	1526.2	1516^{+24}_{-12} (−1.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.11957	$0.1204^{+0.0038}_{-0.0034}$ (+1.2 σ)	$\sigma_8/h^{0.5}$	0.9853	$0.966^{+0.022}_{-0.012}$ (−2.1 σ)	$H(0.51)$	89.86	$90.53^{+0.45}_{-1.2}$ (+3.4 σ)
$100\theta_{\mathrm{MC}}$	1.040912	1.04076 ± 0.00049 (−0.5 σ)	$r_{\mathrm{drag}}h$	99.73	99.51 ± 0.93 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1977.3	1964^{+30}_{-14} (−1.9 σ)
τ	0.0558	0.0566 ± 0.0078 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4345	2.427 ± 0.023 (−0.4 σ)	$H(0.61)$	95.48	$96.20^{+0.44}_{-1.2}$ (+4.2 σ)
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}}$ [eV]	0.000	< 0.149	z_{re}	7.85	7.96 ± 0.78 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2301.0	2285^{+35}_{-15} (−2.1 σ)
N_{eff}	3.077	< 3.26	$10^9 A_{\mathrm{s}}$	2.1047	$2.116^{+0.032}_{-0.037}$ (+0.6 σ)	$H(2.33)$	236.27	$238.3^{+1.2}_{-2.7}$ (+3.5 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0467	3.052 ± 0.017 (+0.6 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8825	$1.890^{+0.012}_{-0.017}$ (+1.0 σ)	$D_{\mathrm{M}}(2.33)$	5753.7	5710^{+69}_{-25} (−4.9 σ)
n_{s}	0.9679	$0.9709^{+0.0057}_{-0.0080}$ (+1.2 σ)	D_{40}	1225.4	1221 ± 14 (−0.6 σ)	$f\sigma_8(0.15)$	0.4565	$0.450^{+0.011}_{-0.0072}$ (−1.0 σ)
y_{cal}	1.00095	1.0008 ± 0.0025 (+0.0 σ)	D_{220}	5725.1	5724 ± 40 (+0.0 σ)	$\sigma_8(0.15)$	0.7496	$0.737^{+0.020}_{-0.013}$ (−1.9 σ)
A_{217}^{CIB}	48.8	49 ± 7 (+0.1 σ)	D_{810}	2540.4	2540 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4751	$0.468^{+0.012}_{-0.0072}$ (−1.2 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.30	—	D_{1420}	816.78	814.9 ± 5.0 (−0.1 σ)	$\sigma_8(0.38)$	0.6646	$0.653^{+0.018}_{-0.012}$ (−1.9 σ)
A_{143}^{tSZ}	7.05	4.9 ± 2.0 (−0.1 σ)	D_{2000}	230.43	229.1 ± 1.9 (−0.5 σ)	$f\sigma_8(0.51)$	0.4739	$0.467^{+0.012}_{-0.0072}$ (−1.4 σ)
A_{100}^{PS}	254.5	267 ± 28 (+0.1 σ)	$n_{\mathrm{s}, 0.002}$	0.9679	$0.9709^{+0.0057}_{-0.0080}$ (+1.2 σ)	$\sigma_8(0.51)$	0.6220	$0.612^{+0.017}_{-0.012}$ (−1.9 σ)
A_{143}^{PS}	49.2	51 ± 8 (+0.3 σ)	Y_{P}	0.24576	$0.24756^{+0.00071}_{-0.0022}$ (+27.7 σ)	$f\sigma_8(0.61)$	0.4690	$0.462^{+0.012}_{-0.0073}$ (−1.5 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	46.2	44^{+9}_{-10} (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24709	$0.24889^{+0.00071}_{-0.0022}$ (+27.7 σ)	$\sigma_8(0.61)$	0.5919	$0.582^{+0.016}_{-0.011}$ (−1.9 σ)
A_{217}^{PS}	119.1	115 ± 10 (+0.1 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.616	$2.653^{+0.043}_{-0.059}$ (+1.0 σ)	$f\sigma_8(2.33)$	0.2985	$0.2938^{+0.0083}_{-0.0057}$ (−1.7 σ)
A^{kSZ}	0.00	< 5.21 (+0.1 σ)	Age/Gyr	13.775	$13.67^{+0.16}_{-0.059}$ (−5.1 σ)	$\sigma_8(2.33)$	0.3078	$0.3026^{+0.0087}_{-0.0062}$ (−1.7 σ)
$A_{100}^{\mathrm{dustTT}}$	8.86	9.0 ± 1.8 (+0.0 σ)	z_*	1090.047	$1090.30^{+0.33}_{-0.41}$ (+0.9 σ)	f_{2000}^{143}	30.39	32.3 ± 3.1 (+0.4 σ)
$A_{143}^{\mathrm{dustTT}}$	10.78	10.7 ± 1.8 (+0.0 σ)	r_*	144.47	$143.3^{+1.7}_{-0.63}$ (−5.2 σ)	$f_{2000}^{143 \times 217}$	33.18	34.4 ± 2.2 (+0.5 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.42	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.04109	$1.04086^{+0.00059}_{-0.00049}$ (−0.8 σ)	f_{2000}^{217}	107.69	108.9 ± 2.0 (+0.5 σ)
$A_{217}^{\mathrm{dustTT}}$	94.7	93.2 ± 7.4 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.877	$13.76^{+0.16}_{-0.059}$ (−4.9 σ)	$\chi_{\mathrm{lensing}}^2$	8.84	9.5 ± 1.0 (+0.4 σ)
c_{100}	0.99965	0.99961 ± 0.00062 (−0.0 σ)	z_{drag}	1059.67	$1060.08^{+0.51}_{-0.71}$ (+1.3 σ)	χ_{small}^2	396.34	397.5 ± 2.2 (+0.2 σ)
c_{217}	0.99826	0.99828 ± 0.00062 (+0.0 σ)	r_{drag}	147.17	$145.9^{+1.7}_{-0.66}$ (−4.9 σ)	χ_{lowl}^2	22.91	22.6 ± 1.0 (−0.7 σ)
H_0	67.77	$68.20^{+0.63}_{-1.2}$ (+1.3 σ)	k_{D}	0.14059	$0.14148^{+0.00061}_{-0.0013}$ (+2.7 σ)	χ_{plik}^2	759.6	773.6 ± 5.6 (+0.4 σ)
Ω_{Λ}	0.6897	0.6881 ± 0.0074 (−0.1 σ)	$100\theta_{\mathrm{D}}$	0.161035	$0.16134^{+0.00033}_{-0.00052}$ (+1.2 σ)	$\chi_{6\mathrm{DF}}^2$	0.0236	0.076 ± 0.090 (+0.2 σ)
Ω_{m}	0.3103	0.3119 ± 0.0074 (+0.1 σ)	z_{eq}	3375.6	3337^{+49}_{-23} (−1.6 σ)	χ_{MGS}^2	1.279	1.21 ± 0.50 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14248	$0.1450^{+0.0016}_{-0.0033}$ (+2.8 σ)	k_{eq}	0.010324	$0.01032^{+0.00018}_{-0.00012}$ (+0.1 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.25	5.3 ± 1.9 (+0.3 σ)
$\Omega_{\nu}h^2$	0.00065	$0.0022471^{+0.0000082}_{-0.0016}$	$100\theta_{\mathrm{eq}}$	0.8178	$0.8261^{+0.0038}_{-0.010}$ (+1.9 σ)	χ_{prior}^2	1.49	7.3 ± 3.7 (+0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09656	$0.0989^{+0.0011}_{-0.0034}$ (+6.7 σ)	$100\theta_{\mathrm{s}, \mathrm{eq}}$	0.45181	$0.4561^{+0.0019}_{-0.0054}$ (+1.9 σ)	χ_{CMB}^2	1187.7	1203.3 ± 5.8 (+0.4 σ)
σ_8	0.8111	$0.798^{+0.021}_{-0.014}$ (−1.8 σ)	$H(0.15)$	73.04	$73.53^{+0.56}_{-1.2}$ (+1.7 σ)	χ_{BAO}^2	5.56	6.5 ± 1.6 (+0.3 σ)
S_8	0.8249	$0.813^{+0.020}_{-0.014}$ (−0.9 σ)	$D_{\mathrm{M}}(0.15)$	639.8	$636^{+11}_{-5.6}$ (−1.5 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518	$0.445^{+0.011}_{-0.0074}$ (−0.9 σ)	$H(0.38)$	83.15	$83.74^{+0.48}_{-1.2}$ (+2.6 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.69$; $\Delta\chi_{\mathrm{eff}}^2 = 0.01$; $\bar{\chi}_{\mathrm{eff}}^2 = 1217.17$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.44$; $R - 1 = 0.01959$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.25 (Δ -0.12) CMB - smicadx12.Dec5.ftl.mv2.ndclpp-p.teb.consext8: 8.84 (Δ -0.04) small_100x143.offlike5.EE_Aplanc
396.34 (Δ 0.24) commander_dx12.v3.2.29: 22.91 (Δ -0.05) plik_rd12_HM.v22.TT: 759.57 (Δ -0.24)

8.38 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022239	0.02234 ± 0.00021 (+0.6 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6042	$0.596^{+0.015}_{-0.0091}$ (−1.2 σ)	$D_M(0.38)$	1530.2	1514^{+25}_{-12} (−1.9 σ)
$\Omega_c h^2$	0.11711	$0.1205^{+0.0039}_{-0.0034}$ (+1.4 σ)	$\sigma_8/h^{0.5}$	0.9842	$0.966^{+0.023}_{-0.012}$ (−2.0 σ)	$H(0.51)$	89.66	$90.62^{+0.49}_{-1.3}$ (+3.7 σ)
$100\theta_{MC}$	1.041023	1.04076 ± 0.00049 (−0.6 σ)	$r_{drag}h$	99.65	99.65 ± 0.90 (−0.1 σ)	$D_M(0.51)$	1982.3	1961^{+31}_{-15} (−2.1 σ)
τ	0.0567	0.0571 ± 0.0077 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4382	2.426 ± 0.023 (−0.4 σ)	$H(0.61)$	95.27	$96.29^{+0.47}_{-1.3}$ (+4.6 σ)
$m_{\nu, sterile}^{eff}$ [eV]	0.193	< 0.139	z_{re}	7.94	8.01 ± 0.77 (+0.3 σ)	$D_M(0.61)$	2306.7	2282^{+36}_{-16} (−2.3 σ)
N_{eff}	3.047	< 3.27	$10^9 A_s$	2.1022	2.119 ± 0.035 (+0.6 σ)	$H(2.33)$	235.88	$238.3^{+1.2}_{-2.9}$ (+3.8 σ)
$\ln(10^{10} A_s)$	3.0456	3.053 ± 0.016 (+0.6 σ)	$10^9 A_s e^{-2\tau}$	1.8768	$1.890^{+0.013}_{-0.018}$ (+1.1 σ)	$D_M(2.33)$	5766	5706^{+73}_{-27} (−5.3 σ)
n_s	0.9661	$0.9715^{+0.0057}_{-0.0081}$ (+1.3 σ)	D_{40}	1226.6	1220 ± 14 (−0.6 σ)	$f\sigma_8(0.15)$	0.4558	$0.450^{+0.011}_{-0.0070}$ (−0.9 σ)
y_{cal}	1.00006	1.0008 ± 0.0025 (+0.0 σ)	D_{220}	5717.4	5725 ± 40 (+0.0 σ)	$\sigma_8(0.15)$	0.7477	$0.738^{+0.020}_{-0.013}$ (−1.7 σ)
A_{217}^{CIB}	50.1	49 ± 7 (+0.1 σ)	D_{810}	2534.5	2540 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4742	$0.468^{+0.012}_{-0.0070}$ (−1.1 σ)
$\xi^{tSZ \times CIB}$	0.18	—	D_{1420}	814.87	814.9 ± 5.0 (−0.2 σ)	$\sigma_8(0.38)$	0.6628	$0.654^{+0.018}_{-0.012}$ (−1.7 σ)
A_{143}^{tSZ}	7.16	4.9 ± 2.0 (−0.1 σ)	D_{2000}	229.97	229.1 ± 1.9 (−0.6 σ)	$f\sigma_8(0.51)$	0.4729	$0.467^{+0.012}_{-0.0071}$ (−1.2 σ)
A_{100}^{PS}	255.9	267 ± 28 (+0.1 σ)	$n_{s,0.002}$	0.9661	$0.9715^{+0.0057}_{-0.0081}$ (+1.3 σ)	$\sigma_8(0.51)$	0.6203	$0.613^{+0.017}_{-0.011}$ (−1.7 σ)
A_{143}^{PS}	47.4	51 ± 8 (+0.3 σ)	Y_P	0.24536	$0.24768^{+0.00078}_{-0.0023}$ (+29.4 σ)	$f\sigma_8(0.61)$	0.4680	$0.462^{+0.012}_{-0.0071}$ (−1.3 σ)
$A_{143 \times 217}^{PS}$	42.9	44 ± 9 (+0.1 σ)	Y_P^{BBN}	0.24668	$0.24901^{+0.00078}_{-0.0024}$ (+29.4 σ)	$\sigma_8(0.61)$	0.5902	$0.583^{+0.016}_{-0.011}$ (−1.7 σ)
A_{217}^{PS}	116.7	115 ± 10 (+0.1 σ)	$10^5 D/H$	2.611	$2.653^{+0.044}_{-0.061}$ (+1.1 σ)	$f\sigma_8(2.33)$	0.2976	$0.2944^{+0.0084}_{-0.0057}$ (−1.5 σ)
A^{kSZ}	0.00	< 5.22 (+0.1 σ)	Age/Gyr	13.804	$13.66^{+0.17}_{-0.064}$ (−5.6 σ)	$\sigma_8(2.33)$	0.3068	$0.3033^{+0.0088}_{-0.0062}$ (−1.5 σ)
A_{100}^{dustTT}	8.84	9.0 ± 1.8 (+0.0 σ)	z_*	1090.013	$1090.28^{+0.34}_{-0.41}$ (+0.9 σ)	f_{2000}^{143}	30.60	32.3 ± 3.1 (+0.5 σ)
A_{143}^{dustTT}	10.87	10.7 ± 1.8 (+0.0 σ)	r_*	144.75	$143.2^{+1.8}_{-0.68}$ (−5.6 σ)	$f_{2000}^{143 \times 217}$	33.29	34.4 ± 2.2 (+0.6 σ)
$A_{143 \times 217}^{dustTT}$	19.35	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.04122	$1.04085^{+0.00060}_{-0.00049}$ (−0.8 σ)	f_{2000}^{217}	107.63	108.9 ± 2.0 (+0.5 σ)
A_{217}^{dustTT}	94.2	93.2 ± 7.4 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.902	$13.76^{+0.16}_{-0.063}$ (−5.3 σ)	$\chi_{lensing}^2$	8.78	9.6 ± 1.0 (+0.4 σ)
c_{100}	0.99963	0.99962 ± 0.00061 (−0.0 σ)	z_{drag}	1059.59	$1060.12^{+0.53}_{-0.73}$ (+1.4 σ)	χ_{simall}^2	397	290 ± 200 (−57.5 σ)
c_{217}	0.99827	0.99828 ± 0.00063 (+0.0 σ)	r_{drag}	147.46	$145.9^{+1.8}_{-0.71}$ (−5.2 σ)	χ_{lowl}^2	23	131 ± 200 (+125.2 σ)
H_0	67.58	$68.32^{+0.63}_{-1.2}$ (+1.5 σ)	k_D	0.14038	$0.14152^{+0.00063}_{-0.0014}$ (+2.9 σ)	χ_{plik}^2	759.1	773.8 ± 5.6 (+0.4 σ)
Ω_Λ	0.6890	0.6892 ± 0.0071 (−0.1 σ)	$100\theta_D$	0.160982	$0.16135^{+0.00035}_{-0.00054}$ (+1.3 σ)	χ_{JLA}^2	1035.034	1035.12 ± 0.37 (+0.1 σ)
Ω_m	0.3110	0.3108 ± 0.0071 (+0.1 σ)	z_{eq}	3329.4	3334^{+49}_{-22} (−1.6 σ)	χ_{6DF}^2	0.029	0.41 ± 0.62 (+6.0 σ)
$\Omega_m h^2$	0.14204	$0.1450^{+0.0017}_{-0.0035}$ (+3.1 σ)	k_{eq}	0.010199	$0.01031^{+0.00018}_{-0.00012}$ (+0.2 σ)	χ_{MGS}^2	1.22	0.93 ± 0.69 (−0.9 σ)
$\Omega_\nu h^2$	0.00269	$0.002206^{+0.000048}_{-0.0016}$	$100\theta_{eq}$	0.8275	$0.8266^{+0.0037}_{-0.010}$ (+1.9 σ)	$\chi_{DR12BAO}^2$	4.37	5.0 ± 1.7 (+0.2 σ)
$\Omega_m h^3$	0.09599	$0.0991^{+0.0012}_{-0.0036}$ (+7.2 σ)	$100\theta_{s,eq}$	0.45697	$0.4564^{+0.0018}_{-0.0053}$ (+1.9 σ)	χ_{prior}^2	1.49	7.3 ± 3.7 (+0.0 σ)
σ_8	0.8091	$0.799^{+0.021}_{-0.014}$ (−1.7 σ)	$H(0.15)$	72.85	$73.65^{+0.58}_{-1.2}$ (+1.9 σ)	χ_{CMB}^2	1187.7	1203.5 ± 5.9 (+0.4 σ)
S_8	0.8238	$0.813^{+0.020}_{-0.013}$ (−0.9 σ)	$D_M(0.15)$	641.6	$635^{+11}_{-5.7}$ (−1.6 σ)	χ_{BAO}^2	5.62	6.3 ± 1.4 (+0.3 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4512	$0.445^{+0.011}_{-0.0072}$ (−0.9 σ)	$H(0.38)$	82.95	$83.85^{+0.51}_{-1.2}$ (+2.9 σ)			

Best-fit $\chi_{eff}^2 = 2229.80$; $\Delta\chi_{eff}^2 = 0.09$; $\bar{\chi}_{eff}^2 = 2252.23$; $\Delta\bar{\chi}_{eff}^2 = 2.45$; $R - 1 = 0.01841$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.01) MGS: 1.22 (Δ -0.13) DR12BAO: 4.37 (Δ 0.34) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p-teb_consext8: 8.78 (Δ -0.10) simall_100x143_offlike5_EE_Aplanck
396.58 (Δ 0.21) commander_dx12_v3_2.29: 23.22 (Δ 0.40) plik_rd12_HM_v22_TT: 759.08 (Δ -0.71) SN - JLA Pantheon18: 1035.03 (Δ 0.08)

8.39 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02229 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.015}_{-0.0092}$	$D_M(0.38)$	$1524^{+17}_{-9.1}$
$\Omega_c h^2$	$0.1192^{+0.0035}_{-0.0027}$	$\sigma_8/h^{0.5}$	$0.964^{+0.024}_{-0.013}$	$H(0.51)$	$90.13^{+0.27}_{-0.81}$
$100\theta_{MC}$	1.04086 ± 0.00045	$r_{drag}h$	99.38 ± 0.90	$D_M(0.51)$	1973^{+21}_{-11}
τ	0.0565 ± 0.0077	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.022	$H(0.61)$	$95.79^{+0.24}_{-0.81}$
$m_{\nu, sterile}^{eff} [eV]$	< 0.195	z_{re}	7.93 ± 0.77	$D_M(0.61)$	2296^{+24}_{-11}
N_{eff}	< 3.17	$10^9 A_s$	2.111 ± 0.033	$H(2.33)$	$237.46^{+0.88}_{-1.9}$
$\ln(10^{10} A_s)$	3.050 ± 0.016	$10^9 A_s e^{-2\tau}$	$1.885^{+0.011}_{-0.014}$	$D_M(2.33)$	5734^{+46}_{-13}
n_s	$0.9685^{+0.0049}_{-0.0064}$	D_{40}	1224 ± 13	$f\sigma_8(0.15)$	$0.449^{+0.012}_{-0.0074}$
y_{cal}	1.0008 ± 0.0025	D_{220}	5724 ± 40	$\sigma_8(0.15)$	$0.733^{+0.020}_{-0.012}$
A_{217}^{CIB}	48 ± 7	D_{810}	2539 ± 13	$f\sigma_8(0.38)$	$0.466^{+0.012}_{-0.0072}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	815.1 ± 5.0	$\sigma_8(0.38)$	$0.650^{+0.018}_{-0.011}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.4 ± 1.8	$f\sigma_8(0.51)$	$0.465^{+0.012}_{-0.0071}$
A_{100}^{PS}	265 ± 28	$n_{s,0.002}$	$0.9685^{+0.0049}_{-0.0064}$	$\sigma_8(0.51)$	$0.608^{+0.017}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_P	$0.24675^{+0.00034}_{-0.0014}$	$f\sigma_8(0.61)$	$0.460^{+0.012}_{-0.0071}$
$A_{143 \times 217}^{PS}$	44 ± 9	Y_P^{BBN}	$0.24808^{+0.00035}_{-0.0014}$	$\sigma_8(0.61)$	$0.579^{+0.016}_{-0.010}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	$2.639^{+0.040}_{-0.048}$	$f\sigma_8(2.33)$	$0.2920^{+0.0081}_{-0.0054}$
A^{kSZ}	< 5.03	Age/Gyr	$13.73^{+0.11}_{-0.031}$	$\sigma_8(2.33)$	$0.3008^{+0.0084}_{-0.0057}$
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1090.20 ± 0.33	f_{2000}^{143}	31.8 ± 3.0
A_{143}^{dustTT}	10.7 ± 1.8	r_*	$143.8^{+1.1}_{-0.39}$	$f_{2000}^{143 \times 217}$	34.1 ± 2.1
$A_{143 \times 217}^{dustTT}$	18.3 ± 3.3	$100\theta_*$	$1.04100^{+0.00050}_{-0.00044}$	f_{2000}^{217}	108.6 ± 1.9
A_{217}^{dustTT}	93.2 ± 7.4	$D_M(z_*)/Gpc$	$13.82^{+0.11}_{-0.037}$	$\chi^2_{lensing}$	9.42 ± 0.96
c_{100}	0.99962 ± 0.00061	z_{drag}	$1059.88^{+0.49}_{-0.57}$	χ^2_{simall}	291 ± 200
c_{217}	0.99827 ± 0.00063	r_{drag}	$146.5^{+1.2}_{-0.42}$	χ^2_{lowl}	129 ± 200
H_0	$67.84^{+0.52}_{-0.87}$	k_D	$0.14107^{+0.00050}_{-0.00092}$	χ^2_{plik}	773.1 ± 5.5
Ω_Λ	0.6870 ± 0.0072	$100\theta_D$	$0.16120^{+0.00029}_{-0.00040}$	χ^2_{Aver15}	0.75 ± 0.74
Ω_m	0.3130 ± 0.0072	z_{eq}	3332^{+58}_{-23}	χ^2_{6DF}	0.39 ± 0.55
$\Omega_m h^2$	$0.1440^{+0.0013}_{-0.0023}$	k_{eq}	$0.01027^{+0.00018}_{-0.00011}$	χ^2_{MGS}	0.84 ± 0.62
$\Omega_\nu h^2$	$0.00259^{+0.00017}_{-0.0020}$	$100\theta_{eq}$	$0.8271^{+0.0040}_{-0.012}$	$\chi^2_{DR12BAO}$	5.4 ± 2.0
$\Omega_m h^3$	$0.09772^{+0.00057}_{-0.0022}$	$100\theta_{s,eq}$	$0.4567^{+0.0020}_{-0.0065}$	χ^2_{prior}	7.3 ± 3.7
σ_8	$0.794^{+0.021}_{-0.013}$	$H(0.15)$	$73.17^{+0.45}_{-0.85}$	χ^2_{CMB}	1202.9 ± 5.8
S_8	$0.811^{+0.021}_{-0.014}$	$D_M(0.15)$	$639.0^{+7.7}_{-4.5}$	χ^2_{BAO}	6.7 ± 1.7
$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0076}$	$H(0.38)$	$83.36^{+0.33}_{-0.82}$		

$$\bar{\chi}^2_{eff} = 1217.61; R - 1 = 0.02031$$

8.40 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02229 ± 0.00019	$\sigma_8/h^{0.5}$	$0.963^{+0.024}_{-0.013}$	$D_{\mathrm{M}}(0.51)$	1974^{+20}_{-10}
$\Omega_{\mathrm{c}} h^2$	$0.1189^{+0.0035}_{-0.0025}$	$r_{\mathrm{drag}} h$	99.38 ± 0.90	$H(0.61)$	$95.74^{+0.22}_{-0.75}$
$100\theta_{\mathrm{MC}}$	1.04088 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.022	$D_{\mathrm{M}}(0.61)$	2297^{+23}_{-11}
τ	0.0565 ± 0.0077	z_{re}	7.93 ± 0.77	$H(2.33)$	$237.33^{+0.87}_{-1.7}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.208	$10^9 A_{\mathrm{s}}$	2.110 ± 0.033	$D_{\mathrm{M}}(2.33)$	5737^{+43}_{-12}
N_{eff}	< 3.16	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.885^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.448^{+0.012}_{-0.0073}$
$\ln(10^{10} A_{\mathrm{s}})$	3.049 ± 0.016	D_{40}	1225 ± 13	$\sigma_8(0.15)$	$0.733^{+0.020}_{-0.012}$
n_{s}	$0.9682^{+0.0049}_{-0.0062}$	D_{220}	5726 ± 39	$f\sigma_8(0.38)$	$0.466^{+0.012}_{-0.0071}$
y_{cal}	1.0008 ± 0.0024	D_{810}	2539 ± 13	$\sigma_8(0.38)$	$0.649^{+0.018}_{-0.011}$
A_{217}^{CIB}	48 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.464^{+0.012}_{-0.0071}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	229.5 ± 1.7	$\sigma_8(0.51)$	$0.608^{+0.017}_{-0.011}$
A_{143}^{tSZ}	5.0 ± 2.0	$n_{\mathrm{s}, 0.002}$	$0.9682^{+0.0049}_{-0.0062}$	$f\sigma_8(0.61)$	$0.459^{+0.012}_{-0.0070}$
A_{100}^{PS}	265 ± 28	Y_{P}	$0.24663^{+0.00029}_{-0.0013}$	$\sigma_8(0.61)$	$0.578^{+0.016}_{-0.010}$
A_{143}^{PS}	50 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24796^{+0.00029}_{-0.0013}$	$f\sigma_8(2.33)$	$0.2917^{+0.0081}_{-0.0053}$
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	$10^5 \mathrm{D}/\mathrm{H}$	$2.634^{+0.037}_{-0.042}$	$\sigma_8(2.33)$	$0.3005^{+0.0085}_{-0.0057}$
A_{217}^{PS}	115 ± 10	$\mathrm{Age}/\mathrm{Gyr}$	$13.73^{+0.10}_{-0.028}$	f_{2000}^{143}	31.7 ± 2.9
A^{kSZ}	< 4.97	z_*	1090.17 ± 0.30	$f_{2000}^{143 \times 217}$	33.9 ± 2.0
$A_{100}^{\mathrm{dustTT}}$	8.9 ± 1.8	r_*	$143.9^{+1.0}_{-0.37}$	f_{2000}^{217}	108.5 ± 1.9
$A_{143}^{\mathrm{dustTT}}$	10.7 ± 1.8	$100\theta_*$	1.04102 ± 0.00046	$\chi_{\mathrm{lensing}}^2$	9.40 ± 0.96
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.823^{+0.098}_{-0.035}$	χ_{simall}^2	289 ± 200
$A_{217}^{\mathrm{dustTT}}$	93.3 ± 7.4	z_{drag}	$1059.89^{+0.46}_{-0.55}$	χ_{lowl}^2	132 ± 200
c_{100}	0.99962 ± 0.00061	r_{drag}	$146.6^{+1.1}_{-0.40}$	χ_{plik}^2	772.9 ± 5.4
c_{217}	0.99827 ± 0.00063	k_{D}	$0.14103^{+0.00048}_{-0.00087}$	χ_{Aver15}^2	0.68 ± 0.64
H_0	$67.81^{+0.52}_{-0.83}$	$100\theta_{\mathrm{D}}$	$0.16116^{+0.00027}_{-0.00035}$	$\chi_{\mathrm{Cooke17}}^2$	0.21 ± 0.31
Ω_{Λ}	0.6870 ± 0.0071	z_{eq}	3331^{+60}_{-23}	$\chi_{6\mathrm{DF}}^2$	0.39 ± 0.56
Ω_{m}	0.3130 ± 0.0071	k_{eq}	$0.01026^{+0.00018}_{-0.00010}$	χ_{MGS}^2	0.83 ± 0.62
$\Omega_{\mathrm{m}} h^2$	$0.1439^{+0.0013}_{-0.0022}$	$100\theta_{\mathrm{eq}}$	$0.8275^{+0.0041}_{-0.013}$	$\chi_{\mathrm{DR12BAO}}^2$	5.4 ± 2.0
$\Omega_{\nu} h^2$	$0.00268^{+0.00023}_{-0.0021}$	$100\theta_{\mathrm{s,eq}}$	$0.4569^{+0.0021}_{-0.0067}$	χ_{prior}^2	7.3 ± 3.7
$\Omega_{\mathrm{m}} h^3$	$0.09756^{+0.00050}_{-0.0020}$	$H(0.15)$	$73.13^{+0.44}_{-0.80}$	χ_{CMB}^2	1202.7 ± 5.8
σ_8	$0.793^{+0.021}_{-0.013}$	$D_{\mathrm{M}}(0.15)$	$639.3^{+7.3}_{-4.5}$	χ_{BAO}^2	6.7 ± 1.7
S_8	$0.810^{+0.021}_{-0.014}$	$H(0.38)$	$83.31^{+0.32}_{-0.76}$	χ_{Abund}^2	0.89 ± 0.84
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.011}_{-0.0075}$	$D_{\mathrm{M}}(0.38)$	$1524^{+16}_{-8.9}$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.593^{+0.015}_{-0.0091}$	$H(0.51)$	$90.08^{+0.26}_{-0.75}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1217.59; R - 1 = 0.02034$$

8.41 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02232 \pm 0.00021 \quad (+0.6\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.596^{+0.015}_{-0.0093} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516^{+24}_{-11} \quad (-1.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1204^{+0.0038}_{-0.0034} \quad (+1.2\sigma)$	$\sigma_8/h^{0.5}$	$0.966^{+0.022}_{-0.012} \quad (-2.2\sigma)$	$H(0.51)$	$90.54^{+0.45}_{-1.2} \quad (+3.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04076 \pm 0.00049 \quad (-0.5\sigma)$	$r_{\mathrm{drag}} h$	$99.53 \pm 0.93 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1964^{+30}_{-14} \quad (-1.9\sigma)$
τ	$0.0571^{+0.0061}_{-0.0082} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.428 \pm 0.023 \quad (-0.4\sigma)$	$H(0.61)$	$96.21^{+0.44}_{-1.2} \quad (+4.2\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.150	z_{re}	$8.01^{+0.66}_{-0.80} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2285^{+35}_{-15} \quad (-2.1\sigma)$
N_{eff}	< 3.26	$10^9 A_{\mathrm{s}}$	$2.118^{+0.029}_{-0.037} \quad (+0.6\sigma)$	$H(2.33)$	$238.3^{+1.2}_{-2.7} \quad (+3.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.053^{+0.014}_{-0.017} \quad (+0.6\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.890^{+0.012}_{-0.017} \quad (+1.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5710^{+69}_{-25} \quad (-5.0\sigma)$
n_{s}	$0.9711^{+0.0056}_{-0.0080} \quad (+1.2\sigma)$	D_{40}	$1221 \pm 14 \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.450^{+0.011}_{-0.0072} \quad (-1.0\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 40 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.737^{+0.020}_{-0.013} \quad (-2.0\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2540 \pm 14 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.468^{+0.012}_{-0.0072} \quad (-1.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.9 \pm 5.0 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.654^{+0.018}_{-0.012} \quad (-2.1\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.1 \pm 1.9 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.467^{+0.012}_{-0.0072} \quad (-1.4\sigma)$
A_{100}^{PS}	$267 \pm 28 \quad (+0.1\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9711^{+0.0056}_{-0.0080} \quad (+1.2\sigma)$	$\sigma_8(0.51)$	$0.612^{+0.017}_{-0.012} \quad (-2.1\sigma)$
A_{143}^{PS}	$51 \pm 8 \quad (+0.3\sigma)$	Y_{P}	$0.24757^{+0.00072}_{-0.0022} \quad (+27.9\sigma)$	$f\sigma_8(0.61)$	$0.462^{+0.012}_{-0.0073} \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44^{+9}_{-10} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24891^{+0.00072}_{-0.0022} \quad (+27.9\sigma)$	$\sigma_8(0.61)$	$0.582^{+0.016}_{-0.011} \quad (-2.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.653^{+0.043}_{-0.060} \quad (+1.0\sigma)$	$f\sigma_8(2.33)$	$0.2939^{+0.0083}_{-0.0057} \quad (-1.8\sigma)$
A^{kSZ}	$< 5.21 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.67^{+0.16}_{-0.059} \quad (-5.2\sigma)$	$\sigma_8(2.33)$	$0.3028^{+0.0086}_{-0.0062} \quad (-1.9\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.29^{+0.33}_{-0.41} \quad (+0.9\sigma)$	f_{2000}^{143}	$32.2 \pm 3.1 \quad (+0.4\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$143.3^{+1.7}_{-0.63} \quad (-5.3\sigma)$	$f_{2000}^{143 \times 217}$	$34.4 \pm 2.2 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04086^{+0.00059}_{-0.00048} \quad (-0.8\sigma)$	f_{2000}^{217}	$108.9 \pm 2.0 \quad (+0.5\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.76^{+0.16}_{-0.059} \quad (-5.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.52 \pm 0.99 \quad (+0.4\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1060.08^{+0.52}_{-0.70} \quad (+1.4\sigma)$	χ_{simall}^2	$397.5 \pm 2.2 \quad (+0.2\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$145.9^{+1.7}_{-0.67} \quad (-4.9\sigma)$	χ_{lowl}^2	$22.6 \pm 1.0 \quad (-0.7\sigma)$
H_0	$68.21^{+0.61}_{-1.2} \quad (+1.4\sigma)$	k_{D}	$0.14148^{+0.00062}_{-0.0013} \quad (+2.7\sigma)$	χ_{plik}^2	$773.6 \pm 5.6 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6883 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16134^{+0.00033}_{-0.00053} \quad (+1.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.074 \pm 0.087 \quad (+0.2\sigma)$
Ω_{m}	$0.3117 \pm 0.0073 \quad (+0.1\sigma)$	z_{eq}	$3336^{+49}_{-22} \quad (-1.6\sigma)$	χ_{MGS}^2	$1.22 \pm 0.50 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1450^{+0.0016}_{-0.0033} \quad (+2.9\sigma)$	k_{eq}	$0.01031^{+0.00018}_{-0.00012} \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.9 \quad (+0.3\sigma)$
$\Omega_{\nu} h^2$	$0.002255^{+0.000012}_{-0.0016}$	$100\theta_{\mathrm{eq}}$	$0.8262^{+0.0037}_{-0.010} \quad (+1.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0989^{+0.0011}_{-0.0034} \quad (+6.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4562^{+0.0019}_{-0.0054} \quad (+1.9\sigma)$	χ_{CMB}^2	$1203.2 \pm 5.8 \quad (+0.4\sigma)$
σ_8	$0.798^{+0.021}_{-0.014} \quad (-2.0\sigma)$	$H(0.15)$	$73.55^{+0.55}_{-1.2} \quad (+1.7\sigma)$	χ_{BAO}^2	$6.5 \pm 1.5 \quad (+0.3\sigma)$
S_8	$0.813^{+0.020}_{-0.014} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$636^{+11}_{-5.5} \quad (-1.5\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.445^{+0.011}_{-0.0074} \quad (-0.9\sigma)$	$H(0.38)$	$83.76^{+0.47}_{-1.2} \quad (+2.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1217.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.48; R - 1 = 0.01947$$

8.42 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00021 \quad (+0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.596^{+0.015}_{-0.0090} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1514^{+25}_{-12} \quad (-2.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1205^{+0.0040}_{-0.0034} \quad (+1.4\sigma)$	$\sigma_8/h^{0.5}$	$0.966^{+0.023}_{-0.012} \quad (-2.1\sigma)$	$H(0.51)$	$90.63^{+0.48}_{-1.3} \quad (+3.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04076 \pm 0.00049 \quad (-0.6\sigma)$	$r_{\mathrm{drag}}h$	$99.67 \pm 0.90 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1961^{+31}_{-14} \quad (-2.2\sigma)$
τ	$0.0576^{+0.0064}_{-0.0080} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.427 \pm 0.022 \quad (-0.4\sigma)$	$H(0.61)$	$96.30^{+0.47}_{-1.3} \quad (+4.6\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.140	z_{re}	$8.06^{+0.67}_{-0.78} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2282^{+36}_{-16} \quad (-2.3\sigma)$
N_{eff}	< 3.27	$10^9 A_{\mathrm{s}}$	$2.121^{+0.030}_{-0.036} \quad (+0.6\sigma)$	$H(2.33)$	$238.3^{+1.2}_{-2.9} \quad (+3.8\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.054^{+0.015}_{-0.017} \quad (+0.6\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.890^{+0.013}_{-0.018} \quad (+1.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5705^{+73}_{-27} \quad (-5.4\sigma)$
n_{s}	$0.9716^{+0.0057}_{-0.0080} \quad (+1.3\sigma)$	D_{40}	$1220 \pm 14 \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.450^{+0.011}_{-0.0070} \quad (-0.9\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5725 \pm 40 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.738^{+0.020}_{-0.013} \quad (-1.8\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2540 \pm 14 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.468^{+0.012}_{-0.0070} \quad (-1.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.9 \pm 5.1 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.655^{+0.018}_{-0.012} \quad (-1.8\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.1 \pm 1.9 \quad (-0.6\sigma)$	$f\sigma_8(0.51)$	$0.467^{+0.012}_{-0.0070} \quad (-1.3\sigma)$
A_{100}^{PS}	$267 \pm 28 \quad (+0.1\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9716^{+0.0057}_{-0.0080} \quad (+1.3\sigma)$	$\sigma_8(0.51)$	$0.613^{+0.017}_{-0.011} \quad (-1.8\sigma)$
A_{143}^{PS}	$51 \pm 8 \quad (+0.3\sigma)$	Y_{P}	$0.24769^{+0.00079}_{-0.0024} \quad (+29.6\sigma)$	$f\sigma_8(0.61)$	$0.462^{+0.012}_{-0.0071} \quad (-1.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24902^{+0.00079}_{-0.0024} \quad (+29.6\sigma)$	$\sigma_8(0.61)$	$0.583^{+0.016}_{-0.011} \quad (-1.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.653^{+0.044}_{-0.061} \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.2944^{+0.0084}_{-0.0056} \quad (-1.6\sigma)$
A^{kSZ}	$< 5.22 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.66^{+0.17}_{-0.064} \quad (-5.6\sigma)$	$\sigma_8(2.33)$	$0.3034^{+0.0088}_{-0.0061} \quad (-1.7\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.28^{+0.34}_{-0.41} \quad (+0.9\sigma)$	f_{2000}^{143}	$32.2 \pm 3.1 \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$143.2^{+1.8}_{-0.68} \quad (-5.7\sigma)$	$f_{2000}^{143 \times 217}$	$34.4 \pm 2.2 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04085^{+0.00060}_{-0.00049} \quad (-0.8\sigma)$	f_{2000}^{217}	$108.9 \pm 2.0 \quad (+0.5\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.76^{+0.16}_{-0.064} \quad (-5.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.6 \pm 1.0 \quad (+0.5\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1060.13^{+0.53}_{-0.73} \quad (+1.4\sigma)$	χ_{simall}^2	$290 \pm 200 \quad (-56.5\sigma)$
c_{217}	$0.99827 \pm 0.00063 \quad (+0.0\sigma)$	r_{drag}	$145.9^{+1.8}_{-0.72} \quad (-5.3\sigma)$	χ_{lowl}^2	$130 \pm 200 \quad (+124.2\sigma)$
H_0	$68.34^{+0.63}_{-1.2} \quad (+1.5\sigma)$	k_{D}	$0.14152^{+0.00063}_{-0.0014} \quad (+2.9\sigma)$	χ_{plik}^2	$773.7 \pm 5.6 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6894 \pm 0.0071 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16135^{+0.00035}_{-0.00054} \quad (+1.3\sigma)$	χ_{JLA}^2	$1035.11 \pm 0.36 \quad (+0.1\sigma)$
Ω_{m}	$0.3106 \pm 0.0071 \quad (+0.1\sigma)$	z_{eq}	$3333^{+49}_{-21} \quad (-1.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.41 \pm 0.63 \quad (+6.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1450^{+0.0017}_{-0.0035} \quad (+3.1\sigma)$	k_{eq}	$0.01031^{+0.00018}_{-0.00012} \quad (+0.2\sigma)$	χ_{MGS}^2	$0.94 \pm 0.69 \quad (-0.9\sigma)$
$\Omega_{\nu}h^2$	$0.002216^{+0.000047}_{-0.0016}$	$100\theta_{\mathrm{eq}}$	$0.8267^{+0.0036}_{-0.010} \quad (+1.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.6 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0991^{+0.0012}_{-0.0036} \quad (+7.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4564^{+0.0018}_{-0.0053} \quad (+1.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.799^{+0.021}_{-0.014} \quad (-1.8\sigma)$	$H(0.15)$	$73.66^{+0.57}_{-1.2} \quad (+1.9\sigma)$	χ_{CMB}^2	$1203.4 \pm 5.8 \quad (+0.4\sigma)$
S_8	$0.813^{+0.020}_{-0.013} \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$635^{+11}_{-5.6} \quad (-1.6\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.445^{+0.011}_{-0.0072} \quad (-0.9\sigma)$	$H(0.38)$	$83.86^{+0.51}_{-1.2} \quad (+2.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2252.12; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.50; R - 1 = 0.01798$$

8.43 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02229 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.015}_{-0.0091}$	$D_M(0.38)$	$1523^{+17}_{-8.9}$
$\Omega_c h^2$	$0.1191^{+0.0035}_{-0.0027}$	$\sigma_8/h^{0.5}$	$0.964^{+0.024}_{-0.013}$	$H(0.51)$	$90.14^{+0.27}_{-0.81}$
$100\theta_{MC}$	1.04086 ± 0.00045	$r_{drag}h$	99.41 ± 0.90	$D_M(0.51)$	1973^{+21}_{-10}
τ	$0.0571^{+0.0062}_{-0.0079}$	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.022	$H(0.61)$	$95.80^{+0.24}_{-0.81}$
$m_{\nu, sterile}^{eff} [eV]$	< 0.196	z_{re}	$7.99^{+0.65}_{-0.78}$	$D_M(0.61)$	2296^{+24}_{-11}
N_{eff}	< 3.17	$10^9 A_s$	$2.113^{+0.028}_{-0.034}$	$H(2.33)$	$237.45^{+0.88}_{-1.9}$
$\ln(10^{10} A_s)$	$3.051^{+0.014}_{-0.016}$	$10^9 A_s e^{-2\tau}$	$1.885^{+0.011}_{-0.014}$	$D_M(2.33)$	5734^{+46}_{-13}
n_s	$0.9687^{+0.0049}_{-0.0063}$	D_{40}	1224 ± 13	$f\sigma_8(0.15)$	$0.449^{+0.012}_{-0.0074}$
y_{cal}	1.0008 ± 0.0025	D_{220}	5724 ± 40	$\sigma_8(0.15)$	$0.734^{+0.020}_{-0.012}$
A_{217}^{CIB}	48 ± 7	D_{810}	2539 ± 13	$f\sigma_8(0.38)$	$0.466^{+0.012}_{-0.0072}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	815.1 ± 5.0	$\sigma_8(0.38)$	$0.650^{+0.018}_{-0.011}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.4 ± 1.8	$f\sigma_8(0.51)$	$0.465^{+0.012}_{-0.0071}$
A_{100}^{PS}	265 ± 28	$n_{s,0.002}$	$0.9687^{+0.0049}_{-0.0063}$	$\sigma_8(0.51)$	$0.608^{+0.017}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_P	$0.24676^{+0.00035}_{-0.0014}$	$f\sigma_8(0.61)$	$0.460^{+0.012}_{-0.0071}$
$A_{143 \times 217}^{PS}$	44 ± 9	Y_P^{BBN}	$0.24809^{+0.00035}_{-0.0014}$	$\sigma_8(0.61)$	$0.579^{+0.016}_{-0.010}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	$2.638^{+0.039}_{-0.049}$	$f\sigma_8(2.33)$	$0.2921^{+0.0081}_{-0.0053}$
A^{kSZ}	< 5.02	Age/Gyr	$13.73^{+0.11}_{-0.031}$	$\sigma_8(2.33)$	$0.3009^{+0.0084}_{-0.0057}$
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1090.20 ± 0.33	f_{2000}^{143}	31.8 ± 3.0
A_{143}^{dustTT}	10.7 ± 1.8	r_*	$143.8^{+1.1}_{-0.39}$	$f_{2000}^{143 \times 217}$	34.0 ± 2.1
$A_{143 \times 217}^{dustTT}$	18.3 ± 3.3	$100\theta_*$	$1.04100^{+0.00050}_{-0.00044}$	f_{2000}^{217}	108.6 ± 1.9
A_{217}^{dustTT}	93.2 ± 7.4	$D_M(z_*)/Gpc$	$13.82^{+0.11}_{-0.037}$	$\chi^2_{lensing}$	9.38 ± 0.93
c_{100}	0.99962 ± 0.00061	z_{drag}	$1059.89^{+0.49}_{-0.57}$	χ^2_{simall}	292 ± 200
c_{217}	0.99827 ± 0.00063	r_{drag}	$146.5^{+1.2}_{-0.42}$	χ^2_{lowl}	129 ± 200
H_0	$67.86^{+0.51}_{-0.87}$	k_D	$0.14107^{+0.00050}_{-0.00092}$	χ^2_{plik}	773.1 ± 5.5
Ω_Λ	0.6872 ± 0.0071	$100\theta_D$	$0.16120^{+0.00029}_{-0.00040}$	χ^2_{Aver15}	0.75 ± 0.75
Ω_m	0.3128 ± 0.0071	z_{eq}	3331^{+58}_{-23}	χ^2_{6DF}	0.39 ± 0.56
$\Omega_m h^2$	$0.1440^{+0.0013}_{-0.0024}$	k_{eq}	$0.01027^{+0.00018}_{-0.00011}$	χ^2_{MGS}	0.85 ± 0.62
$\Omega_\nu h^2$	$0.00260^{+0.00017}_{-0.0020}$	$100\theta_{eq}$	$0.8273^{+0.0039}_{-0.012}$	$\chi^2_{DR12BAO}$	5.4 ± 1.9
$\Omega_m h^3$	$0.09773^{+0.00057}_{-0.0022}$	$100\theta_{s,eq}$	$0.4568^{+0.0020}_{-0.0065}$	χ^2_{prior}	7.3 ± 3.7
σ_8	$0.794^{+0.021}_{-0.013}$	$H(0.15)$	$73.18^{+0.44}_{-0.84}$	χ^2_{CMB}	1202.8 ± 5.8
S_8	$0.811^{+0.021}_{-0.014}$	$D_M(0.15)$	$638.9^{+7.7}_{-4.4}$	χ^2_{BAO}	6.6 ± 1.6
$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0076}$	$H(0.38)$	$83.37^{+0.32}_{-0.82}$		

$$\bar{\chi}^2_{eff} = 1217.49; R - 1 = 0.01945$$

8.44 base_nnu_meffsterile_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00019	$\sigma_8/h^{0.5}$	$0.963^{+0.024}_{-0.013}$	$D_M(0.51)$	1974^{+20}_{-10}
$\Omega_c h^2$	$0.1189^{+0.0035}_{-0.0025}$	$r_{\text{drag}} h$	99.41 ± 0.90	$H(0.61)$	$95.74^{+0.22}_{-0.75}$
$100\theta_{\text{MC}}$	1.04088 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.022	$D_M(0.61)$	2297^{+23}_{-11}
τ	$0.0571^{+0.0061}_{-0.0080}$	z_{re}	$7.99^{+0.65}_{-0.78}$	$H(2.33)$	$237.32^{+0.86}_{-1.8}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.209	$10^9 A_s$	$2.113^{+0.028}_{-0.034}$	$D_M(2.33)$	5737^{+43}_{-12}
N_{eff}	< 3.16	$10^9 A_s e^{-2\tau}$	$1.885^{+0.011}_{-0.013}$	$f\sigma_8(0.15)$	$0.448^{+0.012}_{-0.0073}$
$\ln(10^{10} A_s)$	$3.050^{+0.013}_{-0.016}$	D_{40}	1224 ± 13	$\sigma_8(0.15)$	$0.733^{+0.020}_{-0.012}$
n_s	$0.9684^{+0.0048}_{-0.0061}$	D_{220}	5725 ± 39	$f\sigma_8(0.38)$	$0.466^{+0.012}_{-0.0071}$
y_{cal}	1.0008 ± 0.0025	D_{810}	2539 ± 13	$\sigma_8(0.38)$	$0.649^{+0.018}_{-0.011}$
A_{217}^{CIB}	48 ± 7	D_{1420}	815.3 ± 4.9	$f\sigma_8(0.51)$	$0.464^{+0.012}_{-0.0070}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	229.5 ± 1.7	$\sigma_8(0.51)$	$0.608^{+0.017}_{-0.011}$
A_{143}^{tSZ}	5.0 ± 2.0	$n_{s,0.002}$	$0.9684^{+0.0048}_{-0.0061}$	$f\sigma_8(0.61)$	$0.459^{+0.012}_{-0.0070}$
A_{100}^{PS}	265 ± 28	Y_{P}	$0.24664^{+0.00030}_{-0.0013}$	$\sigma_8(0.61)$	$0.578^{+0.016}_{-0.010}$
A_{143}^{PS}	50 ± 8	$Y_{\text{P}}^{\text{BBN}}$	$0.24797^{+0.00030}_{-0.0013}$	$f\sigma_8(2.33)$	$0.2918^{+0.0081}_{-0.0053}$
$A_{143 \times 217}^{\text{PS}}$	44 ± 9	$10^5 D/H$	$2.633^{+0.036}_{-0.042}$	$\sigma_8(2.33)$	$0.3006^{+0.0085}_{-0.0057}$
A_{217}^{PS}	115 ± 10	Age/Gyr	$13.73^{+0.10}_{-0.028}$	f_{2000}^{143}	31.7 ± 2.9
A^{kSZ}	< 4.97	z_*	1090.17 ± 0.30	$f_{2000}^{143 \times 217}$	33.9 ± 2.0
A_{100}^{dustTT}	8.9 ± 1.8	r_*	$143.9^{+1.0}_{-0.37}$	f_{2000}^{217}	108.5 ± 1.9
A_{143}^{dustTT}	10.7 ± 1.8	$100\theta_*$	$1.04103^{+0.00048}_{-0.00043}$	χ_{lensing}^2	9.36 ± 0.93
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$D_M(z_*)/\text{Gpc}$	$13.823^{+0.098}_{-0.035}$	χ_{simall}^2	289 ± 200
A_{217}^{dustTT}	93.3 ± 7.4	z_{drag}	$1059.89^{+0.46}_{-0.55}$	χ_{lowl}^2	131 ± 200
c_{100}	0.99962 ± 0.00061	r_{drag}	$146.6^{+1.1}_{-0.40}$	χ_{plik}^2	772.9 ± 5.4
c_{217}	0.99827 ± 0.00063	k_{D}	$0.14103^{+0.00048}_{-0.00087}$	χ_{Aver15}^2	0.69 ± 0.65
H_0	$67.82^{+0.51}_{-0.83}$	$100\theta_{\text{D}}$	$0.16116^{+0.00027}_{-0.00035}$	χ_{Cooke17}^2	0.21 ± 0.31
Ω_{Λ}	0.6872 ± 0.0071	z_{eq}	3330^{+60}_{-23}	$\chi_{6\text{DF}}^2$	0.39 ± 0.56
Ω_{m}	0.3128 ± 0.0071	k_{eq}	$0.01026^{+0.00018}_{-0.00010}$	χ_{MGS}^2	0.84 ± 0.62
$\Omega_{\text{m}} h^2$	$0.1439^{+0.0013}_{-0.0022}$	$100\theta_{\text{eq}}$	$0.8277^{+0.0040}_{-0.013}$	χ_{DR12BAO}^2	5.4 ± 1.9
$\Omega_{\nu} h^2$	$0.00269^{+0.00023}_{-0.0021}$	$100\theta_{s,\text{eq}}$	$0.4570^{+0.0020}_{-0.0067}$	χ_{prior}^2	7.3 ± 3.7
$\Omega_{\text{m}} h^3$	$0.09757^{+0.00050}_{-0.0020}$	$H(0.15)$	$73.14^{+0.43}_{-0.80}$	χ_{CMB}^2	1202.6 ± 5.7
σ_8	$0.793^{+0.021}_{-0.013}$	$D_M(0.15)$	$639.2^{+7.3}_{-4.4}$	χ_{BAO}^2	6.6 ± 1.6
S_8	$0.810^{+0.021}_{-0.014}$	$H(0.38)$	$83.33^{+0.31}_{-0.76}$	χ_{Abund}^2	0.89 ± 0.84
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.444^{+0.011}_{-0.0075}$	$D_M(0.38)$	$1524^{+16}_{-8.7}$		
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.593^{+0.015}_{-0.0091}$	$H(0.51)$	$90.09^{+0.25}_{-0.75}$		

$\bar{\chi}_{\text{eff}}^2 = 1217.47; R - 1 = 0.01988$

8.45 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022461	$0.02249^{+0.00014}_{-0.00015} \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}} h^3$	0.09644	$0.09765^{+0.00023}_{-0.0016} \quad (+4.4\sigma)$	$D_{\mathrm{M}}(0.15)$	640.31	$639.2^{+6.0}_{-3.5} \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}} h^2$	0.11343	$0.1187^{+0.0033}_{-0.0022} \quad (-0.7\sigma)$	σ_8	0.8100	$0.793^{+0.021}_{-0.012} \quad (-2.8\sigma)$	$H(0.38)$	83.098	$83.34^{+0.23}_{-0.60} \quad (+1.1\sigma)$
$100\theta_{\mathrm{MC}}$	1.041059	$1.04091^{+0.00033}_{-0.00029} \quad (-0.4\sigma)$	S_8	0.8242	$0.810^{+0.021}_{-0.013} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.38)$	1527.3	$1524^{+13}_{-6.8} \quad (-0.6\sigma)$
τ	0.0564	$0.0577^{+0.0068}_{-0.0079} \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4514	$0.444^{+0.011}_{-0.0073} \quad (-1.4\sigma)$	$H(0.51)$	89.813	$90.10^{+0.16}_{-0.59} \quad (+1.5\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	0.555	< 0.223	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6047	$0.593^{+0.015}_{-0.0089} \quad (-2.0\sigma)$	$D_{\mathrm{M}}(0.51)$	1978.6	$1974^{+16}_{-7.8} \quad (-0.7\sigma)$
N_{eff}	3.0479	$3.1252^{+0.0051}_{-0.078}$	$\sigma_8/h^{0.5}$	0.9843	$0.963^{+0.024}_{-0.013} \quad (-2.6\sigma)$	$H(0.61)$	95.431	$95.76^{+0.12}_{-0.58} \quad (+2.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	3.0481	$3.052^{+0.014}_{-0.016} \quad (+0.4\sigma)$	$r_{\mathrm{drag}} h$	99.65	$99.32 \pm 0.81 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	2302.5	$2297^{+18}_{-8.3} \quad (-0.8\sigma)$
n_{s}	0.96739	$0.9683^{+0.0041}_{-0.0055} \quad (+0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4392	$2.437 \pm 0.021 \quad (-0.1\sigma)$	$H(2.33)$	236.22	$237.42^{+0.65}_{-1.5} \quad (+2.2\sigma)$
y_{cal}	1.00108	$1.0009 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	7.86	$8.00 \pm 0.74 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	5756.4	$5735^{+33}_{-5.7} \quad (-2.6\sigma)$
A_{217}^{CIB}	47.2	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	2.1075	$2.116^{+0.029}_{-0.034} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	0.4561	$0.448^{+0.011}_{-0.0072} \quad (-1.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.46	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8828	$1.886^{+0.011}_{-0.012} \quad (+0.4\sigma)$	$\sigma_8(0.15)$	0.7485	$0.733^{+0.020}_{-0.012} \quad (-2.9\sigma)$
A_{143}^{tSZ}	7.20	$5.4 \pm 2.0 \quad (-0.0\sigma)$	D_{40}	1228.2	$1227 \pm 12 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	0.4746	$0.466^{+0.012}_{-0.0071} \quad (-1.9\sigma)$
A_{100}^{PS}	250.4	$260 \pm 28 \quad (+0.0\sigma)$	D_{220}	5743.5	$5741 \pm 37 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	0.6636	$0.650^{+0.018}_{-0.011} \quad (-3.0\sigma)$
A_{143}^{PS}	47.6	$47 \pm 8 \quad (+0.1\sigma)$	D_{810}	2543.4	$2542 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	0.4733	$0.465^{+0.012}_{-0.0070} \quad (-2.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	48.0	$43 \pm 9 \quad (+0.0\sigma)$	D_{1420}	819.38	$817.6 \pm 4.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	0.6211	$0.608^{+0.016}_{-0.010} \quad (-3.0\sigma)$
A_{217}^{PS}	119.4	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	231.83	$230.7 \pm 1.6 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	0.4684	$0.460^{+0.012}_{-0.0069} \quad (-2.3\sigma)$
A^{kSZ}	0.00	$< 4.39 \quad (+0.0\sigma)$	$n_{\mathrm{s}, 0.002}$	0.96739	$0.9683^{+0.0041}_{-0.0055} \quad (+0.5\sigma)$	$\sigma_8(0.61)$	0.5910	$0.578^{+0.016}_{-0.0098} \quad (-3.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	8.81	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	0.24546	$0.24649^{+0.00014}_{-0.0010} \quad (+20.7\sigma)$	$f\sigma_8(2.33)$	0.2980	$0.2918^{+0.0080}_{-0.0051} \quad (-2.9\sigma)$
$A_{143}^{\mathrm{dust}TT}$	11.04	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24678	$0.24782^{+0.00014}_{-0.0010} \quad (+20.7\sigma)$	$\sigma_8(2.33)$	0.3073	$0.3006^{+0.0083}_{-0.0054} \quad (-2.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	19.83	$18.7 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.5695	$2.591^{+0.024}_{-0.032} \quad (+0.6\sigma)$	f_{2000}^{143}	28.64	$30.0 \pm 2.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	95.1	$93.7 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	13.7813	$13.731^{+0.078}_{-0.013} \quad (-2.8\sigma)$	$f_{2000}^{143 \times 217}$	31.82	$32.6 \pm 1.9 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dust}TE}$	0.1138	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	1089.747	$1089.90 \pm 0.24 \quad (+0.5\sigma)$	f_{2000}^{217}	106.47	$107.4 \pm 1.8 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.1346	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	144.54	$143.85^{+0.85}_{-0.24} \quad (-3.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.748	$9.14 \pm 0.77 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	1.041231	$1.04104^{+0.00036}_{-0.00029} \quad (-0.5\sigma)$	χ_{small}^2	396.42	$397.6 \pm 2.3 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	0.224	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.881	$13.818^{+0.079}_{-0.023} \quad (-3.2\sigma)$	χ_{lowl}^2	23.05	$23.03 \pm 0.90 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	1060.085	$1060.32^{+0.31}_{-0.45} \quad (+1.1\sigma)$	χ_{plik}^2	2344.6	$2361.3 \pm 6.1 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dust}TE}$	2.069	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	147.17	$146.46^{+0.88}_{-0.25} \quad (-3.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.029	$0.084 \pm 0.089 \quad (+0.5\sigma)$
c_{100}	0.99971	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	0.14085	$0.14137^{+0.00031}_{-0.00072} \quad (+2.1\sigma)$	χ_{MGS}^2	1.217	$1.10 \pm 0.42 \quad (-0.4\sigma)$
c_{217}	0.99818	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	0.160677	$0.16083^{+0.00017}_{-0.00026} \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.42	$5.5 \pm 1.9 \quad (+0.5\sigma)$
H_0	67.71	$67.82^{+0.41}_{-0.69} \quad (+0.4\sigma)$	z_{eq}	3246.4	$3339^{+63}_{-19} \quad (-2.3\sigma)$	χ_{prior}^2	1.87	$11.6 \pm 4.6 \quad (+0.0\sigma)$
Ω_{Λ}	0.6894	$0.6869 \pm 0.0064 \quad (-0.4\sigma)$	k_{eq}	0.010016	$0.01027^{+0.00018}_{-0.000093} \quad (-1.0\sigma)$	χ_{CMB}^2	2772.9	$2791.1 \pm 6.2 \quad (+0.3\sigma)$
Ω_{m}	0.3106	$0.3131 \pm 0.0064 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	0.8464	$0.8266^{+0.0034}_{-0.013} \quad (+2.7\sigma)$	χ_{BAO}^2	5.67	$6.7 \pm 1.6 \quad (+0.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	0.14243	$0.1440^{+0.0010}_{-0.0019} \quad (+1.8\sigma)$	$100\theta_{\mathrm{s}, \mathrm{eq}}$	0.46672	$0.4563^{+0.0017}_{-0.0069} \quad (+2.7\sigma)$			
$\Omega_{\nu} h^2$	0.00654	$0.00277^{+0.00033}_{-0.0021}$	$H(0.15)$	72.990	$73.14^{+0.34}_{-0.65} \quad (+0.6\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2780.39$; $\Delta\chi_{\mathrm{eff}}^2 = -0.30$; $\bar{\chi}_{\mathrm{eff}}^2 = 2809.48$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.64$; $R - 1 = 0.02379$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.00) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.75 (Δ 0.02) small_100x143_offlike5_EE_Aplanck.L
396.43 (Δ -0.10) commander_dx12_v3.2.29: 23.05 (Δ 0.16) plik_rd12_HM_v22b.TTTEEE: 2344.63 (Δ -0.69)

8.46 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02250^{+0.00014}_{-0.00015} \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}} h^3$	$0.09775^{+0.00022}_{-0.00017} \quad (+4.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$638.4^{+6.3}_{-3.2} \quad (-0.6\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1188^{+0.0033}_{-0.0023} \quad (-0.4\sigma)$	σ_8	$0.795^{+0.020}_{-0.013} \quad (-2.6\sigma)$	$H(0.38)$	$83.41^{+0.19}_{-0.64} \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091^{+0.00033}_{-0.00030} \quad (-0.4\sigma)$	S_8	$0.811^{+0.020}_{-0.013} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522^{+14}_{-6.0} \quad (-0.7\sigma)$
τ	$0.0576^{+0.0068}_{-0.0078} \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.011}_{-0.0074} \quad (-1.3\sigma)$	$H(0.51)$	$90.17^{+0.14}_{-0.63} \quad (+1.7\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.203	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.594^{+0.015}_{-0.0090} \quad (-1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972^{+17}_{-6.8} \quad (-0.8\sigma)$
N_{eff}	< 3.13	$\sigma_8/h^{0.5}$	$0.964^{+0.023}_{-0.013} \quad (-2.4\sigma)$	$H(0.61)$	$95.82^{+0.11}_{-0.62} \quad (+2.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.052^{+0.014}_{-0.016} \quad (+0.4\sigma)$	$r_{\mathrm{drag}} h$	$99.45 \pm 0.77 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295^{+19}_{-7.2} \quad (-0.9\sigma)$
n_{s}	$0.9687^{+0.0040}_{-0.0055} \quad (+0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.021 \quad (-0.1\sigma)$	$H(2.33)$	$237.40^{+0.60}_{-1.6} \quad (+2.4\sigma)$
y_{cal}	$1.0009 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	$7.99 \pm 0.74 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5733^{+35}_{-5.4} \quad (-2.9\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.116^{+0.030}_{-0.034} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.011}_{-0.0072} \quad (-1.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.886^{+0.011}_{-0.013} \quad (+0.5\sigma)$	$\sigma_8(0.15)$	$0.734^{+0.019}_{-0.012} \quad (-2.6\sigma)$
A_{143}^{tSZ}	$5.4 \pm 2.0 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 12 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0071} \quad (-1.7\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5741 \pm 37 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.651^{+0.017}_{-0.011} \quad (-2.7\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2542 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.465^{+0.012}_{-0.0070} \quad (-2.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{1420}	$817.7 \pm 4.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.609^{+0.016}_{-0.010} \quad (-2.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0070} \quad (-2.1\sigma)$
A^{kSZ}	$< 4.42 \quad (+0.0\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9687^{+0.0040}_{-0.0055} \quad (+0.5\sigma)$	$\sigma_8(0.61)$	$0.580^{+0.015}_{-0.0098} \quad (-2.7\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.24654^{+0.00012}_{-0.0011} \quad (+21.8\sigma)$	$f\sigma_8(2.33)$	$0.2925^{+0.0077}_{-0.0051} \quad (-2.6\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24787^{+0.00012}_{-0.0011} \quad (+21.8\sigma)$	$\sigma_8(2.33)$	$0.3013^{+0.0080}_{-0.0054} \quad (-2.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.7 \pm 3.3 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.590^{+0.024}_{-0.032} \quad (+0.6\sigma)$	f_{2000}^{143}	$30.0 \pm 2.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.724^{+0.083}_{-0.012} \quad (-3.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 1.9 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.89^{+0.21}_{-0.25} \quad (+0.5\sigma)$	f_{2000}^{217}	$107.4 \pm 1.8 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	r_*	$143.83^{+0.90}_{-0.22} \quad (-3.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.18 \pm 0.80 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104^{+0.00037}_{-0.00030} \quad (-0.6\sigma)$	χ_{simall}^2	$262 \pm 200 \quad (-71.6\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.055 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.816^{+0.085}_{-0.021} \quad (-3.4\sigma)$	χ_{lowl}^2	$158 \pm 200 \quad (+166.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.080 \quad (-0.1\sigma)$	z_{drag}	$1060.34^{+0.30}_{-0.47} \quad (+1.1\sigma)$	χ_{plik}^2	$2361.5 \pm 6.0 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$146.44^{+0.94}_{-0.23} \quad (-3.5\sigma)$	χ_{JLA}^2	$1035.16 \pm 0.34 \quad (+0.4\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.14138^{+0.00029}_{-0.00078} \quad (+2.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.47 \pm 0.59 \quad (+8.0\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083^{+0.00017}_{-0.00028} \quad (+0.7\sigma)$	χ_{MGS}^2	$0.76 \pm 0.62 \quad (-1.4\sigma)$
H_0	$67.91^{+0.38}_{-0.71} \quad (+0.5\sigma)$	z_{eq}	$3340^{+59}_{-18} \quad (-2.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.6 \quad (+0.5\sigma)$
Ω_{Λ}	$0.6879 \pm 0.0061 \quad (-0.3\sigma)$	k_{eq}	$0.01028^{+0.00018}_{-0.000095} \quad (-0.9\sigma)$	χ_{prior}^2	$11.7 \pm 4.5 \quad (+0.0\sigma)$
Ω_{m}	$0.3121 \pm 0.0061 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8264^{+0.0033}_{-0.012} \quad (+2.6\sigma)$	χ_{CMB}^2	$2791.2 \pm 6.2 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.14392^{+0.00097}_{-0.0020} \quad (+1.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4561^{+0.0017}_{-0.0065} \quad (+2.6\sigma)$	χ_{BAO}^2	$6.5 \pm 1.3 \quad (+0.5\sigma)$
$\Omega_{\nu} h^2$	$0.00260^{+0.00024}_{-0.0020}$	$H(0.15)$	$73.23^{+0.30}_{-0.69} \quad (+0.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3844.44; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.59; R - 1 = 0.02316$$

8.47 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014	$\Omega_m h^3$	$0.09736^{+0.00023}_{-0.0013}$	$D_M(0.15)$	$640.0^{+5.1}_{-3.5}$
$\Omega_c h^2$	$0.1185^{+0.0032}_{-0.0020}$	σ_8	$0.793^{+0.020}_{-0.012}$	$H(0.38)$	$83.24^{+0.23}_{-0.49}$
$100\theta_{MC}$	1.04093 ± 0.00030	S_8	$0.810^{+0.020}_{-0.014}$	$D_M(0.38)$	$1526^{+11}_{-6.8}$
τ	$0.0571^{+0.0068}_{-0.0077}$	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0075}$	$H(0.51)$	$90.01^{+0.17}_{-0.47}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.231	$\sigma_8 \Omega_m^{0.25}$	$0.593^{+0.014}_{-0.0090}$	$D_M(0.51)$	$1976^{+13}_{-7.8}$
N_{eff}	$3.1098^{+0.0051}_{-0.062}$	$\sigma_8/h^{0.5}$	$0.963^{+0.023}_{-0.013}$	$H(0.61)$	$95.66^{+0.13}_{-0.46}$
$\ln(10^{10} A_s)$	3.051 ± 0.015	$r_{\text{drag}} h$	99.30 ± 0.78	$D_M(0.61)$	$2299^{+15}_{-8.3}$
n_s	$0.9676^{+0.0041}_{-0.0048}$	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.021	$H(2.33)$	$237.21^{+0.64}_{-1.3}$
y_{cal}	1.0009 ± 0.0024	z_{re}	7.94 ± 0.73	$D_M(2.33)$	$5741^{+26}_{-6.1}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.113^{+0.029}_{-0.033}$	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.0073}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.885^{+0.010}_{-0.012}$	$\sigma_8(0.15)$	$0.733^{+0.018}_{-0.011}$
A_{143}^{tSZ}	5.4 ± 2.0	D_{40}	1227 ± 12	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0071}$
A_{100}^{PS}	259 ± 28	D_{220}	5740 ± 37	$\sigma_8(0.38)$	$0.649^{+0.016}_{-0.010}$
A_{143}^{PS}	47 ± 8	D_{810}	2541 ± 13	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0070}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.6 ± 4.6	$\sigma_8(0.51)$	$0.607^{+0.015}_{-0.0097}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.7 ± 1.5	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0069}$
A^{kSZ}	< 4.37	$n_{s,0.002}$	$0.9676^{+0.0041}_{-0.0048}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0093}$
A_{100}^{dustTT}	8.9 ± 1.8	Y_P	$0.24628^{+0.00013}_{-0.00083}$	$f\sigma_8(2.33)$	$0.2916^{+0.0075}_{-0.0048}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24761^{+0.00013}_{-0.00083}$	$\sigma_8(2.33)$	$0.3004^{+0.0078}_{-0.0051}$
$A_{143 \times 217}^{\text{dustTT}}$	18.7 ± 3.3	$10^5 D/H$	$2.589^{+0.024}_{-0.028}$	f_{2000}^{143}	29.9 ± 2.8
A_{217}^{dustTT}	93.8 ± 7.3	Age/Gyr	$13.745^{+0.062}_{-0.014}$	$f_{2000}^{143 \times 217}$	32.5 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.89 ± 0.23	f_{2000}^{217}	107.3 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.98^{+0.70}_{-0.23}$	χ_{lensing}^2	9.13 ± 0.77
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.085	$100\theta_*$	$1.04107^{+0.00033}_{-0.00029}$	χ_{simall}^2	269 ± 200
A_{143}^{dustTE}	0.224 ± 0.055	$D_M(z_*)/\text{Gpc}$	$13.830^{+0.066}_{-0.022}$	χ_{lowl}^2	152 ± 200
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080	z_{drag}	$1060.26^{+0.30}_{-0.40}$	χ_{plik}^2	2361.0 ± 5.9
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.60^{+0.73}_{-0.24}$	χ_{Aver15}^2	0.50 ± 0.39
c_{100}	0.99968 ± 0.00061	k_D	$0.14127^{+0.00030}_{-0.00062}$	$\chi_{6\text{DF}}^2$	0.44 ± 0.54
c_{217}	0.99820 ± 0.00062	$100\theta_D$	$0.16080^{+0.00017}_{-0.00023}$	χ_{MGS}^2	0.73 ± 0.58
H_0	$67.73^{+0.41}_{-0.59}$	z_{eq}	3340^{+63}_{-21}	χ_{DR12BAO}^2	5.5 ± 1.8
Ω_Λ	0.6866 ± 0.0062	k_{eq}	$0.01027^{+0.00017}_{-0.000089}$	χ_{prior}^2	11.6 ± 4.5
Ω_m	0.3134 ± 0.0062	$100\theta_{\text{eq}}$	$0.8265^{+0.0038}_{-0.013}$	χ_{CMB}^2	2790.7 ± 6.0
$\Omega_m h^2$	$0.1437^{+0.0010}_{-0.0017}$	$100\theta_{s,\text{eq}}$	$0.4562^{+0.0020}_{-0.0069}$	χ_{BAO}^2	6.7 ± 1.6
$\Omega_\nu h^2$	$0.00278^{+0.00041}_{-0.0022}$	$H(0.15)$	$73.06^{+0.34}_{-0.54}$		

$$\bar{\chi}_{\text{eff}}^2 = 2809.56; R - 1 = 0.02106$$

8.48 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02247 ± 0.00014	σ_8	$0.793^{+0.020}_{-0.012}$	$D_M(0.38)$	$1526^{+11}_{-6.7}$
$\Omega_c h^2$	$0.1185^{+0.0032}_{-0.0019}$	S_8	$0.811^{+0.020}_{-0.014}$	$H(0.51)$	$90.00^{+0.17}_{-0.48}$
$100\theta_{MC}$	1.04092 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0074}$	$D_M(0.51)$	$1977^{+13}_{-7.7}$
τ	$0.0571^{+0.0067}_{-0.0077}$	$\sigma_8 \Omega_m^{0.25}$	$0.593^{+0.014}_{-0.0089}$	$H(0.61)$	$95.66^{+0.13}_{-0.47}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.230	$\sigma_8/h^{0.5}$	$0.964^{+0.023}_{-0.013}$	$D_M(0.61)$	$2300^{+15}_{-8.2}$
N_{eff}	$3.1109^{+0.0057}_{-0.063}$	$r_{\text{drag}} h$	99.27 ± 0.78	$H(2.33)$	$237.24^{+0.64}_{-1.3}$
$\ln(10^{10} A_s)$	3.051 ± 0.015	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.021	$D_M(2.33)$	$5741^{+27}_{-6.1}$
n_s	$0.9676^{+0.0041}_{-0.0048}$	z_{re}	7.94 ± 0.73	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.0072}$
y_{cal}	1.0009 ± 0.0024	$10^9 A_s$	$2.113^{+0.029}_{-0.033}$	$\sigma_8(0.15)$	$0.733^{+0.019}_{-0.011}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s e^{-2\tau}$	$1.885^{+0.010}_{-0.012}$	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0071}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1227 ± 12	$\sigma_8(0.38)$	$0.649^{+0.017}_{-0.010}$
A_{143}^{tSZ}	5.4 ± 2.0	D_{220}	5739 ± 37	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0069}$
A_{100}^{PS}	259 ± 28	D_{810}	2541 ± 13	$\sigma_8(0.51)$	$0.607^{+0.016}_{-0.0097}$
A_{143}^{PS}	47 ± 8	D_{1420}	817.5 ± 4.5	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0068}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{2000}	230.7 ± 1.5	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0093}$
A_{217}^{PS}	115 ± 10	$n_{s,0.002}$	$0.9676^{+0.0041}_{-0.0048}$	$f\sigma_8(2.33)$	$0.2916^{+0.0076}_{-0.0048}$
A^{kSZ}	< 4.38	Y_{P}	$0.24629^{+0.00014}_{-0.00085}$	$\sigma_8(2.33)$	$0.3004^{+0.0079}_{-0.0051}$
A_{100}^{dustTT}	8.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	$0.24762^{+0.00014}_{-0.00085}$	f_{2000}^{143}	30.0 ± 2.7
A_{143}^{dustTT}	10.9 ± 1.8	$10^5 \text{D}/\text{H}$	$2.590^{+0.023}_{-0.027}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	18.7 ± 3.3	Age/Gyr	$13.745^{+0.063}_{-0.014}$	f_{2000}^{217}	107.4 ± 1.8
A_{217}^{dustTT}	93.8 ± 7.3	z_*	1089.90 ± 0.22	χ_{lensing}^2	9.14 ± 0.77
A_{100}^{dustTE}	0.114 ± 0.038	r_*	$143.97^{+0.71}_{-0.23}$	χ_{simall}^2	270 ± 200
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	$100\theta_*$	$1.04107^{+0.00033}_{-0.00029}$	χ_{lowl}^2	151 ± 200
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.085	$D_M(z_*)/\text{Gpc}$	$13.829^{+0.066}_{-0.023}$	χ_{plik}^2	2360.9 ± 5.9
A_{143}^{dustTE}	0.224 ± 0.055	z_{drag}	$1060.24^{+0.30}_{-0.40}$	χ_{Aver15}^2	0.51 ± 0.39
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080	r_{drag}	$146.60^{+0.74}_{-0.24}$	χ_{Cooke17}^2	0.16 ± 0.19
A_{217}^{dustTE}	2.08 ± 0.27	k_{D}	$0.14126^{+0.00030}_{-0.00062}$	χ_{6DF}^2	0.43 ± 0.53
c_{100}	0.99968 ± 0.00061	$100\theta_{\text{D}}$	$0.16081^{+0.00017}_{-0.00022}$	χ_{MGS}^2	0.73 ± 0.57
c_{217}	0.99821 ± 0.00062	z_{eq}	3340^{+63}_{-20}	χ_{DR12BAO}^2	5.6 ± 1.8
H_0	$67.72^{+0.40}_{-0.59}$	k_{eq}	$0.01027^{+0.00017}_{-0.000087}$	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.6864 ± 0.0062	$100\theta_{\text{eq}}$	$0.8263^{+0.0037}_{-0.013}$	χ_{CMB}^2	2790.7 ± 6.0
Ω_{m}	0.3136 ± 0.0062	$100\theta_{\text{s,eq}}$	$0.4562^{+0.0019}_{-0.0069}$	χ_{BAO}^2	6.8 ± 1.6
$\Omega_{\text{m}} h^2$	$0.1438^{+0.0010}_{-0.0017}$	$H(0.15)$	$73.04^{+0.33}_{-0.55}$	χ_{Abund}^2	0.67 ± 0.41
$\Omega_{\nu} h^2$	$0.00277^{+0.00042}_{-0.0022}$	$D_M(0.15)$	$640.1^{+5.2}_{-3.4}$		
$\Omega_{\text{m}} h^3$	$0.09736^{+0.00023}_{-0.0013}$	$H(0.38)$	$83.24^{+0.23}_{-0.49}$		

$$\bar{\chi}_{\text{eff}}^2 = 2809.72; R - 1 = 0.02079$$

8.49 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02249^{+0.00014}_{-0.00015} \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09766^{+0.00023}_{-0.0016} \quad (+4.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.1^{+6.0}_{-3.5} \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1187^{+0.0033}_{-0.0022} \quad (-0.6\sigma)$	σ_8	$0.794^{+0.021}_{-0.012} \quad (-2.9\sigma)$	$H(0.38)$	$83.34^{+0.22}_{-0.60} \quad (+1.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091^{+0.00033}_{-0.00029} \quad (-0.4\sigma)$	S_8	$0.811^{+0.021}_{-0.013} \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524^{+13}_{-6.8} \quad (-0.6\sigma)$
τ	$0.0580^{+0.0061}_{-0.0080} \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.011}_{-0.0073} \quad (-1.4\sigma)$	$H(0.51)$	$90.11^{+0.16}_{-0.59} \quad (+1.5\sigma)$
$m_{\nu,\mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.222	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.594^{+0.015}_{-0.0089} \quad (-2.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1974^{+16}_{-7.8} \quad (-0.7\sigma)$
N_{eff}	$3.1258^{+0.0053}_{-0.079}$	$\sigma_8/h^{0.5}$	$0.964^{+0.024}_{-0.013} \quad (-2.6\sigma)$	$H(0.61)$	$95.77^{+0.12}_{-0.59} \quad (+2.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.053^{+0.013}_{-0.016} \quad (+0.4\sigma)$	$r_{\mathrm{drag}}h$	$99.33 \pm 0.81 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2297^{+18}_{-8.3} \quad (-0.8\sigma)$
n_{s}	$0.9683^{+0.0041}_{-0.0055} \quad (+0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.437 \pm 0.021 \quad (-0.1\sigma)$	$H(2.33)$	$237.43^{+0.66}_{-1.5} \quad (+2.3\sigma)$
y_{cal}	$1.0009 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	$8.04^{+0.64}_{-0.78} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5735^{+33}_{-5.8} \quad (-2.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.118^{+0.027}_{-0.035} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.011}_{-0.0071} \quad (-1.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.886^{+0.011}_{-0.012} \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.733^{+0.020}_{-0.012} \quad (-3.1\sigma)$
A_{143}^{tSZ}	$5.4 \pm 2.0 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 12 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.466^{+0.012}_{-0.0070} \quad (-1.9\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5740 \pm 37 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.650^{+0.018}_{-0.011} \quad (-3.1\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2542 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.465^{+0.012}_{-0.0069} \quad (-2.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$817.6 \pm 4.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.608^{+0.016}_{-0.010} \quad (-3.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.012}_{-0.0069} \quad (-2.4\sigma)$
A^{kSZ}	$< 4.39 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9683^{+0.0041}_{-0.0055} \quad (+0.5\sigma)$	$\sigma_8(0.61)$	$0.579^{+0.016}_{-0.0097} \quad (-3.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.24650^{+0.00014}_{-0.0011} \quad (+20.9\sigma)$	$f\sigma_8(2.33)$	$0.2919^{+0.0080}_{-0.0050} \quad (-3.1\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24783^{+0.00015}_{-0.0011} \quad (+20.9\sigma)$	$\sigma_8(2.33)$	$0.3007^{+0.0083}_{-0.0054} \quad (-3.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.591^{+0.024}_{-0.032} \quad (+0.6\sigma)$	f_{2000}^{143}	$30.0 \pm 2.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.730^{+0.078}_{-0.013} \quad (-2.8\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 1.9 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.24 \quad (+0.5\sigma)$	f_{2000}^{217}	$107.4 \pm 1.8 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$143.84^{+0.85}_{-0.24} \quad (-3.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.12 \pm 0.73 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104^{+0.00036}_{-0.00029} \quad (-0.5\sigma)$	χ_{simall}^2	$397.6 \pm 2.3 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.817^{+0.080}_{-0.023} \quad (-3.3\sigma)$	χ_{lowl}^2	$23.03 \pm 0.90 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.081 \quad (-0.0\sigma)$	z_{drag}	$1060.32^{+0.31}_{-0.45} \quad (+1.1\sigma)$	χ_{plik}^2	$2361.3 \pm 6.1 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$146.46^{+0.89}_{-0.26} \quad (-3.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.084 \pm 0.088 \quad (+0.5\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14138^{+0.00031}_{-0.00073} \quad (+2.1\sigma)$	χ_{MGS}^2	$1.10 \pm 0.42 \quad (-0.4\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083^{+0.00017}_{-0.00026} \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.5 \pm 1.9 \quad (+0.6\sigma)$
H_0	$67.82^{+0.41}_{-0.69} \quad (+0.4\sigma)$	z_{eq}	$3339^{+62}_{-19} \quad (-2.3\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6869 \pm 0.0064 \quad (-0.4\sigma)$	k_{eq}	$0.01027^{+0.00018}_{-0.000093} \quad (-1.0\sigma)$	χ_{CMB}^2	$2791.1 \pm 6.2 \quad (+0.3\sigma)$
Ω_{m}	$0.3131 \pm 0.0064 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8266^{+0.0034}_{-0.013} \quad (+2.7\sigma)$	χ_{BAO}^2	$6.7 \pm 1.6 \quad (+0.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1440^{+0.0010}_{-0.0019} \quad (+1.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4563^{+0.0017}_{-0.0069} \quad (+2.7\sigma)$		
$\Omega_{\nu}h^2$	$0.00276^{+0.00034}_{-0.0021}$	$H(0.15)$	$73.15^{+0.34}_{-0.65} \quad (+0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2809.40; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.68; R - 1 = 0.02345$$

8.50 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02250^{+0.00014}_{-0.00015} \quad (+0.5\sigma)$	$\Omega_{\mathrm{m}} h^3$	$0.09776^{+0.00022}_{-0.0017} \quad (+4.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$638.3^{+6.3}_{-3.2} \quad (-0.6\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1188^{+0.0033}_{-0.0023} \quad (-0.4\sigma)$	σ_8	$0.795^{+0.020}_{-0.012} \quad (-2.7\sigma)$	$H(0.38)$	$83.41^{+0.19}_{-0.65} \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091^{+0.00033}_{-0.00030} \quad (-0.4\sigma)$	S_8	$0.811^{+0.020}_{-0.013} \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522^{+14}_{-6.0} \quad (-0.7\sigma)$
τ	$0.0580^{+0.0061}_{-0.0079} \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.444^{+0.011}_{-0.0073} \quad (-1.3\sigma)$	$H(0.51)$	$90.17^{+0.14}_{-0.63} \quad (+1.8\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.202	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.594^{+0.015}_{-0.0089} \quad (-1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972^{+17}_{-6.8} \quad (-0.8\sigma)$
N_{eff}	< 3.13	$\sigma_8/h^{0.5}$	$0.965^{+0.023}_{-0.013} \quad (-2.4\sigma)$	$H(0.61)$	$95.83^{+0.11}_{-0.63} \quad (+2.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.053^{+0.013}_{-0.016} \quad (+0.4\sigma)$	$r_{\mathrm{drag}} h$	$99.46 \pm 0.77 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2294^{+19}_{-7.2} \quad (-0.9\sigma)$
n_{s}	$0.9688^{+0.0040}_{-0.0055} \quad (+0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.021 \quad (-0.1\sigma)$	$H(2.33)$	$237.41^{+0.61}_{-1.6} \quad (+2.4\sigma)$
y_{cal}	$1.0009 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	$8.03^{+0.64}_{-0.77} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5732^{+35}_{-5.4} \quad (-2.9\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.117^{+0.027}_{-0.035} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.449^{+0.011}_{-0.0071} \quad (-1.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.886^{+0.011}_{-0.013} \quad (+0.5\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.019}_{-0.012} \quad (-2.8\sigma)$
A_{143}^{tSZ}	$5.4 \pm 2.0 \quad (-0.0\sigma)$	D_{40}	$1226 \pm 12 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.467^{+0.011}_{-0.0070} \quad (-1.8\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5741 \pm 37 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.651^{+0.017}_{-0.011} \quad (-2.8\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2542 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.465^{+0.012}_{-0.0069} \quad (-2.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{1420}	$817.6 \pm 4.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.609^{+0.016}_{-0.010} \quad (-2.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0069} \quad (-2.2\sigma)$
A^{kSZ}	$< 4.42 \quad (+0.0\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9688^{+0.0040}_{-0.0055} \quad (+0.5\sigma)$	$\sigma_8(0.61)$	$0.580^{+0.015}_{-0.0097} \quad (-2.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.24654^{+0.00012}_{-0.0011} \quad (+22.0\sigma)$	$f\sigma_8(2.33)$	$0.2926^{+0.0077}_{-0.0050} \quad (-2.7\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24788^{+0.00012}_{-0.0011} \quad (+22.0\sigma)$	$\sigma_8(2.33)$	$0.3014^{+0.0080}_{-0.0054} \quad (-2.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.7 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.590^{+0.024}_{-0.032} \quad (+0.6\sigma)$	f_{2000}^{143}	$30.0 \pm 2.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.723^{+0.084}_{-0.012} \quad (-3.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 1.9 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.89^{+0.21}_{-0.25} \quad (+0.5\sigma)$	f_{2000}^{217}	$107.4 \pm 1.8 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	r_*	$143.83^{+0.91}_{-0.22} \quad (-3.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.16 \pm 0.76 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104^{+0.00037}_{-0.00030} \quad (-0.6\sigma)$	χ_{simall}^2	$262 \pm 200 \quad (-71.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.055 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.816^{+0.085}_{-0.021} \quad (-3.5\sigma)$	χ_{lowl}^2	$158 \pm 200 \quad (+167.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1060.34^{+0.30}_{-0.47} \quad (+1.1\sigma)$	χ_{plik}^2	$2361.4 \pm 6.0 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$146.44^{+0.95}_{-0.24} \quad (-3.5\sigma)$	χ_{JLA}^2	$1035.16 \pm 0.34 \quad (+0.4\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.14139^{+0.00029}_{-0.00078} \quad (+2.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.47 \pm 0.59 \quad (+8.3\sigma)$
c_{217}	$0.99820 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083^{+0.00017}_{-0.00028} \quad (+0.7\sigma)$	χ_{MGS}^2	$0.76 \pm 0.62 \quad (-1.4\sigma)$
H_0	$67.92^{+0.37}_{-0.72} \quad (+0.5\sigma)$	z_{eq}	$3340^{+59}_{-18} \quad (-2.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.6 \quad (+0.5\sigma)$
Ω_{Λ}	$0.6879 \pm 0.0061 \quad (-0.3\sigma)$	k_{eq}	$0.01028^{+0.00018}_{-0.000095} \quad (-0.9\sigma)$	χ_{prior}^2	$11.7 \pm 4.5 \quad (+0.0\sigma)$
Ω_{m}	$0.3121 \pm 0.0061 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8264^{+0.0032}_{-0.012} \quad (+2.6\sigma)$	χ_{CMB}^2	$2791.1 \pm 6.2 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.14392^{+0.00098}_{-0.0020} \quad (+2.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4562^{+0.0016}_{-0.0065} \quad (+2.6\sigma)$	χ_{BAO}^2	$6.4 \pm 1.3 \quad (+0.5\sigma)$
$\Omega_{\nu} h^2$	$0.00260^{+0.00025}_{-0.0020}$	$H(0.15)$	$73.23^{+0.30}_{-0.69} \quad (+0.7\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 3844.37$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.63$; $R - 1 = 0.02468$

8.51 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014	$\Omega_m h^3$	$0.09737^{+0.00023}_{-0.0013}$	$D_M(0.15)$	$639.9^{+5.1}_{-3.5}$
$\Omega_c h^2$	$0.1185^{+0.0032}_{-0.0020}$	σ_8	$0.793^{+0.020}_{-0.012}$	$H(0.38)$	$83.25^{+0.23}_{-0.49}$
$100\theta_{MC}$	1.04093 ± 0.00030	S_8	$0.810^{+0.020}_{-0.014}$	$D_M(0.38)$	$1526^{+11}_{-6.7}$
τ	$0.0576^{+0.0060}_{-0.0078}$	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0075}$	$H(0.51)$	$90.01^{+0.17}_{-0.47}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.231	$\sigma_8 \Omega_m^{0.25}$	$0.593^{+0.014}_{-0.0090}$	$D_M(0.51)$	$1976^{+13}_{-7.8}$
N_{eff}	$3.1102^{+0.0052}_{-0.062}$	$\sigma_8/h^{0.5}$	$0.964^{+0.023}_{-0.013}$	$H(0.61)$	$95.67^{+0.13}_{-0.46}$
$\ln(10^{10} A_s)$	$3.051^{+0.013}_{-0.016}$	$r_{\text{drag}} h$	99.31 ± 0.78	$D_M(0.61)$	$2299^{+15}_{-8.3}$
n_s	$0.9677^{+0.0040}_{-0.0047}$	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.021	$H(2.33)$	$237.21^{+0.64}_{-1.3}$
y_{cal}	1.0009 ± 0.0024	z_{re}	$7.99^{+0.63}_{-0.76}$	$D_M(2.33)$	$5741^{+26}_{-6.2}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.115^{+0.027}_{-0.034}$	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.0073}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.885^{+0.010}_{-0.012}$	$\sigma_8(0.15)$	$0.733^{+0.018}_{-0.011}$
A_{143}^{tSZ}	5.4 ± 2.0	D_{40}	1227 ± 12	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0071}$
A_{100}^{PS}	259 ± 28	D_{220}	5740 ± 37	$\sigma_8(0.38)$	$0.649^{+0.017}_{-0.010}$
A_{143}^{PS}	47 ± 8	D_{810}	2541 ± 13	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0069}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{1420}	817.6 ± 4.6	$\sigma_8(0.51)$	$0.608^{+0.016}_{-0.0096}$
A_{217}^{PS}	115 ± 10	D_{2000}	230.7 ± 1.5	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0068}$
A^{kSZ}	< 4.37	$n_{s,0.002}$	$0.9677^{+0.0040}_{-0.0047}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0092}$
A_{100}^{dustTT}	8.9 ± 1.8	Y_P	$0.24629^{+0.00013}_{-0.00083}$	$f\sigma_8(2.33)$	$0.2917^{+0.0075}_{-0.0047}$
A_{143}^{dustTT}	10.9 ± 1.8	Y_P^{BBN}	$0.24762^{+0.00013}_{-0.00084}$	$\sigma_8(2.33)$	$0.3005^{+0.0078}_{-0.0051}$
$A_{143 \times 217}^{\text{dustTT}}$	18.7 ± 3.3	$10^5 D/H$	$2.588^{+0.024}_{-0.028}$	f_{2000}^{143}	29.9 ± 2.8
A_{217}^{dustTT}	93.8 ± 7.3	Age/Gyr	$13.744^{+0.062}_{-0.014}$	$f_{2000}^{143 \times 217}$	32.5 ± 1.9
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.89 ± 0.23	f_{2000}^{217}	107.3 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.030	r_*	$143.98^{+0.70}_{-0.23}$	χ_{lensing}^2	9.11 ± 0.73
$A_{100 \times 217}^{\text{dustTE}}$	0.482 ± 0.086	$100\theta_*$	$1.04107^{+0.00033}_{-0.00029}$	χ_{simall}^2	268 ± 200
A_{143}^{dustTE}	0.224 ± 0.055	$D_M(z_*)/\text{Gpc}$	$13.830^{+0.066}_{-0.022}$	χ_{lowl}^2	152 ± 200
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080	z_{drag}	$1060.26^{+0.30}_{-0.40}$	χ_{plik}^2	2360.9 ± 5.9
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	$146.60^{+0.73}_{-0.24}$	χ_{Aver15}^2	0.51 ± 0.39
c_{100}	0.99968 ± 0.00061	k_D	$0.14127^{+0.00031}_{-0.00062}$	$\chi_{6\text{DF}}^2$	0.44 ± 0.54
c_{217}	0.99820 ± 0.00062	$100\theta_D$	$0.16080^{+0.00017}_{-0.00023}$	χ_{MGS}^2	0.73 ± 0.58
H_0	$67.74^{+0.40}_{-0.59}$	z_{eq}	3339^{+63}_{-21}	χ_{DR12BAO}^2	5.5 ± 1.8
Ω_Λ	0.6867 ± 0.0062	k_{eq}	$0.01027^{+0.00017}_{-0.000089}$	χ_{prior}^2	11.6 ± 4.5
Ω_m	0.3133 ± 0.0062	$100\theta_{\text{eq}}$	$0.8265^{+0.0038}_{-0.013}$	χ_{CMB}^2	2790.6 ± 6.0
$\Omega_m h^2$	$0.1437^{+0.0010}_{-0.0017}$	$100\theta_{s,\text{eq}}$	$0.4563^{+0.0020}_{-0.0069}$	χ_{BAO}^2	6.7 ± 1.5
$\Omega_\nu h^2$	$0.00278^{+0.00041}_{-0.0022}$	$H(0.15)$	$73.06^{+0.34}_{-0.54}$		

$$\bar{\chi}_{\text{eff}}^2 = 2809.47; R - 1 = 0.02226$$

8.52 base_nnu_meffsterile_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02247 ± 0.00014	σ_8	$0.793^{+0.020}_{-0.012}$	$D_M(0.38)$	$1526^{+11}_{-6.6}$
$\Omega_c h^2$	$0.1185^{+0.0032}_{-0.0019}$	S_8	$0.811^{+0.020}_{-0.013}$	$H(0.51)$	$90.01^{+0.17}_{-0.48}$
$100\theta_{MC}$	1.04092 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	$0.444^{+0.011}_{-0.0074}$	$D_M(0.51)$	$1976^{+14}_{-7.7}$
τ	$0.0575^{+0.0060}_{-0.0078}$	$\sigma_8 \Omega_m^{0.25}$	$0.594^{+0.014}_{-0.0088}$	$H(0.61)$	$95.66^{+0.13}_{-0.47}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.229	$\sigma_8/h^{0.5}$	$0.964^{+0.023}_{-0.013}$	$D_M(0.61)$	$2300^{+15}_{-8.2}$
N_{eff}	$3.1113^{+0.0057}_{-0.064}$	$r_{\text{drag}} h$	99.28 ± 0.77	$H(2.33)$	$237.24^{+0.65}_{-1.3}$
$\ln(10^{10} A_s)$	$3.051^{+0.013}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.021	$D_M(2.33)$	$5741^{+27}_{-6.1}$
n_s	$0.9676^{+0.0040}_{-0.0048}$	z_{re}	$7.98^{+0.63}_{-0.76}$	$f\sigma_8(0.15)$	$0.449^{+0.011}_{-0.0072}$
y_{cal}	1.0009 ± 0.0024	$10^9 A_s$	$2.114^{+0.027}_{-0.034}$	$\sigma_8(0.15)$	$0.733^{+0.019}_{-0.011}$
A_{217}^{CIB}	47 ± 7	$10^9 A_s e^{-2\tau}$	$1.885^{+0.010}_{-0.012}$	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0070}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1227 ± 12	$\sigma_8(0.38)$	$0.649^{+0.017}_{-0.010}$
A_{143}^{tSZ}	5.4 ± 2.0	D_{220}	5739 ± 37	$f\sigma_8(0.51)$	$0.465^{+0.011}_{-0.0069}$
A_{100}^{PS}	259 ± 28	D_{810}	2541 ± 13	$\sigma_8(0.51)$	$0.608^{+0.016}_{-0.0096}$
A_{143}^{PS}	47 ± 8	D_{1420}	817.4 ± 4.5	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0068}$
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{2000}	230.7 ± 1.5	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0092}$
A_{217}^{PS}	115 ± 10	$n_{s,0.002}$	$0.9676^{+0.0040}_{-0.0048}$	$f\sigma_8(2.33)$	$0.2917^{+0.0076}_{-0.0048}$
A^{kSZ}	< 4.39	Y_{P}	$0.24630^{+0.00014}_{-0.00085}$	$\sigma_8(2.33)$	$0.3005^{+0.0079}_{-0.0051}$
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	$0.24763^{+0.00014}_{-0.00085}$	f_{2000}^{143}	30.0 ± 2.8
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	$10^5 \text{D}/\text{H}$	$2.590^{+0.023}_{-0.027}$	$f_{2000}^{143 \times 217}$	32.6 ± 1.9
$A_{143 \times 217}^{\text{dust}TT}$	18.7 ± 3.3	Age/Gyr	$13.744^{+0.064}_{-0.014}$	f_{2000}^{217}	107.4 ± 1.8
$A_{217}^{\text{dust}TT}$	93.8 ± 7.3	z_*	1089.90 ± 0.22	χ_{lensing}^2	9.11 ± 0.73
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	r_*	$143.97^{+0.71}_{-0.24}$	χ_{simall}^2	270 ± 200
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.030	$100\theta_*$	$1.04107^{+0.00033}_{-0.00029}$	χ_{lowl}^2	151 ± 200
$A_{100 \times 217}^{\text{dust}TE}$	0.482 ± 0.086	$D_M(z_*)/\text{Gpc}$	$13.829^{+0.067}_{-0.023}$	χ_{plik}^2	2360.9 ± 5.9
$A_{143}^{\text{dust}TE}$	0.224 ± 0.055	z_{drag}	$1060.25^{+0.30}_{-0.40}$	χ_{Aver15}^2	0.51 ± 0.39
$A_{143 \times 217}^{\text{dust}TE}$	0.664 ± 0.080	r_{drag}	$146.59^{+0.74}_{-0.25}$	χ_{Cooke17}^2	0.16 ± 0.19
$A_{217}^{\text{dust}TE}$	2.08 ± 0.27	k_{D}	$0.14127^{+0.00031}_{-0.00063}$	χ_{6DF}^2	0.43 ± 0.53
c_{100}	0.99967 ± 0.00062	$100\theta_{\text{D}}$	$0.16081^{+0.00017}_{-0.00022}$	χ_{MGS}^2	0.73 ± 0.57
c_{217}	0.99821 ± 0.00062	z_{eq}	3340^{+63}_{-20}	χ_{DR12BAO}^2	5.6 ± 1.8
H_0	$67.73^{+0.40}_{-0.59}$	k_{eq}	$0.01027^{+0.00017}_{-0.000087}$	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.6865 ± 0.0061	$100\theta_{\text{eq}}$	$0.8264^{+0.0037}_{-0.013}$	χ_{CMB}^2	2790.6 ± 6.0
Ω_{m}	0.3135 ± 0.0061	$100\theta_{s,\text{eq}}$	$0.4562^{+0.0019}_{-0.0069}$	χ_{BAO}^2	6.7 ± 1.6
$\Omega_{\text{m}} h^2$	$0.1438^{+0.0010}_{-0.0017}$	$H(0.15)$	$73.05^{+0.33}_{-0.55}$	χ_{Abund}^2	0.67 ± 0.41
$\Omega_{\nu} h^2$	$0.00277^{+0.00042}_{-0.0022}$	$D_M(0.15)$	$640.0^{+5.2}_{-3.4}$		
$\Omega_{\text{m}} h^3$	$0.09737^{+0.00024}_{-0.0013}$	$H(0.38)$	$83.24^{+0.23}_{-0.50}$		

$\bar{\chi}_{\text{eff}}^2 = 2809.63; R - 1 = 0.02220$

8.53 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022343	$0.02241^{+0.00015}_{-0.00016}$ (+0.5 σ)	S_8	0.8223	$0.809^{+0.019}_{-0.013}$ (−1.2 σ)	$H(0.38)$	83.003	$83.44^{+0.24}_{-0.75}$ (+1.5 σ)
$\Omega_c h^2$	0.11905	$0.1192^{+0.0031}_{-0.0025}$ (+0.1 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4504	$0.443^{+0.011}_{-0.0070}$ (−1.2 σ)	$D_M(0.38)$	1529.1	$1522^{+16}_{-7.2}$ (−0.9 σ)
$100\theta_{MC}$	1.040943	$1.04081^{+0.00036}_{-0.00032}$ (−0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6032	$0.593^{+0.014}_{-0.0085}$ (−1.8 σ)	$H(0.51)$	89.714	$90.20^{+0.18}_{-0.75}$ (+2.1 σ)
τ	0.0546	$0.0564^{+0.0067}_{-0.0078}$ (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9824	$0.963^{+0.022}_{-0.012}$ (−2.4 σ)	$D_M(0.51)$	1980.9	$1971^{+20}_{-8.2}$ (−1.1 σ)
$m_{\nu, \text{sterile}}^{\text{eff}}$ [eV]	0.011	< 0.174	$r_{\text{drag}} h$	99.64	99.47 ± 0.84 (−0.3 σ)	$H(0.61)$	95.328	$95.85^{+0.16}_{-0.74}$ (+2.8 σ)
N_{eff}	3.046	< 3.16	$\langle d^2 \rangle^{1/2}$	2.4294	2.427 ± 0.021 (−0.2 σ)	$D_M(0.61)$	2305.2	$2294^{+22}_{-8.7}$ (−1.2 σ)
$\ln(10^{10} A_s)$	3.0410	$3.048^{+0.014}_{-0.016}$ (+0.4 σ)	z_{re}	7.70	7.90 ± 0.74 (+0.2 σ)	$H(2.33)$	235.99	$237.48^{+0.74}_{-1.9}$ (+2.7 σ)
n_s	0.9673	$0.9693^{+0.0045}_{-0.0060}$ (+0.6 σ)	$10^9 A_s$	2.0926	$2.109^{+0.030}_{-0.034}$ (+0.4 σ)	$D_M(2.33)$	5762.6	$5731^{+42}_{-9.0}$ (−3.5 σ)
y_{cal}	1.00024	1.0008 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8762	$1.883^{+0.012}_{-0.014}$ (+0.6 σ)	$f\sigma_8(0.15)$	0.4550	$0.448^{+0.011}_{-0.0068}$ (−1.3 σ)
A_{100}^{PS}	235.8	243 ± 25 (+0.1 σ)	D_{40}	1223.1	1222 ± 13 (−0.3 σ)	$\sigma_8(0.15)$	0.7466	$0.733^{+0.019}_{-0.011}$ (−2.5 σ)
A_{143}^{PS}	47.5	41 ± 8 (+0.2 σ)	D_{220}	5717.3	5726 ± 39 (+0.0 σ)	$f\sigma_8(0.38)$	0.4735	$0.466^{+0.011}_{-0.0067}$ (−1.6 σ)
A_{217}^{PS}	103.5	102 ± 10 (−0.0 σ)	D_{810}	2535.0	2538 ± 13 (+0.1 σ)	$\sigma_8(0.38)$	0.6619	$0.650^{+0.017}_{-0.010}$ (−2.5 σ)
A_{217}^{CIB}	39.8	40 ± 7 (+0.1 σ)	D_{1420}	816.09	815.6 ± 4.8 (−0.1 σ)	$f\sigma_8(0.51)$	0.4722	$0.465^{+0.011}_{-0.0066}$ (−1.8 σ)
A_{143}^{tSZ}	4.40	$3.8^{+1.8}_{-2.5}$ (−0.1 σ)	D_{2000}	230.54	229.8 ± 1.7 (−0.4 σ)	$\sigma_8(0.51)$	0.6194	$0.608^{+0.016}_{-0.0098}$ (−2.5 σ)
$r_{143 \times 217}^{\text{PS}}$	0.725	0.65 ± 0.13 (−0.1 σ)	$n_{s,0.002}$	0.9673	$0.9693^{+0.0045}_{-0.0060}$ (+0.6 σ)	$f\sigma_8(0.61)$	0.4672	$0.460^{+0.011}_{-0.0066}$ (−2.0 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.726	$0.57^{+0.40}_{-0.15}$ (+0.1 σ)	Y_P	0.24539	$0.24675^{+0.00025}_{-0.0014}$ (+23.9 σ)	$\sigma_8(0.61)$	0.5894	$0.579^{+0.015}_{-0.0094}$ (−2.5 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.94	—	Y_P^{BBN}	0.24671	$0.24808^{+0.00025}_{-0.0014}$ (+23.9 σ)	$f\sigma_8(2.33)$	0.2972	$0.2922^{+0.0077}_{-0.0049}$ (−2.4 σ)
A^{kSZ}	3.41	4.9 ± 2.7 (+0.1 σ)	$10^5 D/H$	2.5905	$2.615^{+0.029}_{-0.041}$ (+0.8 σ)	$\sigma_8(2.33)$	0.3064	$0.3010^{+0.0081}_{-0.0052}$ (−2.4 σ)
A_{100}^{dust}	1.022	1.01 ± 0.20 (+0.0 σ)	Age/Gyr	13.796	$13.72^{+0.10}_{-0.021}$ (−3.7 σ)	f_{2000}^{143}	29.69	30.5 ± 3.0 (+0.4 σ)
A_{143}^{dust}	0.975	0.96 ± 0.17 (+0.0 σ)	z_*	1089.881	$1090.04^{+0.24}_{-0.31}$ (+0.7 σ)	f_{2000}^{217}	106.44	107.5 ± 2.0 (+0.4 σ)
A_{217}^{dust}	0.982	0.97 ± 0.10 (−0.0 σ)	r_*	144.66	$143.8^{+1.1}_{-0.31}$ (−4.0 σ)	$f_{2000}^{143 \times 217}$	31.97	32.8 ± 2.1 (+0.4 σ)
$A_{143 \times 217}^{\text{dust}}$	1.019	1.03 ± 0.16 (+0.0 σ)	$100\theta_*$	1.041131	$1.04094^{+0.00041}_{-0.00032}$ (−0.7 σ)	χ_{lensing}^2	8.94	9.5 ± 1.0 (+0.2 σ)
c_{100}	0.99765	0.9976 ± 0.0011 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.895	$13.81^{+0.10}_{-0.030}$ (−3.9 σ)	χ_{small}^2	396.07	397.3 ± 2.0 (+0.1 σ)
c_{217}	1.00128	1.0012 ± 0.0016 (+0.1 σ)	z_{drag}	1059.818	$1060.15^{+0.35}_{-0.49}$ (+1.1 σ)	χ_{lowl}^2	22.86	22.72 ± 0.89 (−0.3 σ)
c_{TE}	0.99640	0.9971 ± 0.0049 (+0.1 σ)	r_{drag}	147.34	$146.4^{+1.1}_{-0.33}$ (−3.9 σ)	χ_{CamSpec}^2	11500.0	11516.1 ± 5.8 (+0.3 σ)
c_{EE}	0.9920	0.9934 ± 0.0051 (+0.2 σ)	k_D	0.14058	$0.14127^{+0.00037}_{-0.00087}$ (+2.3 σ)	$\chi_{6\text{DF}}^2$	0.0297	0.073 ± 0.082 (+0.5 σ)
H_0	67.63	$67.94^{+0.43}_{-0.80}$ (+0.6 σ)	$100\theta_D$	0.160825	$0.16102^{+0.00019}_{-0.00035}$ (+0.9 σ)	χ_{MGS}^2	1.217	1.18 ± 0.44 (−0.3 σ)
Ω_Λ	0.6892	0.6879 ± 0.0066 (−0.3 σ)	z_{eq}	3378.9	3338^{+51}_{-19} (−1.9 σ)	χ_{DR12BAO}^2	4.42	5.2 ± 1.8 (+0.5 σ)
Ω_m	0.3108	0.3121 ± 0.0066 (+0.3 σ)	k_{eq}	0.010315	$0.01028^{+0.00016}_{-0.000097}$ (−0.5 σ)	χ_{prior}^2	2.13	7.8 ± 3.4 (−0.0 σ)
$\Omega_m h^2$	0.14216	$0.1440^{+0.0011}_{-0.0024}$ (+2.2 σ)	$100\theta_{\text{eq}}$	0.8175	$0.8262^{+0.0033}_{-0.011}$ (+2.2 σ)	χ_{CMB}^2	11927.8	11945.6 ± 6.0 (+0.3 σ)
$\Omega_\nu h^2$	0.00077	$0.00240^{+0.00029}_{-0.0018}$	$100\theta_{s,\text{eq}}$	0.45160	$0.4561^{+0.0016}_{-0.0057}$ (+2.2 σ)	χ_{BAO}^2	5.67	6.5 ± 1.5 (+0.5 σ)
$\Omega_m h^3$	0.09614	$0.09784^{+0.00039}_{-0.0020}$ (+5.6 σ)	$H(0.15)$	72.90	$73.26^{+0.35}_{-0.78}$ (+0.9 σ)			
σ_8	0.8079	$0.794^{+0.020}_{-0.012}$ (−2.4 σ)	$D_M(0.15)$	641.1	$638.2^{+7.1}_{-3.7}$ (−0.7 σ)			

Best-fit $\chi_{\text{eff}}^2 = 11935.63$; $\bar{\chi}_{\text{eff}}^2 = 11959.89$; $\Delta\chi_{\text{eff}}^2 = 2.49$; $R - 1 = 0.03604$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.42 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.94 small_100x143.offlike5_EE_Aplanck_B: 396.07 comman-
der_dx12.v3.2.29: 22.86 CamSpec like_10.7HM_1400_unified: 11499.95

8.54 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022368	$0.02241^{+0.00015}_{-0.00016}$ (+0.5 σ)	S_8	0.8213	$0.809^{+0.019}_{-0.013}$ (−1.1 σ)	$H(0.38)$	83.34	$83.50^{+0.24}_{-0.78}$ (+1.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.11974	$0.1192^{+0.0030}_{-0.0026}$ (+0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4499	$0.443^{+0.010}_{-0.0069}$ (−1.1 σ)	$D_{\mathrm{M}}(0.38)$	1522.2	$1520^{+16}_{-7.0}$ (−1.1 σ)
$100\theta_{\mathrm{MC}}$	1.040861	$1.04082^{+0.00037}_{-0.00032}$ (−0.5 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6034	$0.593^{+0.014}_{-0.0085}$ (−1.7 σ)	$H(0.51)$	90.050	$90.25^{+0.19}_{-0.77}$ (+2.3 σ)
τ	0.0548	$0.0568^{+0.0067}_{-0.0078}$ (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9816	$0.964^{+0.022}_{-0.011}$ (−2.2 σ)	$D_{\mathrm{M}}(0.51)$	1972.3	$1969^{+20}_{-8.2}$ (−1.2 σ)
$m_{\nu,\mathrm{sterile}}^{\mathrm{eff}}$ [eV]	0.000	< 0.163	$r_{\mathrm{drag}}h$	99.87	99.60 ± 0.80 (−0.3 σ)	$H(0.61)$	95.667	$95.90^{+0.17}_{-0.77}$ (+3.0 σ)
N_{eff}	3.093	< 3.16	$\langle d^2 \rangle^{1/2}$	2.4283	2.426 ± 0.021 (−0.2 σ)	$D_{\mathrm{M}}(0.61)$	2295.3	$2292^{+23}_{-8.7}$ (−1.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0433	3.049 ± 0.015 (+0.4 σ)	z_{re}	7.73	7.93 ± 0.74 (+0.2 σ)	$H(2.33)$	236.54	$237.42^{+0.71}_{-1.9}$ (+2.8 σ)
n_{s}	0.9679	$0.9698^{+0.0045}_{-0.0060}$ (+0.7 σ)	10^9A_{s}	2.0974	$2.110^{+0.030}_{-0.034}$ (+0.4 σ)	$D_{\mathrm{M}}(2.33)$	5743.1	$5729^{+44}_{-9.8}$ (−3.8 σ)
y_{cal}	1.00049	1.0008 ± 0.0025 (+0.0 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8796	$1.883^{+0.012}_{-0.014}$ (+0.6 σ)	$f\sigma_8(0.15)$	0.4547	$0.448^{+0.010}_{-0.0068}$ (−1.2 σ)
A_{100}^{PS}	240.3	243 ± 25 (+0.2 σ)	D_{40}	1224.1	1221 ± 13 (−0.3 σ)	$\sigma_8(0.15)$	0.7481	$0.734^{+0.018}_{-0.011}$ (−2.3 σ)
A_{143}^{PS}	40.6	41 ± 8 (+0.2 σ)	D_{220}	5725.1	5727 ± 39 (+0.0 σ)	$f\sigma_8(0.38)$	0.4735	$0.466^{+0.011}_{-0.0067}$ (−1.5 σ)
A_{217}^{PS}	100.4	102 ± 10 (−0.0 σ)	D_{810}	2535.3	2538 ± 13 (+0.1 σ)	$\sigma_8(0.38)$	0.6634	$0.651^{+0.016}_{-0.010}$ (−2.3 σ)
A_{217}^{CIB}	44.6	40 ± 7 (+0.1 σ)	D_{1420}	815.17	815.7 ± 4.8 (−0.2 σ)	$f\sigma_8(0.51)$	0.4724	$0.465^{+0.011}_{-0.0066}$ (−1.7 σ)
A_{143}^{tSZ}	5.93	$3.7^{+1.8}_{-2.5}$ (−0.1 σ)	D_{2000}	229.98	229.8 ± 1.7 (−0.4 σ)	$\sigma_8(0.51)$	0.6209	$0.609^{+0.015}_{-0.0097}$ (−2.3 σ)
$r_{143\times 217}^{\mathrm{PS}}$	0.577	0.65 ± 0.13 (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9679	$0.9698^{+0.0045}_{-0.0060}$ (+0.7 σ)	$f\sigma_8(0.61)$	0.4677	$0.460^{+0.011}_{-0.0066}$ (−1.8 σ)
$r_{143\times 217}^{\mathrm{CIB}}$	0.778	$0.57^{+0.41}_{-0.15}$ (+0.1 σ)	Y_{P}	0.24602	$0.24678^{+0.00025}_{-0.0014}$ (+24.8 σ)	$\sigma_8(0.61)$	0.5909	$0.580^{+0.015}_{-0.0093}$ (−2.3 σ)
$\xi^{\mathrm{tSZ}\times\mathrm{CIB}}$	0.11	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24735	$0.24811^{+0.00025}_{-0.0014}$ (+24.8 σ)	$f\sigma_8(2.33)$	0.2980	$0.2927^{+0.0075}_{-0.0048}$ (−2.2 σ)
A^{kSZ}	1.10	4.9 ± 2.7 (+0.1 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6020	$2.614^{+0.028}_{-0.042}$ (+0.9 σ)	$\sigma_8(2.33)$	0.3074	$0.3016^{+0.015}_{-0.0052}$ (−2.2 σ)
A_{100}^{dust}	1.005	1.01 ± 0.20 (+0.0 σ)	Age/Gyr	13.750	$13.71^{+0.10}_{-0.023}$ (−4.0 σ)	f_{2000}^{143}	30.85	30.5 ± 3.0 (+0.4 σ)
A_{143}^{dust}	0.980	0.96 ± 0.18 (+0.0 σ)	z_*	1089.946	$1090.02^{+0.23}_{-0.31}$ (+0.7 σ)	f_{2000}^{217}	107.29	107.5 ± 2.0 (+0.4 σ)
A_{217}^{dust}	0.974	0.97 ± 0.10 (−0.0 σ)	r_*	144.27	$143.8^{+1.1}_{-0.30}$ (−4.2 σ)	$f_{2000}^{143\times 217}$	32.61	32.8 ± 2.1 (+0.4 σ)
$A_{143\times 217}^{\mathrm{dust}}$	1.006	1.03 ± 0.16 (+0.0 σ)	$100\theta_*$	1.041020	$1.04094^{+0.00042}_{-0.00032}$ (−0.7 σ)	$\chi_{\mathrm{lensing}}^2$	9.02	9.5 ± 1.0 (+0.3 σ)
c_{100}	0.99761	0.9976 ± 0.0011 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.858	$13.81^{+0.10}_{-0.029}$ (−4.0 σ)	χ_{small}^2	396.12	397.4 ± 2.1 (+0.1 σ)
c_{217}	1.00143	1.0012 ± 0.0016 (+0.1 σ)	z_{drag}	1059.933	$1060.16^{+0.35}_{-0.50}$ (+1.2 σ)	χ_{lowl}^2	22.86	22.66 ± 0.88 (−0.4 σ)
c_{TE}	0.99648	0.9972 ± 0.0050 (+0.1 σ)	r_{drag}	146.93	$146.4^{+1.2}_{-0.32}$ (−4.0 σ)	$\chi_{\mathrm{CamSpec}}^2$	11500.0	11516.2 ± 5.8 (+0.3 σ)
c_{EE}	0.9929	0.9934 ± 0.0051 (+0.2 σ)	k_{D}	0.14086	$0.14126^{+0.00037}_{-0.00090}$ (+2.4 σ)	χ_{JLA}^2	1034.942	1035.11 ± 0.33 (+0.3 σ)
H_0	67.97	$68.03^{+0.42}_{-0.82}$ (+0.8 σ)	$100\theta_{\mathrm{D}}$	0.160938	$0.16102^{+0.00019}_{-0.00036}$ (+1.0 σ)	$\chi_{6\mathrm{DF}}^2$	0.0161	0.060 ± 0.071 (+0.4 σ)
Ω_{Λ}	0.6910	0.6890 ± 0.0063 (−0.3 σ)	z_{eq}	3374.7	3337^{+50}_{-18} (−1.9 σ)	χ_{MGS}^2	1.343	1.25 ± 0.43 (−0.3 σ)
Ω_{m}	0.3090	0.3110 ± 0.0063 (+0.3 σ)	k_{eq}	0.010332	$0.01028^{+0.00016}_{-0.000099}$ (−0.5 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.09	5.0 ± 1.5 (+0.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.14275	$0.1439^{+0.0011}_{-0.0024}$ (+2.2 σ)	$100\theta_{\mathrm{eq}}$	0.8182	$0.8264^{+0.0032}_{-0.010}$ (+2.2 σ)	χ_{prior}^2	2.29	7.8 ± 3.5 (−0.0 σ)
$\Omega_{\nu}h^2$	0.00065	$0.00231^{+0.00025}_{-0.0018}$	$100\theta_{\mathrm{s,eq}}$	0.45196	$0.4562^{+0.0016}_{-0.0055}$ (+2.2 σ)	χ_{CMB}^2	11928.1	11945.8 ± 6.1 (+0.4 σ)
$\Omega_{\mathrm{m}}h^3$	0.09703	$0.09790^{+0.00041}_{-0.0021}$ (+5.8 σ)	$H(0.15)$	73.24	$73.34^{+0.35}_{-0.79}$ (+1.0 σ)	χ_{BAO}^2	5.45	6.3 ± 1.3 (+0.4 σ)
σ_8	0.8093	$0.795^{+0.019}_{-0.012}$ (−2.2 σ)	$D_{\mathrm{M}}(0.15)$	638.0	$637.4^{+7.2}_{-3.6}$ (−0.9 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 12970.74$; $\Delta\chi_{\mathrm{eff}}^2 = 0.26$; $\bar{\chi}_{\mathrm{eff}}^2 = 12994.91$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.52$; $R - 1 = 0.03797$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.09 (Δ -0.14) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.02 (Δ 0.06) small_100x143_offlike5_EE_Aplanck 396.12 (Δ 0.07) commander_dx12.v3.2.29: 22.86 (Δ 0.09) CamSpec like_10.7HM_1400_unified: 11500.05 (Δ -0.12) SN - JLA Pantheon18: 1034.94 (Δ -0.04)

8.55 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00015	S_8	$0.808^{+0.019}_{-0.013}$	$H(0.38)$	$83.28^{+0.25}_{-0.57}$
$\Omega_c h^2$	$0.1186^{+0.0030}_{-0.0020}$	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.010}_{-0.0071}$	$D_M(0.38)$	$1525^{+12}_{-7.2}$
$100\theta_{MC}$	1.04085 ± 0.00032	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.014}_{-0.0083}$	$H(0.51)$	$90.03^{+0.18}_{-0.55}$
τ	$0.0563^{+0.0067}_{-0.0077}$	$\sigma_8/h^{0.5}$	$0.962^{+0.022}_{-0.012}$	$D_M(0.51)$	$1975^{+15}_{-8.3}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.191	$r_{\text{drag}} h$	99.44 ± 0.81	$H(0.61)$	$95.68^{+0.15}_{-0.55}$
N_{eff}	< 3.13	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.021	$D_M(0.61)$	$2298^{+17}_{-8.9}$
$\ln(10^{10} A_s)$	3.047 ± 0.015	z_{re}	7.87 ± 0.74	$H(2.33)$	$237.10^{+0.70}_{-1.5}$
n_s	$0.9684^{+0.0044}_{-0.0052}$	$10^9 A_s$	$2.106^{+0.030}_{-0.033}$	$D_M(2.33)$	$5741^{+31}_{-7.3}$
y_{cal}	1.0008 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.881 ± 0.012	$f\sigma_8(0.15)$	$0.447^{+0.011}_{-0.0069}$
A_{100}^{PS}	242 ± 25	D_{40}	1223 ± 13	$\sigma_8(0.15)$	$0.732^{+0.018}_{-0.010}$
A_{143}^{PS}	41 ± 8	D_{220}	5726 ± 39	$f\sigma_8(0.38)$	$0.465^{+0.011}_{-0.0066}$
A_{217}^{PS}	102 ± 10	D_{810}	2537 ± 13	$\sigma_8(0.38)$	$0.649^{+0.016}_{-0.0095}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.7 ± 4.8	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0064}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.5}$	D_{2000}	229.9 ± 1.6	$\sigma_8(0.51)$	$0.607^{+0.015}_{-0.0090}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9684^{+0.0044}_{-0.0052}$	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0063}$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.40}_{-0.16}$	Y_P	$0.24641^{+0.00018}_{-0.0010}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0086}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24774^{+0.00018}_{-0.0010}$	$f\sigma_8(2.33)$	$0.2915^{+0.0075}_{-0.0045}$
A^{kSZ}	$4.9^{+2.8}_{-3.5}$	$10^5 D/H$	$2.609^{+0.027}_{-0.035}$	$\sigma_8(2.33)$	$0.3004^{+0.0078}_{-0.0048}$
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	$13.743^{+0.074}_{-0.017}$	f_{2000}^{143}	30.3 ± 2.9
A_{143}^{dust}	0.96 ± 0.18	z_*	$1090.00^{+0.23}_{-0.27}$	f_{2000}^{217}	107.3 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.02^{+0.83}_{-0.27}$	$f_{2000}^{143 \times 217}$	32.6 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$100\theta_*$	$1.04100^{+0.00036}_{-0.00031}$	χ_{lensing}^2	9.4 ± 1.0
c_{100}	0.9976 ± 0.0011	$D_M(z_*)/\text{Gpc}$	$13.834^{+0.077}_{-0.026}$	χ_{simall}^2	397.3 ± 2.0
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.06^{+0.34}_{-0.41}$	χ_{lowl}^2	22.83 ± 0.87
c_{TE}	0.9970 ± 0.0049	r_{drag}	$146.67^{+0.86}_{-0.29}$	χ_{CamSpec}^2	11515.7 ± 5.7
c_{EE}	0.9930 ± 0.0050	k_D	$0.14109^{+0.00036}_{-0.00068}$	χ_{Aver15}^2	0.56 ± 0.48
H_0	$67.80^{+0.43}_{-0.65}$	$100\theta_D$	$0.16096^{+0.00019}_{-0.00028}$	$\chi_{6\text{DF}}^2$	0.074 ± 0.081
Ω_Λ	0.6876 ± 0.0064	z_{eq}	3336^{+55}_{-20}	χ_{MGS}^2	1.16 ± 0.43
Ω_m	0.3124 ± 0.0064	k_{eq}	$0.01026^{+0.00016}_{-0.000089}$	χ_{DR12BAO}^2	5.3 ± 1.7
$\Omega_m h^2$	$0.1436^{+0.0011}_{-0.0019}$	$100\theta_{\text{eq}}$	$0.8266^{+0.0035}_{-0.012}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_\nu h^2$	$0.00252^{+0.00019}_{-0.0019}$	$100\theta_{s,\text{eq}}$	$0.4564^{+0.0018}_{-0.0061}$	χ_{CMB}^2	11945.3 ± 6.0
$\Omega_m h^3$	$0.09734^{+0.00032}_{-0.0015}$	$H(0.15)$	$73.11^{+0.36}_{-0.62}$	χ_{BAO}^2	6.5 ± 1.5
σ_8	$0.792^{+0.019}_{-0.011}$	$D_M(0.15)$	$639.4^{+5.7}_{-3.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 11960.11; R - 1 = 0.03672$$

8.56 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02238 ± 0.00015	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.443^{+0.010}_{-0.0070}$	$H(0.51)$	$90.02^{+0.18}_{-0.55}$
$\Omega_{\mathrm{c}} h^2$	$0.1186^{+0.0030}_{-0.0020}$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.592^{+0.014}_{-0.0082}$	$D_{\mathrm{M}}(0.51)$	$1975^{+15}_{-8.2}$
$100\theta_{\mathrm{MC}}$	1.04085 ± 0.00032	$\sigma_8/h^{0.5}$	$0.962^{+0.022}_{-0.012}$	$H(0.61)$	$95.67^{+0.15}_{-0.54}$
τ	$0.0562^{+0.0068}_{-0.0077}$	$r_{\mathrm{drag}} h$	99.43 ± 0.81	$D_{\mathrm{M}}(0.61)$	$2298^{+17}_{-8.7}$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.192	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.021	$H(2.33)$	$237.09^{+0.71}_{-1.4}$
N_{eff}	< 3.13	z_{re}	7.87 ± 0.74	$D_{\mathrm{M}}(2.33)$	$5741^{+31}_{-7.4}$
$\ln(10^{10} A_{\mathrm{s}})$	3.047 ± 0.015	$10^9 A_{\mathrm{s}}$	$2.105^{+0.030}_{-0.033}$	$f\sigma_8(0.15)$	$0.447^{+0.011}_{-0.0068}$
n_{s}	$0.9683^{+0.0044}_{-0.0052}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.881 ± 0.012	$\sigma_8(0.15)$	$0.732^{+0.018}_{-0.010}$
y_{cal}	1.0008 ± 0.0025	D_{40}	1223 ± 13	$f\sigma_8(0.38)$	$0.465^{+0.011}_{-0.0065}$
A_{100}^{PS}	242 ± 25	D_{220}	5725 ± 39	$\sigma_8(0.38)$	$0.649^{+0.016}_{-0.0095}$
A_{143}^{PS}	41 ± 8	D_{810}	2537 ± 13	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0064}$
A_{217}^{PS}	102 ± 10	D_{1420}	815.7 ± 4.7	$\sigma_8(0.51)$	$0.607^{+0.015}_{-0.0090}$
A_{217}^{CIB}	40 ± 7	D_{2000}	229.9 ± 1.6	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0063}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.5}$	$n_{\mathrm{s}, 0.002}$	$0.9683^{+0.0044}_{-0.0052}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0086}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.24639^{+0.00019}_{-0.00099}$	$f\sigma_8(2.33)$	$0.2915^{+0.0075}_{-0.0045}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24772^{+0.00019}_{-0.00099}$	$\sigma_8(2.33)$	$0.3003^{+0.0078}_{-0.0048}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.609^{+0.027}_{-0.033}$	f_{2000}^{143}	30.4 ± 2.9
A^{kSZ}	$4.9^{+2.8}_{-3.5}$	$\mathrm{Age}/\mathrm{Gyr}$	$13.745^{+0.072}_{-0.017}$	f_{2000}^{217}	107.4 ± 2.0
A_{100}^{dust}	1.01 ± 0.20	z_*	$1090.00^{+0.22}_{-0.26}$	$f_{2000}^{143 \times 217}$	32.6 ± 2.0
A_{143}^{dust}	0.96 ± 0.18	r_*	$144.03^{+0.81}_{-0.28}$	$\chi_{\mathrm{lensing}}^2$	9.4 ± 1.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	$1.04100^{+0.00036}_{-0.00031}$	χ_{simall}^2	397.3 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.835^{+0.076}_{-0.027}$	χ_{lowl}^2	22.84 ± 0.87
c_{100}	0.9976 ± 0.0011	z_{drag}	$1060.05^{+0.34}_{-0.41}$	$\chi_{\mathrm{CamSpec}}^2$	11515.6 ± 5.7
c_{217}	1.0012 ± 0.0016	r_{drag}	$146.68^{+0.84}_{-0.30}$	χ_{Aver15}^2	0.55 ± 0.45
c_{TE}	0.9970 ± 0.0049	k_{D}	$0.14107^{+0.00036}_{-0.00068}$	$\chi_{\mathrm{Cooke17}}^2$	0.12 ± 0.16
c_{EE}	0.9930 ± 0.0050	$100\theta_{\mathrm{D}}$	$0.16096^{+0.00018}_{-0.00027}$	$\chi_{6\mathrm{DF}}^2$	0.074 ± 0.081
H_0	$67.79^{+0.43}_{-0.65}$	z_{eq}	3336^{+55}_{-19}	χ_{MGS}^2	1.16 ± 0.42
Ω_{Λ}	0.6875 ± 0.0064	k_{eq}	$0.01026^{+0.00016}_{-0.000087}$	$\chi_{\mathrm{DR12BAO}}^2$	5.3 ± 1.7
Ω_{m}	0.3125 ± 0.0064	$100\theta_{\mathrm{eq}}$	$0.8266^{+0.0035}_{-0.012}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\mathrm{m}} h^2$	$0.1435^{+0.0011}_{-0.0019}$	$100\theta_{\mathrm{s,eq}}$	$0.4564^{+0.0018}_{-0.0061}$	χ_{CMB}^2	11945.2 ± 5.9
$\Omega_{\nu} h^2$	$0.00254^{+0.00019}_{-0.0019}$	$H(0.15)$	$73.10^{+0.35}_{-0.61}$	χ_{BAO}^2	6.5 ± 1.4
$\Omega_{\mathrm{m}} h^3$	$0.09731^{+0.00034}_{-0.0015}$	$D_{\mathrm{M}}(0.15)$	$639.5^{+5.7}_{-3.6}$	χ_{Abund}^2	0.67 ± 0.51
σ_8	$0.792^{+0.019}_{-0.011}$	$H(0.38)$	$83.27^{+0.24}_{-0.56}$		
S_8	$0.808^{+0.019}_{-0.013}$	$D_{\mathrm{M}}(0.38)$	$1525^{+12}_{-7.1}$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11960.15; R - 1 = 0.03562$$

8.57 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02241^{+0.00015}_{-0.00016} \quad (+0.5\sigma)$	S_8	$0.810^{+0.019}_{-0.013} \quad (-1.2\sigma)$	$H(0.38)$	$83.44^{+0.24}_{-0.76} \quad (+1.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192^{+0.0031}_{-0.0025} \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.443^{+0.011}_{-0.0070} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522^{+16}_{-7.2} \quad (-0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04081^{+0.00036}_{-0.00032} \quad (-0.5\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.593^{+0.014}_{-0.0085} \quad (-1.8\sigma)$	$H(0.51)$	$90.21^{+0.19}_{-0.75} \quad (+2.2\sigma)$
τ	$0.0569^{+0.0058}_{-0.0079} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.963^{+0.022}_{-0.011} \quad (-2.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1971^{+20}_{-8.2} \quad (-1.1\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.174	$r_{\mathrm{drag}} h$	$99.48 \pm 0.83 \quad (-0.4\sigma)$	$H(0.61)$	$95.86^{+0.16}_{-0.75} \quad (+2.8\sigma)$
N_{eff}	< 3.16	$\langle d^2 \rangle^{1/2}$	$2.428 \pm 0.021 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2293^{+22}_{-8.7} \quad (-1.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.049^{+0.013}_{-0.016} \quad (+0.4\sigma)$	z_{re}	$7.95^{+0.62}_{-0.78} \quad (+0.2\sigma)$	$H(2.33)$	$237.48^{+0.75}_{-1.9} \quad (+2.7\sigma)$
n_{s}	$0.9694^{+0.0045}_{-0.0060} \quad (+0.6\sigma)$	$10^9 A_{\mathrm{s}}$	$2.110^{+0.027}_{-0.035} \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5730^{+42}_{-9.2} \quad (-3.6\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883^{+0.012}_{-0.014} \quad (+0.6\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.011}_{-0.0068} \quad (-1.3\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.2\sigma)$	D_{40}	$1222 \pm 13 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.734^{+0.019}_{-0.011} \quad (-2.7\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5726 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0066} \quad (-1.7\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.650^{+0.017}_{-0.010} \quad (-2.7\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$815.6 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.465^{+0.011}_{-0.0066} \quad (-1.9\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.1\sigma)$	D_{2000}	$229.8 \pm 1.7 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.609^{+0.016}_{-0.0097} \quad (-2.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9694^{+0.0045}_{-0.0060} \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0065} \quad (-2.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.15} \quad (+0.1\sigma)$	Y_{P}	$0.24676^{+0.00026}_{-0.0014} \quad (+24.2\sigma)$	$\sigma_8(0.61)$	$0.579^{+0.015}_{-0.0093} \quad (-2.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24809^{+0.00026}_{-0.0014} \quad (+24.2\sigma)$	$f\sigma_8(2.33)$	$0.2923^{+0.0077}_{-0.0048} \quad (-2.6\sigma)$
A^{kSZ}	$4.9 \pm 2.7 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614^{+0.029}_{-0.041} \quad (+0.8\sigma)$	$\sigma_8(2.33)$	$0.3012^{+0.0081}_{-0.0052} \quad (-2.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.72^{+0.10}_{-0.022} \quad (-3.8\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (+0.4\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.04^{+0.24}_{-0.31} \quad (+0.7\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.4\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$143.8^{+1.1}_{-0.32} \quad (-4.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04094^{+0.00041}_{-0.00032} \quad (-0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.46 \pm 0.99 \quad (+0.3\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.81^{+0.10}_{-0.030} \quad (-3.9\sigma)$	χ_{small}^2	$397.3 \pm 2.1 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	z_{drag}	$1060.15^{+0.35}_{-0.49} \quad (+1.1\sigma)$	χ_{lowl}^2	$22.72 \pm 0.89 \quad (-0.3\sigma)$
c_{TE}	$0.9971 \pm 0.0049 \quad (+0.1\sigma)$	r_{drag}	$146.4^{+1.1}_{-0.34} \quad (-4.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11516.0 \pm 5.8 \quad (+0.3\sigma)$
c_{EE}	$0.9933 \pm 0.0051 \quad (+0.2\sigma)$	k_{D}	$0.14127^{+0.00038}_{-0.00088} \quad (+2.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.071 \pm 0.081 \quad (+0.5\sigma)$
H_0	$67.95^{+0.43}_{-0.80} \quad (+0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102^{+0.00020}_{-0.00035} \quad (+0.9\sigma)$	χ_{MGS}^2	$1.19 \pm 0.44 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6880 \pm 0.0066 \quad (-0.3\sigma)$	z_{eq}	$3338^{+51}_{-18} \quad (-1.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.7 \quad (+0.5\sigma)$
Ω_{m}	$0.3120 \pm 0.0066 \quad (+0.3\sigma)$	k_{eq}	$0.01028^{+0.00016}_{-0.000096} \quad (-0.5\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1440^{+0.0011}_{-0.0024} \quad (+2.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8263^{+0.0032}_{-0.011} \quad (+2.2\sigma)$	χ_{CMB}^2	$11945.5 \pm 6.0 \quad (+0.4\sigma)$
$\Omega_{\nu} h^2$	$0.00240^{+0.00029}_{-0.0018}$	$100\theta_{\mathrm{s}, \mathrm{eq}}$	$0.4562^{+0.0016}_{-0.0056} \quad (+2.2\sigma)$	χ_{BAO}^2	$6.5 \pm 1.4 \quad (+0.5\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09786^{+0.00041}_{-0.0021} \quad (+5.6\sigma)$	$H(0.15)$	$73.27^{+0.35}_{-0.78} \quad (+0.9\sigma)$		
σ_8	$0.794^{+0.020}_{-0.012} \quad (-2.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$638.1^{+7.1}_{-3.7} \quad (-0.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11959.80; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.54; R - 1 = 0.03599$$

8.58 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02242^{+0.00015}_{-0.00016} \quad (+0.5\sigma)$	S_8	$0.809^{+0.019}_{-0.013} \quad (-1.2\sigma)$	$H(0.38)$	$83.51^{+0.24}_{-0.78} \quad (+1.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192^{+0.0030}_{-0.0026} \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.443^{+0.010}_{-0.0069} \quad (-1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1520^{+16}_{-7.1} \quad (-1.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04082^{+0.00037}_{-0.00032} \quad (-0.5\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.594^{+0.014}_{-0.0084} \quad (-1.7\sigma)$	$H(0.51)$	$90.26^{+0.20}_{-0.78} \quad (+2.4\sigma)$
τ	$0.0572^{+0.0059}_{-0.0079} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.964^{+0.022}_{-0.011} \quad (-2.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1969^{+20}_{-8.2} \quad (-1.2\sigma)$
$m_{\nu, \mathrm{sterile}}^{\mathrm{eff}} [\mathrm{eV}]$	< 0.163	$r_{\mathrm{drag}} h$	$99.62 \pm 0.80 \quad (-0.3\sigma)$	$H(0.61)$	$95.91^{+0.18}_{-0.78} \quad (+3.1\sigma)$
N_{eff}	< 3.16	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.021 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2291^{+23}_{-8.8} \quad (-1.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.050^{+0.013}_{-0.016} \quad (+0.4\sigma)$	z_{re}	$7.97^{+0.62}_{-0.78} \quad (+0.2\sigma)$	$H(2.33)$	$237.42^{+0.72}_{-1.9} \quad (+2.8\sigma)$
n_{s}	$0.9699^{+0.0045}_{-0.0060} \quad (+0.7\sigma)$	$10^9 A_{\mathrm{s}}$	$2.111^{+0.027}_{-0.035} \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5728^{+44}_{-10} \quad (-3.8\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883^{+0.012}_{-0.014} \quad (+0.6\sigma)$	$f\sigma_8(0.15)$	$0.448^{+0.010}_{-0.0067} \quad (-1.2\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.2\sigma)$	D_{40}	$1221 \pm 13 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.018}_{-0.011} \quad (-2.4\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5727 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.466^{+0.011}_{-0.0066} \quad (-1.6\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.651^{+0.016}_{-0.010} \quad (-2.5\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$815.7 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.465^{+0.011}_{-0.0066} \quad (-1.8\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.5} \quad (-0.1\sigma)$	D_{2000}	$229.8 \pm 1.7 \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.610^{+0.015}_{-0.0096} \quad (-2.5\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s}, 0.002}$	$0.9699^{+0.0045}_{-0.0060} \quad (+0.7\sigma)$	$f\sigma_8(0.61)$	$0.460^{+0.011}_{-0.0065} \quad (-1.9\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15} \quad (+0.1\sigma)$	Y_{P}	$0.24679^{+0.00026}_{-0.0014} \quad (+25.0\sigma)$	$\sigma_8(0.61)$	$0.580^{+0.015}_{-0.0092} \quad (-2.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24813^{+0.00026}_{-0.0014} \quad (+25.0\sigma)$	$f\sigma_8(2.33)$	$0.2928^{+0.0075}_{-0.0048} \quad (-2.3\sigma)$
A^{kSZ}	$4.9 \pm 2.7 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614^{+0.028}_{-0.042} \quad (+0.9\sigma)$	$\sigma_8(2.33)$	$0.3017^{+0.0079}_{-0.0051} \quad (-2.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.71^{+0.10}_{-0.023} \quad (-4.0\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (+0.4\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.02^{+0.23}_{-0.31} \quad (+0.7\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.4\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$143.8^{+1.1}_{-0.31} \quad (-4.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04094^{+0.00042}_{-0.00032} \quad (-0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.5 \pm 1.0 \quad (+0.3\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.81^{+0.11}_{-0.029} \quad (-4.1\sigma)$	χ_{small}^2	$397.4 \pm 2.1 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	z_{drag}	$1060.17^{+0.35}_{-0.50} \quad (+1.2\sigma)$	χ_{lowl}^2	$22.66 \pm 0.88 \quad (-0.4\sigma)$
c_{TE}	$0.9971 \pm 0.0050 \quad (+0.1\sigma)$	r_{drag}	$146.4^{+1.2}_{-0.33} \quad (-4.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11516.1 \pm 5.8 \quad (+0.3\sigma)$
c_{EE}	$0.9934 \pm 0.0051 \quad (+0.2\sigma)$	k_{D}	$0.14126^{+0.00037}_{-0.00091} \quad (+2.4\sigma)$	χ_{JLA}^2	$1035.11 \pm 0.33 \quad (+0.3\sigma)$
H_0	$68.04^{+0.42}_{-0.82} \quad (+0.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102^{+0.00019}_{-0.00036} \quad (+1.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.059 \pm 0.070 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6891 \pm 0.0063 \quad (-0.3\sigma)$	z_{eq}	$3337^{+50}_{-18} \quad (-1.9\sigma)$	χ_{MGS}^2	$1.25 \pm 0.43 \quad (-0.3\sigma)$
Ω_{m}	$0.3109 \pm 0.0063 \quad (+0.3\sigma)$	k_{eq}	$0.01028^{+0.00016}_{-0.000099} \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.5 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1439^{+0.0011}_{-0.0024} \quad (+2.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8265^{+0.0031}_{-0.010} \quad (+2.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\nu} h^2$	$0.00231^{+0.00025}_{-0.0018}$	$100\theta_{\mathrm{s}, \mathrm{eq}}$	$0.4563^{+0.0016}_{-0.0055} \quad (+2.2\sigma)$	χ_{CMB}^2	$11945.7 \pm 6.1 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09792^{+0.00042}_{-0.0021} \quad (+5.8\sigma)$	$H(0.15)$	$73.35^{+0.35}_{-0.80} \quad (+1.0\sigma)$	χ_{BAO}^2	$6.3 \pm 1.2 \quad (+0.5\sigma)$
σ_8	$0.795^{+0.019}_{-0.012} \quad (-2.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.3^{+7.2}_{-3.6} \quad (-0.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12994.82; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.57; R - 1 = 0.03782$$

8.59 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00015	S_8	$0.809^{+0.019}_{-0.013}$	$H(0.38)$	$83.29^{+0.25}_{-0.57}$
$\Omega_c h^2$	$0.1186^{+0.0029}_{-0.0020}$	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.010}_{-0.0071}$	$D_M(0.38)$	$1525^{+12}_{-7.2}$
$100\theta_{MC}$	1.04085 ± 0.00032	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.014}_{-0.0083}$	$H(0.51)$	$90.04^{+0.19}_{-0.56}$
τ	$0.0568^{+0.0058}_{-0.0078}$	$\sigma_8/h^{0.5}$	$0.962^{+0.022}_{-0.012}$	$D_M(0.51)$	$1975^{+15}_{-8.4}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.191	$r_{\text{drag}} h$	99.45 ± 0.81	$H(0.61)$	$95.69^{+0.15}_{-0.55}$
N_{eff}	< 3.13	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.020	$D_M(0.61)$	$2298^{+17}_{-8.9}$
$\ln(10^{10} A_s)$	$3.048^{+0.013}_{-0.016}$	z_{re}	$7.93^{+0.62}_{-0.77}$	$H(2.33)$	$237.10^{+0.70}_{-1.5}$
n_s	$0.9685^{+0.0044}_{-0.0052}$	$10^9 A_s$	$2.108^{+0.026}_{-0.033}$	$D_M(2.33)$	$5740^{+31}_{-7.4}$
y_{cal}	1.0008 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.881 ± 0.012	$f\sigma_8(0.15)$	$0.447^{+0.011}_{-0.0068}$
A_{100}^{PS}	242 ± 25	D_{40}	1223 ± 13	$\sigma_8(0.15)$	$0.732^{+0.018}_{-0.010}$
A_{143}^{PS}	41 ± 8	D_{220}	5726 ± 39	$f\sigma_8(0.38)$	$0.465^{+0.011}_{-0.0066}$
A_{217}^{PS}	102 ± 10	D_{810}	2537 ± 13	$\sigma_8(0.38)$	$0.649^{+0.016}_{-0.0094}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.7 ± 4.7	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0064}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.5}$	D_{2000}	229.9 ± 1.6	$\sigma_8(0.51)$	$0.607^{+0.015}_{-0.0089}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	$n_{s,0.002}$	$0.9685^{+0.0044}_{-0.0052}$	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0063}$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.40}_{-0.16}$	Y_P	$0.24641^{+0.00019}_{-0.0010}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0085}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24774^{+0.00019}_{-0.0010}$	$f\sigma_8(2.33)$	$0.2917^{+0.0074}_{-0.0044}$
A^{kSZ}	4.9 ± 2.7	$10^5 D/H$	$2.609^{+0.028}_{-0.035}$	$\sigma_8(2.33)$	$0.3005^{+0.0078}_{-0.0047}$
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	$13.743^{+0.074}_{-0.017}$	f_{2000}^{143}	30.3 ± 2.9
A_{143}^{dust}	0.96 ± 0.17	z_*	$1090.00^{+0.23}_{-0.27}$	f_{2000}^{217}	107.3 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	r_*	$144.01^{+0.83}_{-0.27}$	$f_{2000}^{143 \times 217}$	32.6 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$100\theta_*$	$1.04099^{+0.00037}_{-0.00031}$	χ_{lensing}^2	9.41 ± 0.96
c_{100}	0.9976 ± 0.0010	$D_M(z_*)/\text{Gpc}$	$13.834^{+0.078}_{-0.027}$	χ_{simall}^2	397.3 ± 2.0
c_{217}	1.0012 ± 0.0016	z_{drag}	$1060.07^{+0.35}_{-0.42}$	χ_{lowl}^2	22.83 ± 0.87
c_{TE}	0.9970 ± 0.0049	r_{drag}	$146.66^{+0.87}_{-0.29}$	χ_{CamSpec}^2	11515.7 ± 5.7
c_{EE}	0.9930 ± 0.0050	k_D	$0.14109^{+0.00037}_{-0.00069}$	χ_{Aver15}^2	0.57 ± 0.48
H_0	$67.81^{+0.43}_{-0.65}$	$100\theta_D$	$0.16096^{+0.00019}_{-0.00029}$	$\chi_{6\text{DF}}^2$	0.072 ± 0.080
Ω_Λ	0.6877 ± 0.0064	z_{eq}	3336^{+54}_{-19}	χ_{MGS}^2	1.17 ± 0.43
Ω_m	0.3123 ± 0.0064	k_{eq}	$0.01026^{+0.00016}_{-0.000088}$	χ_{DR12BAO}^2	5.2 ± 1.7
$\Omega_m h^2$	$0.1436^{+0.0011}_{-0.0019}$	$100\theta_{\text{eq}}$	$0.8267^{+0.0034}_{-0.011}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_\nu h^2$	$0.00253^{+0.00019}_{-0.0019}$	$100\theta_{s,\text{eq}}$	$0.4564^{+0.0018}_{-0.0060}$	χ_{CMB}^2	11945.2 ± 5.9
$\Omega_m h^3$	$0.09735^{+0.00033}_{-0.0015}$	$H(0.15)$	$73.12^{+0.36}_{-0.62}$	χ_{BAO}^2	6.5 ± 1.4
σ_8	$0.793^{+0.019}_{-0.011}$	$D_M(0.15)$	$639.3^{+5.7}_{-3.7}$		

$$\bar{\chi}_{\text{eff}}^2 = 11960.01; R - 1 = 0.03614$$

8.60 base_nnu_meffsterile_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00015	$\sigma_8 \Omega_m^{0.5}$	$0.443^{+0.010}_{-0.0070}$	$H(0.51)$	$90.03^{+0.18}_{-0.55}$
$\Omega_c h^2$	$0.1186^{+0.0030}_{-0.0020}$	$\sigma_8 \Omega_m^{0.25}$	$0.592^{+0.014}_{-0.0082}$	$D_M(0.51)$	$1975^{+15}_{-8.2}$
$100\theta_{MC}$	1.04085 ± 0.00032	$\sigma_8/h^{0.5}$	$0.962^{+0.022}_{-0.012}$	$H(0.61)$	$95.68^{+0.15}_{-0.54}$
τ	$0.0567^{+0.0058}_{-0.0078}$	$r_{\text{drag}} h$	99.44 ± 0.81	$D_M(0.61)$	$2298^{+17}_{-8.8}$
$m_{\nu, \text{sterile}}^{\text{eff}} [\text{eV}]$	< 0.192	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.020	$H(2.33)$	$237.08^{+0.71}_{-1.4}$
N_{eff}	< 3.13	z_{re}	$7.92^{+0.62}_{-0.77}$	$D_M(2.33)$	$5741^{+31}_{-7.5}$
$\ln(10^{10} A_s)$	$3.048^{+0.013}_{-0.016}$	$10^9 A_s$	$2.107^{+0.026}_{-0.033}$	$f\sigma_8(0.15)$	$0.447^{+0.010}_{-0.0068}$
n_s	$0.9684^{+0.0044}_{-0.0052}$	$10^9 A_s e^{-2\tau}$	1.881 ± 0.012	$\sigma_8(0.15)$	$0.732^{+0.018}_{-0.010}$
y_{cal}	1.0008 ± 0.0025	D_{40}	1223 ± 13	$f\sigma_8(0.38)$	$0.465^{+0.011}_{-0.0065}$
A_{100}^{PS}	242 ± 25	D_{220}	5725 ± 39	$\sigma_8(0.38)$	$0.649^{+0.016}_{-0.0094}$
A_{143}^{PS}	41 ± 8	D_{810}	2537 ± 13	$f\sigma_8(0.51)$	$0.464^{+0.011}_{-0.0063}$
A_{217}^{PS}	102 ± 10	D_{1420}	815.7 ± 4.7	$\sigma_8(0.51)$	$0.607^{+0.015}_{-0.0089}$
A_{217}^{CIB}	40 ± 7	D_{2000}	229.9 ± 1.6	$f\sigma_8(0.61)$	$0.459^{+0.011}_{-0.0062}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.5}$	$n_{s,0.002}$	$0.9684^{+0.0044}_{-0.0052}$	$\sigma_8(0.61)$	$0.578^{+0.015}_{-0.0085}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	Y_{P}	$0.24640^{+0.00020}_{-0.0010}$	$f\sigma_8(2.33)$	$0.2916^{+0.0075}_{-0.0044}$
$r_{143 \times 217}^{\text{CIB}}$	$0.57^{+0.40}_{-0.16}$	$Y_{\text{P}}^{\text{BBN}}$	$0.24773^{+0.00020}_{-0.0010}$	$\sigma_8(2.33)$	$0.3004^{+0.0078}_{-0.0047}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 \text{D}/\text{H}$	$2.609^{+0.027}_{-0.033}$	f_{2000}^{143}	30.3 ± 2.9
A^{kSZ}	4.9 ± 2.7	Age/Gyr	$13.744^{+0.073}_{-0.017}$	f_{2000}^{217}	107.3 ± 2.0
A_{100}^{dust}	1.01 ± 0.20	z_*	$1090.00^{+0.22}_{-0.26}$	$f_{2000}^{143 \times 217}$	32.6 ± 2.0
A_{143}^{dust}	0.96 ± 0.17	r_*	$144.03^{+0.82}_{-0.28}$	χ_{lensing}^2	9.40 ± 0.96
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	$1.04100^{+0.00036}_{-0.00031}$	χ_{simall}^2	397.3 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$D_M(z_*)/\text{Gpc}$	$13.835^{+0.077}_{-0.027}$	χ_{lowl}^2	22.84 ± 0.87
c_{100}	0.9976 ± 0.0010	z_{drag}	$1060.05^{+0.34}_{-0.41}$	χ_{CamSpec}^2	11515.6 ± 5.7
c_{217}	1.0012 ± 0.0016	r_{drag}	$146.68^{+0.85}_{-0.30}$	χ_{Aver15}^2	0.56 ± 0.46
c_{TE}	0.9970 ± 0.0049	k_{D}	$0.14108^{+0.00037}_{-0.00068}$	χ_{Cooke17}^2	0.12 ± 0.16
c_{EE}	0.9930 ± 0.0050	$100\theta_{\text{D}}$	$0.16096^{+0.00018}_{-0.00027}$	$\chi_{6\text{DF}}^2$	0.073 ± 0.080
H_0	$67.80^{+0.42}_{-0.65}$	z_{eq}	3336^{+55}_{-19}	χ_{MGS}^2	1.16 ± 0.42
Ω_{Λ}	0.6876 ± 0.0063	k_{eq}	$0.01026^{+0.00016}_{-0.000086}$	χ_{DR12BAO}^2	5.3 ± 1.7
Ω_{m}	0.3124 ± 0.0063	$100\theta_{\text{eq}}$	$0.8267^{+0.0034}_{-0.012}$	χ_{prior}^2	7.8 ± 3.5
$\Omega_{\text{m}} h^2$	$0.1435^{+0.0011}_{-0.0019}$	$100\theta_{\text{s,eq}}$	$0.4564^{+0.0017}_{-0.0061}$	χ_{CMB}^2	11945.1 ± 5.9
$\Omega_{\nu} h^2$	$0.00254^{+0.00032}_{-0.0019}$	$H(0.15)$	$73.11^{+0.35}_{-0.61}$	χ_{BAO}^2	6.5 ± 1.4
$\Omega_{\text{m}} h^3$	$0.09732^{+0.00034}_{-0.0015}$	$D_M(0.15)$	$639.4^{+5.7}_{-3.6}$	χ_{Abund}^2	0.67 ± 0.52
σ_8	$0.792^{+0.019}_{-0.011}$	$H(0.38)$	$83.28^{+0.24}_{-0.57}$		
S_8	$0.808^{+0.019}_{-0.013}$	$D_M(0.38)$	$1525^{+12}_{-7.1}$		

$$\bar{\chi}_{\text{eff}}^2 = 11960.05; R - 1 = 0.03510$$

9 nnu+mnu

9.1 base_nnu_mnu_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022010	$0.02193^{+0.00040}_{-0.00034} \quad (-0.9\sigma)$	S_8	0.8458	$0.836 \pm 0.026 \quad (-0.2\sigma)$	$100\theta_{s,eq}$	0.4461	$0.4456 \pm 0.0068 \quad (-0.6\sigma)$
$\Omega_c h^2$	0.11840	$0.1199 \pm 0.0041 \quad (-0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4633	$0.458 \pm 0.014 \quad (-0.2\sigma)$	$H(0.15)$	71.48	$70.1^{+3.9}_{-2.6} \quad (-2.8\sigma)$
$100\theta_{MC}$	1.04105	$1.04076 \pm 0.00060 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6156	$0.597^{+0.027}_{-0.013} \quad (-1.2\sigma)$	$D_M(0.15)$	654.6	$672^{+23}_{-43} \quad (+3.0\sigma)$
τ	0.0504	$0.0509 \pm 0.0082 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	1.0056	$0.969^{+0.045}_{-0.018} \quad (-1.5\sigma)$	$H(0.38)$	81.64	$80.7^{+3.3}_{-2.5} \quad (-3.3\sigma)$
Σm_ν [eV]	0.001	< 0.241	$r_{drag} h$	98.45	$95.5^{+5.2}_{-2.5} \quad (-1.8\sigma)$	$D_M(0.38)$	1559	$1592^{+51}_{-89} \quad (+3.1\sigma)$
N_{eff}	2.874	2.93 ± 0.30	$\langle d^2 \rangle^{1/2}$	2.4706	$2.461 \pm 0.047 \quad (+0.2\sigma)$	$H(0.51)$	88.37	$87.7^{+3.1}_{-2.5} \quad (-3.8\sigma)$
$\ln(10^{10} A_s)$	3.0306	$3.035 \pm 0.021 \quad (-0.4\sigma)$	z_{re}	7.30	$7.40 \pm 0.86 \quad (-0.1\sigma)$	$D_M(0.51)$	2018	$2056^{+63}_{-110} \quad (+3.2\sigma)$
n_s	0.9573	$0.956^{+0.016}_{-0.014} \quad (-1.2\sigma)$	$10^9 A_s$	2.0710	$2.080 \pm 0.045 \quad (-0.4\sigma)$	$H(0.61)$	94.00	$93.5^{+2.9}_{-2.5} \quad (-4.4\sigma)$
y_{cal}	1.00012	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8726	$1.878 \pm 0.023 \quad (-0.5\sigma)$	$D_M(0.61)$	2347	$2388^{+71}_{-120} \quad (+3.3\sigma)$
A_{217}^{CIB}	46.7	$48 \pm 7 \quad (-0.0\sigma)$	D_{40}	1238.4	$1240 \pm 23 \quad (+0.4\sigma)$	$H(2.33)$	234.25	$236.5 \pm 3.8 \quad (-0.2\sigma)$
$\xi^{tSZ \times CIB}$	0.58	—	D_{220}	5703.7	$5710 \pm 41 \quad (-0.1\sigma)$	$D_M(2.33)$	5839	$5869^{+140}_{-180} \quad (+5.6\sigma)$
A_{143}^{tSZ}	6.92	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{810}	2534.3	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	0.4663	$0.460^{+0.014}_{-0.013} \quad (-0.3\sigma)$
A_{100}^{PS}	248.6	$263 \pm 29 \quad (-0.0\sigma)$	D_{1420}	816.0	$814.8 \pm 5.2 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	0.7547	$0.716^{+0.053}_{-0.016} \quad (-4.4\sigma)$
A_{143}^{PS}	50.6	$49 \pm 9 \quad (+0.0\sigma)$	D_{2000}	230.94	$229.6 \pm 2.3 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	0.4825	$0.470^{+0.019}_{-0.0096} \quad (-1.0\sigma)$
$A_{143 \times 217}^{PS}$	51.9	$44 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	0.9573	$0.956^{+0.016}_{-0.014} \quad (-1.2\sigma)$	$\sigma_8(0.38)$	0.6678	$0.632^{+0.050}_{-0.015} \quad (-5.2\sigma)$
A_{217}^{PS}	121.0	$115 \pm 10 \quad (+0.0\sigma)$	Y_P	0.24291	$0.2436 \pm 0.0042 \quad (-17.2\sigma)$	$f\sigma_8(0.51)$	0.4799	$0.465^{+0.021}_{-0.0084} \quad (-1.5\sigma)$
A^{kSZ}	0.00	$< 4.86 \quad (+0.0\sigma)$	Y_P^{BBN}	0.24423	$0.2449 \pm 0.0042 \quad (-17.2\sigma)$	$\sigma_8(0.51)$	0.6244	$0.590^{+0.048}_{-0.015} \quad (-5.5\sigma)$
A_{100}^{dustTT}	8.76	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	2.594	$2.630 \pm 0.072 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	0.4741	$0.458^{+0.023}_{-0.0079} \quad (-1.9\sigma)$
A_{143}^{dustTT}	10.72	$10.7 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	13.977	$14.05^{+0.32}_{-0.42} \quad (+5.9\sigma)$	$\sigma_8(0.61)$	0.5938	$0.561^{+0.047}_{-0.014} \quad (-5.7\sigma)$
$A_{143 \times 217}^{dustTT}$	19.62	$18.3 \pm 3.3 \quad (-0.0\sigma)$	z_*	1090.06	$1090.40^{+0.51}_{-0.59} \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	0.2981	$0.283^{+0.022}_{-0.0069} \quad (-5.4\sigma)$
A_{217}^{dustTT}	95.0	$93.4 \pm 7.4 \quad (+0.0\sigma)$	r_*	146.01	$145.4 \pm 2.7 \quad (+1.9\sigma)$	$\sigma_8(2.33)$	0.3073	$0.290^{+0.026}_{-0.0082} \quad (-6.0\sigma)$
c_{100}	0.99963	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	1.04134	$1.04113 \pm 0.00073 \quad (+0.3\sigma)$	f_{2000}^{143}	28.88	$31 \pm 4 \quad (+0.0\sigma)$
c_{217}	0.99824	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	14.021	$13.96 \pm 0.25 \quad (+2.0\sigma)$	$f_{2000}^{143 \times 217}$	32.15	$33.6 \pm 2.6 \quad (-0.0\sigma)$
H_0	66.16	$64.5^{+4.2}_{-2.7} \quad (-2.6\sigma)$	z_{drag}	1058.83	$1058.8^{+1.3}_{-1.2} \quad (-1.2\sigma)$	f_{2000}^{217}	106.54	$108.2 \pm 2.4 \quad (+0.0\sigma)$
Ω_Λ	0.6792	$0.650^{+0.050}_{-0.017} \quad (-2.2\sigma)$	r_{drag}	148.81	$148.2 \pm 2.8 \quad (+2.1\sigma)$	χ_{small}^2	395.70	$396.9 \pm 1.7 \quad (-0.0\sigma)$
Ω_m	0.3208	$0.350^{+0.017}_{-0.050} \quad (+2.2\sigma)$	k_D	0.13945	$0.1399 \pm 0.0020 \quad (-1.3\sigma)$	χ_{lowl}^2	24.55	$24.9 \pm 2.6 \quad (+0.8\sigma)$
$\Omega_m h^2$	0.14042	$0.1440^{+0.0044}_{-0.0049} \quad (+0.3\sigma)$	$100\theta_D$	0.16067	$0.16090 \pm 0.00069 \quad (-0.7\sigma)$	χ_{plik}^2	757.2	$772.7 \pm 6.1 \quad (+0.2\sigma)$
$\Omega_\nu h^2$	0.00001	< 0.00247	z_{eq}	3435	$3442 \pm 73 \quad (+0.6\sigma)$	χ_{prior}^2	1.27	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\Omega_m h^3$	0.0929	$0.0929 \pm 0.0063 \quad (-6.6\sigma)$	k_{eq}	0.010361	$0.01042 \pm 0.00017 \quad (+0.1\sigma)$	χ_{CMB}^2	1177.4	$1194.5 \pm 6.1 \quad (+0.4\sigma)$
σ_8	0.8179	$0.778^{+0.054}_{-0.016} \quad (-3.8\sigma)$	$100\theta_{eq}$	0.8064	$0.805 \pm 0.013 \quad (-0.6\sigma)$			

Best-fit $\chi_{eff}^2 = 1178.71$; $\Delta\chi_{eff}^2 = -0.87$; $\bar{\chi}_{eff}^2 = 1201.83$; $\Delta\bar{\chi}_{eff}^2 = 2.25$; $R - 1 = 0.00661$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ -0.18) commander_dx12_v3_2_29: 24.55 (Δ 0.95) plik_rd12_HM_v22_TT: 757.19 (Δ -1.56)

9.2 base_nnu_mnu_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022083	$0.02190^{+0.00039}_{-0.00033} \quad (-1.2\sigma)$	S_8	0.8336	$0.839 \pm 0.017 \quad (+0.3\sigma)$	$100\theta_{s,eq}$	0.4479	$0.4448^{+0.0067}_{-0.0060} \quad (-1.3\sigma)$
$\Omega_c h^2$	0.11708	$0.1192 \pm 0.0039 \quad (-0.6\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4566	$0.4596 \pm 0.0093 \quad (+0.3\sigma)$	$H(0.15)$	71.70	$69.8^{+3.5}_{-2.6} \quad (-4.3\sigma)$
$100\theta_{MC}$	1.04119	$1.04082 \pm 0.00061 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6093	$0.599^{+0.017}_{-0.0096} \quad (-1.3\sigma)$	$D_M(0.15)$	652.1	$674^{+24}_{-39} \quad (+4.5\sigma)$
τ	0.0507	$0.0512 \pm 0.0080 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	0.9976	$0.973^{+0.030}_{-0.013} \quad (-1.6\sigma)$	$H(0.38)$	81.75	$80.4^{+3.0}_{-2.5} \quad (-5.0\sigma)$
Σm_ν [eV]	0.001	< 0.242	$r_{drag} h$	99.15	$95.5^{+4.9}_{-2.6} \quad (-2.7\sigma)$	$D_M(0.38)$	1554	$1597^{+53}_{-82} \quad (+4.7\sigma)$
N_{eff}	2.850	2.88 ± 0.29	$\langle d^2 \rangle^{1/2}$	2.4560	$2.467^{+0.033}_{-0.040} \quad (+0.8\sigma)$	$H(0.51)$	88.42	$87.4^{+2.8}_{-2.5} \quad (-5.7\sigma)$
$\ln(10^{10} A_s)$	3.0280	$3.034 \pm 0.021 \quad (-0.4\sigma)$	z_{re}	7.29	$7.42 \pm 0.84 \quad (-0.1\sigma)$	$D_M(0.51)$	2013	$2062^{+65}_{-99} \quad (+4.9\sigma)$
n_s	0.9580	$0.954^{+0.015}_{-0.013} \quad (-2.0\sigma)$	$10^9 A_s$	2.0655	$2.078 \pm 0.043 \quad (-0.4\sigma)$	$H(0.61)$	93.99	$93.2 \pm 2.5 \quad (-6.5\sigma)$
y_{cal}	1.00009	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8664	$1.875 \pm 0.022 \quad (-0.6\sigma)$	$D_M(0.61)$	2342	$2395^{+74}_{-110} \quad (+5.0\sigma)$
A_{217}^{CIB}	47.1	$47 \pm 7 \quad (-0.1\sigma)$	D_{40}	1236.2	$1245 \pm 21 \quad (+1.0\sigma)$	$H(2.33)$	233.37	$235.8 \pm 3.7 \quad (-0.7\sigma)$
$\xi^{tSZ \times CIB}$	0.47	—	D_{220}	5713.3	$5711 \pm 41 \quad (-0.1\sigma)$	$D_M(2.33)$	5842	$5887^{+140}_{-160} \quad (+7.9\sigma)$
A_{143}^{tSZ}	7.05	$5.2 \pm 2.0 \quad (+0.1\sigma)$	D_{810}	2532.6	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	0.4601	$0.4621 \pm 0.0081 \quad (+0.1\sigma)$
A_{100}^{PS}	249.6	$261 \pm 30 \quad (-0.1\sigma)$	D_{1420}	816.3	$815.1 \pm 5.3 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	0.7510	$0.718^{+0.044}_{-0.019} \quad (-5.4\sigma)$
A_{143}^{PS}	48.0	$48 \pm 9 \quad (-0.1\sigma)$	D_{2000}	231.19	$230.0 \pm 2.3 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	0.4775	$0.472^{+0.011}_{-0.0069} \quad (-0.9\sigma)$
$A_{143 \times 217}^{PS}$	48.4	$44 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	0.9580	$0.954^{+0.015}_{-0.013} \quad (-2.0\sigma)$	$\sigma_8(0.38)$	0.6651	$0.633^{+0.042}_{-0.019} \quad (-5.9\sigma)$
A_{217}^{PS}	119.5	$115 \pm 10 \quad (+0.1\sigma)$	Y_P	0.24261	$0.2429 \pm 0.0041 \quad (-26.8\sigma)$	$f\sigma_8(0.51)$	0.4755	$0.467^{+0.014}_{-0.0069} \quad (-1.7\sigma)$
A^{kSZ}	0.00	$< 4.67 \quad (-0.1\sigma)$	Y_P^{BBN}	0.24393	$0.2442 \pm 0.0041 \quad (-26.8\sigma)$	$\sigma_8(0.51)$	0.6221	$0.592^{+0.041}_{-0.018} \quad (-6.1\sigma)$
A_{100}^{dustTT}	8.86	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	2.571	$2.617 \pm 0.071 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	0.4702	$0.460^{+0.016}_{-0.0072} \quad (-2.2\sigma)$
A_{143}^{dustTT}	10.81	$10.7 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	13.985	$14.09^{+0.32}_{-0.39} \quad (+8.2\sigma)$	$\sigma_8(0.61)$	0.5918	$0.562^{+0.039}_{-0.018} \quad (-6.1\sigma)$
$A_{143 \times 217}^{dustTT}$	19.48	$18.2 \pm 3.3 \quad (-0.0\sigma)$	z_*	1089.83	$1090.31^{+0.49}_{-0.59} \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	0.2973	$0.284^{+0.019}_{-0.0088} \quad (-5.5\sigma)$
A_{217}^{dustTT}	95.0	$93.5 \pm 7.4 \quad (+0.0\sigma)$	r_*	146.43	$145.8 \pm 2.6 \quad (+3.5\sigma)$	$\sigma_8(2.33)$	0.3068	$0.291^{+0.022}_{-0.010} \quad (-5.9\sigma)$
c_{100}	0.99964	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_*$	1.04150	$1.04122 \pm 0.00072 \quad (+0.5\sigma)$	f_{2000}^{143}	28.63	$31 \pm 4 \quad (-0.2\sigma)$
c_{217}	0.99824	$0.99824 \pm 0.00063 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	14.059	$14.01 \pm 0.24 \quad (+3.5\sigma)$	$f_{2000}^{143 \times 217}$	31.89	$33.2 \pm 2.6 \quad (-0.2\sigma)$
H_0	66.45	$64.3^{+3.9}_{-2.7} \quad (-4.0\sigma)$	z_{drag}	1058.90	$1058.7 \pm 1.2 \quad (-1.7\sigma)$	f_{2000}^{217}	106.39	$107.8 \pm 2.4 \quad (-0.2\sigma)$
Ω_Λ	0.6848	$0.651^{+0.047}_{-0.019} \quad (-3.2\sigma)$	r_{drag}	149.21	$148.7 \pm 2.7 \quad (+3.7\sigma)$	$\chi_{lensing}^2$	8.74	$9.2 \pm 1.1 \quad (-0.3\sigma)$
Ω_m	0.3152	$0.349^{+0.019}_{-0.047} \quad (+3.2\sigma)$	k_D	0.13919	$0.1395 \pm 0.0019 \quad (-2.1\sigma)$	χ_{small}^2	395.68	$396.9 \pm 1.7 \quad (+0.0\sigma)$
$\Omega_m h^2$	0.13918	$0.1432 \pm 0.0046 \quad (+0.1\sigma)$	$100\theta_D$	0.16054	$0.16077 \pm 0.00066 \quad (-1.1\sigma)$	χ_{lowl}^2	24.31	$25.3 \pm 2.4 \quad (+1.6\sigma)$
$\Omega_\nu h^2$	0.00001	< 0.00244	z_{eq}	3416	$3450^{+61}_{-75} \quad (+1.4\sigma)$	χ_{plik}^2	757.7	$771.6 \pm 5.6 \quad (+0.1\sigma)$
$\Omega_m h^3$	0.0925	$0.0920 \pm 0.0059 \quad (-8.6\sigma)$	k_{eq}	0.010286	$0.01041^{+0.00015}_{-0.00017} \quad (+0.3\sigma)$	χ_{prior}^2	1.35	$7.3 \pm 3.6 \quad (-0.0\sigma)$
σ_8	0.8132	$0.780^{+0.044}_{-0.019} \quad (-4.8\sigma)$	$100\theta_{eq}$	0.8101	$0.804^{+0.013}_{-0.012} \quad (-1.4\sigma)$	χ_{CMB}^2	1186.4	$1203.1 \pm 5.9 \quad (+0.4\sigma)$

Best-fit $\chi_{eff}^2 = 1187.75$; $\Delta\chi_{eff}^2 = -0.82$; $\bar{\chi}_{eff}^2 = 1210.35$; $\Delta\bar{\chi}_{eff}^2 = 1.93$; $R - 1 = 0.00978$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.74 (Δ -0.16) small_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.18) commander_dx12_v3_2_29: 24.31 (Δ 1.07) plik_rd12_HM_v22_TT: 757.67 (Δ -1.65)

9.3 base_nnu_mnu_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022244	0.02222 ± 0.00023 (-0.9σ)	$\Omega_m h^2$	0.13936	$0.1416^{+0.0030}_{-0.0035}$ (-1.3σ)	k_{eq}	0.010299	0.01035 ± 0.00012 (-0.5σ)
$\Omega_c h^2$	0.11712	$0.1183^{+0.0028}_{-0.0031}$ (-1.4σ)	$\Omega_\nu h^2$	0.00000	< 0.00122	$100\theta_{\text{eq}}$	0.8100	0.8094 ± 0.0070 (-0.5σ)
$100\theta_{\text{MC}}$	1.041282	1.04111 ± 0.00044 $(+0.7\sigma)$	$\Omega_m h^3$	0.09285	0.0934 ± 0.0039 (-10.1σ)	$100\theta_{\text{s,eq}}$	0.44774	0.4475 ± 0.0035 (-0.5σ)
τ	0.0540	0.0535 ± 0.0078 (-0.1σ)	σ_8	0.8167	$0.799^{+0.027}_{-0.012}$ (-1.8σ)	$H(0.15)$	71.87	$71.3^{+1.8}_{-1.5}$ (-2.5σ)
Σm_ν [eV]	0.000	< 0.118	S_8	0.8355	0.832 ± 0.017 (-0.1σ)	$D_{\text{M}}(0.15)$	650.5	657^{+14}_{-18} $(+2.4\sigma)$
N_{eff}	2.852	2.91 ± 0.19	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4576	0.4556 ± 0.0094 (-0.1σ)	$H(0.38)$	81.91	81.6 ± 1.6 (-3.3σ)
$\ln(10^{10} A_{\text{s}})$	3.0369	3.038 ± 0.019 (-0.4σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6113	$0.603^{+0.015}_{-0.0095}$ (-0.7σ)	$D_{\text{M}}(0.38)$	1550.9	1562^{+31}_{-39} $(+2.7\sigma)$
n_{s}	0.9593	0.9590 ± 0.0087 (-1.3σ)	$\sigma_8/h^{0.5}$	1.0006	$0.983^{+0.024}_{-0.013}$ (-0.6σ)	$H(0.51)$	88.57	88.4 ± 1.6 (-4.1σ)
y_{cal}	1.00060	1.0006 ± 0.0025 $(+0.0\sigma)$	$r_{\text{drag}} h$	99.27	$97.9^{+2.2}_{-1.4}$ (-1.0σ)	$D_{\text{M}}(0.51)$	2008.6	2022^{+39}_{-48} $(+2.8\sigma)$
A_{217}^{CIB}	43.8	46 ± 7 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4629	2.454 ± 0.031 $(+0.2\sigma)$	$H(0.61)$	94.15	94.1 ± 1.5 (-5.1σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.88	—	z_{re}	7.60	7.58 ± 0.80 (-0.1σ)	$D_{\text{M}}(0.61)$	2337.0	2351^{+44}_{-53} $(+3.0\sigma)$
A_{143}^{tSZ}	6.91	$5.6^{+2.1}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0841	2.086 ± 0.039 (-0.4σ)	$H(2.33)$	233.57	$235.0^{+2.5}_{-2.8}$ (-2.0σ)
A_{100}^{PS}	244.0	256 ± 28 (-0.1σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8708	1.874 ± 0.018 (-0.8σ)	$D_{\text{M}}(2.33)$	5833	5835 ± 91 $(+6.6\sigma)$
A_{143}^{PS}	50.8	45 ± 8 (-0.1σ)	D_{40}	1238.0	1239 ± 16 $(+0.6\sigma)$	$f\sigma_8(0.15)$	0.4613	0.4594 ± 0.0090 (-0.2σ)
$A_{143 \times 217}^{\text{PS}}$	56.5	42 ± 9 (-0.0σ)	D_{220}	5733.2	5732 ± 39 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7543	$0.737^{+0.026}_{-0.011}$ (-2.0σ)
A_{217}^{PS}	123.6	115 ± 10 $(+0.0\sigma)$	D_{810}	2539.2	2538 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4790	$0.474^{+0.010}_{-0.0074}$ (-0.6σ)
A^{kSZ}	0.00	< 3.93 (-0.1σ)	D_{1420}	819.62	817.9 ± 4.9 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6681	$0.652^{+0.024}_{-0.011}$ (-2.2σ)
A_{100}^{dustTT}	8.70	8.9 ± 1.8 (-0.0σ)	D_{2000}	232.57	231.5 ± 1.8 $(+0.4\sigma)$	$f\sigma_8(0.51)$	0.4772	$0.472^{+0.011}_{-0.0069}$ (-0.8σ)
A_{143}^{dustTT}	10.91	10.8 ± 1.8 (-0.0σ)	$n_{\text{s},0.002}$	0.9593	0.9590 ± 0.0087 (-1.3σ)	$\sigma_8(0.51)$	0.6250	$0.609^{+0.023}_{-0.010}$ (-2.3σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.10	18.5 ± 3.3 (-0.0σ)	Y_{P}	0.24271	0.2434 ± 0.0027 (-33.8σ)	$f\sigma_8(0.61)$	0.4719	$0.466^{+0.011}_{-0.0066}$ (-1.0σ)
A_{217}^{dustTT}	95.9	93.8 ± 7.3 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.24402	0.2447 ± 0.0027 (-33.8σ)	$\sigma_8(0.61)$	0.5946	$0.580^{+0.022}_{-0.0098}$ (-2.4σ)
A_{100}^{dustTE}	0.1132	0.115 ± 0.038 $(+0.0\sigma)$	10^5D/H	2.5418	2.565 ± 0.045 (-0.8σ)	$f\sigma_8(2.33)$	0.2987	$0.292^{+0.010}_{-0.0049}$ (-2.2σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.135 ± 0.029 (-0.0σ)	Age/Gyr	13.964	13.97 ± 0.21 $(+7.0\sigma)$	$\sigma_8(2.33)$	0.3083	$0.300^{+0.012}_{-0.0055}$ (-2.5σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.085 $(+0.0\sigma)$	z_*	1089.628	1089.82 ± 0.36 (-0.5σ)	f_{2000}^{143}	27.03	28.7 ± 3.0 (-0.3σ)
A_{143}^{dustTE}	0.226	0.225 ± 0.054 (-0.0σ)	r_*	146.28	145.7 ± 1.8 $(+4.4\sigma)$	$f_{2000}^{143 \times 217}$	30.74	31.6 ± 2.1 (-0.3σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.667 ± 0.080 $(+0.0\sigma)$	$100\theta_*$	1.04157	1.04142 ± 0.00054 $(+1.1\sigma)$	f_{2000}^{217}	105.38	106.5 ± 2.0 (-0.3σ)
A_{217}^{dustTE}	2.075	2.09 ± 0.27 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	14.044	13.99 ± 0.17 $(+4.4\sigma)$	χ_{small}^2	396.02	397.1 ± 1.9 (-0.0σ)
c_{100}	0.99975	0.99967 ± 0.00061 $(+0.0\sigma)$	z_{drag}	1059.28	1059.36 ± 0.79 (-1.9σ)	χ_{lowl}^2	24.29	24.4 ± 1.5 $(+0.9\sigma)$
c_{217}	0.99817	0.99818 ± 0.00063 (-0.0σ)	r_{drag}	149.01	148.4 ± 1.9 $(+4.7\sigma)$	χ_{plik}^2	2342.0	2360.0 ± 6.4 $(+0.1\sigma)$
H_0	66.62	$66.0^{+1.9}_{-1.6}$ (-2.2σ)	k_{D}	0.13952	0.1399 ± 0.0014 (-3.1σ)	χ_{prior}^2	1.45	11.6 ± 4.5 (-0.0σ)
Ω_Λ	0.6860	$0.674^{+0.019}_{-0.011}$ (-1.1σ)	$100\theta_{\text{D}}$	0.160335	0.16051 ± 0.00041 (-1.5σ)	χ_{CMB}^2	2762.3	2781.4 ± 6.3 $(+0.2\sigma)$
Ω_{m}	0.3140	$0.326^{+0.011}_{-0.019}$ $(+1.1\sigma)$	z_{eq}	3419.4	3423 ± 37 $(+0.5\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2763.73$; $\Delta\chi_{\text{eff}}^2 = -2.04$; $\bar{\chi}_{\text{eff}}^2 = 2792.98$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.21$; $R - 1 = 0.00589$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.02 (Δ -0.03) commander_dx12_v3.2.29: 24.29 (Δ 1.03) plik_rd12_HM_v22b_TTTEE: 2341.98 (Δ -2.66)

9.4 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022236	0.02221 ± 0.00022 (-1.1σ)	$\Omega_m h^2$	0.13857	$0.1411^{+0.0029}_{-0.0034}$ (-1.7σ)	k_{eq}	0.010263	0.01033 ± 0.00011 (-0.7σ)
$\Omega_c h^2$	0.11633	$0.1179^{+0.0027}_{-0.0030}$ (-1.8σ)	$\Omega_\nu h^2$	0.00000	< 0.00124	$100\theta_{\text{eq}}$	0.8107	0.8093 ± 0.0067 (-0.8σ)
$100\theta_{\text{MC}}$	1.041340	1.04116 ± 0.00044 $(+0.8\sigma)$	$\Omega_m h^3$	0.09220	0.0930 ± 0.0037 (-11.3σ)	$100\theta_{\text{s,eq}}$	0.44814	0.4474 ± 0.0034 (-0.8σ)
τ	0.0528	0.0536 ± 0.0075 (-0.1σ)	σ_8	0.8129	$0.798^{+0.022}_{-0.012}$ (-2.2σ)	$H(0.15)$	71.76	71.2 ± 1.7 (-3.1σ)
Σm_ν [eV]	0.000	< 0.120	S_8	0.8303	0.831 ± 0.013 (-0.0σ)	$D_{\text{M}}(0.15)$	651.4	658^{+14}_{-18} $(+3.1\sigma)$
N_{eff}	2.820	2.88 ± 0.19	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4548	0.4552 ± 0.0071 (-0.0σ)	$H(0.38)$	81.76	81.5 ± 1.5 (-4.1σ)
$\ln(10^{10} A_{\text{s}})$	3.0318	3.037 ± 0.017 (-0.5σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6080	$0.603^{+0.011}_{-0.0079}$ (-0.8σ)	$D_{\text{M}}(0.38)$	1553.3	1565^{+32}_{-38} $(+3.4\sigma)$
n_{s}	0.9587	0.9582 ± 0.0086 (-1.6σ)	$\sigma_8/h^{0.5}$	0.9965	$0.983^{+0.018}_{-0.011}$ (-0.5σ)	$H(0.51)$	88.40	88.3 ± 1.5 (-5.1σ)
y_{cal}	1.00043	1.0006 ± 0.0025 $(+0.0\sigma)$	$r_{\text{drag}} h$	99.41	$97.9^{+2.2}_{-1.4}$ (-1.2σ)	$D_{\text{M}}(0.51)$	2011.9	2025^{+40}_{-46} $(+3.6\sigma)$
A_{217}^{CIB}	43.8	46 ± 7 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4557	2.454 ± 0.024 $(+0.4\sigma)$	$H(0.61)$	93.95	93.9 ± 1.5 (-6.2σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.923	> 0.386 $(+0.0\sigma)$	z_{re}	7.46	7.57 ± 0.77 (-0.1σ)	$D_{\text{M}}(0.61)$	2340.9	2354^{+45}_{-52} $(+3.8\sigma)$
A_{143}^{tSZ}	7.00	$5.6^{+2.1}_{-1.9}$ $(+0.1\sigma)$	$10^9 A_{\text{s}}$	2.0734	2.084 ± 0.036 (-0.5σ)	$H(2.33)$	232.94	$234.6^{+2.5}_{-2.8}$ (-2.7σ)
A_{100}^{PS}	243.0	255 ± 28 (-0.1σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8658	1.872 ± 0.017 (-1.0σ)	$D_{\text{M}}(2.33)$	5846	5845 ± 88 $(+7.9\sigma)$
A_{143}^{PS}	51.1	45 ± 8 (-0.2σ)	D_{40}	1237.0	1240 ± 15 $(+0.7\sigma)$	$f\sigma_8(0.15)$	0.4585	0.4590 ± 0.0066 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	57.4	42 ± 9 (-0.0σ)	D_{220}	5731.5	5734 ± 39 (-0.1σ)	$\sigma_8(0.15)$	0.7508	$0.736^{+0.022}_{-0.012}$ (-2.4σ)
A_{217}^{PS}	123.5	115 ± 10 $(+0.1\sigma)$	D_{810}	2537.0	2538 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4763	$0.4741^{+0.0072}_{-0.0060}$ (-0.6σ)
A^{kSZ}	0.01	< 3.86 (-0.1σ)	D_{1420}	819.41	818.0 ± 4.9 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6652	$0.651^{+0.021}_{-0.011}$ (-2.6σ)
A_{100}^{dustTT}	8.72	8.8 ± 1.8 (-0.0σ)	D_{2000}	232.61	231.6 ± 1.8 $(+0.5\sigma)$	$f\sigma_8(0.51)$	0.4747	$0.4711^{+0.0080}_{-0.0059}$ (-0.9σ)
A_{143}^{dustTT}	10.93	10.8 ± 1.8 (-0.1σ)	$n_{\text{s},0.002}$	0.9587	0.9582 ± 0.0086 (-1.6σ)	$\sigma_8(0.51)$	0.6223	$0.609^{+0.020}_{-0.011}$ (-2.7σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.22	18.5 ± 3.3 (-0.0σ)	Y_{P}	0.24226	0.2431 ± 0.0026 (-40.7σ)	$f\sigma_8(0.61)$	0.4695	$0.4652^{+0.0087}_{-0.0059}$ (-1.2σ)
A_{217}^{dustTT}	95.8	93.8 ± 7.2 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.24357	0.2444 ± 0.0026 (-40.7σ)	$\sigma_8(0.61)$	0.5920	$0.579^{+0.019}_{-0.010}$ (-2.7σ)
A_{100}^{dustTE}	0.1140	0.115 ± 0.038 $(+0.0\sigma)$	10^5D/H	2.5320	2.559 ± 0.044 (-1.0σ)	$f\sigma_8(2.33)$	0.2975	$0.2921^{+0.0090}_{-0.0053}$ (-2.5σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1342	0.135 ± 0.029 (-0.0σ)	Age/Gyr	13.994	13.99 ± 0.21 $(+8.3\sigma)$	$\sigma_8(2.33)$	0.3071	$0.300^{+0.011}_{-0.0060}$ (-2.7σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.085 $(+0.0\sigma)$	z_*	1089.536	1089.77 ± 0.35 (-0.6σ)	f_{2000}^{143}	26.90	28.6 ± 3.0 (-0.4σ)
A_{143}^{dustTE}	0.226	0.225 ± 0.054 (-0.0σ)	r_*	146.67	146.0 ± 1.8 $(+5.9\sigma)$	$f_{2000}^{143 \times 217}$	30.65	31.4 ± 2.1 (-0.4σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.667 ± 0.080 (-0.0σ)	$100\theta_*$	1.04166	1.04148 ± 0.00053 $(+1.3\sigma)$	f_{2000}^{217}	105.23	106.4 ± 2.0 (-0.4σ)
A_{217}^{dustTE}	2.072	2.09 ± 0.27 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.080	14.02 ± 0.17 $(+5.8\sigma)$	χ_{lensing}^2	8.66	9.09 ± 0.81 (-0.2σ)
c_{100}	0.99975	0.99968 ± 0.00062 $(+0.0\sigma)$	z_{drag}	1059.17	1059.28 ± 0.79 (-2.2σ)	χ_{small}^2	395.84	397.0 ± 1.7 $(+0.0\sigma)$
c_{217}	0.99816	0.99817 ± 0.00063 (-0.0σ)	r_{drag}	149.40	148.7 ± 1.9 $(+6.1\sigma)$	χ_{lowl}^2	24.25	24.5 ± 1.5 $(+1.1\sigma)$
H_0	66.54	$65.9^{+1.8}_{-1.6}$ (-2.8σ)	k_{D}	0.13923	0.1397 ± 0.0014 (-3.8σ)	χ_{plik}^2	2342.4	2359.4 ± 6.0 $(+0.0\sigma)$
Ω_Λ	0.6870	$0.674^{+0.019}_{-0.011}$ (-1.4σ)	$100\theta_{\text{D}}$	0.160256	0.16045 ± 0.00040 (-1.8σ)	χ_{prior}^2	1.44	11.5 ± 4.4 $(+0.0\sigma)$
Ω_{m}	0.3130	$0.326^{+0.011}_{-0.019}$ $(+1.4\sigma)$	z_{eq}	3415.2	3423 ± 36 $(+0.8\sigma)$	χ_{CMB}^2	2771.2	2790.0 ± 6.2 $(+0.1\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 2772.59$; $\Delta\chi_{\text{eff}}^2 = -2.04$; $\bar{\chi}_{\text{eff}}^2 = 2801.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.85$; $R - 1 = 0.00830$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.66 (Δ -0.21) simall_100x143_offlike5_EE_Aplanck_B: 395.84 (Δ -0.21) commander_dx12_v3_2_29: 24.25 (Δ 1.00) plik_rd12_HM_v22b_TTTEEE: 2342.41 (Δ -2.52)

9.5 base_nnu_mnu_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022059	$0.02190^{+0.00039}_{-0.00035} \quad (-1.1\sigma)$	σ_8	0.8196	$0.776^{+0.053}_{-0.017} \quad (-3.9\sigma)$	$100\theta_{\text{eq}}$	0.8085	$0.804 \pm 0.013 \quad (-0.8\sigma)$
$\Omega_c h^2$	0.11906	$0.1190^{+0.0038}_{-0.0043} \quad (-0.7\sigma)$	S_8	0.8432	$0.835 \pm 0.026 \quad (-0.1\sigma)$	$100\theta_{\text{s,eq}}$	0.4471	$0.4451 \pm 0.0068 \quad (-0.8\sigma)$
$100\theta_{\text{MC}}$	1.04106	$1.04090 \pm 0.00061 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4619	$0.457 \pm 0.014 \quad (-0.1\sigma)$	$H(0.15)$	71.97	$69.8^{+3.7}_{-2.7} \quad (-3.3\sigma)$
τ	0.0516	$0.0507 \pm 0.0081 \quad (-0.2\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6153	$0.596^{+0.027}_{-0.013} \quad (-1.2\sigma)$	$D_{\text{M}}(0.15)$	649.8	$675^{+24}_{-41} \quad (+3.5\sigma)$
$\Sigma m_\nu [\text{eV}]$	0.001	< 0.240	$\sigma_8/h^{0.5}$	1.0038	$0.969^{+0.045}_{-0.018} \quad (-1.4\sigma)$	$H(0.38)$	82.12	$80.3^{+3.2}_{-2.6} \quad (-4.0\sigma)$
N_{eff}	2.934	2.88 ± 0.30	$r_{\text{drag}} h$	98.85	$95.4^{+5.0}_{-2.5} \quad (-2.0\sigma)$	$D_{\text{M}}(0.38)$	1548	$1599^{+53}_{-86} \quad (+3.7\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0333	$3.030 \pm 0.021 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4661	$2.460 \pm 0.048 \quad (+0.3\sigma)$	$H(0.51)$	88.85	$87.3^{+2.9}_{-2.6} \quad (-4.7\sigma)$
n_{s}	0.9589	$0.954 \pm 0.015 \quad (-1.6\sigma)$	z_{re}	7.43	$7.37 \pm 0.86 \quad (-0.2\sigma)$	$D_{\text{M}}(0.51)$	2005	$2065^{+66}_{-100} \quad (+3.8\sigma)$
y_{cal}	0.99999	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}$	2.0766	$2.071 \pm 0.044 \quad (-0.5\sigma)$	$H(0.61)$	94.48	$93.1 \pm 2.7 \quad (-5.5\sigma)$
A_{100}^{PS}	237.8	$241 \pm 26 \quad (-0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8731	$1.871 \pm 0.024 \quad (-0.8\sigma)$	$D_{\text{M}}(0.61)$	2332	$2398^{+75}_{-120} \quad (+3.9\sigma)$
A_{143}^{PS}	39.2	$40 \pm 9 \quad (-0.1\sigma)$	D_{40}	1235.8	$1240 \pm 23 \quad (+0.7\sigma)$	$H(2.33)$	234.94	$235.7 \pm 3.8 \quad (-0.7\sigma)$
A_{217}^{PS}	100.4	$102 \pm 10 \quad (+0.1\sigma)$	D_{220}	5700.8	$5700 \pm 42 \quad (-0.1\sigma)$	$D_{\text{M}}(2.33)$	5811	$5892^{+140}_{-170} \quad (+7.1\sigma)$
A_{217}^{CIB}	43.8	$40 \pm 7 \quad (-0.1\sigma)$	D_{810}	2530.1	$2532 \pm 15 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	0.4652	$0.460^{+0.014}_{-0.013} \quad (-0.2\sigma)$
A_{143}^{tSZ}	5.44	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{1420}	813.7	$814.6 \pm 5.3 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	0.7566	$0.714^{+0.051}_{-0.016} \quad (-4.6\sigma)$
$r_{143 \times 217}^{\text{PS}}$	0.593	$0.65 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	229.96	$229.9 \pm 2.4 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	0.4822	$0.470^{+0.019}_{-0.0098} \quad (-1.0\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	0.722	$0.57^{+0.40}_{-0.16} \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	0.9589	$0.954 \pm 0.015 \quad (-1.6\sigma)$	$\sigma_8(0.38)$	0.6698	$0.630^{+0.049}_{-0.016} \quad (-5.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.13	—	Y_{P}	0.24375	$0.2428 \pm 0.0042 \quad (-26.0\sigma)$	$f\sigma_8(0.51)$	0.4800	$0.464^{+0.021}_{-0.0084} \quad (-1.5\sigma)$
A^{kSZ}	1.9	—	$Y_{\text{P}}^{\text{BBN}}$	0.24507	$0.2441 \pm 0.0042 \quad (-26.0\sigma)$	$\sigma_8(0.51)$	0.6264	$0.588^{+0.047}_{-0.015} \quad (-5.8\sigma)$
A_{100}^{dust}	1.001	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	2.605	$2.615 \pm 0.072 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	0.4744	$0.457^{+0.023}_{-0.0079} \quad (-1.9\sigma)$
A_{143}^{dust}	0.978	$0.97 \pm 0.18 \quad (-0.0\sigma)$	Age/Gyr	13.911	$14.10^{+0.34}_{-0.41} \quad (+7.5\sigma)$	$\sigma_8(0.61)$	0.5958	$0.559^{+0.045}_{-0.015} \quad (-6.0\sigma)$
A_{217}^{dust}	0.957	$0.97 \pm 0.10 \quad (+0.1\sigma)$	z_*	1090.12	$1090.29^{+0.52}_{-0.57} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	0.2992	$0.282^{+0.022}_{-0.0072} \quad (-5.8\sigma)$
$A_{143 \times 217}^{\text{dust}}$	0.996	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	145.49	$145.9 \pm 2.7 \quad (+3.0\sigma)$	$\sigma_8(2.33)$	0.3087	$0.289^{+0.025}_{-0.0086} \quad (-6.4\sigma)$
c_{100}	0.99751	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	1.04130	$1.04131 \pm 0.00074 \quad (+0.5\sigma)$	f_{2000}^{143}	30.30	$30 \pm 4 \quad (-0.1\sigma)$
c_{217}	1.00118	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.972	$14.01 \pm 0.25 \quad (+3.1\sigma)$	f_{2000}^{217}	106.89	$107.3 \pm 2.5 \quad (-0.1\sigma)$
H_0	66.67	$64.2^{+4.1}_{-2.8} \quad (-3.0\sigma)$	z_{drag}	1059.06	$1058.6 \pm 1.2 \quad (-1.7\sigma)$	$f_{2000}^{143 \times 217}$	32.32	$32.7 \pm 2.8 \quad (-0.2\sigma)$
Ω_{Λ}	0.6825	$0.649^{+0.048}_{-0.018} \quad (-2.4\sigma)$	r_{drag}	148.27	$148.8 \pm 2.8 \quad (+3.2\sigma)$	χ_{small}^2	395.79	$396.9 \pm 1.7 \quad (-0.0\sigma)$
Ω_{m}	0.3175	$0.351^{+0.018}_{-0.048} \quad (+2.4\sigma)$	k_{D}	0.13982	$0.1395 \pm 0.0020 \quad (-2.0\sigma)$	χ_{lowl}^2	24.32	$25.0 \pm 2.6 \quad (+1.1\sigma)$
$\Omega_{\text{m}} h^2$	0.14113	$0.1431^{+0.0043}_{-0.0050} \quad (-0.1\sigma)$	$100\theta_{\text{D}}$	0.16082	$0.16076 \pm 0.00068 \quad (-1.2\sigma)$	χ_{CamSpec}^2	7048.9	$7064.2 \pm 6.0 \quad (+0.1\sigma)$
$\Omega_{\nu} h^2$	0.00001	< 0.00243	z_{eq}	3424	$3447 \pm 73 \quad (+0.8\sigma)$	χ_{prior}^2	2.09	$7.6 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	0.0941	$0.0918 \pm 0.0062 \quad (-9.1\sigma)$	k_{eq}	0.010371	$0.01040 \pm 0.00016 \quad (-0.0\sigma)$	χ_{CMB}^2	7469.0	$7486.0 \pm 6.0 \quad (+0.4\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 7471.08$; $\Delta\chi_{\text{eff}}^2 = -0.66$; $\bar{\chi}_{\text{eff}}^2 = 7493.68$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.14$; $R - 1 = 0.00504$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.79 (Δ -0.04) commander_dx12_v3.2.29: 24.32 (Δ 0.92) CamSpec like_10.7HM: 7048.88 (Δ -1.46)

9.6 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022041	$0.02187^{+0.00038}_{-0.00033}$ (-1.4σ)	S_8	0.8351	0.840 ± 0.017 $(+0.3\sigma)$	$H(0.15)$	71.80	$69.5^{+3.4}_{-2.7}$ (-4.8σ)
$\Omega_c h^2$	0.11764	$0.1184^{+0.0037}_{-0.0042}$ (-1.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4574	0.4601 ± 0.0095 $(+0.3\sigma)$	$D_M(0.15)$	651.3	677^{+24}_{-38} $(+5.1\sigma)$
$100\theta_{MC}$	1.04112	1.04096 ± 0.00061 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6103	$0.599^{+0.016}_{-0.0094}$ (-1.3σ)	$H(0.38)$	81.87	$80.0^{+2.9}_{-2.6}$ (-5.8σ)
τ	0.0506	0.0511 ± 0.0080 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9982	$0.975^{+0.028}_{-0.013}$ (-1.4σ)	$D_M(0.38)$	1552	1605^{+54}_{-79} $(+5.4\sigma)$
Σm_ν [eV]	0.002	< 0.230	$r_{\text{drag}} h$	99.11	$95.4^{+4.7}_{-2.4}$ (-2.8σ)	$H(0.51)$	88.55	87.0 ± 2.6 (-6.8σ)
N_{eff}	2.879	$2.82^{+0.27}_{-0.31}$	$\langle d^2 \rangle^{1/2}$	2.4570	$2.470^{+0.034}_{-0.040}$ $(+1.0\sigma)$	$D_M(0.51)$	2010	2073^{+68}_{-96} $(+5.6\sigma)$
$\ln(10^{10} A_s)$	3.0281	3.030 ± 0.021 (-0.6σ)	z_{re}	7.30	7.40 ± 0.84 (-0.2σ)	$H(0.61)$	94.14	92.8 ± 2.5 (-7.9σ)
n_s	0.9579	0.952 ± 0.014 (-2.5σ)	$10^9 A_s$	2.0657	2.070 ± 0.043 (-0.6σ)	$D_M(0.61)$	2339	2407^{+77}_{-110} $(+5.7\sigma)$
y_{cal}	1.00019	1.0004 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8670	1.869 ± 0.023 (-1.0σ)	$H(2.33)$	233.80	234.9 ± 3.7 (-1.6σ)
A_{100}^{PS}	236.6	240 ± 26 (-0.1σ)	D_{40}	1235.9	1245 ± 21 $(+1.2\sigma)$	$D_M(2.33)$	5833	5912 ± 150 $(+9.7\sigma)$
A_{143}^{PS}	37.9	40 ± 9 (-0.2σ)	D_{220}	5706.1	5700 ± 42 (-0.1σ)	$f\sigma_8(0.15)$	0.4609	0.4625 ± 0.0082 $(+0.1\sigma)$
A_{217}^{PS}	100.5	102 ± 10 $(+0.1\sigma)$	D_{810}	2529.6	2532 ± 15 (-0.1σ)	$\sigma_8(0.15)$	0.7519	$0.717^{+0.042}_{-0.018}$ (-5.5σ)
A_{217}^{CIB}	43.8	40^{+7}_{-8} (-0.2σ)	D_{1420}	814.3	814.9 ± 5.2 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4782	$0.472^{+0.011}_{-0.0069}$ (-0.9σ)
A_{143}^{tSZ}	5.73	$3.8^{+1.8}_{-2.6}$ $(+0.0\sigma)$	D_{2000}	230.32	230.3 ± 2.3 $(+0.4\sigma)$	$\sigma_8(0.38)$	0.6658	$0.633^{+0.040}_{-0.018}$ (-6.1σ)
$r_{143 \times 217}^{\text{PS}}$	0.594	0.66 ± 0.13 $(+0.1\sigma)$	$n_{s,0.002}$	0.9579	0.952 ± 0.014 (-2.5σ)	$f\sigma_8(0.51)$	0.4763	$0.467^{+0.014}_{-0.0068}$ (-1.7σ)
$r_{143 \times 217}^{\text{CIB}}$	0.699	$0.56^{+0.40}_{-0.17}$ (-0.1σ)	Y_P	0.24299	0.2420 ± 0.0041 (-36.9σ)	$\sigma_8(0.51)$	0.6228	$0.591^{+0.039}_{-0.017}$ (-6.3σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.08	—	Y_P^{BBN}	0.24431	0.2433 ± 0.0041 (-36.9σ)	$f\sigma_8(0.61)$	0.4709	$0.459^{+0.016}_{-0.0071}$ (-2.3σ)
A^{kSZ}	1.42	$4.8^{+2.2}_{-4.2}$ (-0.1σ)	$10^5 D/H$	2.589	2.601 ± 0.070 (-0.7σ)	$\sigma_8(0.61)$	0.5924	$0.561^{+0.038}_{-0.017}$ (-6.3σ)
A_{100}^{dust}	1.009	1.00 ± 0.20 (-0.0σ)	Age/Gyr	13.963	14.15 ± 0.36 $(+10.2\sigma)$	$f\sigma_8(2.33)$	0.2976	$0.283^{+0.018}_{-0.0085}$ (-5.8σ)
A_{143}^{dust}	0.970	0.97 ± 0.18 (-0.1σ)	z_*	1089.96	$1090.22^{+0.50}_{-0.57}$ (-0.0σ)	$\sigma_8(2.33)$	0.3071	$0.290^{+0.021}_{-0.0099}$ (-6.2σ)
A_{217}^{dust}	0.962	0.97 ± 0.10 $(+0.1\sigma)$	r_*	146.16	146.4 ± 2.6 $(+5.2\sigma)$	f_{2000}^{143}	29.86	30 ± 4 (-0.4σ)
$A_{143 \times 217}^{\text{dust}}$	1.011	1.03 ± 0.16 (-0.0σ)	$100\theta_*$	1.04142	1.04140 ± 0.00073 $(+0.8\sigma)$	f_{2000}^{217}	106.59	106.9 ± 2.5 (-0.3σ)
c_{100}	0.99757	0.9975 ± 0.0011 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	14.035	14.06 ± 0.24 $(+5.1\sigma)$	$f_{2000}^{143 \times 217}$	32.02	32.2 ± 2.7 (-0.4σ)
c_{217}	1.00119	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1058.87	1058.5 ± 1.2 (-2.2σ)	χ_{lensing}^2	8.77	9.2 ± 1.1 (-0.4σ)
H_0	66.54	$63.9^{+3.7}_{-2.8}$ (-4.4σ)	r_{drag}	148.96	149.3 ± 2.7 $(+5.3\sigma)$	χ_{small}^2	395.68	396.9 ± 1.7 $(+0.0\sigma)$
Ω_Λ	0.6845	$0.649^{+0.045}_{-0.018}$ (-3.3σ)	k_D	0.13931	0.1391 ± 0.0019 (-3.1σ)	χ_{lowl}^2	24.30	25.4 ± 2.5 $(+1.9\sigma)$
Ω_m	0.3155	$0.351^{+0.018}_{-0.045}$ $(+3.3\sigma)$	$100\theta_D$	0.16068	0.16063 ± 0.00066 (-1.7σ)	χ_{CamSpec}^2	7049.2	7063.1 ± 5.6 $(+0.1\sigma)$
$\Omega_m h^2$	0.13970	$0.1422^{+0.0042}_{-0.0049}$ (-0.6σ)	z_{eq}	3415	3459^{+60}_{-74} $(+1.6\sigma)$	χ_{prior}^2	2.03	7.6 ± 3.5 (-0.0σ)
$\Omega_\nu h^2$	0.00002	< 0.00230	k_{eq}	0.010304	$0.01039^{+0.00015}_{-0.00016}$ $(+0.1\sigma)$	χ_{CMB}^2	7477.9	7494.7 ± 6.0 $(+0.4\sigma)$
$\Omega_m h^3$	0.0930	$0.0909^{+0.0055}_{-0.0063}$ (-11.4σ)	$100\theta_{\text{eq}}$	0.8102	$0.802^{+0.013}_{-0.012}$ (-1.5σ)			
σ_8	0.8143	$0.780^{+0.042}_{-0.018}$ (-4.8σ)	$100\theta_{s,\text{eq}}$	0.4480	$0.4440^{+0.0067}_{-0.0059}$ (-1.5σ)			

Best-fit $\chi_{\text{eff}}^2 = 7479.93$; $\Delta\chi_{\text{eff}}^2 = -0.75$; $\bar{\chi}_{\text{eff}}^2 = 7502.27$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.03$; $R - 1 = 0.00874$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.77 (Δ -0.14) small_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.19) commander_dx12_v3_2_29: 24.30 (Δ 0.88) CamSpec like_10.7HM: 7049.15 (Δ -1.03)

9.7 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022207	0.02216 ± 0.00024 (-0.8σ)	$\Omega_{\mathrm{m}}h^3$	0.09344	$0.0930^{+0.0042}_{-0.0047}$ (-10.0σ)	$100\theta_{\mathrm{eq}}$	0.8125	0.8114 ± 0.0077 (-0.6σ)
$\Omega_{\mathrm{c}}h^2$	0.11732	0.1178 ± 0.0034 (-1.3σ)	σ_8	0.8148	$0.789^{+0.033}_{-0.014}$ (-2.6σ)	$100\theta_{\mathrm{s,eq}}$	0.44907	0.4485 ± 0.0039 (-0.6σ)
$100\theta_{\mathrm{MC}}$	1.041148	1.04106 ± 0.00049 $(+0.6\sigma)$	S_8	0.8299	0.823 ± 0.018 (-0.3σ)	$H(0.15)$	72.19	$71.2^{+2.1}_{-1.8}$ (-2.9σ)
τ	0.0522	0.0522 ± 0.0079 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4546	0.4506 ± 0.0098 (-0.3σ)	$D_{\mathrm{M}}(0.15)$	647.5	659^{+16}_{-22} $(+2.9\sigma)$
Σm_{ν} [eV]	0.001	< 0.157	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6086	$0.596^{+0.017}_{-0.010}$ (-1.1σ)	$H(0.38)$	82.20	81.4 ± 1.9 (-3.8σ)
N_{eff}	2.893	2.90 ± 0.23	$\sigma_8/h^{0.5}$	0.9957	$0.972^{+0.029}_{-0.014}$ (-1.0σ)	$D_{\mathrm{M}}(0.38)$	1544.2	1567^{+37}_{-47} $(+3.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0320	3.032 ± 0.020 (-0.4σ)	$r_{\mathrm{drag}}h$	99.62	$97.8^{+2.7}_{-1.5}$ (-1.4σ)	$H(0.51)$	88.85	88.2 ± 1.8 (-4.6σ)
n_{s}	0.9615	0.9599 ± 0.0096 (-1.3σ)	$\langle d^2 \rangle^{1/2}$	2.4479	2.437 ± 0.032 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	2000	2027^{+46}_{-57} $(+3.4\sigma)$
y_{cal}	1.00052	1.0005 ± 0.0026 $(+0.0\sigma)$	z_{re}	7.43	7.44 ± 0.82 (-0.1σ)	$H(0.61)$	94.42	93.9 ± 1.8 (-5.5σ)
A_{100}^{PS}	227.1	237 ± 25 (-0.1σ)	$10^9 A_{\mathrm{s}}$	2.0740	2.074 ± 0.040 (-0.4σ)	$D_{\mathrm{M}}(0.61)$	2328	2357^{+52}_{-64} $(+3.5\sigma)$
A_{143}^{PS}	44.4	38 ± 9 (-0.2σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8684	1.868 ± 0.020 (-0.9σ)	$H(2.33)$	233.80	234.8 ± 3.2 (-1.7σ)
A_{217}^{PS}	105.7	103 ± 10 $(+0.0\sigma)$	D_{40}	1230.8	1233 ± 16 $(+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	5818	5846 ± 110 $(+7.1\sigma)$
A_{217}^{CIB}	41.2	39 ± 7 (-0.1σ)	D_{220}	5716.7	5717 ± 40 (-0.0σ)	$f\sigma_8(0.15)$	0.4584	0.4546 ± 0.0094 (-0.3σ)
A_{143}^{tSZ}	6.46	$3.9^{+1.9}_{-2.5}$ $(+0.0\sigma)$	D_{810}	2534.3	2533 ± 14 (-0.1σ)	$\sigma_8(0.15)$	0.7528	$0.727^{+0.032}_{-0.014}$ (-2.9σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.695	0.66 ± 0.13 $(+0.1\sigma)$	D_{1420}	817.4	816.5 ± 5.2 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4767	$0.469^{+0.012}_{-0.0078}$ (-0.8σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.821	$0.54^{+0.38}_{-0.20}$ (-0.1σ)	D_{2000}	231.57	230.9 ± 2.1 $(+0.4\sigma)$	$\sigma_8(0.38)$	0.6671	$0.643^{+0.030}_{-0.013}$ (-3.2σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.58	—	$n_{\mathrm{s},0.002}$	0.9615	0.9599 ± 0.0096 (-1.3σ)	$f\sigma_8(0.51)$	0.4753	$0.466^{+0.013}_{-0.0074}$ (-1.2σ)
A^{kSZ}	0.01	$4.6^{+1.7}_{-4.4}$ (-0.0σ)	Y_{P}	0.24326	0.2433 ± 0.0032 (-31.9σ)	$\sigma_8(0.51)$	0.6242	$0.602^{+0.028}_{-0.012}$ (-3.3σ)
A_{100}^{dust}	1.002	1.01 ± 0.20 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24458	0.2446 ± 0.0032 (-32.0σ)	$f\sigma_8(0.61)$	0.4702	$0.460^{+0.014}_{-0.0073}$ (-1.4σ)
A_{143}^{dust}	0.970	0.96 ± 0.18 (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.563	2.575 ± 0.058 (-0.9σ)	$\sigma_8(0.61)$	0.5939	$0.572^{+0.027}_{-0.012}$ (-3.4σ)
A_{217}^{dust}	0.984	0.98 ± 0.10 $(+0.0\sigma)$	Age/Gyr	13.928	13.99 ± 0.25 $(+7.5\sigma)$	$f\sigma_8(2.33)$	0.2985	$0.289^{+0.013}_{-0.0059}$ (-3.2σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.005	1.02 ± 0.16 (-0.0σ)	z_*	1089.733	1089.85 ± 0.43 (-0.5σ)	$\sigma_8(2.33)$	0.3082	$0.297^{+0.015}_{-0.0066}$ (-3.5σ)
c_{100}	0.99775	0.9975 ± 0.0011 $(+0.0\sigma)$	r_*	146.04	145.9 ± 2.1 $(+4.3\sigma)$	f_{2000}^{143}	28.41	29 ± 3 (-0.3σ)
c_{217}	1.00114	1.0010 ± 0.0016 (-0.0σ)	$100\theta_*$	1.04142	1.04140 ± 0.00062 $(+1.0\sigma)$	f_{2000}^{217}	105.61	106.3 ± 2.3 (-0.3σ)
c_{TE}	0.9954	0.9962 ± 0.0051 (-0.1σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.023	14.01 ± 0.20 $(+4.3\sigma)$	$f_{2000}^{143 \times 217}$	30.84	31.5 ± 2.5 (-0.3σ)
c_{EE}	0.9902	0.9904 ± 0.0057 (-0.4σ)	z_{drag}	1059.25	1059.18 ± 0.87 (-1.7σ)	χ_{small}^2	395.79	396.9 ± 1.7 (-0.0σ)
H_0	66.96	$65.8^{+2.3}_{-1.9}$ (-2.6σ)	r_{drag}	148.78	148.7 ± 2.2 $(+4.5\sigma)$	χ_{lowl}^2	23.66	23.9 ± 1.5 $(+0.8\sigma)$
Ω_{Λ}	0.6888	$0.672^{+0.023}_{-0.012}$ (-1.6σ)	k_{D}	0.13956	0.1396 ± 0.0016 (-2.8σ)	$\chi_{\mathrm{CamSpec}}^2$	11498.0	11515.4 ± 6.1 $(+0.1\sigma)$
Ω_{m}	0.3112	$0.328^{+0.012}_{-0.023}$ $(+1.6\sigma)$	$100\theta_{\mathrm{D}}$	0.16052	0.16058 ± 0.00053 (-1.6σ)	χ_{prior}^2	2.03	8.0 ± 3.5 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.13955	$0.1413^{+0.0036}_{-0.0040}$ (-1.0σ)	z_{eq}	3404.3	3411 ± 41 $(+0.6\sigma)$	χ_{CMB}^2	11917.5	11936.2 ± 6.2 $(+0.3\sigma)$
$\Omega_{\nu}h^2$	0.00001	< 0.00161	k_{eq}	0.010283	0.01031 ± 0.00013 (-0.5σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 11919.53$; $\Delta\chi_{\mathrm{eff}}^2 = -1.23$; $\bar{\chi}_{\mathrm{eff}}^2 = 11944.15$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.69$; $R - 1 = 0.00883$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.79 (Δ -0.11) commander_dx12.v3.2.29: 23.66 (Δ 0.66) CamSpec like_10.7HM_1400_unified: 11498.05 (Δ -1.60)

9.8 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022166	0.02215 ± 0.00023 (-1.0σ)	$\Omega_m h^3$	0.09210	$0.0926^{+0.0041}_{-0.0045}$ (-11.3σ)	$100\theta_{\text{eq}}$	0.8111	0.8102 ± 0.0073 (-0.9σ)
$\Omega_c h^2$	0.11632	0.1175 ± 0.0033 (-1.8σ)	σ_8	0.8108	$0.795^{+0.023}_{-0.014}$ (-2.3σ)	$100\theta_{s,\text{eq}}$	0.44840	0.4479 ± 0.0037 (-0.9σ)
$100\theta_{\text{MC}}$	1.041280	1.04111 ± 0.00048 $(+0.8\sigma)$	S_8	0.8283	0.828 ± 0.013 (-0.0σ)	$H(0.15)$	71.73	71.1 ± 1.8 (-3.3σ)
τ	0.0509	0.0532 ± 0.0077 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4537	0.4534 ± 0.0071 (-0.0σ)	$D_{\text{M}}(0.15)$	651.8	659^{+16}_{-19} $(+3.3\sigma)$
Σm_ν [eV]	0.000	< 0.127	$\sigma_8 \Omega_m^{0.25}$	0.6065	$0.600^{+0.011}_{-0.0081}$ (-0.8σ)	$H(0.38)$	81.72	81.4 ± 1.7 (-4.4σ)
N_{eff}	2.823	2.87 ± 0.22	$\sigma_8/h^{0.5}$	0.9942	$0.980^{+0.018}_{-0.011}$ (-0.6σ)	$D_{\text{M}}(0.38)$	1554.0	1567^{+36}_{-42} $(+3.6\sigma)$
$\ln(10^{10} A_s)$	3.0266	3.034 ± 0.019 (-0.5σ)	$r_{\text{drag}} h$	99.40	$98.0^{+2.3}_{-1.5}$ (-1.4σ)	$H(0.51)$	88.36	88.1 ± 1.7 (-5.4σ)
n_s	0.9585	0.9585 ± 0.0093 (-1.7σ)	$\langle d^2 \rangle^{1/2}$	2.4498	2.447 ± 0.026 $(+0.5\sigma)$	$D_{\text{M}}(0.51)$	2012.8	2028 ± 49 $(+3.8\sigma)$
y_{cal}	1.00047	1.0006 ± 0.0026 $(+0.0\sigma)$	z_{re}	7.28	7.54 ± 0.79 (-0.1σ)	$H(0.61)$	93.91	93.8 ± 1.7 (-6.6σ)
A_{100}^{PS}	226.9	236 ± 25 (-0.1σ)	$10^9 A_s$	2.0627	$2.077^{+0.036}_{-0.041}$ (-0.5σ)	$D_{\text{M}}(0.61)$	2342	2358 ± 55 $(+4.0\sigma)$
A_{143}^{PS}	45.0	37 ± 9 (-0.3σ)	$10^9 A_s e^{-2\tau}$	1.8630	1.868 ± 0.020 (-1.1σ)	$H(2.33)$	232.86	234.3 ± 3.1 (-2.7σ)
A_{217}^{PS}	105.5	103 ± 10 $(+0.1\sigma)$	D_{40}	1234.8	1237 ± 16 $(+0.8\sigma)$	$D_{\text{M}}(2.33)$	5848	5854 ± 100 $(+8.3\sigma)$
A_{217}^{CIB}	41.1	39 ± 7 (-0.1σ)	D_{220}	5719.5	5719 ± 40 (-0.0σ)	$f\sigma_8(0.15)$	0.4574	0.4572 ± 0.0066 (-0.1σ)
A_{143}^{tSZ}	6.43	$4.0^{+2.0}_{-2.5}$ $(+0.0\sigma)$	D_{810}	2532.9	2534 ± 14 (-0.1σ)	$\sigma_8(0.15)$	0.7489	$0.733^{+0.022}_{-0.013}$ (-2.6σ)
$r_{143 \times 217}^{\text{PS}}$	0.713	0.67 ± 0.13 $(+0.1\sigma)$	D_{1420}	817.6	816.9 ± 5.2 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4752	$0.4723^{+0.0072}_{-0.0061}$ (-0.6σ)
$r_{143 \times 217}^{\text{CIB}}$	0.826	$0.54^{+0.38}_{-0.22}$ (-0.1σ)	D_{2000}	231.86	231.2 ± 2.1 $(+0.6\sigma)$	$\sigma_8(0.38)$	0.6635	$0.649^{+0.021}_{-0.013}$ (-2.8σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.66	—	$n_{s,0.002}$	0.9585	0.9585 ± 0.0093 (-1.7σ)	$f\sigma_8(0.51)$	0.4735	$0.4694^{+0.0081}_{-0.0062}$ (-1.0σ)
A^{kSZ}	0.04	< 5.95 (-0.1σ)	Y_{P}	0.24227	0.2429 ± 0.0031 (-39.9σ)	$\sigma_8(0.51)$	0.6207	$0.607^{+0.020}_{-0.012}$ (-2.9σ)
A_{100}^{dust}	1.006	1.00 ± 0.20 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24359	0.2442 ± 0.0031 (-39.9σ)	$f\sigma_8(0.61)$	0.4683	$0.4635^{+0.0088}_{-0.0063}$ (-1.2σ)
A_{143}^{dust}	0.977	0.95 ± 0.17 (-0.0σ)	10^5D/H	2.546	2.566 ± 0.057 (-1.2σ)	$\sigma_8(0.61)$	0.5905	$0.577^{+0.020}_{-0.012}$ (-2.9σ)
A_{217}^{dust}	0.982	0.98 ± 0.10 $(+0.0\sigma)$	Age/Gyr	14.000	14.01 ± 0.24 $(+8.8\sigma)$	$f\sigma_8(2.33)$	0.2967	$0.2911^{+0.0092}_{-0.0060}$ (-2.7σ)
$A_{143 \times 217}^{\text{dust}}$	1.005	1.02 ± 0.16 (-0.0σ)	z_*	1089.625	1089.81 ± 0.41 (-0.7σ)	$\sigma_8(2.33)$	0.3063	$0.299^{+0.011}_{-0.0068}$ (-2.9σ)
c_{100}	0.99776	0.9976 ± 0.0011 $(+0.0\sigma)$	r_*	146.71	146.2 ± 2.1 $(+5.9\sigma)$	f_{2000}^{143}	28.11	28 ± 3 (-0.4σ)
c_{217}	1.00115	1.0010 ± 0.0016 (-0.1σ)	$100\theta_*$	1.04160	1.04146 ± 0.00061 $(+1.3\sigma)$	f_{2000}^{217}	105.39	106.0 ± 2.3 (-0.4σ)
c_{TE}	0.9951	0.9957 ± 0.0051 (-0.2σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	14.085	14.04 ± 0.19 $(+5.8\sigma)$	$f_{2000}^{143 \times 217}$	30.63	31.2 ± 2.5 (-0.5σ)
c_{EE}	0.9894	0.9900 ± 0.0056 (-0.4σ)	z_{drag}	1059.02	1059.09 ± 0.85 (-2.0σ)	χ_{lensing}^2	8.57	9.19 ± 0.93 (-0.2σ)
H_0	66.50	65.8 ± 1.9 (-3.0σ)	r_{drag}	149.47	149.0 ± 2.2 $(+6.0\sigma)$	χ_{small}^2	395.68	397.0 ± 1.7 $(+0.0\sigma)$
Ω_Λ	0.6869	$0.674^{+0.020}_{-0.012}$ (-1.6σ)	k_{D}	0.13909	0.1395 ± 0.0015 (-3.5σ)	χ_{lowl}^2	24.10	24.2 ± 1.5 $(+1.2\sigma)$
Ω_{m}	0.3131	$0.326^{+0.012}_{-0.020}$ $(+1.6\sigma)$	$100\theta_{\text{D}}$	0.16036	0.16050 ± 0.00052 (-1.9σ)	χ_{CamSpec}^2	11497.8	11514.2 ± 5.8 $(+0.0\sigma)$
$\Omega_{\text{m}} h^2$	0.13848	0.1407 ± 0.0037 (-1.7σ)	z_{eq}	3411.5	3417 ± 39 $(+0.9\sigma)$	χ_{prior}^2	2.06	8.0 ± 3.5 $(+0.0\sigma)$
$\Omega_\nu h^2$	0.00000	< 0.00129	k_{eq}	0.010255	0.01030 ± 0.00012 (-0.6σ)	χ_{CMB}^2	11926.1	11944.6 ± 6.2 $(+0.2\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 11928.16$; $\Delta\chi_{\text{eff}}^2 = -1.50$; $\bar{\chi}_{\text{eff}}^2 = 11952.59$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.14$; $R - 1 = 0.01252$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.57 (Δ -0.26) small_100x143_offlike5_EE_Aplanck_B: 395.68 (Δ -0.19) commander_dx12_v3_2_29: 24.10 (Δ 0.88) CamSpec like_10.7HM_1400.unified: 11497.75 (Δ -1.90)

9.9 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022179	0.02226 ± 0.00023 (+0.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4562	0.451 ± 0.010 (+0.2 σ)	$D_M(0.15)$	639.9	636 ± 13 (−1.0 σ)
$\Omega_c h^2$	0.11942	0.1204 ± 0.0039 (+1.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6122	$0.605^{+0.013}_{-0.011}$ (+0.3 σ)	$H(0.38)$	83.07	83.6 ± 1.5 (+1.7 σ)
$100\theta_{MC}$	1.04094	1.04084 ± 0.00057 (−0.3 σ)	$\sigma_8/h^{0.5}$	0.9980	$0.983^{+0.020}_{-0.014}$ (+0.1 σ)	$D_M(0.38)$	1526.8	1519 ± 29 (−1.2 σ)
τ	0.0529	0.0536 ± 0.0081 (−0.0 σ)	$r_{drag}h$	99.99	99.96 ± 1.0 (+0.2 σ)	$H(0.51)$	89.75	90.3 ± 1.6 (+2.2 σ)
Σm_ν [eV]	0.0015	< 0.0790	$\langle d^2 \rangle^{1/2}$	2.4460	$2.425^{+0.034}_{-0.031}$ (−0.1 σ)	$D_M(0.51)$	1978.4	1968 ± 37 (−1.3 σ)
N_{eff}	3.034	3.14 ± 0.23	z_{re}	7.56	7.64 ± 0.84 (−0.0 σ)	$H(0.61)$	95.34	95.9 ± 1.6 (+2.6 σ)
$\ln(10^{10} A_s)$	3.0396	3.043 ± 0.020 (+0.2 σ)	$10^9 A_s$	2.0898	2.098 ± 0.042 (+0.2 σ)	$D_M(0.61)$	2302.6	2290 ± 43 (−1.4 σ)
n_s	0.9653	0.9694 ± 0.0088 (+0.7 σ)	$10^9 A_s e^{-2\tau}$	1.8799	1.884 ± 0.021 (+0.6 σ)	$H(2.33)$	235.62	237.0 ± 3.4 (+1.7 σ)
y_{cal}	1.00051	1.0006 ± 0.0025 (+0.0 σ)	D_{40}	1227.9	1223 ± 16 (−0.3 σ)	$D_M(2.33)$	5763	5730 ± 94 (−3.0 σ)
A_{217}^{CIB}	49.2	48 ± 7 (+0.0 σ)	D_{220}	5715.5	5719 ± 40 (−0.0 σ)	$f\sigma_8(0.15)$	0.4603	0.4558 ± 0.0096 (+0.2 σ)
$\xi^{tSZ \times CIB}$	0.19	—	D_{810}	2536.7	2537 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7594	$0.750^{+0.018}_{-0.014}$ (+0.6 σ)
A_{143}^{tSZ}	7.19	5.0 ± 2.0 (−0.1 σ)	D_{1420}	815.7	814.8 ± 5.2 (−0.1 σ)	$f\sigma_8(0.38)$	0.4795	$0.4749^{+0.0099}_{-0.0087}$ (+0.3 σ)
A_{100}^{PS}	254.0	265 ± 29 (+0.1 σ)	D_{2000}	230.20	229.4 ± 2.2 (−0.3 σ)	$\sigma_8(0.38)$	0.6733	$0.665^{+0.016}_{-0.012}$ (+0.7 σ)
A_{143}^{PS}	46.9	50 ± 9 (+0.2 σ)	$n_{s,0.002}$	0.9653	0.9694 ± 0.0088 (+0.7 σ)	$f\sigma_8(0.51)$	0.4783	$0.4738^{+0.0098}_{-0.0084}$ (+0.4 σ)
$A_{143 \times 217}^{PS}$	43.2	44 ± 9 (+0.1 σ)	Y_P	0.24515	0.2465 ± 0.0032 (+14.4 σ)	$\sigma_8(0.51)$	0.6301	$0.623^{+0.015}_{-0.012}$ (+0.7 σ)
A_{217}^{PS}	118.1	115 ± 10 (+0.0 σ)	Y_P^{BBN}	0.24648	0.2479 ± 0.0032 (+14.4 σ)	$f\sigma_8(0.61)$	0.4735	$0.4691^{+0.0097}_{-0.0083}$ (+0.4 σ)
A^{kSZ}	0.00	< 5.14 (+0.1 σ)	$10^5 D/H$	2.618	2.639 ± 0.068 (+0.6 σ)	$\sigma_8(0.61)$	0.5996	$0.593^{+0.014}_{-0.011}$ (+0.7 σ)
A_{100}^{dustTT}	8.92	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.798	13.72 ± 0.22 (−3.1 σ)	$f\sigma_8(2.33)$	0.3015	$0.2991^{+0.0066}_{-0.0056}$ (+0.8 σ)
A_{143}^{dustTT}	10.74	10.8 ± 1.8 (−0.0 σ)	z_*	1090.094	1090.19 ± 0.49 (+0.5 σ)	$\sigma_8(2.33)$	0.3114	$0.3084^{+0.0073}_{-0.0060}$ (+0.8 σ)
$A_{143 \times 217}^{dustTT}$	19.23	18.3 ± 3.3 (+0.0 σ)	r_*	144.80	144.0 ± 2.2 (−2.6 σ)	f_{2000}^{143}	30.21	31.6 ± 3.4 (+0.3 σ)
A_{217}^{dustTT}	94.4	93.3 ± 7.3 (+0.0 σ)	$100\theta_*$	1.04113	1.04098 ± 0.00068 (−0.5 σ)	$f_{2000}^{143 \times 217}$	33.04	33.9 ± 2.5 (+0.3 σ)
c_{100}	0.99964	0.99961 ± 0.00062 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.908	13.83 ± 0.21 (−2.5 σ)	f_{2000}^{217}	107.63	108.4 ± 2.3 (+0.3 σ)
c_{217}	0.99824	0.99827 ± 0.00063 (+0.0 σ)	z_{drag}	1059.44	1059.78 ± 0.87 (+0.6 σ)	χ_{simall}^2	395.86	397.1 ± 1.8 (−0.0 σ)
H_0	67.78	68.2 ± 1.4 (+1.0 σ)	r_{drag}	147.53	146.7 ± 2.3 (−2.5 σ)	χ_{lowl}^2	23.31	22.8 ± 1.2 (−0.3 σ)
Ω_Λ	0.6917	0.6913 ± 0.0083 (+0.2 σ)	k_D	0.14030	0.1409 ± 0.0017 (+1.4 σ)	χ_{plik}^2	758.4	773.3 ± 5.9 (+0.2 σ)
Ω_m	0.3083	0.3087 ± 0.0083 (−0.2 σ)	$100\theta_D$	0.16100	0.16124 ± 0.00059 (+0.8 σ)	χ_{6DF}^2	0.0103	0.057 ± 0.077 (−0.0 σ)
$\Omega_m h^2$	0.14161	0.1434 ± 0.0041 (+1.3 σ)	z_{eq}	3389.2	3368 ± 34 (−0.2 σ)	χ_{MGS}^2	1.41	1.47 ± 0.60 (+0.2 σ)
$\Omega_\nu h^2$	$1.6 \cdot 10^{-5}$	< 0.000839	k_{eq}	0.010336	0.01034 ± 0.00015 (+0.5 σ)	$\chi_{DR12BAO}^2$	3.91	4.6 ± 1.6 (−0.1 σ)
$\Omega_m h^3$	0.09598	0.0978 ± 0.0046 (+4.2 σ)	$100\theta_{eq}$	0.8150	$0.8192^{+0.0060}_{-0.0068}$ (+0.2 σ)	χ_{prior}^2	1.52	7.4 ± 3.7 (−0.0 σ)
σ_8	0.8216	$0.812^{+0.019}_{-0.015}$ (+0.6 σ)	$100\theta_{s,eq}$	0.45044	$0.4525^{+0.0031}_{-0.0035}$ (+0.2 σ)	χ_{BAO}^2	5.32	6.2 ± 1.3 (−0.0 σ)
S_8	0.8329	0.823 ± 0.018 (+0.2 σ)	$H(0.15)$	73.02	73.4 ± 1.4 (+1.2 σ)	χ_{CMB}^2	1177.6	1193.2 ± 5.8 (+0.1 σ)

Best-fit $\chi_{eff}^2 = 1184.40$; $\Delta\chi_{eff}^2 = -1.35$; $\bar{\chi}_{eff}^2 = 1206.70$; $\Delta\bar{\chi}_{eff}^2 = 0.68$; $R - 1 = 0.00673$

χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.91 (Δ -0.28) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.02) commander_dx12_v3_2_29: 23.31 (Δ 0.49) plik_rd12_HM_v22_TT: 758.38 (Δ -1.72)

9.10 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022208	0.02227 ± 0.00023	$\sigma_8 \Omega_m^{0.25}$	0.6119	$0.605^{+0.013}_{-0.011}$	$D_M(0.38)$	1524.2	1516 ± 29
$\Omega_c h^2$	0.11952	0.1205 ± 0.0039	$\sigma_8/h^{0.5}$	0.9973	$0.983^{+0.020}_{-0.014}$	$H(0.51)$	89.87	90.4 ± 1.5
$100\theta_{MC}$	1.04097	1.04083 ± 0.00057	$r_{\text{drag}} h$	100.11	100.11 ± 0.99	$D_M(0.51)$	1975.1	1964 ± 36
τ	0.0530	0.0538 ± 0.0081	$\langle d^2 \rangle^{1/2}$	2.4437	$2.423^{+0.033}_{-0.030}$	$H(0.61)$	95.46	96.0 ± 1.6
Σm_ν [eV]	0.0018	< 0.0768	z_{re}	7.57	7.65 ± 0.84	$D_M(0.61)$	2298.8	2286 ± 42
N_{eff}	3.046	3.15 ± 0.23	$10^9 A_s$	2.0908	2.099 ± 0.042	$H(2.33)$	235.76	237.2 ± 3.4
$\ln(10^{10} A_s)$	3.0401	3.044 ± 0.020	$10^9 A_s e^{-2\tau}$	1.8806	1.885 ± 0.021	$D_M(2.33)$	5756	5724 ± 92
n_s	0.9661	0.9701 ± 0.0086	D_{40}	1226.8	1222 ± 15	$f\sigma_8(0.15)$	0.4598	0.4555 ± 0.0095
y_{cal}	1.00045	1.0006 ± 0.0025	D_{220}	5716.7	5719 ± 40	$\sigma_8(0.15)$	0.7597	$0.751^{+0.017}_{-0.014}$
A_{217}^{CIB}	48.8	48 ± 7	D_{810}	2537.1	2537 ± 14	$f\sigma_8(0.38)$	0.4792	$0.4748^{+0.0097}_{-0.0087}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.31	—	D_{1420}	815.8	814.8 ± 5.2	$\sigma_8(0.38)$	0.6737	$0.666^{+0.015}_{-0.012}$
A_{143}^{tSZ}	7.03	5.0 ± 2.0	D_{2000}	230.24	229.3 ± 2.2	$f\sigma_8(0.51)$	0.4782	$0.4738^{+0.0096}_{-0.0084}$
A_{100}^{PS}	254.0	265 ± 28	$n_{s,0.002}$	0.9661	0.9701 ± 0.0086	$\sigma_8(0.51)$	0.6306	$0.624^{+0.015}_{-0.011}$
A_{143}^{PS}	49.0	50 ± 8	Y_P	0.24533	0.2467 ± 0.0031	$f\sigma_8(0.61)$	0.4734	$0.4692^{+0.0095}_{-0.0082}$
$A_{143 \times 217}^{\text{PS}}$	46.5	44^{+9}_{-10}	Y_P^{BBN}	0.24666	0.2481 ± 0.0031	$\sigma_8(0.61)$	0.6000	$0.594^{+0.014}_{-0.011}$
A_{217}^{PS}	119.0	115 ± 10	$10^5 D/H$	2.616	2.641 ± 0.068	$f\sigma_8(2.33)$	0.3017	$0.2996^{+0.0064}_{-0.0055}$
A^{kSZ}	0.01	< 5.18	Age/Gyr	13.782	13.70 ± 0.22	$\sigma_8(2.33)$	0.3117	$0.3089^{+0.0072}_{-0.0059}$
A_{100}^{dustTT}	8.87	9.0 ± 1.8	z_*	1090.079	1090.19 ± 0.49	f_{2000}^{143}	30.16	31.7 ± 3.4
A_{143}^{dustTT}	10.81	10.8 ± 1.8	r_*	144.69	143.9 ± 2.2	$f_{2000}^{143 \times 217}$	33.08	34.0 ± 2.5
$A_{143 \times 217}^{\text{dustTT}}$	19.34	18.3 ± 3.3	$100\theta_*$	1.04113	1.04096 ± 0.00068	f_{2000}^{217}	107.55	108.5 ± 2.3
A_{217}^{dustTT}	94.4	93.3 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.897	13.82 ± 0.21	χ_{small}^2	395.88	397.1 ± 1.8
c_{100}	0.99963	0.99961 ± 0.00061	z_{drag}	1059.51	1059.83 ± 0.86	χ_{lowl}^2	23.21	22.7 ± 1.2
c_{217}	0.99826	0.99827 ± 0.00062	r_{drag}	147.41	146.6 ± 2.3	χ_{plik}^2	758.6	773.4 ± 5.9
H_0	67.91	68.3 ± 1.4	k_D	0.14041	0.1410 ± 0.0017	χ_{JLA}^2	1034.879	1035.01 ± 0.32
Ω_Λ	0.6927	0.6925 ± 0.0078	$100\theta_D$	0.16101	0.16126 ± 0.00058	$\chi_{6\text{DF}}^2$	0.0060	0.047 ± 0.064
Ω_m	0.3073	0.3075 ± 0.0078	z_{eq}	3386.7	3365 ± 33	χ_{MGS}^2	1.47	1.55 ± 0.58
$\Omega_m h^2$	0.14174	0.1435 ± 0.0041	k_{eq}	0.010336	0.01034 ± 0.00015	χ_{DR12BAO}^2	3.78	4.4 ± 1.3
$\Omega_\nu h^2$	0.000019	< 0.000816	$100\theta_{\text{eq}}$	0.8156	$0.8198^{+0.0057}_{-0.0066}$	χ_{prior}^2	1.41	7.3 ± 3.7
$\Omega_m h^3$	0.09626	0.0981 ± 0.0045	$100\theta_{s,\text{eq}}$	0.45071	$0.4529^{+0.0029}_{-0.0034}$	χ_{BAO}^2	5.26	6.0 ± 1.1
σ_8	0.8219	$0.812^{+0.019}_{-0.015}$	$H(0.15)$	73.15	73.6 ± 1.4	χ_{CMB}^2	1177.7	1193.2 ± 5.8
S_8	0.8318	0.822 ± 0.018	$D_M(0.15)$	638.7	635 ± 13			
$\sigma_8 \Omega_m^{0.5}$	0.4556	0.450 ± 0.010	$H(0.38)$	83.19	83.7 ± 1.5			

Best-fit $\chi_{\text{eff}}^2 = 2219.27$; $\bar{\chi}_{\text{eff}}^2 = 2241.49$; $R - 1 = 0.00842$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.78 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 23.21 plik_rd12_HM_v22.TT: 758.62
SN - JLA Pantheon18: 1034.88

9.11 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022170	0.02221 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6093	$0.604^{+0.013}_{-0.010}$	$D_M(0.38)$	1531.3	1528 ± 24
$\Omega_c h^2$	0.11832	0.1192 ± 0.0032	$\sigma_8/h^{0.5}$	0.9952	$0.983^{+0.019}_{-0.013}$	$H(0.51)$	89.46	89.7 ± 1.2
$100\theta_{MC}$	1.04110	1.04097 ± 0.00053	$r_{drag}h$	100.10	99.8 ± 1.0	$D_M(0.51)$	1984.3	1980 ± 30
τ	0.0530	0.0533 ± 0.0081	$\langle d^2 \rangle^{1/2}$	2.4416	$2.428^{+0.033}_{-0.030}$	$H(0.61)$	95.02	95.3 ± 1.3
Σm_ν [eV]	0.0016	< 0.0726	z_{re}	7.55	7.58 ± 0.83	$D_M(0.61)$	2309.6	2304 ± 35
N_{eff}	2.981	3.06 ± 0.18	$10^9 A_s$	2.0828	2.090 ± 0.039	$H(2.33)$	234.72	235.9 ± 2.8
$\ln(10^{10} A_s)$	3.0363	3.039 ± 0.019	$10^9 A_s e^{-2\tau}$	1.8734	1.878 ± 0.018	$D_M(2.33)$	5783	5763 ± 75
n_s	0.9646	0.9666 ± 0.0074	D_{40}	1226.6	1226 ± 15	$f\sigma_8(0.15)$	0.4579	0.4550 ± 0.0093
y_{cal}	1.00014	1.0006 ± 0.0025	D_{220}	5711.3	5720 ± 40	$\sigma_8(0.15)$	0.7563	$0.748^{+0.016}_{-0.012}$
A_{217}^{CIB}	48.0	48 ± 7	D_{810}	2534.3	2536 ± 14	$f\sigma_8(0.38)$	0.4771	$0.4737^{+0.0094}_{-0.0082}$
$\xi^{tSZ \times CIB}$	0.38	—	D_{1420}	815.9	815.3 ± 5.1	$\sigma_8(0.38)$	0.6706	$0.663^{+0.015}_{-0.011}$
A_{143}^{tSZ}	7.00	5.1 ± 2.0	D_{2000}	230.53	229.9 ± 2.0	$f\sigma_8(0.51)$	0.4761	$0.4725^{+0.0092}_{-0.0078}$
A_{100}^{PS}	252.6	263 ± 28	$n_{s,0.002}$	0.9646	0.9666 ± 0.0074	$\sigma_8(0.51)$	0.6276	$0.620^{+0.014}_{-0.010}$
A_{143}^{PS}	48.8	49 ± 8	Y_P	0.24444	0.2454 ± 0.0025	$f\sigma_8(0.61)$	0.4714	$0.4676^{+0.0091}_{-0.0075}$
$A_{143 \times 217}^{PS}$	47.3	43 ± 9	Y_P^{BBN}	0.24576	0.2468 ± 0.0025	$\sigma_8(0.61)$	0.5973	$0.590^{+0.013}_{-0.0097}$
A_{217}^{PS}	119.3	115 ± 10	$10^5 D/H$	2.601	2.619 ± 0.058	$f\sigma_8(2.33)$	0.3003	$0.2978^{+0.0061}_{-0.0048}$
A^{kSZ}	0.00	< 4.91	Age/Gyr	13.845	13.80 ± 0.18	$\sigma_8(2.33)$	0.3102	$0.3071^{+0.0068}_{-0.0052}$
A_{100}^{dustTT}	8.87	9.0 ± 1.8	z_*	1089.955	1090.05 ± 0.43	f_{2000}^{143}	29.59	31.0 ± 3.2
A_{143}^{dustTT}	10.77	10.7 ± 1.8	r_*	145.36	144.8 ± 1.8	$f_{2000}^{143 \times 217}$	32.61	33.4 ± 2.3
$A_{143 \times 217}^{dustTT}$	19.40	18.3 ± 3.3	$100\theta_*$	1.04131	1.04116 ± 0.00061	f_{2000}^{217}	107.08	108.0 ± 2.2
A_{217}^{dustTT}	94.6	93.5 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.959	13.90 ± 0.17	χ_{small}^2	395.85	397.0 ± 1.8
c_{100}	0.99965	0.99961 ± 0.00061	z_{drag}	1059.28	1059.51 ± 0.73	χ_{lowl}^2	23.32	23.1 ± 1.2
c_{217}	0.99825	0.99826 ± 0.00063	r_{drag}	148.10	147.5 ± 1.8	χ_{plik}^2	758.7	772.5 ± 5.7
H_0	67.59	67.7 ± 1.2	k_D	0.13990	0.1403 ± 0.0013	χ_{Aver15}^2	0.046	0.60 ± 0.78
Ω_Λ	0.6924	0.6901 ± 0.0081	$100\theta_D$	0.160870	0.16105 ± 0.00049	χ_{6DF}^2	0.0061	0.061 ± 0.080
Ω_m	0.3076	0.3099 ± 0.0081	z_{eq}	3386.8	3374 ± 33	χ_{MGS}^2	1.47	1.39 ± 0.57
$\Omega_m h^2$	0.14050	0.1420 ± 0.0033	k_{eq}	0.010291	0.01030 ± 0.00013	$\chi_{DR12BAO}^2$	3.76	4.8 ± 1.7
$\Omega_\nu h^2$	$1.7 \cdot 10^{-5}$	< 0.000767	$100\theta_{eq}$	0.8155	$0.8180^{+0.0058}_{-0.0064}$	χ_{prior}^2	1.32	7.3 ± 3.7
$\Omega_m h^3$	0.09497	0.0962 ± 0.0036	$100\theta_{s,eq}$	0.45070	$0.4520^{+0.0030}_{-0.0033}$	χ_{BAO}^2	5.24	6.2 ± 1.4
σ_8	0.8182	$0.809^{+0.018}_{-0.013}$	$H(0.15)$	72.81	73.0 ± 1.2	χ_{CMB}^2	1177.9	1192.6 ± 5.6
S_8	0.8284	0.822 ± 0.018	$D_M(0.15)$	641.7	641 ± 11			
$\sigma_8 \Omega_m^{0.5}$	0.4537	0.4503 ± 0.0099	$H(0.38)$	82.81	83.0 ± 1.2			

Best-fit $\chi_{eff}^2 = 1184.46$; $\bar{\chi}_{eff}^2 = 1206.76$; $R - 1 = 0.00900$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.05 BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.76 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2.29: 23.32
plik_rd12_HM_v22_TT: 758.69

9.12 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022182	0.02221 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6113	$0.604^{+0.013}_{-0.010}$	$D_M(0.38)$	1529.7	1528 ± 23
$\Omega_c h^2$	0.11889	0.1191 ± 0.0029	$\sigma_8/h^{0.5}$	0.9974	$0.983^{+0.019}_{-0.013}$	$H(0.51)$	89.58	89.7 ± 1.2
$100\theta_{MC}$	1.041025	1.04097 ± 0.00050	$r_{drag}h$	99.99	99.8 ± 1.0	$D_M(0.51)$	1982.1	1980 ± 29
τ	0.0535	0.0534 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4459	2.428 ± 0.032	$H(0.61)$	95.16	95.3 ± 1.2
Σm_ν [eV]	0.0037	< 0.0722	z_{re}	7.60	7.59 ± 0.83	$D_M(0.61)$	2306.8	2304 ± 33
N_{eff}	3.005	3.06 ± 0.17	$10^9 A_s$	2.0890	2.090 ± 0.039	$H(2.33)$	235.19	235.8 ± 2.5
$\ln(10^{10} A_s)$	3.0393	3.040 ± 0.019	$10^9 A_s e^{-2\tau}$	1.8772	1.878 ± 0.017	$D_M(2.33)$	5774	5763 ± 70
n_s	0.9649	0.9666 ± 0.0072	D_{40}	1227.7	1226 ± 14	$f\sigma_8(0.15)$	0.4597	0.4550 ± 0.0091
y_{cal}	1.00049	1.0006 ± 0.0025	D_{220}	5714.8	5720 ± 39	$\sigma_8(0.15)$	0.7582	$0.748^{+0.016}_{-0.011}$
A_{217}^{CIB}	48.9	48 ± 7	D_{810}	2536.3	2536 ± 14	$f\sigma_8(0.38)$	0.4788	$0.4737^{+0.0092}_{-0.0079}$
$\xi^{tSZ \times CIB}$	0.28	—	D_{1420}	816.1	815.3 ± 5.0	$\sigma_8(0.38)$	0.6722	$0.663^{+0.014}_{-0.010}$
A_{143}^{tSZ}	7.03	5.1 ± 2.0	D_{2000}	230.52	229.9 ± 1.9	$f\sigma_8(0.51)$	0.4776	$0.4725^{+0.0090}_{-0.0075}$
A_{100}^{PS}	254.2	263 ± 28	$n_{s,0.002}$	0.9649	0.9666 ± 0.0072	$\sigma_8(0.51)$	0.6291	$0.621^{+0.014}_{-0.0097}$
A_{143}^{PS}	47.6	49 ± 8	Y_P	0.24477	0.2454 ± 0.0023	$f\sigma_8(0.61)$	0.4728	$0.4677^{+0.0089}_{-0.0072}$
$A_{143 \times 217}^{PS}$	44.9	43 ± 9	Y_P^{BBN}	0.24609	0.2467 ± 0.0023	$\sigma_8(0.61)$	0.5987	$0.590^{+0.013}_{-0.0092}$
A_{217}^{PS}	118.3	115 ± 10	$10^5 D/H$	2.6070	2.619 ± 0.050	$f\sigma_8(2.33)$	0.3010	$0.2978^{+0.0059}_{-0.0046}$
A^{kSZ}	0.00	< 4.90	Age/Gyr	13.823	13.80 ± 0.17	$\sigma_8(2.33)$	0.3109	$0.3071^{+0.0066}_{-0.0050}$
A_{100}^{dustTT}	8.89	9.0 ± 1.8	z_*	1090.014	1090.05 ± 0.37	f_{2000}^{143}	29.80	31.0 ± 3.1
A_{143}^{dustTT}	10.79	10.7 ± 1.8	r_*	145.08	144.8 ± 1.6	$f_{2000}^{143 \times 217}$	32.76	33.4 ± 2.2
$A_{143 \times 217}^{dustTT}$	19.24	18.3 ± 3.3	$100\theta_*$	1.04123	1.04116 ± 0.00057	f_{2000}^{217}	107.32	108.0 ± 2.0
A_{217}^{dustTT}	94.4	93.5 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.933	13.90 ± 0.15	χ_{small}^2	395.94	397.0 ± 1.8
c_{100}	0.99963	0.99961 ± 0.00061	z_{drag}	1059.40	1059.51 ± 0.72	χ_{lowl}^2	23.33	23.1 ± 1.2
c_{217}	0.99825	0.99826 ± 0.00063	r_{drag}	147.81	147.5 ± 1.7	χ_{plik}^2	758.4	772.3 ± 5.7
H_0	67.65	67.7 ± 1.1	k_D	0.14012	0.1403 ± 0.0013	χ_{Aver15}^2	0.089	0.54 ± 0.69
Ω_Λ	0.6917	0.6901 ± 0.0081	$100\theta_D$	0.160917	0.16105 ± 0.00042	$\chi_{Cooke17}^2$	0.014	0.28 ± 0.39
Ω_m	0.3083	0.3099 ± 0.0081	z_{eq}	3389.8	3374 ± 32	χ_{6DF}^2	0.0101	0.061 ± 0.080
$\Omega_m h^2$	0.14111	0.1420 ± 0.0031	k_{eq}	0.010317	0.01030 ± 0.00012	χ_{MGS}^2	1.41	1.39 ± 0.57
$\Omega_\nu h^2$	0.000039	< 0.000765	$100\theta_{eq}$	0.8150	0.8180 ± 0.0061	$\chi_{DR12BAO}^2$	3.89	4.8 ± 1.7
$\Omega_m h^3$	0.09546	0.0961 ± 0.0033	$100\theta_{s,eq}$	0.45041	0.4520 ± 0.0031	χ_{prior}^2	1.43	7.3 ± 3.7
σ_8	0.8203	$0.809^{+0.017}_{-0.012}$	$H(0.15)$	72.88	73.0 ± 1.1	χ_{BAO}^2	5.31	6.2 ± 1.4
S_8	0.8316	0.822 ± 0.018	$D_M(0.15)$	641.1	641 ± 10	χ_{CMB}^2	1177.7	1192.4 ± 5.6
$\sigma_8 \Omega_m^{0.5}$	0.4555	0.4503 ± 0.0097	$H(0.38)$	82.91	83.0 ± 1.1	χ_{Abund}^2	0.102	0.82 ± 0.90

Best-fit $\chi_{eff}^2 = 1184.51$; $\bar{\chi}_{eff}^2 = 1206.75$; $R - 1 = 0.01022$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.09 D_Cooke2017: 0.01 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.89 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.94 comman-
der_dx12_v3_2_29: 23.33 plik_rd12_HM_v22_TT: 758.40

9.13 base_nnu_mnu_plikHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02228 ± 0.00023	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.606^{+0.013}_{-0.011}$	$D_{\text{M}}(0.38)$	1515 ± 29
$\Omega_{\text{c}}h^2$	0.1206 ± 0.0039	$\sigma_8/h^{0.5}$	$0.984^{+0.019}_{-0.013}$	$H(0.51)$	90.4 ± 1.5
$100\theta_{\text{MC}}$	1.04083 ± 0.00057	$r_{\text{drag}}h$	100.12 ± 0.98	$D_{\text{M}}(0.51)$	1963 ± 36
τ	$0.0552^{+0.0052}_{-0.0084}$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.032}_{-0.029}$	$H(0.61)$	96.1 ± 1.6
$\Sigma m_{\nu} [\text{eV}]$	< 0.0777	z_{re}	$7.80^{+0.59}_{-0.84}$	$D_{\text{M}}(0.61)$	2285 ± 42
N_{eff}	3.16 ± 0.23	$10^9 A_{\text{s}}$	$2.105^{+0.031}_{-0.042}$	$H(2.33)$	237.2 ± 3.4
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.015}_{-0.020}$	$10^9 A_{\text{s}} e^{-2\tau}$	1.885 ± 0.021	$D_{\text{M}}(2.33)$	5721 ± 92
n_{s}	0.9704 ± 0.0086	D_{40}	1222 ± 15	$f\sigma_8(0.15)$	0.4560 ± 0.0094
y_{cal}	1.0006 ± 0.0025	D_{220}	5719 ± 40	$\sigma_8(0.15)$	$0.752^{+0.017}_{-0.013}$
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	$0.4754^{+0.0096}_{-0.0084}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	814.8 ± 5.2	$\sigma_8(0.38)$	$0.667^{+0.015}_{-0.012}$
A_{143}^{tSZ}	5.0 ± 2.0	D_{2000}	229.4 ± 2.2	$f\sigma_8(0.51)$	$0.4745^{+0.0094}_{-0.0082}$
A_{100}^{PS}	265 ± 28	$n_{\text{s},0.002}$	0.9704 ± 0.0086	$\sigma_8(0.51)$	$0.625^{+0.014}_{-0.011}$
A_{143}^{PS}	50 ± 8	Y_{P}	0.2468 ± 0.0031	$f\sigma_8(0.61)$	$0.4698^{+0.0093}_{-0.0080}$
$A_{143 \times 217}^{\text{PS}}$	44^{+9}_{-10}	$Y_{\text{P}}^{\text{BBN}}$	0.2481 ± 0.0031	$\sigma_8(0.61)$	$0.594^{+0.014}_{-0.011}$
A_{217}^{PS}	115 ± 10	10^5D/H	2.641 ± 0.068	$f\sigma_8(2.33)$	$0.3000^{+0.0063}_{-0.0053}$
A^{kSZ}	< 5.17	Age/Gyr	13.70 ± 0.22	$\sigma_8(2.33)$	$0.3094^{+0.0070}_{-0.0057}$
A_{100}^{dustTT}	9.0 ± 1.8	z_*	1090.19 ± 0.49	f_{2000}^{143}	31.7 ± 3.4
A_{143}^{dustTT}	10.8 ± 1.8	r_*	143.8 ± 2.2	$f_{2000}^{143 \times 217}$	33.9 ± 2.5
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$100\theta_*$	1.04095 ± 0.00068	f_{2000}^{217}	108.5 ± 2.3
A_{217}^{dustTT}	93.3 ± 7.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.82 ± 0.20	χ_{simall}^2	397.0 ± 1.9
c_{100}	0.99961 ± 0.00062	z_{drag}	1059.86 ± 0.85	χ_{lowl}^2	22.7 ± 1.2
c_{217}	0.99826 ± 0.00062	r_{drag}	146.5 ± 2.3	χ_{plik}^2	773.2 ± 5.9
H_0	68.4 ± 1.4	k_{D}	0.1410 ± 0.0017	χ_{JLA}^2	1035.00 ± 0.32
Ω_{Λ}	0.6926 ± 0.0078	$100\theta_{\text{D}}$	0.16127 ± 0.00059	$\chi_{6\text{DF}}^2$	0.046 ± 0.063
Ω_{m}	0.3074 ± 0.0078	z_{eq}	3364 ± 33	χ_{MGS}^2	1.56 ± 0.58
$\Omega_{\text{m}}h^2$	0.1436 ± 0.0041	k_{eq}	0.01034 ± 0.00015	χ_{DR12BAO}^2	4.4 ± 1.3
$\Omega_{\nu}h^2$	< 0.000827	$100\theta_{\text{eq}}$	$0.8199^{+0.0058}_{-0.0066}$	χ_{prior}^2	7.3 ± 3.7
$\Omega_{\text{m}}h^3$	0.0982 ± 0.0045	$100\theta_{\text{s,eq}}$	$0.4529^{+0.0030}_{-0.0034}$	χ_{BAO}^2	6.0 ± 1.1
σ_8	$0.814^{+0.018}_{-0.014}$	$H(0.15)$	73.6 ± 1.4	χ_{CMB}^2	1192.9 ± 5.7
S_8	$0.823^{+0.019}_{-0.017}$	$D_{\text{M}}(0.15)$	635 ± 12		
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.451^{+0.010}_{-0.0092}$	$H(0.38)$	83.7 ± 1.5		

$$\bar{\chi}_{\text{eff}}^2 = 2241.24; R - 1 = 0.00999$$

9.14 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022344	0.02237 ± 0.00019 (-0.4σ)	$\Omega_{\nu}h^2$	$0.1 \cdot 10^{-5}$	< 0.000607	$100\theta_{\mathrm{s,eq}}$	0.44971	0.4503 ± 0.0025 (-0.3σ)
$\Omega_{\mathrm{c}}h^2$	0.11777	0.1184 ± 0.0030 (-0.9σ)	$\Omega_{\mathrm{m}}h^3$	0.09448	0.0953 ± 0.0036 (-3.7σ)	$H(0.15)$	72.64	72.7 ± 1.2 (-0.7σ)
$100\theta_{\mathrm{MC}}$	1.041224	1.04113 ± 0.00044 $(+0.4\sigma)$	σ_8	0.8179	$0.811^{+0.014}_{-0.012}$ $(+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	643.2	643 ± 11 $(+0.7\sigma)$
τ	0.0545	0.0551 ± 0.0079 (-0.1σ)	S_8	0.8290	0.826 ± 0.014 $(+0.1\sigma)$	$H(0.38)$	82.64	82.7 ± 1.2 (-1.1σ)
$\Sigma m_{\nu} [\mathrm{eV}]$	0.0001	< 0.0580	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4541	0.4523 ± 0.0077 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1534.7	1534 ± 24 $(+0.8\sigma)$
N_{eff}	2.935	2.98 ± 0.18	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6094	0.6058 ± 0.0096 $(+0.1\sigma)$	$H(0.51)$	89.28	89.4 ± 1.2 (-1.5σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0394	3.042 ± 0.018 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9961	$0.988^{+0.014}_{-0.012}$ $(+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	1988.6	1988 ± 31 $(+0.9\sigma)$
n_{s}	0.9629	0.9644 ± 0.0072 (-0.7σ)	$r_{\mathrm{drag}}h$	99.99	99.66 ± 0.90 $(+0.1\sigma)$	$H(0.61)$	94.84	95.0 ± 1.3 (-2.0σ)
y_{cal}	1.00058	1.0006 ± 0.0025 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4498	2.441 ± 0.027 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	2314.5	2313 ± 35 $(+1.0\sigma)$
A_{217}^{CIB}	46.9	46 ± 7 (-0.0σ)	z_{re}	7.65	7.71 ± 0.80 (-0.1σ)	$H(2.33)$	234.38	235.2 ± 2.7 (-1.5σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.43	—	$10^9 A_{\mathrm{s}}$	2.0894	2.095 ± 0.039 (-0.2σ)	$D_{\mathrm{M}}(2.33)$	5793	5782 ± 76 $(+2.6\sigma)$
A_{143}^{tSZ}	7.23	$5.5^{+2.1}_{-1.9}$ (-0.0σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8735	1.876 ± 0.018 (-0.4σ)	$f\sigma_8(0.15)$	0.4582	0.4568 ± 0.0073 $(+0.1\sigma)$
A_{100}^{PS}	248.3	257 ± 28 (-0.0σ)	D_{40}	1232.7	1231 ± 14 $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7560	$0.750^{+0.013}_{-0.011}$ $(+0.2\sigma)$
A_{143}^{PS}	45.5	45 ± 8 (-0.1σ)	D_{220}	5736.9	5736 ± 38 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4773	0.4753 ± 0.0072 $(+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	46.0	42 ± 9 (-0.0σ)	D_{810}	2538.3	2538 ± 14 (-0.1σ)	$\sigma_8(0.38)$	0.6703	$0.665^{+0.012}_{-0.010}$ $(+0.2\sigma)$
A_{217}^{PS}	118.9	115 ± 10 (-0.0σ)	D_{1420}	818.63	817.9 ± 4.8 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4762	0.4739 ± 0.0072 $(+0.1\sigma)$
A^{kSZ}	0.00	< 4.05 (-0.0σ)	D_{2000}	231.94	231.4 ± 1.8 $(+0.2\sigma)$	$\sigma_8(0.51)$	0.6273	$0.622^{+0.011}_{-0.0098}$ $(+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.81	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9629	0.9644 ± 0.0072 (-0.7σ)	$f\sigma_8(0.61)$	0.4714	0.4690 ± 0.0071 $(+0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.98	10.8 ± 1.8 (-0.0σ)	Y_{P}	0.24388	0.2445 ± 0.0025 (-17.2σ)	$\sigma_8(0.61)$	0.5969	$0.592^{+0.011}_{-0.0094}$ $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.61	18.6 ± 3.3 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24520	0.2458 ± 0.0025 (-17.2σ)	$f\sigma_8(2.33)$	0.30013	0.2982 ± 0.0051 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	94.9	93.8 ± 7.4 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.5517	2.564 ± 0.046 (-0.5σ)	$\sigma_8(2.33)$	0.3100	$0.3075^{+0.0057}_{-0.0051}$ $(+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	0.1143	0.114 ± 0.038 $(+0.0\sigma)$	Age/Gyr	13.870	13.84 ± 0.18 $(+2.8\sigma)$	f_{2000}^{143}	27.97	28.8 ± 3.0 (-0.2σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1342	0.134 ± 0.029 (-0.0σ)	z_*	1089.642	1089.72 ± 0.35 (-0.4σ)	$f_{2000}^{143 \times 217}$	31.26	31.6 ± 2.1 (-0.2σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.481	0.482 ± 0.084 $(+0.0\sigma)$	r_*	145.60	145.2 ± 1.8 $(+2.6\sigma)$	f_{2000}^{217}	106.02	106.5 ± 2.0 (-0.2σ)
$A_{143}^{\mathrm{dustTE}}$	0.224	0.224 ± 0.054 (-0.0σ)	$100\theta_*$	1.04145	1.04135 ± 0.00054 $(+0.6\sigma)$	χ_{small}^2	396.06	397.2 ± 2.0 (-0.1σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.664 ± 0.080 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.981	13.94 ± 0.16 $(+2.5\sigma)$	χ_{lowl}^2	23.72	23.6 ± 1.2 $(+0.5\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.085	2.08 ± 0.27 (-0.0σ)	z_{drag}	1059.63	1059.76 ± 0.71 (-0.8σ)	χ_{plik}^2	2342.8	2359.7 ± 6.3 $(+0.0\sigma)$
c_{100}	0.99971	0.99967 ± 0.00061 $(+0.0\sigma)$	r_{drag}	148.29	147.9 ± 1.8 $(+2.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0102	0.062 ± 0.079 $(+0.1\sigma)$
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	k_{D}	0.14001	0.1403 ± 0.0014 (-1.6σ)	χ_{MGS}^2	1.407	1.29 ± 0.49 $(+0.1\sigma)$
H_0	67.43	67.4 ± 1.2 (-0.6σ)	$100\theta_{\mathrm{D}}$	0.160487	0.16060 ± 0.00041 (-0.7σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.91	4.9 ± 1.6 (-0.0σ)
Ω_{Λ}	0.6918	0.6890 ± 0.0073 $(+0.0\sigma)$	z_{eq}	3399.0	3393 ± 26 $(+0.3\sigma)$	χ_{prior}^2	1.75	11.5 ± 4.5 (-0.0σ)
Ω_{m}	0.3082	0.3110 ± 0.0073 (-0.0σ)	k_{eq}	0.010296	0.01031 ± 0.00012 (-0.4σ)	χ_{BAO}^2	5.33	6.2 ± 1.3 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14011	0.1413 ± 0.0032 (-1.1σ)	$100\theta_{\mathrm{eq}}$	0.81389	0.8151 ± 0.0049 (-0.3σ)	χ_{CMB}^2	2762.6	2780.5 ± 6.1 $(+0.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 2769.67$; $\Delta\chi_{\mathrm{eff}}^2 = -2.25$; $\bar{\chi}_{\mathrm{eff}}^2 = 2798.17$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.26$; $R - 1 = 0.00732$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.41 (Δ 0.19) DR12BAO: 3.91 (Δ -0.50) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ -0.15) commander_dx12_v3_2_29: 23.72 (Δ 0.85) plik_rd12_HM_v22b_TTTEEE: 2342.81 (Δ -2.69)

9.15 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022340	0.02239 ± 0.00018	$\Omega_m h^3$	0.09455	0.0955 ± 0.0035	$D_M(0.15)$	643.0	642 ± 10
$\Omega_c h^2$	0.11784	0.1185 ± 0.0030	σ_8	0.8170	$0.812^{+0.014}_{-0.012}$	$H(0.38)$	82.66	82.9 ± 1.2
$100\theta_{MC}$	1.041195	1.04112 ± 0.00043	S_8	0.8281	0.825 ± 0.014	$D_M(0.38)$	1534.4	1532 ± 24
τ	0.0531	0.0553 ± 0.0079	$\sigma_8 \Omega_m^{0.5}$	0.4536	0.4519 ± 0.0076	$H(0.51)$	89.30	89.5 ± 1.2
Σm_ν [eV]	0.0008	< 0.0552	$\sigma_8 \Omega_m^{0.25}$	0.6088	0.6057 ± 0.0095	$D_M(0.51)$	1988.2	1984 ± 30
N_{eff}	2.939	3.00 ± 0.18	$\sigma_8/h^{0.5}$	0.9949	$0.988^{+0.014}_{-0.012}$	$H(0.61)$	94.87	95.1 ± 1.3
$\ln(10^{10} A_s)$	3.0367	3.042 ± 0.018	$r_{\text{drag}} h$	99.99	99.81 ± 0.84	$D_M(0.61)$	2314.0	2309 ± 34
n_s	0.9633	0.9651 ± 0.0071	$\langle d^2 \rangle^{1/2}$	2.4457	2.439 ± 0.026	$H(2.33)$	234.43	235.3 ± 2.7
y_{cal}	1.00042	1.0006 ± 0.0025	z_{re}	7.51	7.73 ± 0.80	$D_M(2.33)$	5792	5776 ± 75
A_{217}^{CIB}	46.0	46 ± 7	$10^9 A_s$	2.0837	2.096 ± 0.039	$f\sigma_8(0.15)$	0.4577	0.4564 ± 0.0073
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8736	1.876 ± 0.018	$\sigma_8(0.15)$	0.7552	$0.750^{+0.013}_{-0.011}$
A_{143}^{tSZ}	7.17	$5.5^{+2.1}_{-1.9}$	D_{40}	1231.1	1230 ± 14	$f\sigma_8(0.38)$	0.4767	0.4752 ± 0.0072
A_{100}^{PS}	247.0	257 ± 28	D_{220}	5733.7	5736 ± 38	$\sigma_8(0.38)$	0.6695	$0.665^{+0.012}_{-0.010}$
A_{143}^{PS}	47.4	45 ± 8	D_{810}	2538.1	2538 ± 14	$f\sigma_8(0.51)$	0.4756	0.4740 ± 0.0071
$A_{143 \times 217}^{\text{PS}}$	49.5	42 ± 9	D_{1420}	818.63	817.9 ± 4.8	$\sigma_8(0.51)$	0.6266	$0.623^{+0.011}_{-0.0098}$
A_{217}^{PS}	120.5	115 ± 10	D_{2000}	231.90	231.4 ± 1.8	$f\sigma_8(0.61)$	0.4708	0.4691 ± 0.0071
A^{kSZ}	0.00	< 4.04	$n_{s,0.002}$	0.9633	0.9651 ± 0.0071	$\sigma_8(0.61)$	0.5963	$0.593^{+0.010}_{-0.0094}$
A_{100}^{dustTT}	8.78	8.9 ± 1.8	Y_P	0.24394	0.2447 ± 0.0025	$f\sigma_8(2.33)$	0.29980	0.2986 ± 0.0050
A_{143}^{dustTT}	10.96	10.8 ± 1.8	Y_P^{BBN}	0.24526	0.2460 ± 0.0025	$\sigma_8(2.33)$	0.3097	0.3080 ± 0.0054
$A_{143 \times 217}^{\text{dustTT}}$	19.78	18.6 ± 3.3	$10^5 D/H$	2.5539	2.565 ± 0.046	f_{2000}^{143}	27.87	28.9 ± 3.0
A_{217}^{dustTT}	95.2	93.8 ± 7.3	Age/Gyr	13.867	13.83 ± 0.18	$f_{2000}^{143 \times 217}$	31.27	31.6 ± 2.1
A_{100}^{dustTE}	0.1146	0.114 ± 0.038	z_*	1089.656	1089.71 ± 0.34	f_{2000}^{217}	105.93	106.5 ± 2.0
$A_{100 \times 143}^{\text{dustTE}}$	0.1355	0.134 ± 0.029	r_*	145.57	145.1 ± 1.8	χ_{simall}^2	395.86	397.2 ± 2.1
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.482 ± 0.084	$100\theta_*$	1.04142	1.04133 ± 0.00053	χ_{lowl}^2	23.60	23.5 ± 1.1
A_{143}^{dustTE}	0.226	0.224 ± 0.053	$D_M(z_*)/\text{Gpc}$	13.978	13.93 ± 0.16	χ_{plik}^2	2343.2	2359.9 ± 6.3
$A_{143 \times 217}^{\text{dustTE}}$	0.663	0.664 ± 0.081	z_{drag}	1059.63	1059.82 ± 0.70	χ_{JLA}^2	1034.910	1035.07 ± 0.33
A_{217}^{dustTE}	2.075	2.07 ± 0.27	r_{drag}	148.25	147.8 ± 1.8	$\chi_{6\text{DF}}^2$	0.0104	0.049 ± 0.064
c_{100}	0.99973	0.99968 ± 0.00062	k_D	0.14003	0.1404 ± 0.0013	χ_{MGS}^2	1.407	1.36 ± 0.47
c_{217}	0.99815	0.99820 ± 0.00061	$100\theta_D$	0.160503	0.16062 ± 0.00040	χ_{DR12BAO}^2	3.92	4.6 ± 1.4
H_0	67.44	67.6 ± 1.1	z_{eq}	3398.6	3390 ± 25	χ_{prior}^2	1.62	11.4 ± 4.6
Ω_Λ	0.6918	0.6902 ± 0.0068	k_{eq}	0.010298	0.01031 ± 0.00012	χ_{BAO}^2	5.337	6.0 ± 1.1
Ω_m	0.3082	0.3098 ± 0.0068	$100\theta_{\text{eq}}$	0.81393	0.8157 ± 0.0047	χ_{CMB}^2	2762.7	2780.6 ± 6.1
$\Omega_m h^2$	0.14018	0.1413 ± 0.0032	$100\theta_{s,\text{eq}}$	0.44974	0.4506 ± 0.0024			
$\Omega_\nu h^2$	$0.8 \cdot 10^{-5}$	< 0.000577	$H(0.15)$	72.66	72.8 ± 1.1			

Best-fit $\chi_{\text{eff}}^2 = 3804.54$; $\bar{\chi}_{\text{eff}}^2 = 3833.11$; $R - 1 = 0.00833$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.92 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 23.60 plik_rd12_HM_v22b_TTTEEE: 2343.21 SN - JLA Pantheon18: 1034.91

9.16 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022317	0.02236 ± 0.00017	$\Omega_m h^3$	0.09401	0.0949 ± 0.0030	$D_M(0.15)$	644.9	644.3 ± 9.4
$\Omega_c h^2$	0.11747	0.1181 ± 0.0026	σ_8	0.8174	$0.810^{+0.014}_{-0.011}$	$H(0.38)$	82.46	82.6 ± 1.0
$100\theta_{MC}$	1.041290	1.04116 ± 0.00040	S_8	0.8298	0.825 ± 0.014	$D_M(0.38)$	1538.6	1537 ± 21
τ	0.0545	0.0551 ± 0.0079	$\sigma_8 \Omega_m^{0.5}$	0.4545	0.4521 ± 0.0076	$H(0.51)$	89.10	89.3 ± 1.1
Σm_ν [eV]	0.0012	< 0.0573	$\sigma_8 \Omega_m^{0.25}$	0.6095	$0.6053^{+0.0096}_{-0.0087}$	$D_M(0.51)$	1993.4	1991 ± 27
N_{eff}	2.910	2.96 ± 0.15	$\sigma_8/h^{0.5}$	0.9969	$0.988^{+0.014}_{-0.012}$	$H(0.61)$	94.66	94.9 ± 1.1
$\ln(10^{10} A_s)$	3.0384	3.041 ± 0.018	$r_{\text{drag}} h$	99.88	99.63 ± 0.87	$D_M(0.61)$	2319.9	2316 ± 30
n_s	0.9630	0.9638 ± 0.0064	$\langle d^2 \rangle^{1/2}$	2.4499	2.442 ± 0.026	$H(2.33)$	234.08	234.9 ± 2.3
y_{cal}	1.00043	1.0006 ± 0.0025	z_{re}	7.65	7.70 ± 0.79	$D_M(2.33)$	5804	5790 ± 65
A_{217}^{CIB}	44.7	46 ± 7	$10^9 A_s$	2.0872	2.093 ± 0.037	$f\sigma_8(0.15)$	0.4586	0.4566 ± 0.0072
$\xi^{\text{tSZ} \times \text{CIB}}$	0.734	> 0.380	$10^9 A_s e^{-2\tau}$	1.8718	1.874 ± 0.016	$\sigma_8(0.15)$	0.7554	$0.749^{+0.013}_{-0.011}$
A_{143}^{tSZ}	7.08	$5.5^{+2.1}_{-1.9}$	D_{40}	1231.1	1232 ± 13	$f\sigma_8(0.38)$	0.4774	0.4749 ± 0.0070
A_{100}^{PS}	243.9	257 ± 28	D_{220}	5729.5	5736 ± 38	$\sigma_8(0.38)$	0.6697	$0.664^{+0.011}_{-0.0095}$
A_{143}^{PS}	49.1	45 ± 8	D_{810}	2538.4	2538 ± 13	$f\sigma_8(0.51)$	0.4762	0.4736 ± 0.0069
$A_{143 \times 217}^{\text{PS}}$	53.4	42 ± 9	D_{1420}	819.29	818.0 ± 4.8	$\sigma_8(0.51)$	0.6267	$0.621^{+0.011}_{-0.0089}$
A_{217}^{PS}	122.3	115 ± 10	D_{2000}	232.29	231.5 ± 1.8	$f\sigma_8(0.61)$	0.4713	0.4686 ± 0.0068
A^{kSZ}	0.00	< 3.99	$n_{s,0.002}$	0.9630	0.9638 ± 0.0064	$\sigma_8(0.61)$	0.5963	$0.591^{+0.010}_{-0.0085}$
A_{100}^{dustTT}	8.78	8.9 ± 1.8	Y_P	0.24354	0.2443 ± 0.0021	$f\sigma_8(2.33)$	0.29979	$0.2979^{+0.0048}_{-0.0043}$
A_{143}^{dustTT}	10.93	10.8 ± 1.8	Y_P^{BBN}	0.24486	0.2456 ± 0.0021	$\sigma_8(2.33)$	0.3096	$0.3072^{+0.0054}_{-0.0046}$
$A_{143 \times 217}^{\text{dustTT}}$	20.05	18.5 ± 3.3	$10^5 D/H$	2.5484	2.560 ± 0.041	f_{2000}^{143}	27.31	28.7 ± 2.9
A_{217}^{dustTT}	95.7	93.8 ± 7.3	Age/Gyr	13.896	13.86 ± 0.15	$f_{2000}^{143 \times 217}$	30.92	31.5 ± 2.0
A_{100}^{dustTE}	0.1136	0.114 ± 0.038	z_*	1089.628	1089.69 ± 0.32	f_{2000}^{217}	105.60	106.4 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.134 ± 0.029	r_*	145.83	145.4 ± 1.5	χ_{small}^2	396.06	397.2 ± 2.0
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.084	$100\theta_*$	1.041526	1.04139 ± 0.00048	χ_{lowl}^2	23.64	23.6 ± 1.1
A_{143}^{dustTE}	0.227	0.224 ± 0.053	$D_M(z_*)/\text{Gpc}$	14.001	13.96 ± 0.14	χ_{plik}^2	2342.9	2359.4 ± 6.2
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.664 ± 0.080	z_{drag}	1059.51	1059.69 ± 0.62	χ_{Aver15}^2	0.000	0.31 ± 0.43
A_{217}^{dustTE}	2.083	2.07 ± 0.27	r_{drag}	148.53	148.1 ± 1.6	$\chi_{6\text{DF}}^2$	0.0155	0.062 ± 0.078
c_{100}	0.99973	0.99968 ± 0.00062	k_D	0.13984	0.1402 ± 0.0012	χ_{MGS}^2	1.343	1.27 ± 0.47
c_{217}	0.99814	0.99819 ± 0.00061	$100\theta_D$	0.160448	0.16056 ± 0.00036	χ_{DR12BAO}^2	4.05	4.9 ± 1.6
H_0	67.24	67.3 ± 1.0	z_{eq}	3402.5	3394 ± 25	χ_{prior}^2	1.55	11.4 ± 4.5
Ω_Λ	0.6908	0.6887 ± 0.0070	k_{eq}	0.010289	0.01030 ± 0.00011	χ_{BAO}^2	5.40	6.2 ± 1.3
Ω_m	0.3092	0.3113 ± 0.0070	$100\theta_{\text{eq}}$	0.81321	0.8148 ± 0.0047	χ_{CMB}^2	2762.5	2780.2 ± 6.1
$\Omega_m h^2$	0.13980	0.1410 ± 0.0028	$100\theta_{s,\text{eq}}$	0.44938	0.4502 ± 0.0024			
$\Omega_\nu h^2$	$1.2 \cdot 10^{-5}$	< 0.000598	$H(0.15)$	72.46	72.6 ± 1.0			

Best-fit $\chi_{\text{eff}}^2 = 2769.50$; $\bar{\chi}_{\text{eff}}^2 = 2798.18$; $R - 1 = 0.00755$
 χ_{eff}^2 : Abund - Y_p _Aver2015: 0.00 BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.05 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3.2.29: 23.64
plik_rd12_HM_v22b_TTTEEE: 2342.85

9.17 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022321	0.02236 ± 0.00017	$\Omega_m h^3$	0.09463	0.0954 ± 0.0029	$D_M(0.15)$	643.4	643.1 ± 9.1
$\Omega_c h^2$	0.11806	0.1186 ± 0.0025	σ_8	0.8187	$0.812^{+0.013}_{-0.011}$	$H(0.38)$	82.64	82.8 ± 1.0
$100\theta_{MC}$	1.041148	1.04110 ± 0.00039	S_8	0.8310	0.827 ± 0.014	$D_M(0.38)$	1535.0	1534 ± 20
τ	0.0543	0.0550 ± 0.0079	$\sigma_8 \Omega_m^{0.5}$	0.4552	0.4528 ± 0.0075	$H(0.51)$	89.30	89.5 ± 1.0
Σm_ν [eV]	0.0016	< 0.0573	$\sigma_8 \Omega_m^{0.25}$	0.6104	0.6063 ± 0.0092	$D_M(0.51)$	1988.9	1987 ± 26
N_{eff}	2.945	2.99 ± 0.14	$\sigma_8/h^{0.5}$	0.9973	$0.989^{+0.014}_{-0.012}$	$H(0.61)$	94.87	95.1 ± 1.0
$\ln(10^{10} A_s)$	3.0396	3.042 ± 0.018	$r_{\text{drag}} h$	99.88	99.63 ± 0.87	$D_M(0.61)$	2314.7	2312 ± 29
n_s	0.9632	0.9646 ± 0.0063	$\langle d^2 \rangle^{1/2}$	2.4509	2.442 ± 0.027	$H(2.33)$	234.58	235.4 ± 2.2
y_{cal}	1.00048	1.0006 ± 0.0025	z_{re}	7.64	7.70 ± 0.79	$D_M(2.33)$	5791	5779 ± 62
A_{217}^{CIB}	45.9	46 ± 7	$10^9 A_s$	2.0896	2.095 ± 0.037	$f\sigma_8(0.15)$	0.4592	0.4573 ± 0.0071
$\xi^{\text{tSZ} \times \text{CIB}}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8746	1.876 ± 0.016	$\sigma_8(0.15)$	0.7566	$0.750^{+0.012}_{-0.010}$
A_{143}^{tSZ}	7.15	$5.5^{+2.1}_{-1.9}$	D_{40}	1232.0	1231 ± 13	$f\sigma_8(0.38)$	0.4781	0.4757 ± 0.0069
A_{100}^{PS}	247.0	258 ± 28	D_{220}	5732.2	5734 ± 37	$\sigma_8(0.38)$	0.6708	$0.665^{+0.011}_{-0.0093}$
A_{143}^{PS}	47.7	45 ± 8	D_{810}	2538.3	2538 ± 13	$f\sigma_8(0.51)$	0.4769	0.4743 ± 0.0068
$A_{143 \times 217}^{\text{PS}}$	49.4	42 ± 9	D_{1420}	818.43	817.7 ± 4.7	$\sigma_8(0.51)$	0.6277	$0.622^{+0.011}_{-0.0088}$
A_{217}^{PS}	120.7	115 ± 10	D_{2000}	231.81	231.3 ± 1.7	$f\sigma_8(0.61)$	0.4720	0.4694 ± 0.0067
A^{kSZ}	0.00	< 4.07	$n_{s,0.002}$	0.9632	0.9646 ± 0.0063	$\sigma_8(0.61)$	0.5973	$0.592^{+0.010}_{-0.0084}$
A_{100}^{dustTT}	8.81	8.9 ± 1.8	Y_P	0.24401	0.2446 ± 0.0020	$f\sigma_8(2.33)$	0.30029	$0.2984^{+0.0047}_{-0.0042}$
A_{143}^{dustTT}	10.92	10.8 ± 1.8	Y_P^{BBN}	0.24533	0.2460 ± 0.0020	$\sigma_8(2.33)$	0.31014	$0.3077^{+0.0053}_{-0.0045}$
$A_{143 \times 217}^{\text{dustTT}}$	19.89	18.6 ± 3.3	$10^5 D/H$	2.5595	2.570 ± 0.038	f_{2000}^{143}	27.98	29.0 ± 2.9
A_{217}^{dustTT}	95.5	93.8 ± 7.3	Age/Gyr	13.865	13.84 ± 0.15	$f_{2000}^{143 \times 217}$	31.32	31.8 ± 2.0
A_{100}^{dustTE}	0.1135	0.114 ± 0.038	z_*	1089.705	1089.76 ± 0.29	f_{2000}^{217}	106.04	106.6 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1349	0.134 ± 0.029	r_*	145.49	145.1 ± 1.4	χ_{simall}^2	396.03	397.2 ± 2.0
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.084	$100\theta_*$	1.041377	1.04131 ± 0.00046	χ_{lowl}^2	23.67	23.5 ± 1.1
A_{143}^{dustTE}	0.224	0.224 ± 0.053	$D_M(z_*)/\text{Gpc}$	13.971	13.93 ± 0.13	χ_{plik}^2	2342.9	2359.4 ± 6.2
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.664 ± 0.081	z_{drag}	1059.59	1059.75 ± 0.61	χ_{Aver15}^2	0.012	0.32 ± 0.44
A_{217}^{dustTE}	2.077	2.08 ± 0.27	r_{drag}	148.19	147.8 ± 1.5	χ_{Cooke17}^2	0.388	0.43 ± 0.47
c_{100}	0.99973	0.99968 ± 0.00062	k_D	0.14007	0.1404 ± 0.0011	$\chi_{6\text{DF}}^2$	0.0155	0.062 ± 0.078
c_{217}	0.99818	0.99820 ± 0.00061	$100\theta_D$	0.160538	0.16064 ± 0.00033	χ_{MGS}^2	1.343	1.27 ± 0.47
H_0	67.40	67.43 ± 0.99	z_{eq}	3400.9	3393 ± 25	χ_{DR12BAO}^2	4.06	4.9 ± 1.6
Ω_Λ	0.6909	0.6888 ± 0.0070	k_{eq}	0.010309	0.01032 ± 0.00010	χ_{prior}^2	1.64	11.4 ± 4.5
Ω_m	0.3091	0.3112 ± 0.0070	$100\theta_{\text{eq}}$	0.81344	0.8149 ± 0.0047	χ_{BAO}^2	5.42	6.2 ± 1.3
$\Omega_m h^2$	0.14040	0.1415 ± 0.0026	$100\theta_{s,\text{eq}}$	0.44949	0.4502 ± 0.0024	χ_{CMB}^2	2762.6	2780.1 ± 6.0
$\Omega_\nu h^2$	$1.6 \cdot 10^{-5}$	< 0.000603	$H(0.15)$	72.63	72.69 ± 0.99	χ_{Abund}^2	0.400	0.75 ± 0.59

Best-fit $\chi_{\text{eff}}^2 = 2770.02$; $\bar{\chi}_{\text{eff}}^2 = 2798.56$; $R - 1 = 0.00801$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 D_Cooke2017: 0.39 BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.06 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 comman-
der_dx12.v3.2.29: 23.67 plik_rd12_HM.v22b_TTTEEE: 2342.87

9.18 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02239 ± 0.00018	$\Omega_{\mathrm{m}}h^3$	0.0956 ± 0.0035	$D_{\mathrm{M}}(0.15)$	642 ± 10
$\Omega_{\mathrm{c}}h^2$	0.1185 ± 0.0030	σ_8	0.813 ± 0.013	$H(0.38)$	82.9 ± 1.2
$100\theta_{\mathrm{MC}}$	1.04112 ± 0.00043	S_8	0.826 ± 0.014	$D_{\mathrm{M}}(0.38)$	1531 ± 24
τ	$0.0563^{+0.0055}_{-0.0084}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4522 ± 0.0075	$H(0.51)$	89.6 ± 1.2
Σm_{ν} [eV]	< 0.0558	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6062 ± 0.0094	$D_{\mathrm{M}}(0.51)$	1984 ± 30
N_{eff}	3.00 ± 0.18	$\sigma_8/h^{0.5}$	$0.989^{+0.014}_{-0.011}$	$H(0.61)$	95.2 ± 1.3
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.015}_{-0.019}$	$r_{\mathrm{drag}}h$	99.82 ± 0.84	$D_{\mathrm{M}}(0.61)$	2309 ± 34
n_{s}	0.9653 ± 0.0070	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.026	$H(2.33)$	235.3 ± 2.7
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.83^{+0.60}_{-0.83}$	$D_{\mathrm{M}}(2.33)$	5775 ± 74
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	$2.100^{+0.030}_{-0.040}$	$f\sigma_8(0.15)$	0.4568 ± 0.0072
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.018	$\sigma_8(0.15)$	0.751 ± 0.012
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{40}	1230 ± 14	$f\sigma_8(0.38)$	0.4756 ± 0.0071
A_{100}^{PS}	257 ± 28	D_{220}	5737 ± 38	$\sigma_8(0.38)$	0.666 ± 0.011
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 14	$f\sigma_8(0.51)$	0.4744 ± 0.0070
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	817.9 ± 4.8	$\sigma_8(0.51)$	0.623 ± 0.011
A_{217}^{PS}	115 ± 10	D_{2000}	231.4 ± 1.8	$f\sigma_8(0.61)$	0.4695 ± 0.0069
A^{kSZ}	< 4.03	$n_{\mathrm{s},0.002}$	0.9653 ± 0.0070	$\sigma_8(0.61)$	0.593 ± 0.010
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2447 ± 0.0024	$f\sigma_8(2.33)$	0.2989 ± 0.0048
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2460 ± 0.0025	$\sigma_8(2.33)$	0.3083 ± 0.0053
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.3	$10^5 \mathrm{D}/\mathrm{H}$	2.565 ± 0.045	f_{2000}^{143}	28.8 ± 3.0
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	$\mathrm{Age}/\mathrm{Gyr}$	13.83 ± 0.18	$f_{2000}^{143 \times 217}$	31.6 ± 2.1
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	z_*	1089.71 ± 0.34	f_{2000}^{217}	106.5 ± 2.0
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	r_*	145.1 ± 1.8	χ_{simall}^2	397.2 ± 2.1
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.482 ± 0.084	$100\theta_*$	1.04132 ± 0.00053	χ_{lowl}^2	23.5 ± 1.1
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.93 ± 0.16	χ_{plik}^2	2359.7 ± 6.2
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.664 ± 0.080	z_{drag}	1059.83 ± 0.70	χ_{JLA}^2	1035.06 ± 0.33
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	r_{drag}	147.7 ± 1.8	$\chi_{6\mathrm{DF}}^2$	0.048 ± 0.063
c_{100}	0.99968 ± 0.00062	k_{D}	0.1404 ± 0.0013	χ_{MGS}^2	1.37 ± 0.47
c_{217}	0.99820 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16062 ± 0.00040	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.4
H_0	67.6 ± 1.1	z_{eq}	3389 ± 24	χ_{prior}^2	11.4 ± 4.6
Ω_{Λ}	0.6903 ± 0.0068	k_{eq}	0.01031 ± 0.00012	χ_{BAO}^2	6.0 ± 1.1
Ω_{m}	0.3097 ± 0.0068	$100\theta_{\mathrm{eq}}$	0.8158 ± 0.0046	χ_{CMB}^2	2780.4 ± 6.1
$\Omega_{\mathrm{m}}h^2$	0.1414 ± 0.0032	$100\theta_{\mathrm{s,eq}}$	0.4507 ± 0.0024		
$\Omega_{\nu}h^2$	< 0.000584	$H(0.15)$	72.8 ± 1.1		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3832.93; R - 1 = 0.00910$$

9.19 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022176	0.02224 ± 0.00024 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4540	0.450 ± 0.010 (+0.1 σ)	$H(0.38)$	83.24	83.2 ± 1.6 (+0.7 σ)
$\Omega_{\mathrm{c}}h^2$	0.11946	0.1196 ± 0.0041 (+0.5 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6101	$0.603^{+0.013}_{-0.011}$ (+0.2 σ)	$D_{\mathrm{M}}(0.38)$	1523.1	1525 ± 31 (−0.5 σ)
$100\theta_{\mathrm{MC}}$	1.04098	1.04099 ± 0.00059 (−0.2 σ)	$\sigma_8/h^{0.5}$	0.9945	$0.982^{+0.020}_{-0.014}$ (+0.1 σ)	$H(0.51)$	89.91	90.0 ± 1.6 (+0.9 σ)
τ	0.0520	0.0537 ± 0.0080 (+0.0 σ)	$r_{\mathrm{drag}}h$	100.22	99.9 ± 1.1 (+0.1 σ)	$D_{\mathrm{M}}(0.51)$	1973.8	1975 ± 39 (−0.5 σ)
Σm_{ν} [eV]	0.0004	< 0.0807	$\langle d^2 \rangle^{1/2}$	2.4376	2.422 ± 0.033 (−0.1 σ)	$H(0.61)$	95.49	95.6 ± 1.7 (+1.1 σ)
N_{eff}	3.051	3.09 ± 0.24	z_{re}	7.47	7.62 ± 0.82 (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2297.4	2299 ± 45 (−0.5 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0359	3.040 ± 0.020 (+0.1 σ)	10^9A_{s}	2.0820	2.090 ± 0.042 (+0.1 σ)	$H(2.33)$	235.71	236.3 ± 3.6 (+0.7 σ)
n_{s}	0.9659	0.9685 ± 0.0090 (+0.3 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8764	1.877 ± 0.022 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5755	5751 ± 98 (−1.2 σ)
y_{cal}	1.00023	1.0005 ± 0.0025 (−0.0 σ)	D_{40}	1224.3	1221 ± 16 (−0.1 σ)	$f\sigma_8(0.15)$	0.4582	0.4545 ± 0.0096 (+0.1 σ)
A_{100}^{PS}	242.8	243 ± 26 (+0.1 σ)	D_{220}	5704.9	5709 ± 40 (−0.1 σ)	$\sigma_8(0.15)$	0.7581	$0.748^{+0.018}_{-0.014}$ (+0.3 σ)
A_{143}^{PS}	39.7	41 ± 9 (+0.1 σ)	D_{810}	2531.3	2534 ± 14 (+0.0 σ)	$f\sigma_8(0.38)$	0.4777	$0.4734^{+0.0099}_{-0.0088}$ (+0.2 σ)
A_{217}^{PS}	98.0	101 ± 10 (−0.0 σ)	D_{1420}	813.6	814.8 ± 5.4 (−0.1 σ)	$\sigma_8(0.38)$	0.6723	$0.663^{+0.016}_{-0.013}$ (+0.3 σ)
A_{217}^{CIB}	45.0	41 ± 8 (+0.0 σ)	D_{2000}	229.42	229.7 ± 2.3 (−0.2 σ)	$f\sigma_8(0.51)$	0.4768	$0.4722^{+0.0098}_{-0.0086}$ (+0.2 σ)
A_{143}^{tSZ}	5.21	$3.7^{+1.8}_{-2.6}$ (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.9659	0.9685 ± 0.0090 (+0.3 σ)	$\sigma_8(0.51)$	0.6293	$0.620^{+0.015}_{-0.012}$ (+0.3 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.582	0.65 ± 0.13 (−0.0 σ)	Y_{P}	0.24539	0.2458 ± 0.0033 (+6.1 σ)	$f\sigma_8(0.61)$	0.4722	$0.4675^{+0.0097}_{-0.0084}$ (+0.2 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.714	$0.59^{+0.41}_{-0.13}$ (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24671	0.2472 ± 0.0033 (+6.1 σ)	$\sigma_8(0.61)$	0.5988	$0.590^{+0.015}_{-0.012}$ (+0.3 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.09	—	$10^5\mathrm{D}/\mathrm{H}$	2.624	2.624 ± 0.070 (+0.3 σ)	$f\sigma_8(2.33)$	0.3012	$0.2979^{+0.0066}_{-0.0058}$ (+0.4 σ)
A^{kSZ}	2.3	—	Age/Gyr	13.779	13.77 ± 0.23 (−1.3 σ)	$\sigma_8(2.33)$	0.3111	$0.3072^{+0.0073}_{-0.0063}$ (+0.3 σ)
A_{100}^{dust}	1.010	1.01 ± 0.20 (+0.0 σ)	z_*	1090.12	1090.08 ± 0.51 (+0.2 σ)	f_{2000}^{143}	31.14	31 ± 4 (+0.1 σ)
A_{143}^{dust}	0.979	0.98 ± 0.18 (+0.0 σ)	r_*	144.70	144.5 ± 2.3 (−1.1 σ)	f_{2000}^{217}	107.59	107.6 ± 2.5 (+0.1 σ)
A_{217}^{dust}	0.966	0.97 ± 0.10 (−0.0 σ)	$100\theta_*$	1.04115	1.04117 ± 0.00071 (−0.2 σ)	$f_{2000}^{143 \times 217}$	33.11	33.0 ± 2.7 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.023	1.03 ± 0.16 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.898	13.88 ± 0.22 (−1.0 σ)	χ_{small}^2	395.81	397.0 ± 1.7 (+0.0 σ)
c_{100}	0.99757	0.9975 ± 0.0011 (−0.0 σ)	z_{drag}	1059.44	1059.63 ± 0.90 (+0.3 σ)	χ_{lowl}^2	23.10	22.8 ± 1.3 (−0.0 σ)
c_{217}	1.00164	1.0012 ± 0.0016 (+0.0 σ)	r_{drag}	147.43	147.2 ± 2.4 (−1.0 σ)	$\chi_{\mathrm{CamSpec}}^2$	7050.2	7064.9 ± 5.8 (+0.2 σ)
H_0	67.98	67.9 ± 1.5 (+0.4 σ)	k_{D}	0.14033	0.1405 ± 0.0017 (+0.6 σ)	$\chi_{6\mathrm{DF}}^2$	0.0030	0.060 ± 0.083 (+0.1 σ)
Ω_{Λ}	0.6935	0.6907 ± 0.0084 (+0.1 σ)	$100\theta_{\mathrm{D}}$	0.16108	0.16111 ± 0.00061 (+0.4 σ)	χ_{MGS}^2	1.54	1.44 ± 0.59 (+0.1 σ)
Ω_{m}	0.3065	0.3093 ± 0.0084 (−0.1 σ)	z_{eq}	3382.3	3371 ± 35 (−0.1 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.66	4.7 ± 1.7 (+0.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14164	0.1425 ± 0.0043 (+0.6 σ)	k_{eq}	0.010327	0.01031 ± 0.00015 (+0.2 σ)	χ_{prior}^2	2.36	7.7 ± 3.5 (+0.0 σ)
$\Omega_{\nu}h^2$	$0.5 \cdot 10^{-5}$	< 0.000853	$100\theta_{\mathrm{eq}}$	0.8163	0.8187 ± 0.0065 (+0.1 σ)	χ_{BAO}^2	5.20	6.2 ± 1.4 (+0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09628	0.0968 ± 0.0047 (+2.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.45111	0.4523 ± 0.0033 (+0.1 σ)	χ_{CMB}^2	7469.1	7484.7 ± 5.7 (+0.2 σ)
σ_8	0.8200	$0.809^{+0.019}_{-0.015}$ (+0.3 σ)	$H(0.15)$	73.21	73.2 ± 1.5 (+0.5 σ)			
S_8	0.8289	0.821 ± 0.018 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	638.1	639 ± 13 (−0.4 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7476.70$; $\bar{\chi}_{\mathrm{eff}}^2 = 7498.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.09$; $R - 1 = 0.00711$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.66 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.81 commander_dx12_v3.2.29: 23.10 CamSpec like_10.7HM: 7050.23

9.20 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022227	0.02226 ± 0.00023	$\sigma_8 \Omega_m^{0.5}$	0.4538	0.4491 ± 0.0099	$H(0.38)$	83.49	83.4 ± 1.5
$\Omega_c h^2$	0.11973	0.1197 ± 0.0040	$\sigma_8 \Omega_m^{0.25}$	0.6107	$0.603^{+0.013}_{-0.011}$	$D_M(0.38)$	1517.7	1521 ± 30
$100\theta_{MC}$	1.04101	1.04098 ± 0.00059	$\sigma_8/h^{0.5}$	0.9950	$0.981^{+0.020}_{-0.014}$	$H(0.51)$	90.16	90.1 ± 1.6
τ	0.0532	0.0538 ± 0.0080	$r_{\text{drag}} h$	100.44	100.07 ± 0.99	$D_M(0.51)$	1967.1	1971 ± 38
Σm_ν [eV]	0.0000	< 0.0789	$\langle d^2 \rangle^{1/2}$	2.4347	2.420 ± 0.032	$H(0.61)$	95.74	95.7 ± 1.6
N_{eff}	3.079	3.10 ± 0.24	z_{re}	7.59	$7.64^{+0.83}_{-0.75}$	$D_M(0.61)$	2289.8	2294 ± 43
$\ln(10^{10} A_s)$	3.0394	3.040 ± 0.020	$10^9 A_s$	2.0893	2.092 ± 0.042	$H(2.33)$	236.02	236.4 ± 3.6
n_s	0.9682	0.9693 ± 0.0087	$10^9 A_s e^{-2\tau}$	1.8785	1.878 ± 0.022	$D_M(2.33)$	5741	5744 ± 96
y_{cal}	1.00038	1.0005 ± 0.0025	D_{40}	1220.8	1220 ± 15	$f\sigma_8(0.15)$	0.4582	0.4541 ± 0.0094
A_{100}^{PS}	238.1	243 ± 25	D_{220}	5704.1	5709 ± 40	$\sigma_8(0.15)$	0.7601	$0.748^{+0.017}_{-0.014}$
A_{143}^{PS}	39.6	41 ± 9	D_{810}	2533.4	2534 ± 14	$f\sigma_8(0.38)$	0.4781	$0.4732^{+0.0097}_{-0.0088}$
A_{217}^{PS}	100.6	101 ± 10	D_{1420}	814.6	814.8 ± 5.4	$\sigma_8(0.38)$	0.6743	$0.664^{+0.015}_{-0.013}$
A_{217}^{CIB}	45.5	41 ± 8	D_{2000}	229.76	229.6 ± 2.3	$f\sigma_8(0.51)$	0.4774	$0.4722^{+0.0096}_{-0.0085}$
A_{143}^{tSZ}	6.22	$3.7^{+1.8}_{-2.6}$	$n_{s,0.002}$	0.9682	0.9693 ± 0.0087	$\sigma_8(0.51)$	0.6312	$0.621^{+0.014}_{-0.012}$
$r_{143 \times 217}^{\text{PS}}$	0.571	0.65 ± 0.13	Y_P	0.24577	0.2460 ± 0.0033	$f\sigma_8(0.61)$	0.4729	$0.4675^{+0.0095}_{-0.0084}$
$r_{143 \times 217}^{\text{CIB}}$	0.771	> 0.467	Y_P^{BBN}	0.24710	0.2474 ± 0.0033	$\sigma_8(0.61)$	0.6007	$0.591^{+0.014}_{-0.012}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.02	—	$10^5 \text{D}/\text{H}$	2.624	2.625 ± 0.070	$f\sigma_8(2.33)$	0.3022	0.2984 ± 0.0062
A^{kSZ}	0.5	—	Age/Gyr	13.746	13.75 ± 0.23	$\sigma_8(2.33)$	0.3123	$0.3077^{+0.0071}_{-0.0062}$
A_{100}^{dust}	1.014	1.01 ± 0.19	z_*	1090.10	1090.08 ± 0.50	f_{2000}^{143}	30.85	31 ± 4
A_{143}^{dust}	0.990	0.98 ± 0.18	r_*	144.45	144.4 ± 2.3	f_{2000}^{217}	107.43	107.6 ± 2.5
A_{217}^{dust}	0.963	0.97 ± 0.10	$100\theta_*$	1.04115	1.04115 ± 0.00071	$f_{2000}^{143 \times 217}$	32.82	33.0 ± 2.7
$A_{143 \times 217}^{\text{dust}}$	1.000	1.03 ± 0.16	$D_M(z_*)/\text{Gpc}$	13.875	13.87 ± 0.21	χ_{simall}^2	395.87	397.0 ± 1.8
c_{100}	0.99755	0.9975 ± 0.0011	z_{drag}	1059.59	1059.69 ± 0.88	χ_{lowl}^2	22.77	22.7 ± 1.2
c_{217}	1.00139	1.0012 ± 0.0016	r_{drag}	147.17	147.1 ± 2.4	χ_{CamSpec}^2	7050.7	7065.1 ± 5.8
H_0	68.25	68.1 ± 1.4	k_D	0.14055	0.1406 ± 0.0017	χ_{JLA}^2	1034.804	1035.02 ± 0.34
Ω_Λ	0.6952	0.6920 ± 0.0078	$100\theta_D$	0.16111	0.16113 ± 0.00060	$\chi_{6\text{DF}}^2$	0.0001	0.048 ± 0.066
Ω_m	0.3048	0.3080 ± 0.0078	z_{eq}	3377.4	3367 ± 33	χ_{MGS}^2	1.68	1.52 ± 0.57
$\Omega_m h^2$	0.14195	0.1426 ± 0.0042	k_{eq}	0.010331	0.01031 ± 0.00015	χ_{DR12BAO}^2	3.50	4.4 ± 1.4
$\Omega_\nu h^2$	$0.1 \cdot 10^{-5}$	< 0.000835	$100\theta_{\text{eq}}$	0.8174	0.8195 ± 0.0062	χ_{prior}^2	2.15	7.7 ± 3.5
$\Omega_m h^3$	0.09688	0.0971 ± 0.0047	$100\theta_{s,\text{eq}}$	0.45163	0.4527 ± 0.0032	χ_{BAO}^2	5.18	6.0 ± 1.1
σ_8	0.8220	$0.809^{+0.018}_{-0.015}$	$H(0.15)$	73.47	73.3 ± 1.4	χ_{CMB}^2	7469.3	7484.8 ± 5.7
S_8	0.8285	0.820 ± 0.018	$D_M(0.15)$	635.7	638 ± 13			

Best-fit $\chi_{\text{eff}}^2 = 8511.44$; $\bar{\chi}_{\text{eff}}^2 = 8533.53$; $R - 1 = 0.00839$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.50 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 22.77 CamSpec like_10.7HM: 7050.67
SN - JLA Pantheon18: 1034.80

9.21 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022168	0.02221 ± 0.00022	$\sigma_8 \Omega_m^{0.5}$	0.4537	0.4491 ± 0.0099	$H(0.38)$	82.82	82.8 ± 1.2
$\Omega_c h^2$	0.11839	0.1185 ± 0.0032	$\sigma_8 \Omega_m^{0.25}$	0.6092	$0.602^{+0.013}_{-0.011}$	$D_M(0.38)$	1531.1	1532 ± 25
$100\theta_{MC}$	1.04116	1.04109 ± 0.00053	$\sigma_8/h^{0.5}$	0.9949	$0.981^{+0.020}_{-0.014}$	$H(0.51)$	89.47	89.5 ± 1.3
τ	0.0531	0.0535 ± 0.0079	$r_{\text{drag}} h$	100.10	99.8 ± 1.0	$D_M(0.51)$	1984.0	1985 ± 31
Σm_ν [eV]	0.0006	< 0.0759	$\langle d^2 \rangle^{1/2}$	2.4414	2.425 ± 0.032	$H(0.61)$	95.04	95.1 ± 1.3
N_{eff}	2.982	3.02 ± 0.19	z_{re}	7.56	$7.59^{+0.83}_{-0.74}$	$D_M(0.61)$	2309.2	2310 ± 36
$\ln(10^{10} A_s)$	3.0354	3.037 ± 0.019	$10^9 A_s$	2.0808	2.084 ± 0.039	$H(2.33)$	234.77	235.3 ± 2.8
n_s	0.9643	0.9664 ± 0.0075	$10^9 A_s e^{-2\tau}$	1.8713	1.873 ± 0.019	$D_M(2.33)$	5782	5777 ± 77
y_{cal}	1.00029	1.0005 ± 0.0025	D_{40}	1226.0	1223 ± 15	$f\sigma_8(0.15)$	0.4578	0.4538 ± 0.0093
A_{100}^{PS}	238.2	241 ± 25	D_{220}	5705.3	5709 ± 40	$\sigma_8(0.15)$	0.7561	$0.745^{+0.016}_{-0.012}$
A_{143}^{PS}	38.0	40 ± 9	D_{810}	2531.0	2533 ± 14	$f\sigma_8(0.38)$	0.4770	$0.4724^{+0.0094}_{-0.0082}$
A_{217}^{PS}	99.4	101 ± 10	D_{1420}	814.7	815.2 ± 5.3	$\sigma_8(0.38)$	0.6705	$0.661^{+0.015}_{-0.011}$
A_{217}^{CIB}	44.4	41 ± 7	D_{2000}	230.15	230.1 ± 2.1	$f\sigma_8(0.51)$	0.4760	$0.4712^{+0.0093}_{-0.0079}$
A_{143}^{tSZ}	5.35	$3.8^{+1.8}_{-2.5}$	$n_{s,0.002}$	0.9643	0.9664 ± 0.0075	$\sigma_8(0.51)$	0.6275	$0.619^{+0.014}_{-0.010}$
$r_{143 \times 217}^{\text{PS}}$	0.573	0.65 ± 0.13	Y_P	0.24446	0.2449 ± 0.0026	$f\sigma_8(0.61)$	0.4713	$0.4663^{+0.0091}_{-0.0076}$
$r_{143 \times 217}^{\text{CIB}}$	0.704	$0.58^{+0.40}_{-0.14}$	Y_P^{BBN}	0.24578	0.2463 ± 0.0026	$\sigma_8(0.61)$	0.5971	$0.589^{+0.013}_{-0.0099}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.05	—	10^5D/H	2.602	2.608 ± 0.059	$f\sigma_8(2.33)$	0.3002	$0.2969^{+0.0059}_{-0.0049}$
A^{kSZ}	1.83	4.9 ± 2.7	Age/Gyr	13.842	13.83 ± 0.18	$\sigma_8(2.33)$	0.3102	$0.3061^{+0.0066}_{-0.0053}$
A_{100}^{dust}	1.006	1.01 ± 0.19	z_*	1089.966	1089.97 ± 0.43	f_{2000}^{143}	30.28	30 ± 3
A_{143}^{dust}	0.981	0.98 ± 0.18	r_*	145.33	145.1 ± 1.8	f_{2000}^{217}	106.91	107.2 ± 2.3
A_{217}^{dust}	0.956	0.97 ± 0.10	$100\theta_*$	1.04137	1.04131 ± 0.00061	$f_{2000}^{143 \times 217}$	32.24	32.5 ± 2.5
$A_{143 \times 217}^{\text{dust}}$	1.003	1.03 ± 0.16	$D_M(z_*)/\text{Gpc}$	13.956	13.94 ± 0.17	χ_{small}^2	395.88	397.0 ± 1.7
c_{100}	0.99744	0.9975 ± 0.0011	z_{drag}	1059.28	1059.42 ± 0.75	χ_{lowl}^2	23.28	23.0 ± 1.2
c_{217}	1.00128	1.0012 ± 0.0016	r_{drag}	148.08	147.8 ± 1.9	χ_{CamSpec}^2	7050.0	7064.4 ± 5.7
H_0	67.60	67.5 ± 1.2	k_D	0.13992	0.1401 ± 0.0014	χ_{Aver15}^2	0.049	0.52 ± 0.71
Ω_Λ	0.6924	0.6898 ± 0.0081	$100\theta_D$	0.160885	0.16096 ± 0.00050	$\chi_{6\text{DF}}^2$	0.0061	0.063 ± 0.083
Ω_m	0.3076	0.3102 ± 0.0081	z_{eq}	3387.9	3375 ± 33	χ_{MGS}^2	1.47	1.38 ± 0.57
$\Omega_m h^2$	0.14057	0.1414 ± 0.0034	k_{eq}	0.010296	0.01028 ± 0.00013	χ_{DR12BAO}^2	3.76	4.8 ± 1.7
$\Omega_\nu h^2$	$0.6 \cdot 10^{-5}$	< 0.000798	$100\theta_{\text{eq}}$	0.8154	0.8179 ± 0.0062	χ_{prior}^2	2.20	7.7 ± 3.5
$\Omega_m h^3$	0.09502	0.0955 ± 0.0036	$100\theta_{s,\text{eq}}$	0.45062	0.4519 ± 0.0032	χ_{BAO}^2	5.23	6.2 ± 1.4
σ_8	0.8180	$0.806^{+0.018}_{-0.013}$	$H(0.15)$	72.82	72.8 ± 1.2	χ_{CMB}^2	7469.2	7484.4 ± 5.6
S_8	0.8283	0.820 ± 0.018	$D_M(0.15)$	641.6	642 ± 11			

Best-fit $\chi_{\text{eff}}^2 = 7476.67$; $\bar{\chi}_{\text{eff}}^2 = 7498.80$; $R - 1 = 0.00899$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.05 BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.76 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 23.28
CamSpec like_10.7HM: 7050.02

9.22 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022178	0.02220 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6102	$0.602^{+0.013}_{-0.010}$	$H(0.51)$	89.46	89.6 ± 1.2
$\Omega_c h^2$	0.11854	0.1186 ± 0.0029	$\sigma_8/h^{0.5}$	0.9962	$0.982^{+0.019}_{-0.014}$	$D_M(0.51)$	1984.9	1984 ± 30
$100\theta_{MC}$	1.04111	1.04107 ± 0.00050	$r_{drag}h$	99.99	99.8 ± 1.0	$H(0.61)$	95.03	95.2 ± 1.2
τ	0.0530	0.0535 ± 0.0079	$\langle d^2 \rangle^{1/2}$	2.4445	2.425 ± 0.032	$D_M(0.61)$	2310.1	2309 ± 34
Σm_ν [eV]	0.0020	< 0.0758	z_{re}	7.55	$7.59^{+0.83}_{-0.74}$	$H(2.33)$	234.88	235.4 ± 2.6
N_{eff}	2.983	3.03 ± 0.17	$10^9 A_s$	2.0837	2.085 ± 0.038	$D_M(2.33)$	5782	5774 ± 72
$\ln(10^{10} A_s)$	3.0367	3.037 ± 0.018	$10^9 A_s e^{-2\tau}$	1.8742	1.873 ± 0.018	$f\sigma_8(0.15)$	0.4588	0.4540 ± 0.0092
n_s	0.9642	0.9666 ± 0.0072	D_{40}	1227.8	1223 ± 14	$\sigma_8(0.15)$	0.7568	$0.746^{+0.016}_{-0.012}$
y_{cal}	1.00061	1.0005 ± 0.0025	D_{220}	5712.2	5709 ± 40	$f\sigma_8(0.38)$	0.4779	$0.4726^{+0.0093}_{-0.0080}$
A_{100}^{PS}	233.9	242 ± 25	D_{810}	2534.3	2533 ± 14	$\sigma_8(0.38)$	0.6710	$0.661^{+0.014}_{-0.011}$
A_{143}^{PS}	45.4	40 ± 9	D_{1420}	815.8	815.1 ± 5.2	$f\sigma_8(0.51)$	0.4768	$0.4713^{+0.0091}_{-0.0076}$
A_{217}^{PS}	103.4	101 ± 10	D_{2000}	230.50	230.0 ± 2.0	$\sigma_8(0.51)$	0.6280	$0.619^{+0.013}_{-0.0099}$
A_{217}^{CIB}	41.7	41 ± 7	$n_{s,0.002}$	0.9642	0.9666 ± 0.0072	$f\sigma_8(0.61)$	0.4719	$0.4665^{+0.0090}_{-0.0073}$
A_{143}^{tSZ}	5.45	$3.8^{+1.8}_{-2.5}$	Y_P	0.24448	0.2450 ± 0.0023	$\sigma_8(0.61)$	0.5975	$0.589^{+0.013}_{-0.0095}$
$r_{143 \times 217}^{PS}$	0.695	0.65 ± 0.13	Y_P^{BBN}	0.24580	0.2464 ± 0.0023	$f\sigma_8(2.33)$	0.3004	$0.2970^{+0.0058}_{-0.0047}$
$r_{143 \times 217}^{CIB}$	0.763	$0.58^{+0.40}_{-0.14}$	$10^5 D/H$	2.600	2.610 ± 0.050	$\sigma_8(2.33)$	0.3103	$0.3062^{+0.0065}_{-0.0051}$
$\xi^{tSZ \times CIB}$	0.63	—	Age/Gyr	13.842	13.82 ± 0.17	f_{2000}^{143}	29.93	30.3 ± 3.2
A^{kSZ}	2.09	4.9 ± 2.7	z_*	1089.966	1089.99 ± 0.37	f_{2000}^{217}	106.81	107.3 ± 2.2
A_{100}^{dust}	1.006	1.01 ± 0.19	r_*	145.28	145.0 ± 1.7	$f_{2000}^{143 \times 217}$	32.23	32.6 ± 2.3
A_{143}^{dust}	0.984	0.98 ± 0.18	$100\theta_*$	1.04132	1.04129 ± 0.00057	χ_{small}^2	395.86	397.0 ± 1.7
A_{217}^{dust}	0.975	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.952	13.93 ± 0.16	χ_{lowl}^2	23.35	23.0 ± 1.1
$A_{143 \times 217}^{dust}$	1.017	1.03 ± 0.16	z_{drag}	1059.32	1059.43 ± 0.74	$\chi_{CamSpec}^2$	7050.2	7064.2 ± 5.6
c_{100}	0.99769	0.9975 ± 0.0011	r_{drag}	148.02	147.8 ± 1.7	χ_{Aver15}^2	0.051	0.47 ± 0.63
c_{217}	1.00127	1.0012 ± 0.0016	k_D	0.13998	0.1401 ± 0.0013	$\chi_{Cooke17}^2$	0.036	0.29 ± 0.41
H_0	67.55	67.6 ± 1.2	$100\theta_D$	0.160864	0.16098 ± 0.00043	χ_{6DF}^2	0.0102	0.063 ± 0.083
Ω_Λ	0.6916	0.6898 ± 0.0081	z_{eq}	3391.1	3375 ± 33	χ_{MGS}^2	1.41	1.39 ± 0.57
Ω_m	0.3084	0.3102 ± 0.0081	k_{eq}	0.010306	0.01028 ± 0.00013	$\chi_{DR12BAO}^2$	3.89	4.8 ± 1.7
$\Omega_m h^2$	0.14074	0.1415 ± 0.0031	$100\theta_{eq}$	0.8148	0.8179 ± 0.0061	χ_{prior}^2	2.01	7.7 ± 3.4
$\Omega_\nu h^2$	0.000021	< 0.000800	$100\theta_{s,eq}$	0.45031	0.4519 ± 0.0032	χ_{BAO}^2	5.30	6.2 ± 1.4
$\Omega_m h^3$	0.09507	0.0956 ± 0.0034	$H(0.15)$	72.78	72.8 ± 1.1	χ_{CMB}^2	7469.4	7484.2 ± 5.5
σ_8	0.8188	$0.807^{+0.017}_{-0.013}$	$D_M(0.15)$	642.0	642 ± 10	χ_{Abund}^2	0.087	0.76 ± 0.84
S_8	0.8302	0.820 ± 0.018	$H(0.38)$	82.80	82.9 ± 1.2			
$\sigma_8 \Omega_m^{0.5}$	0.4547	0.4493 ± 0.0098	$D_M(0.38)$	1531.9	1531 ± 24			

Best-fit $\chi_{eff}^2 = 7476.77$; $\bar{\chi}_{eff}^2 = 7498.82$; $R - 1 = 0.00839$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.05 D_Cooke2017: 0.04 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.88 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 23.35 CamSpec like_10.7HM: 7050.16

9.23 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02227 ± 0.00023	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4495 ± 0.0099	$H(0.38)$	83.4 ± 1.5
$\Omega_{\text{c}}h^2$	0.1197 ± 0.0040	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.604^{+0.013}_{-0.011}$	$D_{\text{M}}(0.38)$	1521 ± 30
$100\theta_{\text{MC}}$	1.04098 ± 0.00059	$\sigma_8/h^{0.5}$	$0.982^{+0.019}_{-0.013}$	$H(0.51)$	90.1 ± 1.6
τ	$0.0552^{+0.0054}_{-0.0079}$	$r_{\text{drag}}h$	100.09 ± 0.99	$D_{\text{M}}(0.51)$	1971 ± 38
$\Sigma m_{\nu} [\text{eV}]$	< 0.0799	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.031	$H(0.61)$	95.7 ± 1.6
N_{eff}	3.10 ± 0.24	z_{re}	$7.78^{+0.60}_{-0.80}$	$D_{\text{M}}(0.61)$	2294 ± 43
$\ln(10^{10}A_{\text{s}})$	$3.043^{+0.016}_{-0.019}$	$10^9 A_{\text{s}}$	$2.098^{+0.034}_{-0.040}$	$H(2.33)$	236.4 ± 3.6
n_{s}	0.9695 ± 0.0087	$10^9 A_{\text{s}}e^{-2\tau}$	1.878 ± 0.022	$D_{\text{M}}(2.33)$	5742 ± 96
y_{cal}	1.0005 ± 0.0025	D_{40}	1220 ± 15	$f\sigma_8(0.15)$	0.4545 ± 0.0094
A_{100}^{PS}	243 ± 26	D_{220}	5709 ± 41	$\sigma_8(0.15)$	$0.749^{+0.017}_{-0.014}$
A_{143}^{PS}	41 ± 9	D_{810}	2534 ± 14	$f\sigma_8(0.38)$	$0.4737^{+0.0096}_{-0.0086}$
A_{217}^{PS}	101 ± 10	D_{1420}	814.8 ± 5.4	$\sigma_8(0.38)$	$0.665^{+0.015}_{-0.012}$
A_{217}^{CIB}	41^{+7}_{-8}	D_{2000}	229.6 ± 2.3	$f\sigma_8(0.51)$	$0.4727^{+0.0095}_{-0.0084}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6}$	$n_{\text{s},0.002}$	0.9695 ± 0.0087	$\sigma_8(0.51)$	$0.622^{+0.014}_{-0.012}$
$r_{143 \times 217}^{\text{PS}}$	0.65 ± 0.13	Y_{P}	0.2461 ± 0.0032	$f\sigma_8(0.61)$	$0.4681^{+0.0094}_{-0.0082}$
$r_{143 \times 217}^{\text{CIB}}$	> 0.464	$Y_{\text{P}}^{\text{BBN}}$	0.2474 ± 0.0033	$\sigma_8(0.61)$	$0.592^{+0.014}_{-0.011}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 \text{D}/\text{H}$	2.625 ± 0.070	$f\sigma_8(2.33)$	$0.2988^{+0.0063}_{-0.0057}$
A^{kSZ}	—	Age/Gyr	13.75 ± 0.23	$\sigma_8(2.33)$	$0.3081^{+0.0070}_{-0.0061}$
A_{100}^{dust}	1.01 ± 0.19	z_*	1090.08 ± 0.50	f_{2000}^{143}	31 ± 4
A_{143}^{dust}	0.98 ± 0.18	r_*	144.4 ± 2.3	f_{2000}^{217}	107.6 ± 2.4
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04114 ± 0.00071	$f_{2000}^{143 \times 217}$	33.0 ± 2.7
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$D_{\text{M}}(z_*)/\text{Gpc}$	13.87 ± 0.21	χ_{simall}^2	397.0 ± 1.8
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.71 ± 0.88	χ_{lowl}^2	22.7 ± 1.2
c_{217}	1.0012 ± 0.0016	r_{drag}	147.1 ± 2.4	χ_{CamSpec}^2	7064.9 ± 5.8
H_0	68.1 ± 1.4	k_{D}	0.1406 ± 0.0017	χ_{JLA}^2	1035.02 ± 0.34
Ω_{Λ}	0.6921 ± 0.0078	$100\theta_{\text{D}}$	0.16114 ± 0.00060	$\chi_{6\text{DF}}^2$	0.047 ± 0.065
Ω_{m}	0.3079 ± 0.0078	z_{eq}	3366 ± 33	χ_{MGS}^2	1.54 ± 0.57
$\Omega_{\text{m}}h^2$	0.1426 ± 0.0042	k_{eq}	0.01031 ± 0.00015	χ_{DR12BAO}^2	4.4 ± 1.4
$\Omega_{\nu}h^2$	< 0.000846	$100\theta_{\text{eq}}$	0.8196 ± 0.0062	χ_{prior}^2	7.7 ± 3.5
$\Omega_{\text{m}}h^3$	0.0972 ± 0.0047	$100\theta_{\text{s,eq}}$	0.4528 ± 0.0032	χ_{BAO}^2	6.0 ± 1.1
σ_8	$0.810^{+0.018}_{-0.015}$	$H(0.15)$	73.3 ± 1.4	χ_{CMB}^2	7484.6 ± 5.6
S_8	0.821 ± 0.018	$D_{\text{M}}(0.15)$	637 ± 13		

$$\bar{\chi}_{\text{eff}}^2 = 8533.27; R - 1 = 0.00802$$

9.24 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022242	0.02230 ± 0.00019 (-0.3σ)	σ_8	0.8138	$0.806^{+0.016}_{-0.013}$ (-0.1σ)	$H(0.15)$	72.47	72.7 ± 1.3 (-0.7σ)
$\Omega_c h^2$	0.11694	0.1181 ± 0.0034 (-0.8σ)	S_8	0.8240	0.819 ± 0.015 (-0.0σ)	$D_M(0.15)$	644.7	643 ± 12 $(+0.7\sigma)$
$100\theta_{MC}$	1.041220	1.04106 ± 0.00048 $(+0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4513	0.4487 ± 0.0082 (-0.0σ)	$H(0.38)$	82.42	82.7 ± 1.4 (-1.1σ)
τ	0.0531	0.0532 ± 0.0079 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6060	$0.601^{+0.011}_{-0.0096}$ (-0.1σ)	$D_M(0.38)$	1538.6	1534 ± 27 $(+0.8\sigma)$
Σm_ν [eV]	0.0023	< 0.0731	$\sigma_8/h^{0.5}$	0.9922	$0.981^{+0.017}_{-0.012}$ $(+0.1\sigma)$	$H(0.51)$	89.04	89.4 ± 1.4 (-1.4σ)
N_{eff}	2.904	2.99 ± 0.21	$r_{\text{drag}} h$	100.10	99.77 ± 0.96 (-0.0σ)	$D_M(0.51)$	1993.7	1988 ± 35 $(+0.9\sigma)$
$\ln(10^{10} A_s)$	3.0327	3.036 ± 0.019 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4388	2.426 ± 0.028 $(+0.1\sigma)$	$H(0.61)$	94.58	95.0 ± 1.4 (-1.8σ)
n_s	0.9633	0.9655 ± 0.0079 (-0.5σ)	z_{re}	7.51	7.53 ± 0.81 (-0.1σ)	$D_M(0.61)$	2320.4	2313 ± 40 $(+1.0\sigma)$
y_{cal}	1.00041	1.0005 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s$	2.0753	2.082 ± 0.039 (-0.2σ)	$H(2.33)$	233.63	235.1 ± 3.1 (-1.2σ)
A_{100}^{PS}	226.8	238 ± 25 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8662	1.872 ± 0.020 (-0.4σ)	$D_M(2.33)$	5810	5784 ± 86 $(+2.4\sigma)$
A_{143}^{PS}	47.3	38 ± 9 (-0.1σ)	D_{40}	1227.0	1226 ± 14 $(+0.2\sigma)$	$f\sigma_8(0.15)$	0.4555	0.4534 ± 0.0078 (-0.0σ)
A_{217}^{PS}	105.8	102 ± 10 $(+0.0\sigma)$	D_{220}	5716.1	5721 ± 39 (-0.0σ)	$\sigma_8(0.15)$	0.7522	$0.745^{+0.015}_{-0.013}$ (-0.1σ)
A_{217}^{CIB}	40.9	39 ± 7 (-0.0σ)	D_{810}	2533.4	2534 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4746	0.4719 ± 0.0078 (-0.1σ)
A_{143}^{tSZ}	6.33	$3.9^{+1.9}_{-2.5}$ $(+0.0\sigma)$	D_{1420}	817.5	816.4 ± 5.0 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6670	$0.660^{+0.013}_{-0.012}$ (-0.2σ)
$r_{143 \times 217}^{\text{PS}}$	0.725	0.66 ± 0.13 $(+0.0\sigma)$	D_{2000}	231.58	230.7 ± 2.1 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4736	0.4706 ± 0.0078 (-0.1σ)
$r_{143 \times 217}^{\text{CIB}}$	0.849	$0.56^{+0.39}_{-0.19}$ $(+0.0\sigma)$	$n_{s,0.002}$	0.9633	0.9655 ± 0.0079 (-0.5σ)	$\sigma_8(0.51)$	0.6243	$0.618^{+0.013}_{-0.011}$ (-0.2σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.76	—	Y_P	0.24342	0.2446 ± 0.0029 (-13.4σ)	$f\sigma_8(0.61)$	0.4689	0.4658 ± 0.0078 (-0.1σ)
A^{kSZ}	0.15	$4.6^{+1.7}_{-4.4}$ (-0.0σ)	Y_P^{BBN}	0.24474	0.2459 ± 0.0029 (-13.4σ)	$\sigma_8(0.61)$	0.5941	$0.588^{+0.012}_{-0.011}$ (-0.2σ)
A_{100}^{dust}	1.019	1.01 ± 0.20 (-0.0σ)	10^5D/H	2.560	2.581 ± 0.057 (-0.4σ)	$f\sigma_8(2.33)$	0.2987	0.2965 ± 0.0056 (-0.2σ)
A_{143}^{dust}	0.984	0.96 ± 0.18 (-0.0σ)	Age/Gyr	13.910	13.85 ± 0.21 $(+2.5\sigma)$	$\sigma_8(2.33)$	0.3086	0.3057 ± 0.0061 (-0.2σ)
A_{217}^{dust}	0.988	0.98 ± 0.10 $(+0.0\sigma)$	z_*	1089.669	1089.79 ± 0.41 (-0.3σ)	f_{2000}^{143}	28.53	29 ± 3 (-0.1σ)
$A_{143 \times 217}^{\text{dust}}$	1.012	1.02 ± 0.16 (-0.0σ)	r_*	146.06	145.3 ± 2.0 $(+2.2\sigma)$	f_{2000}^{217}	105.56	106.5 ± 2.3 (-0.1σ)
c_{100}	0.99774	0.9975 ± 0.0011 (-0.0σ)	$100\theta_*$	1.04148	1.04129 ± 0.00060 $(+0.5\sigma)$	$f_{2000}^{143 \times 217}$	30.91	31.7 ± 2.4 (-0.2σ)
c_{217}	1.00116	1.0011 ± 0.0016 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.024	13.95 ± 0.19 $(+2.2\sigma)$	χ_{small}^2	395.84	396.9 ± 1.7 (-0.0σ)
c_{TE}	0.9957	0.9965 ± 0.0051 (-0.1σ)	z_{drag}	1059.28	1059.59 ± 0.76 (-0.6σ)	χ_{lowl}^2	23.33	23.1 ± 1.2 $(+0.3\sigma)$
c_{EE}	0.9908	0.9918 ± 0.0055 (-0.1σ)	r_{drag}	148.79	148.0 ± 2.1 $(+2.2\sigma)$	χ_{CamSpec}^2	11498.5	11515.1 ± 6.0 $(+0.1\sigma)$
H_0	67.27	67.4 ± 1.3 (-0.6σ)	k_D	0.13954	0.1401 ± 0.0015 (-1.3σ)	$\chi_{6\text{DF}}^2$	0.0063	0.059 ± 0.078 $(+0.2\sigma)$
Ω_Λ	0.6924	0.6897 ± 0.0077 (-0.1σ)	$100\theta_D$	0.16054	0.16073 ± 0.00050 (-0.6σ)	χ_{MGS}^2	1.47	1.36 ± 0.53 (-0.0σ)
Ω_m	0.3076	0.3103 ± 0.0077 $(+0.1\sigma)$	z_{eq}	3390.8	3380 ± 29 $(+0.2\sigma)$	χ_{DR12BAO}^2	3.77	4.8 ± 1.6 $(+0.2\sigma)$
$\Omega_m h^2$	0.13921	0.1411 ± 0.0036 (-0.9σ)	k_{eq}	0.010249	0.01028 ± 0.00013 (-0.4σ)	χ_{prior}^2	1.99	7.8 ± 3.4 $(+0.0\sigma)$
$\Omega_\nu h^2$	0.000024	< 0.000766	$100\theta_{\text{eq}}$	0.8151	0.8171 ± 0.0054 (-0.2σ)	χ_{BAO}^2	5.25	6.2 ± 1.3 $(+0.2\sigma)$
$\Omega_m h^3$	0.09365	0.0952 ± 0.0040 (-3.0σ)	$100\theta_{s,\text{eq}}$	0.45039	0.4514 ± 0.0028 (-0.2σ)	χ_{CMB}^2	11917.7	11935.2 ± 6.0 $(+0.1\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 11924.95$; $\bar{\chi}_{\text{eff}}^2 = 11949.25$; $\Delta\chi_{\text{eff}}^2 = 0.97$; $R - 1 = 0.00978$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.77 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.84 commander_dx12_v3_2_29: 23.33 CamSpec like_10.7HM_1400_unified: 11498.54

9.25 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022281	0.02232 ± 0.00019	S_8	0.8234	0.818 ± 0.015	$H(0.38)$	82.67	82.9 ± 1.3
$\Omega_c h^2$	0.11745	0.1183 ± 0.0034	$\sigma_8 \Omega_m^{0.5}$	0.4510	0.4483 ± 0.0081	$D_M(0.38)$	1533.4	1531 ± 27
$100\theta_{MC}$	1.041163	1.04105 ± 0.00048	$\sigma_8 \Omega_m^{0.25}$	0.6061	$0.601^{+0.011}_{-0.0096}$	$H(0.51)$	89.30	89.6 ± 1.4
τ	0.0525	$0.0534^{+0.0072}_{-0.0081}$	$\sigma_8/h^{0.5}$	0.9914	$0.981^{+0.016}_{-0.012}$	$D_M(0.51)$	1987.2	1984 ± 34
Σm_ν [eV]	0.0004	< 0.0699	$r_{\text{drag}} h$	100.22	99.93 ± 0.90	$H(0.61)$	94.84	95.1 ± 1.4
N_{eff}	2.938	3.01 ± 0.21	$\langle d^2 \rangle^{1/2}$	2.4364	2.424 ± 0.028	$D_M(0.61)$	2313.0	2309 ± 39
$\ln(10^{10} A_s)$	3.0329	3.037 ± 0.019	z_{re}	7.45	7.55 ± 0.81	$H(2.33)$	234.11	235.2 ± 3.1
n_s	0.9640	0.9663 ± 0.0077	$10^9 A_s$	2.0756	2.084 ± 0.039	$D_M(2.33)$	5794	5776 ± 85
y_{cal}	1.00039	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8689	1.872 ± 0.020	$f\sigma_8(0.15)$	0.4552	0.4530 ± 0.0078
A_{100}^{PS}	229.2	239 ± 25	D_{40}	1226.8	1225 ± 14	$\sigma_8(0.15)$	0.7531	$0.746^{+0.014}_{-0.013}$
A_{143}^{PS}	43.1	39 ± 9	D_{220}	5720.4	5722 ± 39	$f\sigma_8(0.38)$	0.4746	0.4719 ± 0.0078
A_{217}^{PS}	104.4	102 ± 10	D_{810}	2533.7	2534 ± 14	$\sigma_8(0.38)$	0.6679	$0.661^{+0.013}_{-0.011}$
A_{217}^{CIB}	42.2	40 ± 7	D_{1420}	817.1	816.3 ± 5.0	$f\sigma_8(0.51)$	0.4737	0.4708 ± 0.0077
A_{143}^{tSZ}	6.53	$3.9^{+1.9}_{-2.5}$	D_{2000}	231.29	230.7 ± 2.1	$\sigma_8(0.51)$	0.6251	$0.619^{+0.012}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.675	0.66 ± 0.13	$n_{s,0.002}$	0.9640	0.9663 ± 0.0077	$f\sigma_8(0.61)$	0.4691	0.4660 ± 0.0077
$r_{143 \times 217}^{\text{CIB}}$	0.804	$0.56^{+0.39}_{-0.18}$	Y_P	0.24391	0.2448 ± 0.0028	$\sigma_8(0.61)$	0.5949	$0.589^{+0.012}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.45	—	Y_P^{BBN}	0.24523	0.2461 ± 0.0029	$f\sigma_8(2.33)$	0.2992	0.2970 ± 0.0054
A^{kSZ}	0.00	$4.6^{+1.9}_{-4.3}$	10^5D/H	2.565	2.583 ± 0.057	$\sigma_8(2.33)$	0.3091	0.3063 ± 0.0060
A_{100}^{dust}	1.009	1.01 ± 0.20	Age/Gyr	13.873	13.83 ± 0.20	f_{2000}^{143}	28.79	29 ± 3
A_{143}^{dust}	0.974	0.96 ± 0.18	z_*	1089.696	1089.79 ± 0.41	f_{2000}^{217}	105.86	106.6 ± 2.3
A_{217}^{dust}	0.980	0.98 ± 0.10	r_*	145.72	145.2 ± 2.0	$f_{2000}^{143 \times 217}$	31.17	31.8 ± 2.5
$A_{143 \times 217}^{\text{dust}}$	1.011	1.03 ± 0.16	$100\theta_*$	1.04140	1.04127 ± 0.00059	χ_{small}^2	395.79	397.0 ± 1.8
c_{100}	0.99775	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.993	13.94 ± 0.19	χ_{lowl}^2	23.28	23.0 ± 1.1
c_{217}	1.00120	1.0011 ± 0.0016	z_{drag}	1059.44	1059.65 ± 0.75	χ_{CamSpec}^2	11498.6	11515.2 ± 6.0
c_{TE}	0.9957	0.9966 ± 0.0051	r_{drag}	148.43	147.9 ± 2.1	χ_{JLA}^2	1034.853	1035.05 ± 0.34
c_{EE}	0.9909	0.9920 ± 0.0055	k_D	0.13981	0.1402 ± 0.0015	$\chi_{6\text{DF}}^2$	0.0030	0.047 ± 0.064
H_0	67.52	67.6 ± 1.3	$100\theta_D$	0.16059	0.16076 ± 0.00050	χ_{MGS}^2	1.54	1.44 ± 0.51
Ω_Λ	0.6935	0.6910 ± 0.0073	z_{eq}	3388.0	3377 ± 28	χ_{DR12BAO}^2	3.67	4.5 ± 1.4
Ω_m	0.3065	0.3090 ± 0.0073	k_{eq}	0.010265	0.01028 ± 0.00013	χ_{prior}^2	2.03	7.9 ± 3.5
$\Omega_m h^2$	0.13973	0.1412 ± 0.0036	$100\theta_{\text{eq}}$	0.8156	0.8178 ± 0.0052	χ_{BAO}^2	5.21	6.0 ± 1.1
$\Omega_\nu h^2$	$0.4 \cdot 10^{-5}$	< 0.000732	$100\theta_{s,\text{eq}}$	0.45067	0.4518 ± 0.0027	χ_{CMB}^2	11917.7	11935.2 ± 6.0
$\Omega_m h^3$	0.09434	$0.0955^{+0.0038}_{-0.0042}$	$H(0.15)$	72.71	72.8 ± 1.3			
σ_8	0.8146	$0.807^{+0.015}_{-0.013}$	$D_M(0.15)$	642.5	642 ± 12			

Best-fit $\chi_{\text{eff}}^2 = 12959.81$; $\bar{\chi}_{\text{eff}}^2 = 12984.10$; $R - 1 = 0.01027$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 3.67 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.79 commander_dx12_v3_2_29: 23.28 CamSpec like_10.7HM_1400_unified: 11498.65 SN - JLA Pantheon18: 1034.85

9.26 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022260	0.02228 ± 0.00018	S_8	0.8258	0.819 ± 0.015	$H(0.38)$	82.46	82.6 ± 1.1
$\Omega_c h^2$	0.11727	0.1177 ± 0.0028	$\sigma_8 \Omega_m^{0.5}$	0.4523	0.4484 ± 0.0081	$D_M(0.38)$	1538.1	1537 ± 23
$100\theta_{MC}$	1.041159	1.04111 ± 0.00043	$\sigma_8 \Omega_m^{0.25}$	0.6070	$0.601^{+0.011}_{-0.0091}$	$H(0.51)$	89.09	89.2 ± 1.2
τ	0.0529	0.0532 ± 0.0079	$\sigma_8/h^{0.5}$	0.9931	$0.981^{+0.017}_{-0.012}$	$D_M(0.51)$	1993.0	1991 ± 29
Σm_ν [eV]	0.0025	< 0.0715	$r_{\text{drag}} h$	99.99	99.73 ± 0.93	$H(0.61)$	94.64	94.8 ± 1.2
N_{eff}	2.915	2.97 ± 0.17	$\langle d^2 \rangle^{1/2}$	2.4417	2.427 ± 0.028	$D_M(0.61)$	2319.6	2317 ± 33
$\ln(10^{10} A_s)$	3.0333	3.035 ± 0.018	z_{re}	7.49	7.52 ± 0.80	$H(2.33)$	233.90	234.7 ± 2.5
n_s	0.9630	0.9647 ± 0.0068	$10^9 A_s$	2.0767	2.080 ± 0.037	$D_M(2.33)$	5806	5794 ± 70
y_{cal}	1.00043	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8682	1.870 ± 0.017	$f\sigma_8(0.15)$	0.4564	0.4531 ± 0.0077
A_{100}^{PS}	227.9	238 ± 25	D_{40}	1228.6	1226 ± 14	$\sigma_8(0.15)$	0.7529	$0.744^{+0.014}_{-0.011}$
A_{143}^{PS}	44.6	38 ± 8	D_{220}	5720.0	5721 ± 39	$f\sigma_8(0.38)$	0.4754	$0.4715^{+0.0079}_{-0.0071}$
A_{217}^{PS}	104.8	102 ± 10	D_{810}	2534.0	2533 ± 14	$\sigma_8(0.38)$	0.6675	$0.659^{+0.013}_{-0.010}$
A_{217}^{CIB}	41.7	39 ± 7	D_{1420}	817.39	816.6 ± 5.0	$f\sigma_8(0.51)$	0.4743	$0.4702^{+0.0078}_{-0.0068}$
A_{143}^{tSZ}	6.48	$3.9^{+1.9}_{-2.5}$	D_{2000}	231.51	230.9 ± 1.9	$\sigma_8(0.51)$	0.6248	$0.617^{+0.012}_{-0.0097}$
$r_{143 \times 217}^{\text{PS}}$	0.700	0.66 ± 0.13	$n_{s,0.002}$	0.9630	0.9647 ± 0.0068	$f\sigma_8(0.61)$	0.4695	$0.4654^{+0.0077}_{-0.0067}$
$r_{143 \times 217}^{\text{CIB}}$	0.821	$0.55^{+0.39}_{-0.19}$	Y_{P}	0.24358	0.2443 ± 0.0023	$\sigma_8(0.61)$	0.5945	$0.587^{+0.011}_{-0.0093}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.59	—	$Y_{\text{P}}^{\text{BBN}}$	0.24490	0.2456 ± 0.0023	$f\sigma_8(2.33)$	0.29892	$0.2961^{+0.0052}_{-0.0047}$
A^{kSZ}	0.01	$4.5^{+1.6}_{-4.4}$	$10^5 D/H$	2.5607	2.575 ± 0.049	$\sigma_8(2.33)$	0.3087	$0.3053^{+0.0059}_{-0.0051}$
A_{100}^{dust}	1.007	1.01 ± 0.20	Age/Gyr	13.899	13.87 ± 0.17	f_{2000}^{143}	28.46	29.0 ± 3.2
A_{143}^{dust}	0.973	0.96 ± 0.18	z_*	1089.684	1089.75 ± 0.37	f_{2000}^{217}	105.58	106.4 ± 2.2
A_{217}^{dust}	0.981	0.98 ± 0.10	r_*	145.90	145.5 ± 1.7	$f_{2000}^{143 \times 217}$	30.92	31.5 ± 2.3
$A_{143 \times 217}^{\text{dust}}$	1.006	1.02 ± 0.16	$100\theta_*$	1.04141	1.04135 ± 0.00052	χ_{small}^2	395.83	396.9 ± 1.7
c_{100}	0.99779	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	14.010	13.97 ± 0.15	χ_{lowl}^2	23.45	23.2 ± 1.1
c_{217}	1.00120	1.0011 ± 0.0016	z_{drag}	1059.36	1059.50 ± 0.64	χ_{CamSpec}^2	11498.3	11514.7 ± 5.9
c_{TE}	0.9955	0.9963 ± 0.0050	r_{drag}	148.62	148.2 ± 1.7	χ_{Aver15}^2	0.000	0.37 ± 0.52
c_{EE}	0.9906	0.9915 ± 0.0053	k_{D}	0.13968	0.1399 ± 0.0012	$\chi_{6\text{DF}}^2$	0.0102	0.060 ± 0.077
H_0	67.28	67.3 ± 1.1	$100\theta_{\text{D}}$	0.160534	0.16068 ± 0.00043	χ_{MGS}^2	1.41	1.33 ± 0.51
Ω_Λ	0.6917	0.6894 ± 0.0075	z_{eq}	3394.3	3382 ± 27	χ_{DR12BAO}^2	3.90	4.8 ± 1.6
Ω_{m}	0.3083	0.3106 ± 0.0075	k_{eq}	0.010268	0.01027 ± 0.00011	χ_{prior}^2	2.00	7.8 ± 3.4
$\Omega_{\text{m}} h^2$	0.13956	0.1406 ± 0.0030	$100\theta_{\text{eq}}$	0.8144	0.8168 ± 0.0052	χ_{BAO}^2	5.31	6.2 ± 1.3
$\Omega_\nu h^2$	0.000026	< 0.000747	$100\theta_{s,\text{eq}}$	0.45006	0.4513 ± 0.0026	χ_{CMB}^2	11917.6	11934.8 ± 5.9
$\Omega_{\text{m}} h^3$	0.09389	0.0947 ± 0.0033	$H(0.15)$	72.48	72.5 ± 1.1			
σ_8	0.8146	$0.805^{+0.015}_{-0.012}$	$D_M(0.15)$	644.6	644 ± 10			

Best-fit $\chi_{\text{eff}}^2 = 11924.93$; $\bar{\chi}_{\text{eff}}^2 = 11949.22$; $R - 1 = 0.01005$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.00 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.90 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 commander_dx12_v3.2.29: 23.45 CamSpec like_10.7HM.1400_unified: 11498.32

9.27 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022251	0.02228 ± 0.00018	S_8	0.8282	0.820 ± 0.015	$H(0.38)$	82.70	82.7 ± 1.1
$\Omega_c h^2$	0.11809	0.1182 ± 0.0026	$\sigma_8 \Omega_m^{0.5}$	0.4536	0.4490 ± 0.0081	$D_M(0.38)$	1533.6	1535 ± 22
$100\theta_{MC}$	1.041077	1.04105 ± 0.00040	$\sigma_8 \Omega_m^{0.25}$	0.6088	$0.601^{+0.011}_{-0.0089}$	$H(0.51)$	89.35	89.4 ± 1.1
τ	0.0531	0.0531 ± 0.0078	$\sigma_8/h^{0.5}$	0.9946	$0.981^{+0.017}_{-0.012}$	$D_M(0.51)$	1987.1	1988 ± 28
Σm_ν [eV]	0.0034	< 0.0723	$r_{\text{drag}} h$	99.99	99.74 ± 0.93	$H(0.61)$	94.92	95.0 ± 1.1
N_{eff}	2.959	2.99 ± 0.16	$\langle d^2 \rangle^{1/2}$	2.4422	2.427 ± 0.028	$D_M(0.61)$	2312.7	2313 ± 31
$\ln(10^{10} A_s)$	3.0355	3.036 ± 0.018	z_{re}	7.53	7.52 ± 0.80	$H(2.33)$	234.58	235.1 ± 2.3
n_s	0.9642	0.9654 ± 0.0066	$10^9 A_s$	2.0810	2.082 ± 0.037	$D_M(2.33)$	5789	5784 ± 66
y_{cal}	1.00034	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8715	1.872 ± 0.016	$f\sigma_8(0.15)$	0.4578	0.4536 ± 0.0077
A_{100}^{PS}	229.6	239 ± 25	D_{40}	1226.9	1226 ± 14	$\sigma_8(0.15)$	0.7552	$0.745^{+0.014}_{-0.011}$
A_{143}^{PS}	44.4	39 ± 8	D_{220}	5714.7	5720 ± 39	$f\sigma_8(0.38)$	0.4768	$0.4721^{+0.0078}_{-0.0069}$
A_{217}^{PS}	103.9	102 ± 10	D_{810}	2533.7	2534 ± 14	$\sigma_8(0.38)$	0.6695	$0.660^{+0.013}_{-0.0099}$
A_{217}^{CIB}	42.7	39 ± 7	D_{1420}	816.54	816.2 ± 4.9	$f\sigma_8(0.51)$	0.4757	$0.4708^{+0.0077}_{-0.0067}$
A_{143}^{tSZ}	6.51	$3.9^{+1.9}_{-2.5}$	D_{2000}	231.02	230.6 ± 1.8	$\sigma_8(0.51)$	0.6266	$0.618^{+0.012}_{-0.0094}$
$r_{143 \times 217}^{\text{PS}}$	0.676	0.66 ± 0.13	$n_{s,0.002}$	0.9642	0.9654 ± 0.0066	$f\sigma_8(0.61)$	0.4709	$0.4660^{+0.0076}_{-0.0065}$
$r_{143 \times 217}^{\text{CIB}}$	0.833	$0.56^{+0.39}_{-0.18}$	Y_{P}	0.24418	0.2446 ± 0.0022	$\sigma_8(0.61)$	0.5963	$0.588^{+0.011}_{-0.0090}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.49	—	$Y_{\text{P}}^{\text{BBN}}$	0.24550	0.2459 ± 0.0022	$f\sigma_8(2.33)$	0.29983	$0.2965^{+0.0052}_{-0.0045}$
A^{kSZ}	0.00	$4.6^{+2.0}_{-4.1}$	$10^5 \text{D}/\text{H}$	2.5780	2.584 ± 0.044	$\sigma_8(2.33)$	0.3097	$0.3057^{+0.0059}_{-0.0049}$
A_{100}^{dust}	1.008	1.01 ± 0.20	Age/Gyr	13.859	13.85 ± 0.16	f_{2000}^{143}	29.13	29.3 ± 3.1
A_{143}^{dust}	0.974	0.96 ± 0.18	z_*	1089.813	1089.81 ± 0.33	f_{2000}^{217}	106.06	106.6 ± 2.1
A_{217}^{dust}	0.978	0.98 ± 0.10	r_*	145.46	145.3 ± 1.5	$f_{2000}^{143 \times 217}$	31.41	31.8 ± 2.2
$A_{143 \times 217}^{\text{dust}}$	1.000	1.03 ± 0.16	$100\theta_*$	1.041302	1.04128 ± 0.00048	χ_{small}^2	395.85	396.9 ± 1.7
c_{100}	0.99775	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.970	13.95 ± 0.14	χ_{lowl}^2	23.31	23.1 ± 1.1
c_{217}	1.00127	1.0011 ± 0.0016	z_{drag}	1059.44	1059.55 ± 0.63	χ_{CamSpec}^2	11498.5	11514.7 ± 5.9
c_{TE}	0.9960	0.9966 ± 0.0050	r_{drag}	148.18	148.0 ± 1.6	χ_{Aver15}^2	0.023	0.36 ± 0.50
c_{EE}	0.9914	0.9920 ± 0.0052	k_{D}	0.13996	0.1401 ± 0.0012	χ_{Cooke17}^2	0.182	0.35 ± 0.45
H_0	67.48	67.4 ± 1.1	$100\theta_{\text{D}}$	0.160679	0.16075 ± 0.00038	$\chi_{6\text{DF}}^2$	0.0102	0.059 ± 0.077
Ω_Λ	0.6917	0.6895 ± 0.0075	z_{eq}	3393.0	3381 ± 27	χ_{MGS}^2	1.41	1.33 ± 0.51
Ω_{m}	0.3083	0.3105 ± 0.0075	k_{eq}	0.010295	0.01028 ± 0.00011	χ_{DR12BAO}^2	3.90	4.8 ± 1.6
$\Omega_{\text{m}} h^2$	0.14037	0.1411 ± 0.0028	$100\theta_{\text{eq}}$	0.8146	0.8170 ± 0.0052	χ_{prior}^2	2.04	7.8 ± 3.4
$\Omega_\nu h^2$	0.000036	< 0.000760	$100\theta_{s,\text{eq}}$	0.45016	0.4514 ± 0.0026	χ_{BAO}^2	5.32	6.2 ± 1.3
$\Omega_{\text{m}} h^3$	0.09472	0.0951 ± 0.0031	$H(0.15)$	72.70	72.7 ± 1.1	χ_{CMB}^2	11917.6	11934.7 ± 5.8
σ_8	0.8170	$0.806^{+0.015}_{-0.012}$	$D_M(0.15)$	642.7	643.3 ± 9.8	χ_{Abund}^2	0.205	0.71 ± 0.67

Best-fit $\chi_{\text{eff}}^2 = 11925.20$; $\bar{\chi}_{\text{eff}}^2 = 11949.45$; $R - 1 = 0.01051$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.02 D_Cooke2017: 0.18 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.90 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3_2_29: 23.31 CamSpec like_10.7HM_1400_unified: 11498.48

9.28 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02232 ± 0.00019	S_8	0.819 ± 0.015	$H(0.38)$	82.9 ± 1.3
$\Omega_c h^2$	0.1183 ± 0.0034	$\sigma_8 \Omega_m^{0.5}$	0.4488 ± 0.0080	$D_M(0.38)$	1531 ± 27
$100\theta_{MC}$	1.04105 ± 0.00048	$\sigma_8 \Omega_m^{0.25}$	$0.602^{+0.011}_{-0.0094}$	$H(0.51)$	89.6 ± 1.4
τ	$0.0548^{+0.0047}_{-0.0085}$	$\sigma_8/h^{0.5}$	$0.982^{+0.016}_{-0.012}$	$D_M(0.51)$	1983 ± 34
Σm_ν [eV]	< 0.0705	$r_{\text{drag}} h$	99.95 ± 0.91	$H(0.61)$	95.2 ± 1.4
N_{eff}	3.01 ± 0.21	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.027	$D_M(0.61)$	2308 ± 39
$\ln(10^{10} A_s)$	$3.039^{+0.015}_{-0.019}$	z_{re}	$7.70^{+0.53}_{-0.85}$	$H(2.33)$	235.2 ± 3.1
n_s	0.9665 ± 0.0077	$10^9 A_s$	$2.090^{+0.031}_{-0.039}$	$D_M(2.33)$	5775 ± 85
y_{cal}	1.0006 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.872 ± 0.020	$f\sigma_8(0.15)$	0.4535 ± 0.0076
A_{100}^{PS}	239 ± 25	D_{40}	1224 ± 14	$\sigma_8(0.15)$	$0.747^{+0.014}_{-0.012}$
A_{143}^{PS}	38 ± 9	D_{220}	5722 ± 39	$f\sigma_8(0.38)$	0.4724 ± 0.0076
A_{217}^{PS}	102 ± 10	D_{810}	2534 ± 14	$\sigma_8(0.38)$	$0.662^{+0.013}_{-0.011}$
A_{217}^{CIB}	39 ± 7	D_{1420}	816.3 ± 5.0	$f\sigma_8(0.51)$	0.4713 ± 0.0076
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{2000}	230.7 ± 2.1	$\sigma_8(0.51)$	$0.620^{+0.012}_{-0.011}$
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.13	$n_{s,0.002}$	0.9665 ± 0.0077	$f\sigma_8(0.61)$	0.4666 ± 0.0075
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.39}_{-0.18}$	Y_P	0.2449 ± 0.0028	$\sigma_8(0.61)$	$0.590^{+0.012}_{-0.010}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	0.2462 ± 0.0029	$f\sigma_8(2.33)$	0.2974 ± 0.0053
A^{kSZ}	$4.6^{+1.8}_{-4.3}$	$10^5 D/H$	2.583 ± 0.057	$\sigma_8(2.33)$	0.3067 ± 0.0059
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	13.83 ± 0.20	f_{2000}^{143}	29 ± 3
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.79 ± 0.42	f_{2000}^{217}	106.5 ± 2.3
A_{217}^{dust}	0.98 ± 0.10	r_*	145.1 ± 2.0	$f_{2000}^{143 \times 217}$	31.7 ± 2.5
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04126 ± 0.00059	χ_{simall}^2	396.9 ± 1.8
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.94 ± 0.19	χ_{lowl}^2	23.0 ± 1.1
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.66 ± 0.75	χ_{CamSpec}^2	11515.1 ± 6.0
c_{TE}	0.9965 ± 0.0051	r_{drag}	147.8 ± 2.1	χ_{JLA}^2	1035.04 ± 0.33
c_{EE}	0.9920 ± 0.0055	k_D	0.1402 ± 0.0015	$\chi_{6\text{DF}}^2$	0.046 ± 0.063
H_0	67.6 ± 1.3	$100\theta_D$	0.16076 ± 0.00050	χ_{MGS}^2	1.45 ± 0.52
Ω_Λ	0.6912 ± 0.0073	z_{eq}	3376 ± 27	χ_{DR12BAO}^2	4.5 ± 1.3
Ω_m	0.3088 ± 0.0073	k_{eq}	0.01028 ± 0.00013	χ_{prior}^2	7.9 ± 3.5
$\Omega_m h^2$	0.1412 ± 0.0036	$100\theta_{\text{eq}}$	0.8179 ± 0.0052	χ_{BAO}^2	6.0 ± 1.1
$\Omega_\nu h^2$	< 0.000738	$100\theta_{s,\text{eq}}$	0.4518 ± 0.0027	χ_{CMB}^2	11935.0 ± 5.9
$\Omega_m h^3$	0.0955 ± 0.0040	$H(0.15)$	72.9 ± 1.3		
σ_8	$0.808^{+0.015}_{-0.013}$	$D_M(0.15)$	641 ± 12		

$$\bar{\chi}_{\text{eff}}^2 = 12983.89; R - 1 = 0.01046$$

9.29 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022184	0.02223 ± 0.00024 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6092	0.6062 ± 0.0089 (+0.3 σ)	$D_{\mathrm{M}}(0.38)$	1531.5	1524 ± 30 (−0.8 σ)
$\Omega_{\mathrm{c}}h^2$	0.11826	0.1199 ± 0.0038 (+0.7 σ)	$\sigma_8/h^{0.5}$	0.9952	$0.986^{+0.013}_{-0.010}$ (+0.2 σ)	$H(0.51)$	89.45	90.0 ± 1.6 (+1.4 σ)
$100\theta_{\mathrm{MC}}$	1.04106	1.04090 ± 0.00057 (−0.2 σ)	$r_{\mathrm{drag}}h$	100.10	99.9 ± 1.0 (+0.3 σ)	$D_{\mathrm{M}}(0.51)$	1984.5	1974 ± 38 (−0.9 σ)
τ	0.0530	0.0544 ± 0.0077 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4418	2.433 ± 0.024 (−0.1 σ)	$H(0.61)$	95.01	95.6 ± 1.6 (+1.6 σ)
Σm_{ν} [eV]	0.0004	< 0.0687	z_{re}	7.55	7.70 ± 0.78 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2309.8	2298 ± 44 (−0.9 σ)
N_{eff}	2.978	3.09 ± 0.23	$10^9 A_{\mathrm{s}}$	2.0835	$2.098^{+0.036}_{-0.040}$ (−0.0 σ)	$H(2.33)$	234.68	236.4 ± 3.4 (+0.8 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0366	3.044 ± 0.018 (−0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8739	1.882 ± 0.021 (+0.3 σ)	$D_{\mathrm{M}}(2.33)$	5783	5748 ± 95 (−1.7 σ)
n_{s}	0.9646	0.9674 ± 0.0089 (+0.4 σ)	D_{40}	1227.2	1226 ± 15 (−0.1 σ)	$f\sigma_8(0.15)$	0.4578	0.4568 ± 0.0068 (+0.1 σ)
y_{cal}	1.00030	1.0006 ± 0.0025 (−0.0 σ)	D_{220}	5715.0	5722 ± 41 (−0.0 σ)	$\sigma_8(0.15)$	0.7563	0.751 ± 0.013 (+0.7 σ)
A_{217}^{CIB}	47.4	48 ± 7 (+0.0 σ)	D_{810}	2535.4	2537 ± 14 (+0.0 σ)	$f\sigma_8(0.38)$	0.4771	0.4757 ± 0.0067 (+0.3 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.46	—	D_{1420}	816.3	815.1 ± 5.2 (−0.1 σ)	$\sigma_8(0.38)$	0.6706	0.666 ± 0.012 (+0.7 σ)
A_{143}^{tSZ}	7.02	5.0 ± 2.0 (−0.0 σ)	D_{2000}	230.71	229.7 ± 2.2 (−0.2 σ)	$f\sigma_8(0.51)$	0.4761	0.4745 ± 0.0067 (+0.3 σ)
A_{100}^{PS}	250.8	264 ± 29 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9646	0.9674 ± 0.0089 (+0.4 σ)	$\sigma_8(0.51)$	0.6276	0.624 ± 0.011 (+0.7 σ)
A_{143}^{PS}	49.7	49 ± 9 (+0.1 σ)	Y_{P}	0.24441	0.2459 ± 0.0032 (+7.3 σ)	$f\sigma_8(0.61)$	0.4713	0.4697 ± 0.0067 (+0.4 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	49.4	43 ± 9 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24573	0.2472 ± 0.0032 (+7.3 σ)	$\sigma_8(0.61)$	0.5972	0.593 ± 0.011 (+0.7 σ)
A_{217}^{PS}	120.2	115 ± 10 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.597	2.628 ± 0.067 (+0.3 σ)	$f\sigma_8(2.33)$	0.3003	0.2993 ± 0.0053 (+0.7 σ)
A^{kSZ}	0.01	< 4.94 (+0.0 σ)	Age/Gyr	13.847	13.76 ± 0.23 (−1.8 σ)	$\sigma_8(2.33)$	0.3102	0.3086 ± 0.0058 (+0.7 σ)
$A_{100}^{\mathrm{dustTT}}$	8.87	8.9 ± 1.8 (+0.0 σ)	z_{*}	1089.930	1090.12 ± 0.47 (+0.2 σ)	f_{2000}^{143}	29.40	31.2 ± 3.4 (+0.1 σ)
$A_{143}^{\mathrm{dustTT}}$	10.82	10.7 ± 1.8 (+0.0 σ)	r_{*}	145.37	144.4 ± 2.2 (−1.3 σ)	$f_{2000}^{143 \times 217}$	32.52	33.6 ± 2.5 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.63	18.3 ± 3.3 (+0.0 σ)	$100\theta_{*}$	1.04128	1.04107 ± 0.00068 (−0.2 σ)	f_{2000}^{217}	106.94	108.2 ± 2.3 (+0.1 σ)
$A_{217}^{\mathrm{dustTT}}$	95.1	93.4 ± 7.4 (+0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.961	13.87 ± 0.21 (−1.3 σ)	$\chi_{\mathrm{lensing}}^2$	8.81	9.52 ± 0.90 (+0.4 σ)
c_{100}	0.99965	0.99962 ± 0.00062 (−0.0 σ)	z_{drag}	1059.32	1059.64 ± 0.89 (+0.3 σ)	χ_{small}^2	395.85	397.1 ± 1.8 (−0.1 σ)
c_{217}	0.99825	0.99826 ± 0.00063 (+0.0 σ)	r_{drag}	148.11	147.1 ± 2.3 (−1.3 σ)	χ_{lowl}^2	23.32	23.2 ± 1.3 (−0.1 σ)
H_0	67.58	67.9 ± 1.5 (+0.8 σ)	k_{D}	0.13991	0.1406 ± 0.0017 (+0.7 σ)	χ_{plik}^2	758.7	772.4 ± 5.6 (+0.2 σ)
Ω_{Λ}	0.6925	0.6906 ± 0.0084 (+0.3 σ)	$100\theta_{\mathrm{D}}$	0.16084	0.16112 ± 0.00058 (+0.4 σ)	$\chi_{6\mathrm{DF}}^2$	0.0061	0.060 ± 0.082 (+0.0 σ)
Ω_{m}	0.3075	0.3094 ± 0.0084 (−0.3 σ)	z_{eq}	3386.9	3375 ± 31 (−0.1 σ)	χ_{MGS}^2	1.47	1.42 ± 0.59 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14045	0.1427 ± 0.0040 (+0.6 σ)	k_{eq}	0.010290	0.01033 ± 0.00014 (+0.3 σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.77	4.7 ± 1.7 (−0.1 σ)
$\Omega_{\nu}h^2$	$0.5 \cdot 10^{-5}$	< 0.000725	$100\theta_{\mathrm{eq}}$	0.8155	0.8179 ± 0.0059 (+0.1 σ)	χ_{prior}^2	1.32	7.3 ± 3.6 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09492	0.0970 ± 0.0046 (+2.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.45069	0.4519 ± 0.0030 (+0.1 σ)	χ_{CMB}^2	1186.6	1202.1 ± 5.7 (+0.2 σ)
σ_8	0.8181	0.813 ± 0.013 (+0.6 σ)	$H(0.15)$	72.80	73.2 ± 1.5 (+0.9 σ)	χ_{BAO}^2	5.24	6.2 ± 1.4 (+0.0 σ)
S_8	0.8283	0.825 ± 0.013 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	641.7	639 ± 13 (−0.8 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4537	0.4521 ± 0.0072 (+0.1 σ)	$H(0.38)$	82.80	83.3 ± 1.5 (+1.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1193.21$; $\Delta\chi_{\mathrm{eff}}^2 = -1.47$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.63$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.90$; $R - 1 = 0.00858$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.26) DR12BAO: 3.77 (Δ -0.61) CMB - smicadx12.Dec5.ftl.mv2.ndclpp-p.teb.consext8: 8.81 (Δ -0.06) small_100x143.offlike5_EE_Aplanc
395.85 (Δ -0.24) commander_dx12_v3.2.29: 23.32 (Δ 0.37) plik_rd12_HM_v22.TT: 758.66 (Δ -1.14)

9.30 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022226	0.02225 ± 0.00024 (+0.2 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6090	0.6063 ± 0.0088 (+0.4 σ)	$D_{\text{M}}(0.38)$	1527.8	1521 ± 29 (−1.1 σ)
$\Omega_{\text{c}}h^2$	0.11853	0.1200 ± 0.0037 (+0.9 σ)	$\sigma_8/h^{0.5}$	0.9943	$0.986^{+0.013}_{-0.010}$ (+0.3 σ)	$H(0.51)$	89.63	90.1 ± 1.5 (+1.9 σ)
$100\theta_{\text{MC}}$	1.04103	1.04089 ± 0.00056 (−0.2 σ)	$r_{\text{drag}}h$	100.22	100.04 ± 0.97 (+0.4 σ)	$D_{\text{M}}(0.51)$	1979.9	1970 ± 37 (−1.2 σ)
τ	0.0531	0.0547 ± 0.0076 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4407	2.431 ± 0.024 (−0.1 σ)	$H(0.61)$	95.19	95.8 ± 1.6 (+2.2 σ)
Σm_{ν} [eV]	0.0005	< 0.0657	z_{re}	7.55	7.73 ± 0.77 (−0.1 σ)	$D_{\text{M}}(0.61)$	2304.5	2293 ± 42 (−1.3 σ)
N_{eff}	3.000	3.11 ± 0.23	$10^9 A_{\text{s}}$	2.0849	2.101 ± 0.038 (+0.0 σ)	$H(2.33)$	234.97	236.6 ± 3.4 (+1.2 σ)
$\ln(10^{10} A_{\text{s}})$	3.0373	3.045 ± 0.018 (+0.0 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8749	1.883 ± 0.020 (+0.4 σ)	$D_{\text{M}}(2.33)$	5773	5740 ± 93 (−2.3 σ)
n_{s}	0.9649	0.9682 ± 0.0086 (+0.5 σ)	D_{40}	1227.5	1225 ± 15 (−0.2 σ)	$f\sigma_8(0.15)$	0.4574	0.4565 ± 0.0067 (+0.2 σ)
y_{cal}	1.00035	1.0006 ± 0.0025 (−0.1 σ)	D_{220}	5719.5	5723 ± 41 (−0.1 σ)	$\sigma_8(0.15)$	0.7567	0.752 ± 0.012 (+0.9 σ)
A_{217}^{CIB}	49.4	48 ± 7 (+0.0 σ)	D_{810}	2534.8	2537 ± 14 (+0.0 σ)	$f\sigma_8(0.38)$	0.4769	0.4757 ± 0.0067 (+0.4 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.22	—	D_{1420}	815.8	815.1 ± 5.2 (−0.1 σ)	$\sigma_8(0.38)$	0.6711	0.667 ± 0.011 (+0.9 σ)
A_{143}^{tSZ}	7.20	5.0 ± 2.0 (−0.1 σ)	D_{2000}	230.47	229.7 ± 2.2 (−0.2 σ)	$f\sigma_8(0.51)$	0.4760	0.4747 ± 0.0066 (+0.5 σ)
A_{100}^{PS}	253.6	264 ± 29 (+0.0 σ)	$n_{\text{s},0.002}$	0.9649	0.9682 ± 0.0086 (+0.5 σ)	$\sigma_8(0.51)$	0.6282	0.625 ± 0.011 (+0.9 σ)
A_{143}^{PS}	46.4	49 ± 8 (+0.1 σ)	Y_{P}	0.24472	0.2461 ± 0.0031 (+10.0 σ)	$f\sigma_8(0.61)$	0.4713	0.4700 ± 0.0067 (+0.6 σ)
$A_{143 \times 217}^{\text{PS}}$	43.2	43 ± 9 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24604	0.2475 ± 0.0031 (+10.0 σ)	$\sigma_8(0.61)$	0.5978	0.594 ± 0.010 (+0.9 σ)
A_{217}^{PS}	117.1	115 ± 10 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.597	2.630 ± 0.066 (+0.4 σ)	$f\sigma_8(2.33)$	0.3006	0.2998 ± 0.0051 (+0.9 σ)
A^{kSZ}	0.01	< 5.01 (+0.1 σ)	Age/Gyr	13.822	13.74 ± 0.22 (−2.4 σ)	$\sigma_8(2.33)$	0.3106	0.3092 ± 0.0056 (+0.9 σ)
A_{100}^{dustTT}	8.87	8.9 ± 1.8 (+0.0 σ)	z_*	1089.921	1090.12 ± 0.47 (+0.4 σ)	f_{2000}^{143}	29.84	31.3 ± 3.4 (+0.1 σ)
A_{143}^{dustTT}	10.86	10.7 ± 1.8 (+0.0 σ)	r_*	145.16	144.3 ± 2.2 (−1.9 σ)	$f_{2000}^{143 \times 217}$	32.74	33.6 ± 2.5 (+0.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.32	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.04123	1.04105 ± 0.00068 (−0.3 σ)	f_{2000}^{217}	107.23	108.2 ± 2.3 (+0.2 σ)
A_{217}^{dustTT}	94.4	93.4 ± 7.4 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.941	13.86 ± 0.20 (−1.8 σ)	χ_{lensing}^2	8.80	9.54 ± 0.90 (+0.4 σ)
c_{100}	0.99961	0.99962 ± 0.00062 (−0.0 σ)	z_{drag}	1059.44	1059.70 ± 0.87 (+0.4 σ)	χ_{small}^2	395.86	397.1 ± 1.8 (−0.1 σ)
c_{217}	0.99826	0.99827 ± 0.00062 (+0.0 σ)	r_{drag}	147.88	147.0 ± 2.3 (−1.8 σ)	χ_{lowl}^2	23.32	23.1 ± 1.2 (−0.1 σ)
H_0	67.77	68.1 ± 1.4 (+1.0 σ)	k_{D}	0.14010	0.1407 ± 0.0016 (+1.0 σ)	χ_{plik}^2	758.5	772.5 ± 5.5 (+0.1 σ)
Ω_{Λ}	0.6935	0.6919 ± 0.0078 (+0.4 σ)	$100\theta_{\text{D}}$	0.16085	0.16115 ± 0.00058 (+0.5 σ)	χ_{JLA}^2	1034.852	1035.03 ± 0.34 (−0.2 σ)
Ω_{m}	0.3065	0.3081 ± 0.0078 (−0.4 σ)	z_{eq}	3384.4	3371 ± 30 (−0.1 σ)	$\chi_{6\text{DF}}^2$	0.0030	0.048 ± 0.066 (−0.0 σ)
$\Omega_{\text{m}}h^2$	0.14076	0.1428 ± 0.0040 (+0.9 σ)	k_{eq}	0.010297	0.01033 ± 0.00014 (+0.4 σ)	χ_{MGS}^2	1.54	1.51 ± 0.56 (+0.4 σ)
$\Omega_{\nu}h^2$	$0.5 \cdot 10^{-5}$	< 0.000696	$100\theta_{\text{eq}}$	0.8161	0.8187 ± 0.0056 (+0.1 σ)	χ_{DR12BAO}^2	3.67	4.5 ± 1.4 (−0.1 σ)
$\Omega_{\text{m}}h^3$	0.09539	0.0973 ± 0.0045 (+3.1 σ)	$100\theta_{\text{s,eq}}$	0.45095	0.4523 ± 0.0028 (+0.1 σ)	χ_{prior}^2	1.58	7.3 ± 3.6 (−0.0 σ)
σ_8	0.8185	0.814 ± 0.013 (+0.8 σ)	$H(0.15)$	72.98	73.4 ± 1.4 (+1.2 σ)	χ_{CMB}^2	1186.5	1202.2 ± 5.7 (+0.1 σ)
S_8	0.8273	0.825 ± 0.013 (+0.2 σ)	$D_{\text{M}}(0.15)$	640.1	637 ± 13 (−1.0 σ)	χ_{BAO}^2	5.21	6.0 ± 1.1 (−0.0 σ)
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4531	0.4517 ± 0.0071 (+0.2 σ)	$H(0.38)$	82.98	83.4 ± 1.5 (+1.5 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2228.14$; $\Delta\chi_{\text{eff}}^2 = -1.57$; $\bar{\chi}_{\text{eff}}^2 = 2250.50$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.73$; $R - 1 = 0.00908$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.54 (Δ 0.20) DR12BAO: 3.67 (Δ -0.37) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.80 (Δ -0.08) small_100x143_offlike5_EE_Aplanc
395.86 (Δ -0.51) commander_dx12_v3.2_29: 23.32 (Δ 0.51) plik_rd12_HM_v22.TT: 758.53 (Δ -1.26) SN - JLA Pantheon18: 1034.85 (Δ -0.10)

9.31 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022155	0.02219 ± 0.00022	$\sigma_8 \Omega_m^{0.25}$	0.6078	0.6051 ± 0.0084	$D_M(0.38)$	1538.7	1532 ± 25
$\Omega_c h^2$	0.11736	0.1188 ± 0.0030	$\sigma_8/h^{0.5}$	0.9945	$0.987^{+0.013}_{-0.010}$	$H(0.51)$	89.07	89.6 ± 1.2
$100\theta_{MC}$	1.04116	1.04101 ± 0.00052	$r_{drag}h$	99.99	99.76 ± 0.99	$D_M(0.51)$	1993.8	1984 ± 31
τ	0.0529	0.0542 ± 0.0076	$\langle d^2 \rangle^{1/2}$	2.4443	2.436 ± 0.023	$H(0.61)$	94.62	95.2 ± 1.3
Σm_ν [eV]	0.0019	< 0.0640	z_{re}	7.52	7.67 ± 0.77	$D_M(0.61)$	2320.4	2309 ± 36
N_{eff}	2.922	3.03 ± 0.18	$10^9 A_s$	2.0790	2.092 ± 0.035	$H(2.33)$	233.87	235.5 ± 2.7
$\ln(10^{10} A_s)$	3.0345	3.041 ± 0.017	$10^9 A_s e^{-2\tau}$	1.8701	1.877 ± 0.018	$D_M(2.33)$	5807	5774 ± 76
n_s	0.9625	0.9651 ± 0.0074	D_{40}	1230.2	1229 ± 14	$f\sigma_8(0.15)$	0.4571	0.4563 ± 0.0067
y_{cal}	1.00032	1.0006 ± 0.0025	D_{220}	5718.9	5723 ± 40	$\sigma_8(0.15)$	0.7537	$0.749^{+0.012}_{-0.011}$
A_{217}^{CIB}	46.4	48 ± 7	D_{810}	2535.3	2536 ± 14	$f\sigma_8(0.38)$	0.4760	0.4748 ± 0.0063
$\xi^{tSZ \times CIB}$	0.63	—	D_{1420}	816.9	815.5 ± 5.2	$\sigma_8(0.38)$	0.6682	$0.664^{+0.011}_{-0.0096}$
A_{143}^{tSZ}	6.92	5.1 ± 2.0	D_{2000}	231.09	230.1 ± 2.1	$f\sigma_8(0.51)$	0.4749	0.4736 ± 0.0062
A_{100}^{PS}	249.4	262 ± 28	$n_{s,0.002}$	0.9625	0.9651 ± 0.0074	$\sigma_8(0.51)$	0.6254	$0.622^{+0.010}_{-0.0092}$
A_{143}^{PS}	51.2	48 ± 8	Y_P	0.24363	0.2450 ± 0.0025	$f\sigma_8(0.61)$	0.4701	0.4687 ± 0.0062
$A_{143 \times 217}^{PS}$	53.0	43 ± 9	Y_P^{BBN}	0.24495	0.2463 ± 0.0025	$\sigma_8(0.61)$	0.5951	$0.5916^{+0.0099}_{-0.0088}$
A_{217}^{PS}	121.6	115 ± 10	$10^5 D/H$	2.583	2.612 ± 0.057	$f\sigma_8(2.33)$	0.29921	0.2982 ± 0.0046
A^{kSZ}	0.01	< 4.73	Age/Gyr	13.903	13.82 ± 0.18	$\sigma_8(2.33)$	0.3090	0.3075 ± 0.0052
A_{100}^{dustTT}	8.75	8.9 ± 1.8	z_*	1089.831	1090.02 ± 0.41	f_{2000}^{143}	28.86	30.7 ± 3.2
A_{143}^{dustTT}	10.75	10.7 ± 1.8	r_*	145.92	145.0 ± 1.8	$f_{2000}^{143 \times 217}$	32.17	33.2 ± 2.3
$A_{143 \times 217}^{dustTT}$	19.64	18.3 ± 3.3	$100\theta_*$	1.04142	1.04122 ± 0.00060	f_{2000}^{217}	106.57	107.8 ± 2.1
A_{217}^{dustTT}	95.1	93.4 ± 7.4	$D_M(z_*)/\text{Gpc}$	14.012	13.93 ± 0.16	$\chi_{lensing}^2$	8.70	9.39 ± 0.85
c_{100}	0.99968	0.99962 ± 0.00061	z_{drag}	1059.13	1059.42 ± 0.74	χ_{small}^2	395.86	397.0 ± 1.7
c_{217}	0.99823	0.99825 ± 0.00062	r_{drag}	148.68	147.7 ± 1.8	χ_{lowl}^2	23.62	23.4 ± 1.2
H_0	67.25	67.5 ± 1.2	k_D	0.13951	0.1401 ± 0.0013	χ_{plik}^2	758.6	771.8 ± 5.4
Ω_Λ	0.6914	0.6895 ± 0.0080	$100\theta_D$	0.160706	0.16098 ± 0.00049	χ_{Aver15}^2	0.000	0.52 ± 0.71
Ω_m	0.3086	0.3105 ± 0.0080	z_{eq}	3390.5	3379 ± 29	χ_{6DF}^2	0.0103	0.063 ± 0.084
$\Omega_m h^2$	0.13954	0.1416 ± 0.0032	k_{eq}	0.010261	0.01030 ± 0.00012	χ_{MGS}^2	1.41	1.35 ± 0.55
$\Omega_\nu h^2$	$2.0 \cdot 10^{-5}$	< 0.000675	$100\theta_{eq}$	0.8148	0.8170 ± 0.0055	$\chi_{DR12BAO}^2$	3.88	4.8 ± 1.7
$\Omega_m h^3$	0.09383	0.0956 ± 0.0036	$100\theta_{s,eq}$	0.45034	0.4514 ± 0.0028	χ_{prior}^2	1.16	7.3 ± 3.6
σ_8	0.8155	$0.811^{+0.013}_{-0.011}$	$H(0.15)$	72.45	72.8 ± 1.2	χ_{CMB}^2	1186.8	1201.6 ± 5.6
S_8	0.8271	0.825 ± 0.013	$D_M(0.15)$	644.9	642 ± 11	χ_{BAO}^2	5.29	6.2 ± 1.4
$\sigma_8 \Omega_m^{0.5}$	0.4530	0.4517 ± 0.0071	$H(0.38)$	82.43	82.9 ± 1.2			

Best-fit $\chi_{eff}^2 = 1193.28$; $\bar{\chi}_{eff}^2 = 1215.62$; $R - 1 = 0.00900$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.00 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.88 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.70 small_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 23.62 plik_rd12_HM_v22_TT: 758.65

9.32 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022170	0.02219 ± 0.00022	$\sigma_8/h^{0.5}$	0.9946	$0.987^{+0.013}_{-0.010}$	$D_{\text{M}}(0.51)$	1987.1	1984 ± 30
$\Omega_{\text{c}}h^2$	0.11793	0.1189 ± 0.0028	$r_{\text{drag}}h$	100.10	99.77 ± 0.99	$H(0.61)$	94.89	95.2 ± 1.2
$100\theta_{\text{MC}}$	1.041075	1.04100 ± 0.00049	$\langle d^2 \rangle^{1/2}$	2.4417	2.436 ± 0.023	$D_{\text{M}}(0.61)$	2312.7	2309 ± 34
τ	0.0530	0.0542 ± 0.0076	z_{re}	7.55	7.67 ± 0.77	$H(2.33)$	234.40	235.5 ± 2.5
$\Sigma m_{\nu} [\text{eV}]$	0.0030	< 0.0640	$10^9 A_{\text{s}}$	2.0830	2.092 ± 0.035	$D_{\text{M}}(2.33)$	5791	5773 ± 71
N_{eff}	2.962	3.03 ± 0.17	$10^9 A_{\text{s}} e^{-2\tau}$	1.8734	1.877 ± 0.017	$f\sigma_8(0.15)$	0.4574	0.4563 ± 0.0065
$\ln(10^{10} A_{\text{s}})$	3.0364	3.041 ± 0.017	D_{40}	1227.8	1229 ± 14	$\sigma_8(0.15)$	0.7554	$0.749^{+0.012}_{-0.010}$
n_{s}	0.9643	0.9652 ± 0.0071	D_{220}	5717.4	5722 ± 40	$f\sigma_8(0.38)$	0.4766	0.4749 ± 0.0061
y_{cal}	1.00064	1.0006 ± 0.0025	D_{810}	2536.5	2536 ± 14	$\sigma_8(0.38)$	0.6698	$0.664^{+0.011}_{-0.0093}$
A_{217}^{CIB}	47.3	48 ± 7	D_{1420}	816.9	815.5 ± 5.0	$f\sigma_8(0.51)$	0.4756	0.4737 ± 0.0060
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	D_{2000}	230.94	230.0 ± 1.9	$\sigma_8(0.51)$	0.6269	$0.622^{+0.010}_{-0.0088}$
A_{143}^{tSZ}	6.99	5.1 ± 2.0	$n_{\text{s},0.002}$	0.9643	0.9652 ± 0.0071	$f\sigma_8(0.61)$	0.4708	0.4688 ± 0.0060
A_{100}^{PS}	251.1	263 ± 28	Y_{P}	0.24418	0.2451 ± 0.0023	$\sigma_8(0.61)$	0.5965	$0.5917^{+0.0097}_{-0.0085}$
A_{143}^{PS}	49.6	48 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.24550	0.2464 ± 0.0023	$f\sigma_8(2.33)$	0.30000	0.2983 ± 0.0045
$A_{143 \times 217}^{\text{PS}}$	49.5	43 ± 9	$10^5 \text{D}/\text{H}$	2.5942	2.613 ± 0.049	$\sigma_8(2.33)$	0.30989	$0.3076^{+0.0052}_{-0.0047}$
A_{217}^{PS}	120.4	115 ± 10	Age/Gyr	13.864	13.82 ± 0.17	f_{2000}^{143}	29.27	30.8 ± 3.1
A^{kSZ}	0.00	< 4.74	z_*	1089.904	1090.03 ± 0.36	$f_{2000}^{143 \times 217}$	32.43	33.2 ± 2.2
A_{100}^{dustTT}	8.81	8.9 ± 1.8	r_*	145.56	145.0 ± 1.6	f_{2000}^{217}	106.94	107.8 ± 2.0
A_{143}^{dustTT}	10.80	10.7 ± 1.8	$100\theta_*$	1.04131	1.04121 ± 0.00056	χ_{lensing}^2	8.77	9.39 ± 0.84
$A_{143 \times 217}^{\text{dustTT}}$	19.54	18.3 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.978	13.92 ± 0.15	χ_{simall}^2	395.85	397.0 ± 1.7
A_{217}^{dustTT}	95.0	93.4 ± 7.4	z_{drag}	1059.25	1059.42 ± 0.74	χ_{lowl}^2	23.32	23.4 ± 1.1
c_{100}	0.99966	0.99962 ± 0.00061	r_{drag}	148.30	147.7 ± 1.7	χ_{plik}^2	758.7	771.6 ± 5.3
c_{217}	0.99824	0.99825 ± 0.00062	k_{D}	0.13976	0.1402 ± 0.0013	χ_{Aver15}^2	0.023	0.47 ± 0.63
H_0	67.50	67.6 ± 1.2	$100\theta_{\text{D}}$	0.160807	0.16099 ± 0.00042	χ_{Cooke17}^2	0.064	0.27 ± 0.39
Ω_{Λ}	0.6924	0.6896 ± 0.0079	z_{eq}	3386.1	3379 ± 29	$\chi_{6\text{DF}}^2$	0.0061	0.063 ± 0.083
Ω_{m}	0.3076	0.3104 ± 0.0079	k_{eq}	0.010276	0.01030 ± 0.00011	χ_{MGS}^2	1.47	1.36 ± 0.55
$\Omega_{\text{m}}h^2$	0.14013	0.1416 ± 0.0030	$100\theta_{\text{eq}}$	0.8156	0.8170 ± 0.0054	χ_{DR12BAO}^2	3.76	4.8 ± 1.7
$\Omega_{\nu}h^2$	$3.2 \cdot 10^{-5}$	< 0.000676	$100\theta_{\text{s,eq}}$	0.45075	0.4515 ± 0.0028	χ_{prior}^2	1.33	7.3 ± 3.6
$\Omega_{\text{m}}h^3$	0.09458	0.0957 ± 0.0033	$H(0.15)$	72.71	72.8 ± 1.1	χ_{CMB}^2	1186.7	1201.4 ± 5.5
σ_8	0.8172	$0.811^{+0.012}_{-0.011}$	$D_{\text{M}}(0.15)$	642.6	642 ± 11	χ_{BAO}^2	5.24	6.2 ± 1.4
S_8	0.8274	0.825 ± 0.013	$H(0.38)$	82.69	82.9 ± 1.2	χ_{Abund}^2	0.087	0.74 ± 0.83
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4532	0.4517 ± 0.0069	$D_{\text{M}}(0.38)$	1533.5	1531 ± 24			
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6086	0.6052 ± 0.0082	$H(0.51)$	89.34	89.6 ± 1.2			

Best-fit $\chi_{\text{eff}}^2 = 1193.33$; $\bar{\chi}_{\text{eff}}^2 = 1215.63$; $R - 1 = 0.00841$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.02 D_Cooke2017: 0.06 BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.76 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77
simall_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2_29: 23.32 plik_rd12_HM_v22_TT: 758.73

9.33 base_nnu_mnu_plikHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00023 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6065 \pm 0.0088 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1520 \pm 29 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0037 \quad (+1.0\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.013}_{-0.010} \quad (+0.3\sigma)$	$H(0.51)$	$90.2 \pm 1.5 \quad (+1.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00056 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$100.07 \pm 0.97 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1970 \pm 37 \quad (-1.3\sigma)$
τ	$0.0556^{+0.0055}_{-0.0081} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.023 \quad (-0.1\sigma)$	$H(0.61)$	$95.8 \pm 1.6 \quad (+2.3\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0670	z_{re}	$7.83^{+0.60}_{-0.80} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2292 \pm 42 \quad (-1.3\sigma)$
N_{eff}	3.11 ± 0.23	$10^9 A_{\mathrm{s}}$	$2.104^{+0.031}_{-0.039} \quad (+0.1\sigma)$	$H(2.33)$	$236.6 \pm 3.4 \quad (+1.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.015}_{-0.018} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883 \pm 0.020 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5739 \pm 92 \quad (-2.4\sigma)$
n_{s}	$0.9684 \pm 0.0086 \quad (+0.5\sigma)$	D_{40}	$1225 \pm 15 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4566 \pm 0.0067 \quad (+0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5723 \pm 41 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.753 \pm 0.012 \quad (+0.9\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4759 \pm 0.0066 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.1 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.668 \pm 0.011 \quad (+1.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.7 \pm 2.2 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4749 \pm 0.0066 \quad (+0.5\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9684 \pm 0.0086 \quad (+0.5\sigma)$	$\sigma_8(0.51)$	$0.625 \pm 0.011 \quad (+1.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.2462 \pm 0.0031 \quad (+10.4\sigma)$	$f\sigma_8(0.61)$	$0.4702 \pm 0.0066 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2475 \pm 0.0031 \quad (+10.4\sigma)$	$\sigma_8(0.61)$	$0.595 \pm 0.010 \quad (+1.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.630 \pm 0.066 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.3000 \pm 0.0051 \quad (+1.0\sigma)$
A^{kSZ}	$< 5.01 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.74 \pm 0.22 \quad (-2.5\sigma)$	$\sigma_8(2.33)$	$0.3095 \pm 0.0056 \quad (+1.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.12 \pm 0.47 \quad (+0.4\sigma)$	f_{2000}^{143}	$31.3 \pm 3.4 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.3 \pm 2.2 \quad (-2.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.6 \pm 2.5 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00068 \quad (-0.3\sigma)$	f_{2000}^{217}	$108.2 \pm 2.3 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.86 \pm 0.20 \quad (-1.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.51 \pm 0.88 \quad (+0.4\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.71 \pm 0.87 \quad (+0.5\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.0 \pm 2.3 \quad (-1.8\sigma)$	χ_{lowl}^2	$23.0 \pm 1.2 \quad (-0.2\sigma)$
H_0	$68.1 \pm 1.4 \quad (+1.0\sigma)$	k_{D}	$0.1407 \pm 0.0016 \quad (+1.0\sigma)$	χ_{plik}^2	$772.4 \pm 5.5 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6921 \pm 0.0077 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16116 \pm 0.00058 \quad (+0.6\sigma)$	χ_{JLA}^2	$1035.02 \pm 0.33 \quad (-0.2\sigma)$
Ω_{m}	$0.3079 \pm 0.0077 \quad (-0.4\sigma)$	z_{eq}	$3370 \pm 29 \quad (-0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.046 \pm 0.065 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0040 \quad (+1.0\sigma)$	k_{eq}	$0.01033 \pm 0.00014 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.52 \pm 0.56 \quad (+0.4\sigma)$
$\Omega_{\nu}h^2$	< 0.000711	$100\theta_{\mathrm{eq}}$	$0.8189 \pm 0.0055 \quad (+0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0973 \pm 0.0045 \quad (+3.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4524 \pm 0.0028 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.814 \pm 0.013 \quad (+0.8\sigma)$	$H(0.15)$	$73.4 \pm 1.4 \quad (+1.2\sigma)$	χ_{CMB}^2	$1202.0 \pm 5.7 \quad (+0.1\sigma)$
S_8	$0.825 \pm 0.013 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$637 \pm 13 \quad (-1.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4518 \pm 0.0071 \quad (+0.2\sigma)$	$H(0.38)$	$83.5 \pm 1.5 \quad (+1.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2250.35$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.72$; $R - 1 = 0.00891$

9.34 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022329	0.02236 ± 0.00019 (-0.5σ)	$\Omega_m h^3$	0.09360	0.0948 ± 0.0035 (-5.2σ)	$D_M(0.15)$	645.3	644 ± 11 $(+1.0\sigma)$
$\Omega_c h^2$	0.11694	0.1180 ± 0.0029 (-1.5σ)	σ_8	0.8158	0.811 ± 0.011 $(+0.1\sigma)$	$H(0.38)$	82.38	82.6 ± 1.2 (-1.7σ)
$100\theta_{MC}$	1.041277	1.04116 ± 0.00044 $(+0.5\sigma)$	S_8	0.8271	0.825 ± 0.011 $(+0.0\sigma)$	$D_M(0.38)$	1539.7	1537 ± 24 $(+1.2\sigma)$
τ	0.0546	0.0552 ± 0.0075 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4530	0.4520 ± 0.0062 $(+0.0\sigma)$	$H(0.51)$	89.00	89.3 ± 1.2 (-2.2σ)
Σm_ν [eV]	0.0002	< 0.0549	$\sigma_8 \Omega_m^{0.25}$	0.6079	0.6054 ± 0.0076 $(+0.1\sigma)$	$D_M(0.51)$	1995.1	1991 ± 30 $(+1.3\sigma)$
N_{eff}	2.890	2.96 ± 0.18	$\sigma_8/h^{0.5}$	0.9952	$0.988^{+0.011}_{-0.0094}$ $(+0.4\sigma)$	$H(0.61)$	94.55	94.9 ± 1.2 (-2.9σ)
$\ln(10^{10} A_s)$	3.0376	3.041 ± 0.017 (-0.4σ)	$r_{\text{drag}} h$	99.98	99.67 ± 0.88 $(+0.1\sigma)$	$D_M(0.61)$	2321.9	2317 ± 35 $(+1.4\sigma)$
n_s	0.9627	0.9636 ± 0.0071 (-0.8σ)	$\langle d^2 \rangle^{1/2}$	2.4478	2.442 ± 0.022 $(+0.2\sigma)$	$H(2.33)$	233.67	234.8 ± 2.6 (-2.4σ)
y_{cal}	1.00055	1.0006 ± 0.0024 (-0.0σ)	z_{re}	7.64	7.71 ± 0.76 (-0.2σ)	$D_M(2.33)$	5811	5791 ± 74 $(+3.7\sigma)$
A_{217}^{CIB}	43.5	46 ± 7 (-0.1σ)	$10^9 A_s$	2.0856	2.093 ± 0.035 (-0.4σ)	$f\sigma_8(0.15)$	0.4571	0.4565 ± 0.0059 $(+0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.98	—	$10^9 A_s e^{-2\tau}$	1.8698	1.874 ± 0.017 (-0.7σ)	$\sigma_8(0.15)$	0.7540	0.749 ± 0.011 $(+0.1\sigma)$
A_{143}^{tSZ}	7.02	$5.6^{+2.1}_{-1.9}$ $(+0.1\sigma)$	D_{40}	1231.5	1232 ± 13 $(+0.3\sigma)$	$f\sigma_8(0.38)$	0.4761	0.4749 ± 0.0057 $(+0.0\sigma)$
A_{100}^{PS}	241.9	256 ± 28 (-0.1σ)	D_{220}	5734.0	5738 ± 37 (-0.1σ)	$\sigma_8(0.38)$	0.6685	0.6641 ± 0.0098 $(+0.1\sigma)$
A_{143}^{PS}	52.2	44 ± 8 (-0.2σ)	D_{810}	2538.6	2538 ± 13 (-0.1σ)	$f\sigma_8(0.51)$	0.4750	0.4736 ± 0.0057 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	59.1	42 ± 9 (-0.1σ)	D_{1420}	819.77	818.1 ± 4.8 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6257	0.6215 ± 0.0094 $(+0.1\sigma)$
A_{217}^{PS}	124.3	115 ± 10 $(+0.0\sigma)$	D_{2000}	232.54	231.6 ± 1.8 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.4702	0.4687 ± 0.0057 $(+0.0\sigma)$
A^{kSZ}	0.01	< 3.92 (-0.1σ)	$n_{s,0.002}$	0.9627	0.9636 ± 0.0071 (-0.8σ)	$\sigma_8(0.61)$	0.5954	0.5914 ± 0.0090 $(+0.1\sigma)$
A_{100}^{dustTT}	8.77	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.24327	0.2442 ± 0.0024 (-23.6σ)	$f\sigma_8(2.33)$	0.29933	0.2980 ± 0.0044 (-0.0σ)
A_{143}^{dustTT}	10.97	10.8 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.24459	0.2455 ± 0.0024 (-23.6σ)	$\sigma_8(2.33)$	0.30918	0.3073 ± 0.0049 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.47	18.5 ± 3.3 (-0.0σ)	$10^5 D/H$	2.5391	2.558 ± 0.045 (-0.7σ)	f_{2000}^{143}	27.11	28.6 ± 3.0 (-0.3σ)
A_{217}^{dustTT}	96.2	93.8 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.913	13.87 ± 0.18 $(+3.9\sigma)$	$f_{2000}^{143 \times 217}$	30.84	31.5 ± 2.1 (-0.3σ)
A_{100}^{dustTE}	0.1139	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.543	1089.67 ± 0.33 (-0.6σ)	f_{2000}^{217}	105.33	106.4 ± 2.0 (-0.3σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1347	0.135 ± 0.029 (-0.0σ)	r_*	146.06	145.4 ± 1.7 $(+4.0\sigma)$	χ_{lensing}^2	8.663	9.11 ± 0.68 $(+0.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.481 ± 0.085 (-0.0σ)	$100\theta_*$	1.04154	1.04140 ± 0.00053 $(+0.7\sigma)$	χ_{small}^2	396.05	397.1 ± 1.9 (-0.0σ)
A_{143}^{dustTE}	0.223	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.024	13.97 ± 0.16 $(+3.9\sigma)$	χ_{lowl}^2	23.64	23.7 ± 1.2 $(+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.665 ± 0.080 (-0.0σ)	z_{drag}	1059.47	1059.69 ± 0.70 (-1.1σ)	χ_{plik}^2	2343.0	2359.2 ± 5.9 (-0.1σ)
A_{217}^{dustTE}	2.072	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	148.76	148.1 ± 1.8 $(+4.0\sigma)$	$\chi_{6\text{DF}}^2$	0.0107	0.060 ± 0.077 $(+0.1\sigma)$
c_{100}	0.99975	0.99967 ± 0.00061 $(+0.0\sigma)$	k_D	0.13969	0.1401 ± 0.0013 (-2.3σ)	χ_{MGS}^2	1.407	1.29 ± 0.48 $(+0.1\sigma)$
c_{217}	0.99814	0.99818 ± 0.00062 (-0.0σ)	$100\theta_D$	0.160372	0.16054 ± 0.00040 (-1.1σ)	χ_{DR12BAO}^2	3.91	4.9 ± 1.6 $(+0.0\sigma)$
H_0	67.21	67.3 ± 1.1 (-0.9σ)	z_{eq}	3399.3	3394 ± 24 $(+0.3\sigma)$	χ_{prior}^2	1.45	11.5 ± 4.5 (-0.0σ)
Ω_Λ	0.6917	0.6890 ± 0.0072 $(+0.0\sigma)$	k_{eq}	0.010266	0.01030 ± 0.00011 (-0.7σ)	χ_{CMB}^2	2771.4	2789.1 ± 6.0 (-0.0σ)
Ω_m	0.3083	0.3110 ± 0.0072 (-0.0σ)	$100\theta_{\text{eq}}$	0.81381	0.8149 ± 0.0046 (-0.3σ)	χ_{BAO}^2	5.33	6.2 ± 1.3 $(+0.1\sigma)$
$\Omega_m h^2$	0.13927	0.1408 ± 0.0031 (-1.8σ)	$100\theta_{s,\text{eq}}$	0.44968	0.4502 ± 0.0023 (-0.3σ)			
$\Omega_\nu h^2$	$0.2 \cdot 10^{-5}$	< 0.000573	$H(0.15)$	72.41	72.6 ± 1.2 (-1.1σ)			

Best-fit $\chi_{\text{eff}}^2 = 2778.17$; $\Delta\chi_{\text{eff}}^2 = -2.53$; $\bar{\chi}_{\text{eff}}^2 = 2806.81$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.03$; $R - 1 = 0.00810$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.41 (Δ 0.19) DR12BAO: 3.91 (Δ -0.51) CMB - smicadx12.Dec5.ftl_mv2.ndclpp_p.teb.consext8: 8.66 (Δ -0.07) small_100x143.offlike5_EE_Aplanc
396.05 (Δ -0.47) commander_dx12_v3.2.29: 23.64 (Δ 0.74) plik_rd12_HM_v22b.TTTEEE: 2343.02 (Δ -2.29)

9.35 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022338	0.02238 ± 0.00018 (-0.4σ)	$\Omega_m h^3$	0.09363	0.0951 ± 0.0034 (-4.4σ)	$D_M(0.15)$	644.6	643 ± 10 $(+0.8\sigma)$
$\Omega_c h^2$	0.11681	0.1181 ± 0.0029 (-1.3σ)	σ_8	0.8146	0.812 ± 0.011 $(+0.3\sigma)$	$H(0.38)$	82.43	82.7 ± 1.2 (-1.4σ)
$100\theta_{MC}$	1.041304	1.04116 ± 0.00044 $(+0.5\sigma)$	S_8	0.8245	0.825 ± 0.011 $(+0.1\sigma)$	$D_M(0.38)$	1538.4	1534 ± 23 $(+1.0\sigma)$
τ	0.0537	0.0555 ± 0.0075 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4516	0.4517 ± 0.0061 $(+0.1\sigma)$	$H(0.51)$	89.04	89.4 ± 1.2 (-1.9σ)
Σm_ν [eV]	0.0006	< 0.0518	$\sigma_8 \Omega_m^{0.25}$	0.6065	0.6055 ± 0.0075 $(+0.2\sigma)$	$D_M(0.51)$	1993.5	1987 ± 30 $(+1.1\sigma)$
N_{eff}	2.891	2.97 ± 0.17	$\sigma_8/h^{0.5}$	0.9930	$0.988^{+0.011}_{-0.0093}$ $(+0.5\sigma)$	$H(0.61)$	94.58	95.0 ± 1.2 (-2.4σ)
$\ln(10^{10} A_s)$	3.0354	3.042 ± 0.017 (-0.4σ)	$r_{\text{drag}} h$	100.11	99.81 ± 0.84 $(+0.2\sigma)$	$D_M(0.61)$	2320.2	2313 ± 34 $(+1.2\sigma)$
n_s	0.9631	0.9643 ± 0.0070 (-0.7σ)	$\langle d^2 \rangle^{1/2}$	2.4425	2.441 ± 0.022 $(+0.2\sigma)$	$H(2.33)$	233.60	234.9 ± 2.6 (-2.1σ)
y_{cal}	1.00048	1.0006 ± 0.0024 (-0.1σ)	z_{re}	7.55	7.74 ± 0.75 (-0.2σ)	$D_M(2.33)$	5810	5785 ± 73 $(+3.1\sigma)$
A_{217}^{CIB}	43.5	46 ± 7 (-0.1σ)	$10^9 A_s$	2.0810	2.095 ± 0.035 (-0.4σ)	$f\sigma_8(0.15)$	0.4558	0.4562 ± 0.0058 $(+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.95	—	$10^9 A_s e^{-2\tau}$	1.8692	1.875 ± 0.017 (-0.6σ)	$\sigma_8(0.15)$	0.7530	0.750 ± 0.011 $(+0.3\sigma)$
A_{143}^{tSZ}	6.93	$5.6^{+2.2}_{-1.9}$ $(+0.1\sigma)$	D_{40}	1230.2	1231 ± 13 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4749	0.4749 ± 0.0057 $(+0.1\sigma)$
A_{100}^{PS}	243.0	256 ± 28 (-0.1σ)	D_{220}	5734.2	5739 ± 37 (-0.1σ)	$\sigma_8(0.38)$	0.6677	0.6651 ± 0.0096 $(+0.3\sigma)$
A_{143}^{PS}	51.6	44 ± 8 (-0.2σ)	D_{810}	2538.6	2538 ± 13 (-0.1σ)	$f\sigma_8(0.51)$	0.4739	0.4737 ± 0.0057 $(+0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	58.1	42 ± 9 (-0.1σ)	D_{1420}	819.89	818.2 ± 4.8 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6249	0.6224 ± 0.0092 $(+0.3\sigma)$
A_{217}^{PS}	124.1	115 ± 10 $(+0.0\sigma)$	D_{2000}	232.56	231.6 ± 1.8 $(+0.3\sigma)$	$f\sigma_8(0.61)$	0.4692	0.4688 ± 0.0057 $(+0.1\sigma)$
A^{kSZ}	0.01	< 3.91 (-0.1σ)	$n_{s,0.002}$	0.9631	0.9643 ± 0.0070 (-0.7σ)	$\sigma_8(0.61)$	0.5947	0.5923 ± 0.0088 $(+0.3\sigma)$
A_{100}^{dustTT}	8.79	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.24329	0.2444 ± 0.0024 (-20.6σ)	$f\sigma_8(2.33)$	0.29903	0.2984 ± 0.0043 $(+0.2\sigma)$
A_{143}^{dustTT}	10.96	10.8 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.24461	0.2457 ± 0.0024 (-20.6σ)	$\sigma_8(2.33)$	0.30891	0.3079 ± 0.0048 $(+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.30	18.5 ± 3.3 $(+0.0\sigma)$	$10^5 D/H$	2.5378	2.559 ± 0.045 (-0.6σ)	f_{2000}^{143}	26.94	28.6 ± 3.0 (-0.3σ)
A_{217}^{dustTT}	96.1	93.8 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.910	13.85 ± 0.17 $(+3.3\sigma)$	$f_{2000}^{143 \times 217}$	30.72	31.5 ± 2.1 (-0.3σ)
A_{100}^{dustTE}	0.1144	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.521	1089.67 ± 0.33 (-0.5σ)	f_{2000}^{217}	105.29	106.4 ± 2.0 (-0.3σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.135 ± 0.029 (-0.0σ)	r_*	146.09	145.3 ± 1.7 $(+3.5\sigma)$	χ_{lensing}^2	8.609	9.12 ± 0.68 $(+0.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.481 ± 0.085 (-0.0σ)	$100\theta_*$	1.04156	1.04138 ± 0.00053 $(+0.6\sigma)$	χ_{small}^2	395.92	397.2 ± 1.9 (-0.0σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.026	13.96 ± 0.16 $(+3.4\sigma)$	χ_{lowl}^2	23.52	23.6 ± 1.1 $(+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.665 ± 0.080 (-0.0σ)	z_{drag}	1059.51	1059.74 ± 0.69 (-0.9σ)	χ_{plik}^2	2343.5	2359.3 ± 5.9 (-0.1σ)
A_{217}^{dustTE}	2.072	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	148.78	148.0 ± 1.8 $(+3.5\sigma)$	χ_{JLA}^2	1034.881	1035.07 ± 0.33 $(+0.0\sigma)$
c_{100}	0.99975	0.99967 ± 0.00061 $(+0.0\sigma)$	k_D	0.13967	0.1402 ± 0.0013 (-2.0σ)	$\chi_{6\text{DF}}^2$	0.0060	0.048 ± 0.064 $(+0.0\sigma)$
c_{217}	0.99815	0.99818 ± 0.00062 $(+0.0\sigma)$	$100\theta_D$	0.160373	0.16056 ± 0.00040 (-0.9σ)	χ_{MGS}^2	1.473	1.37 ± 0.47 $(+0.2\sigma)$
H_0	67.28	67.4 ± 1.1 (-0.7σ)	z_{eq}	3395.7	3391 ± 23 $(+0.3\sigma)$	χ_{DR12BAO}^2	3.77	4.6 ± 1.4 (-0.1σ)
Ω_Λ	0.6926	0.6902 ± 0.0068 $(+0.1\sigma)$	k_{eq}	0.010256	0.01030 ± 0.00011 (-0.6σ)	χ_{prior}^2	1.39	11.5 ± 4.5 (-0.0σ)
Ω_m	0.3074	0.3098 ± 0.0068 (-0.1σ)	$100\theta_{\text{eq}}$	0.81450	0.8155 ± 0.0045 (-0.3σ)	χ_{CMB}^2	2771.6	2789.2 ± 6.0 (-0.0σ)
$\Omega_m h^2$	0.13915	0.1409 ± 0.0031 (-1.6σ)	$100\theta_{s,\text{eq}}$	0.45004	0.4505 ± 0.0023 (-0.3σ)	χ_{BAO}^2	5.251	6.0 ± 1.1 $(+0.0\sigma)$
$\Omega_\nu h^2$	$0.6 \cdot 10^{-5}$	< 0.000541	$H(0.15)$	72.48	72.7 ± 1.1 (-0.9σ)			

Best-fit $\chi_{\text{eff}}^2 = 3813.11$; $\Delta\chi_{\text{eff}}^2 = -2.56$; $\bar{\chi}_{\text{eff}}^2 = 3841.73$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.12$; $R - 1 = 0.00935$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.19) DR12BAO: 3.77 (Δ -0.47) CMB - smicadx12.Dec5.ftl_mv2_ndclpp_p.teb.consext8: 8.61 (Δ -0.11) small_100x143.offlike5_EE_Aplanc
395.92 (Δ -0.60) commander_dx12_v3.2.29: 23.52 (Δ 0.64) plik_rd12_HM_v22b.TTTEEE: 2343.54 (Δ -1.73) SN - JLA Pantheon18: 1034.88 (Δ -0.09)

9.36 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022306	0.02235 ± 0.00017	$\Omega_m h^3$	0.09345	0.0946 ± 0.0029	$D_M(0.15)$	646.2	645.0 ± 9.3
$\Omega_c h^2$	0.11694	0.1178 ± 0.0025	σ_8	0.8147	$0.810^{+0.011}_{-0.0099}$	$H(0.38)$	82.29	82.5 ± 1.0
$100\theta_{MC}$	1.041303	1.04119 ± 0.00040	S_8	0.8271	0.825 ± 0.011	$D_M(0.38)$	1541.6	1538 ± 21
τ	0.0531	0.0552 ± 0.0075	$\sigma_8 \Omega_m^{0.5}$	0.4530	0.4520 ± 0.0061	$H(0.51)$	88.92	89.2 ± 1.0
Σm_ν [eV]	0.0013	< 0.0541	$\sigma_8 \Omega_m^{0.25}$	0.6075	0.6052 ± 0.0073	$D_M(0.51)$	1997.4	1993 ± 26
N_{eff}	2.883	2.95 ± 0.15	$\sigma_8/h^{0.5}$	0.9945	$0.988^{+0.011}_{-0.0094}$	$H(0.61)$	94.47	94.8 ± 1.1
$\ln(10^{10} A_s)$	3.0346	3.041 ± 0.016	$r_{\text{drag}} h$	99.88	99.65 ± 0.87	$D_M(0.61)$	2324.6	2319 ± 30
n_s	0.9620	0.9632 ± 0.0064	$\langle d^2 \rangle^{1/2}$	2.4468	2.443 ± 0.022	$H(2.33)$	233.62	234.7 ± 2.2
y_{cal}	1.00057	1.0006 ± 0.0024	z_{re}	7.50	7.71 ± 0.76	$D_M(2.33)$	5816	5796 ± 64
A_{217}^{CIB}	44.4	46 ± 7	$10^9 A_s$	2.0794	2.092 ± 0.034	$f\sigma_8(0.15)$	0.4571	0.4564 ± 0.0058
$\xi^{\text{tSZ} \times \text{CIB}}$	0.835	> 0.381	$10^9 A_s e^{-2\tau}$	1.8698	1.873 ± 0.015	$\sigma_8(0.15)$	0.7529	$0.749^{+0.010}_{-0.0094}$
A_{143}^{tSZ}	6.99	$5.6^{+2.1}_{-1.9}$	D_{40}	1232.3	1233 ± 13	$f\sigma_8(0.38)$	0.4758	0.4748 ± 0.0055
A_{100}^{PS}	244.2	255 ± 28	D_{220}	5733.5	5738 ± 37	$\sigma_8(0.38)$	0.6675	$0.6637^{+0.0095}_{-0.0086}$
A_{143}^{PS}	50.4	44 ± 8	D_{810}	2538.7	2538 ± 13	$f\sigma_8(0.51)$	0.4746	0.4734 ± 0.0055
$A_{143 \times 217}^{\text{PS}}$	55.7	42 ± 9	D_{1420}	819.71	818.2 ± 4.7	$\sigma_8(0.51)$	0.6246	$0.6212^{+0.0091}_{-0.0081}$
A_{217}^{PS}	122.9	115 ± 10	D_{2000}	232.49	231.7 ± 1.7	$f\sigma_8(0.61)$	0.4698	0.4684 ± 0.0054
A^{kSZ}	0.00	< 3.83	$n_{s,0.002}$	0.9620	0.9632 ± 0.0064	$\sigma_8(0.61)$	0.5943	$0.5910^{+0.0087}_{-0.0078}$
A_{100}^{dustTT}	8.71	8.9 ± 1.8	Y_P	0.24316	0.2440 ± 0.0021	$f\sigma_8(2.33)$	0.29880	0.2978 ± 0.0041
A_{143}^{dustTT}	10.92	10.8 ± 1.8	Y_P^{BBN}	0.24447	0.2453 ± 0.0021	$\sigma_8(2.33)$	0.30859	0.3071 ± 0.0046
$A_{143 \times 217}^{\text{dustTT}}$	20.08	18.5 ± 3.3	$10^5 D/H$	2.5408	2.555 ± 0.040	f_{2000}^{143}	27.20	28.5 ± 2.9
A_{217}^{dustTT}	95.5	93.8 ± 7.3	Age/Gyr	13.923	13.88 ± 0.15	$f_{2000}^{143 \times 217}$	30.85	31.4 ± 2.0
A_{100}^{dustTE}	0.1130	0.114 ± 0.038	z_*	1089.564	1089.65 ± 0.31	f_{2000}^{217}	105.48	106.3 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1335	0.135 ± 0.029	r_*	146.12	145.6 ± 1.5	χ_{lensing}^2	8.650	9.09 ± 0.67
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.481 ± 0.085	$100\theta_*$	1.041572	1.04143 ± 0.00048	χ_{small}^2	395.86	397.1 ± 1.9
A_{143}^{dustTE}	0.224	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	14.029	13.98 ± 0.14	χ_{lowl}^2	23.71	23.7 ± 1.1
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.665 ± 0.080	z_{drag}	1059.44	1059.64 ± 0.62	χ_{plik}^2	2343.0	2358.9 ± 5.8
A_{217}^{dustTE}	2.090	2.08 ± 0.27	r_{drag}	148.83	148.2 ± 1.5	χ_{Aver15}^2	0.011	0.28 ± 0.40
c_{100}	0.99973	0.99968 ± 0.00061	k_D	0.13963	0.1400 ± 0.0011	$\chi_{6\text{DF}}^2$	0.0155	0.060 ± 0.077
c_{217}	0.99815	0.99818 ± 0.00062	$100\theta_D$	0.160379	0.16052 ± 0.00035	χ_{MGS}^2	1.343	1.28 ± 0.47
H_0	67.11	67.2 ± 1.0	z_{eq}	3402.1	3395 ± 24	χ_{DR12BAO}^2	4.04	4.9 ± 1.6
Ω_Λ	0.6908	0.6888 ± 0.0070	k_{eq}	0.010269	0.010290 ± 0.000099	χ_{prior}^2	1.52	11.4 ± 4.5
Ω_m	0.3092	0.3112 ± 0.0070	$100\theta_{\text{eq}}$	0.81325	0.8147 ± 0.0045	χ_{CMB}^2	2771.3	2788.8 ± 5.9
$\Omega_m h^2$	0.13926	0.1406 ± 0.0027	$100\theta_{s,\text{eq}}$	0.44941	0.4501 ± 0.0023	χ_{BAO}^2	5.40	6.2 ± 1.3
$\Omega_\nu h^2$	$1.4 \cdot 10^{-5}$	< 0.000564	$H(0.15)$	72.32	72.5 ± 1.0			

Best-fit $\chi_{\text{eff}}^2 = 2778.19$; $\bar{\chi}_{\text{eff}}^2 = 2806.77$; $R - 1 = 0.00843$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 BAO - 6DF: 0.01 MGS: 1.34 DR12BAO: 4.04 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.65 small_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2.29: 23.71 plik_rd12_HM_v22b_TTTEEE: 2343.05

9.37 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022312	0.02235 ± 0.00017	σ_8	0.8166	$0.812^{+0.011}_{-0.0097}$	$D_M(0.38)$	1536.7	1535 ± 20
$\Omega_c h^2$	0.11778	0.1183 ± 0.0024	S_8	0.8290	0.826 ± 0.011	$H(0.51)$	89.20	89.4 ± 1.0
$100\theta_{MC}$	1.041187	1.04112 ± 0.00039	$\sigma_8 \Omega_m^{0.5}$	0.4540	0.4526 ± 0.0061	$D_M(0.51)$	1991.1	1989 ± 26
τ	0.0531	0.0550 ± 0.0075	$\sigma_8 \Omega_m^{0.25}$	0.6089	0.6060 ± 0.0072	$H(0.61)$	94.77	95.0 ± 1.0
Σm_ν [eV]	0.0028	< 0.0548	$\sigma_8/h^{0.5}$	0.9952	$0.989^{+0.011}_{-0.0094}$	$D_M(0.61)$	2317.2	2315 ± 29
N_{eff}	2.930	2.97 ± 0.14	$r_{\text{drag}} h$	99.87	99.65 ± 0.87	$H(2.33)$	234.34	235.1 ± 2.1
$\ln(10^{10} A_s)$	3.0358	3.041 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.4465	2.443 ± 0.022	$D_M(2.33)$	5797	5786 ± 61
n_s	0.9630	0.9639 ± 0.0062	z_{re}	7.51	7.70 ± 0.76	$f\sigma_8(0.15)$	0.4581	0.4570 ± 0.0057
y_{cal}	1.00019	1.0006 ± 0.0024	$10^9 A_s$	2.0817	2.094 ± 0.034	$\sigma_8(0.15)$	0.7547	$0.750^{+0.010}_{-0.0091}$
A_{217}^{CIB}	45.5	46 ± 7	$10^9 A_s e^{-2\tau}$	1.8720	1.875 ± 0.015	$f\sigma_8(0.38)$	0.4769	0.4755 ± 0.0055
$\xi^{\text{tSZ} \times \text{CIB}}$	0.63	—	D_{40}	1230.6	1232 ± 13	$\sigma_8(0.38)$	0.6690	$0.6647^{+0.0095}_{-0.0084}$
A_{143}^{tSZ}	7.08	$5.6^{+2.2}_{-1.9}$	D_{220}	5727.4	5736 ± 37	$f\sigma_8(0.51)$	0.4757	0.4741 ± 0.0054
A_{100}^{PS}	246.8	256 ± 28	D_{810}	2536.6	2538 ± 13	$\sigma_8(0.51)$	0.6261	$0.6221^{+0.0091}_{-0.0080}$
A_{143}^{PS}	48.9	45 ± 8	D_{1420}	818.17	817.9 ± 4.7	$f\sigma_8(0.61)$	0.4708	0.4691 ± 0.0053
$A_{143 \times 217}^{\text{PS}}$	51.3	42 ± 9	D_{2000}	231.78	231.4 ± 1.7	$\sigma_8(0.61)$	0.5957	$0.5919^{+0.0087}_{-0.0077}$
A_{217}^{PS}	121.3	115 ± 10	$n_{s,0.002}$	0.9630	0.9639 ± 0.0062	$f\sigma_8(2.33)$	0.29953	0.2983 ± 0.0041
A^{kSZ}	0.00	< 3.97	Y_P	0.24380	0.2444 ± 0.0020	$\sigma_8(2.33)$	0.30934	0.3076 ± 0.0045
A_{100}^{dustTT}	8.79	8.9 ± 1.8	Y_P^{BBN}	0.24512	0.2457 ± 0.0020	f_{2000}^{143}	27.95	28.9 ± 2.9
A_{143}^{dustTT}	10.98	10.8 ± 1.8	10^5D/H	2.5561	2.565 ± 0.037	$f_{2000}^{143 \times 217}$	31.32	31.7 ± 2.0
$A_{143 \times 217}^{\text{dustTT}}$	20.01	18.6 ± 3.3	Age/Gyr	13.879	13.85 ± 0.15	f_{2000}^{217}	105.90	106.5 ± 1.9
A_{217}^{dustTT}	95.6	93.8 ± 7.3	z_*	1089.678	1089.72 ± 0.28	χ_{lensing}^2	8.749	9.14 ± 0.66
A_{100}^{dustTE}	0.1143	0.114 ± 0.038	r_*	145.65	145.3 ± 1.4	χ_{small}^2	395.85	397.1 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.135 ± 0.029	$100\theta_*$	1.041427	1.04135 ± 0.00046	χ_{lowl}^2	23.62	23.6 ± 1.1
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.481 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.986	13.95 ± 0.13	χ_{plik}^2	2343.2	2358.9 ± 5.8
A_{143}^{dustTE}	0.224	0.225 ± 0.054	z_{drag}	1059.55	1059.70 ± 0.61	χ_{Aver15}^2	0.003	0.29 ± 0.40
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.665 ± 0.080	r_{drag}	148.35	148.0 ± 1.5	χ_{Cooke17}^2	0.434	0.48 ± 0.49
A_{217}^{dustTE}	2.073	2.08 ± 0.27	k_D	0.13995	0.1402 ± 0.0011	$\chi_{6\text{DF}}^2$	0.0157	0.061 ± 0.077
c_{100}	0.99972	0.99967 ± 0.00061	$100\theta_D$	0.160509	0.16060 ± 0.00033	χ_{MGS}^2	1.343	1.28 ± 0.47
c_{217}	0.99817	0.99819 ± 0.00062	z_{eq}	3400.9	3394 ± 24	χ_{DR12BAO}^2	4.06	4.9 ± 1.6
H_0	67.32	67.4 ± 1.0	k_{eq}	0.010298	0.010307 ± 0.000096	χ_{prior}^2	1.56	11.5 ± 4.5
Ω_Λ	0.6909	0.6889 ± 0.0070	$100\theta_{\text{eq}}$	0.81343	0.8149 ± 0.0045	χ_{CMB}^2	2771.4	2788.8 ± 5.9
Ω_m	0.3091	0.3111 ± 0.0070	$100\theta_{s,\text{eq}}$	0.44950	0.4502 ± 0.0023	χ_{BAO}^2	5.41	6.2 ± 1.3
$\Omega_m h^2$	0.14012	0.1411 ± 0.0026	$H(0.15)$	72.55	72.61 ± 0.99	χ_{Abund}^2	0.437	0.77 ± 0.59
$\Omega_\nu h^2$	$2.9 \cdot 10^{-5}$	< 0.000574	$D_M(0.15)$	644.1	643.8 ± 9.1			
$\Omega_m h^3$	0.09434	0.0951 ± 0.0028	$H(0.38)$	82.55	82.68 ± 0.99			

Best-fit $\chi_{\text{eff}}^2 = 2778.82$; $\bar{\chi}_{\text{eff}}^2 = 2807.26$; $R - 1 = 0.00868$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.00 D.Cooke2017: 0.43 BAO - 6DF: 0.02 MGS: 1.34 DR12BAO: 4.06 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.75
small.100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12.v3.2.29: 23.62 plik_rd12_HM_v22b_TTTEEE: 2343.18

9.38 base_nnu_mnu_plikHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238 \pm 0.00018 \quad (-0.4\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0951 \pm 0.0034 \quad (-4.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$643 \pm 10 \quad (+0.8\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0029 \quad (-1.3\sigma)$	σ_8	$0.812 \pm 0.011 \quad (+0.3\sigma)$	$H(0.38)$	$82.7 \pm 1.2 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04116 \pm 0.00044 \quad (+0.5\sigma)$	S_8	$0.825 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534 \pm 23 \quad (+0.9\sigma)$
τ	$0.0563^{+0.0055}_{-0.0079} \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4518 \pm 0.0061 \quad (+0.1\sigma)$	$H(0.51)$	$89.4 \pm 1.2 \quad (-1.8\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0528	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6057 \pm 0.0075 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1987 \pm 30 \quad (+1.0\sigma)$
N_{eff}	2.97 ± 0.17	$\sigma_8/h^{0.5}$	$0.989^{+0.011}_{-0.0092} \quad (+0.5\sigma)$	$H(0.61)$	$95.0 \pm 1.2 \quad (-2.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.014}_{-0.017} \quad (-0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.83 \pm 0.83 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2312 \pm 34 \quad (+1.1\sigma)$
n_{s}	$0.9644 \pm 0.0069 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.442 \pm 0.021 \quad (+0.2\sigma)$	$H(2.33)$	$234.9 \pm 2.6 \quad (-2.1\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.1\sigma)$	z_{re}	$7.83^{+0.59}_{-0.77} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5784 \pm 73 \quad (+3.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.029}_{-0.035} \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4564 \pm 0.0058 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.874 \pm 0.017 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.751 \pm 0.010 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9} \quad (+0.1\sigma)$	D_{40}	$1231 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4751 \pm 0.0057 \quad (+0.1\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5738 \pm 37 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6655 \pm 0.0096 \quad (+0.3\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.2\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4739 \pm 0.0056 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$818.1 \pm 4.8 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6228 \pm 0.0091 \quad (+0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.6 \pm 1.8 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4691 \pm 0.0056 \quad (+0.1\sigma)$
A^{kSZ}	$< 3.92 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9644 \pm 0.0069 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.5927 \pm 0.0087 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.2444 \pm 0.0024 \quad (-20.2\sigma)$	$f\sigma_8(2.33)$	$0.2987 \pm 0.0043 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2457 \pm 0.0024 \quad (-20.2\sigma)$	$\sigma_8(2.33)$	$0.3081 \pm 0.0047 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.559 \pm 0.045 \quad (-0.6\sigma)$	f_{2000}^{143}	$28.6 \pm 3.0 \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.85 \pm 0.17 \quad (+3.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.5 \pm 2.1 \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.66 \pm 0.33 \quad (-0.5\sigma)$	f_{2000}^{217}	$106.4 \pm 2.0 \quad (-0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$145.3 \pm 1.7 \quad (+3.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.10 \pm 0.66 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.084 \quad (-0.0\sigma)$	$100\theta_*$	$1.04138 \pm 0.00053 \quad (+0.6\sigma)$	χ_{small}^2	$397.2 \pm 2.0 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.16 \quad (+3.3\sigma)$	χ_{lowl}^2	$23.6 \pm 1.1 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.665 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.75 \pm 0.69 \quad (-0.9\sigma)$	χ_{plik}^2	$2359.2 \pm 5.9 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$148.0 \pm 1.8 \quad (+3.4\sigma)$	χ_{JLA}^2	$1035.06 \pm 0.33 \quad (+0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1402 \pm 0.0013 \quad (-1.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.062 \quad (+0.0\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16056 \pm 0.00040 \quad (-0.9\sigma)$	χ_{MGS}^2	$1.38 \pm 0.47 \quad (+0.2\sigma)$
H_0	$67.5 \pm 1.1 \quad (-0.6\sigma)$	z_{eq}	$3390 \pm 23 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.3 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0067 \quad (+0.1\sigma)$	k_{eq}	$0.01029 \pm 0.00011 \quad (-0.6\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3096 \pm 0.0067 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8156 \pm 0.0044 \quad (-0.3\sigma)$	χ_{CMB}^2	$2789.0 \pm 6.0 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1409 \pm 0.0031 \quad (-1.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0022 \quad (-0.3\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$
$\Omega_{\nu}h^2$	< 0.000552	$H(0.15)$	$72.7 \pm 1.1 \quad (-0.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3841.56; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.18; R - 1 = 0.01012$$

9.39 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022197	0.02221 ± 0.00023 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4546	0.4519 ± 0.0071 $(+0.1\sigma)$	$H(0.38)$	83.07	83.0 ± 1.5 $(+0.1\sigma)$
$\Omega_c h^2$	0.11915	0.1191 ± 0.0038 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6104	0.6057 ± 0.0087 $(+0.2\sigma)$	$D_M(0.38)$	1526.5	1530 ± 30 (-0.1σ)
$100\theta_{MC}$	1.04103	1.04104 ± 0.00058 $(+0.0\sigma)$	$\sigma_8/h^{0.5}$	0.9955	$0.987^{+0.012}_{-0.010}$ $(+0.3\sigma)$	$H(0.51)$	89.74	89.7 ± 1.6 $(+0.1\sigma)$
τ	0.0530	$0.0548^{+0.0070}_{-0.0077}$ (-0.1σ)	$r_{\text{drag}} h$	100.10	99.8 ± 1.0 $(+0.2\sigma)$	$D_M(0.51)$	1978.1	1982 ± 39 (-0.1σ)
Σm_ν [eV]	0.0026	< 0.0640	$\langle d^2 \rangle^{1/2}$	2.4429	2.434 ± 0.024 $(+0.0\sigma)$	$H(0.61)$	95.32	95.3 ± 1.6 $(+0.1\sigma)$
N_{eff}	3.024	3.04 ± 0.24	z_{re}	7.56	7.73 ± 0.77 (-0.1σ)	$D_M(0.61)$	2302.3	2306 ± 44 (-0.1σ)
$\ln(10^{10} A_s)$	3.0373	3.041 ± 0.018 (-0.1σ)	$10^9 A_s$	2.0848	2.093 ± 0.038 (-0.1σ)	$H(2.33)$	235.44	235.7 ± 3.4 (-0.2σ)
n_s	0.9647	0.9663 ± 0.0088 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8752	1.876 ± 0.021 (-0.1σ)	$D_M(2.33)$	5765	5768 ± 96 $(+0.1\sigma)$
y_{cal}	1.00039	1.0006 ± 0.0025 $(+0.0\sigma)$	D_{40}	1227.0	1225 ± 15 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4588	0.4566 ± 0.0068 $(+0.1\sigma)$
A_{100}^{PS}	243.8	242 ± 25 (-0.0σ)	D_{220}	5710.1	5713 ± 40 (-0.0σ)	$\sigma_8(0.15)$	0.7578	0.750 ± 0.012 $(+0.5\sigma)$
A_{143}^{PS}	37.1	40 ± 9 (-0.0σ)	D_{810}	2531.6	2534 ± 14 (-0.0σ)	$f\sigma_8(0.38)$	0.4781	0.4752 ± 0.0066 $(+0.2\sigma)$
A_{217}^{PS}	99.5	101 ± 10 (-0.0σ)	D_{1420}	814.0	815.1 ± 5.3 (-0.0σ)	$\sigma_8(0.38)$	0.6719	0.665 ± 0.011 $(+0.5\sigma)$
A_{217}^{CIB}	42.6	41 ± 7 (-0.0σ)	D_{2000}	229.75	230.0 ± 2.3 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4770	0.4740 ± 0.0066 $(+0.2\sigma)$
A_{143}^{tSZ}	4.28	$3.8^{+1.8}_{-2.5}$ $(+0.0\sigma)$	$n_{s,0.002}$	0.9647	0.9663 ± 0.0088 (-0.1σ)	$\sigma_8(0.51)$	0.6289	0.623 ± 0.011 $(+0.5\sigma)$
$r_{143 \times 217}^{\text{PS}}$	0.542	0.65 ± 0.13 (-0.0σ)	Y_{P}	0.24503	0.2452 ± 0.0032 (-1.6σ)	$f\sigma_8(0.61)$	0.4723	0.4691 ± 0.0066 $(+0.3\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	0.657	$0.58^{+0.41}_{-0.14}$ (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24636	0.2465 ± 0.0032 (-1.6σ)	$\sigma_8(0.61)$	0.5984	0.592 ± 0.010 $(+0.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.00	—	$10^5 D/H$	2.611	2.613 ± 0.068 (-0.0σ)	$f\sigma_8(2.33)$	0.3010	0.2986 ± 0.0052 $(+0.5\sigma)$
A^{kSZ}	3.7	—	Age/Gyr	13.802	13.81 ± 0.23 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.3109	0.3080 ± 0.0057 $(+0.5\sigma)$
A_{100}^{dust}	0.999	1.01 ± 0.19 (-0.0σ)	z_*	1090.039	1090.03 ± 0.48 (-0.0σ)	f_{2000}^{143}	30.81	30 ± 4 (-0.0σ)
A_{143}^{dust}	0.977	0.97 ± 0.18 $(+0.0\sigma)$	r_*	144.90	144.9 ± 2.2 $(+0.4\sigma)$	f_{2000}^{217}	107.42	107.3 ± 2.4 (-0.0σ)
A_{217}^{dust}	0.974	0.97 ± 0.10 $(+0.0\sigma)$	$100\theta_*$	1.04122	1.04124 ± 0.00070 $(+0.1\sigma)$	$f_{2000}^{143 \times 217}$	32.56	32.7 ± 2.7 (-0.0σ)
$A_{143 \times 217}^{\text{dust}}$	1.009	1.03 ± 0.16 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.916	13.91 ± 0.21 $(+0.3\sigma)$	χ_{lensing}^2	8.90	9.51 ± 0.92 $(+0.1\sigma)$
c_{100}	0.99736	0.9975 ± 0.0011 (-0.0σ)	z_{drag}	1059.44	1059.49 ± 0.87 (-0.1σ)	χ_{small}^2	395.85	397.1 ± 1.9 (-0.1σ)
c_{217}	1.00127	1.0012 ± 0.0016 $(+0.0\sigma)$	r_{drag}	147.63	147.6 ± 2.3 $(+0.3\sigma)$	χ_{lowl}^2	23.31	23.2 ± 1.3 $(+0.1\sigma)$
H_0	67.80	67.6 ± 1.5 $(+0.2\sigma)$	k_{D}	0.14025	0.1403 ± 0.0017 (-0.1σ)	χ_{CamSpec}^2	7049.9	7063.7 ± 5.4 $(+0.1\sigma)$
Ω_Λ	0.6925	0.6899 ± 0.0082 $(+0.2\sigma)$	$100\theta_{\text{D}}$	0.16096	0.16100 ± 0.00059 (-0.0σ)	$\chi_{6\text{DF}}^2$	0.0062	0.062 ± 0.083 $(+0.0\sigma)$
Ω_m	0.3075	0.3101 ± 0.0082 (-0.2σ)	z_{eq}	3387.5	3380 ± 31 $(+0.0\sigma)$	χ_{MGS}^2	1.47	1.38 ± 0.56 $(+0.2\sigma)$
$\Omega_m h^2$	0.14137	0.1419 ± 0.0040 (-0.2σ)	k_{eq}	0.010324	0.01031 ± 0.00014 (-0.0σ)	χ_{DR12BAO}^2	3.77	4.8 ± 1.7 (-0.0σ)
$\Omega_\nu h^2$	$2.8 \cdot 10^{-5}$	< 0.000673	$100\theta_{\text{eq}}$	0.8155	0.8171 ± 0.0058 (-0.1σ)	χ_{prior}^2	2.33	7.6 ± 3.4 $(+0.0\sigma)$
$\Omega_m h^3$	0.09586	$0.0960^{+0.0042}_{-0.0048}$ $(+0.1\sigma)$	$100\theta_{s,\text{eq}}$	0.45065	0.4515 ± 0.0029 (-0.0σ)	χ_{CMB}^2	7478.0	7493.5 ± 5.7 $(+0.1\sigma)$
σ_8	0.8198	0.812 ± 0.013 $(+0.4\sigma)$	$H(0.15)$	73.04	72.9 ± 1.5 $(+0.2\sigma)$	χ_{BAO}^2	5.25	6.2 ± 1.4 $(+0.0\sigma)$
S_8	0.8299	0.825 ± 0.013 $(+0.1\sigma)$	$D_M(0.15)$	639.7	641 ± 13 (-0.1σ)			

Best-fit $\chi_{\text{eff}}^2 = 7485.59$; $\bar{\chi}_{\text{eff}}^2 = 7507.28$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.80$; $R - 1 = 0.00494$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.77 CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.90 small_100x143.offlike5_EE_Aplanck_B: 395.85 comman-
der_dx12_v3_2_29: 23.31 CamSpec like_10.7HM: 7049.94

9.40 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022187	0.02223 ± 0.00023 (-0.0σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4533	0.4515 ± 0.0070 $(+0.2\sigma)$	$H(0.38)$	83.01	83.1 ± 1.5 $(+0.5\sigma)$
$\Omega_{\text{c}}h^2$	0.11869	0.1192 ± 0.0038 $(+0.2\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6092	0.6057 ± 0.0087 $(+0.3\sigma)$	$D_{\text{M}}(0.38)$	1527.3	1526 ± 29 (-0.4σ)
$100\theta_{\text{MC}}$	1.04110	1.04103 ± 0.00058 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9944	$0.987^{+0.012}_{-0.010}$ $(+0.4\sigma)$	$H(0.51)$	89.66	89.8 ± 1.5 $(+0.6\sigma)$
τ	0.0530	0.0550 ± 0.0075 (-0.1σ)	$r_{\text{drag}}h$	100.22	99.97 ± 0.95 $(+0.2\sigma)$	$D_{\text{M}}(0.51)$	1979.3	1977 ± 37 (-0.4σ)
Σm_{ν} [eV]	0.0013	< 0.0616	$\langle d^2 \rangle^{1/2}$	2.4402	2.432 ± 0.023 $(+0.0\sigma)$	$H(0.61)$	95.23	95.4 ± 1.6 $(+0.6\sigma)$
N_{eff}	3.008	3.06 ± 0.23	z_{re}	7.56	7.76 ± 0.76 (-0.1σ)	$D_{\text{M}}(0.61)$	2303.8	2301 ± 43 (-0.4σ)
$\ln(10^{10}A_{\text{s}})$	3.0365	3.042 ± 0.018 (-0.1σ)	10^9A_{s}	2.0833	2.095 ± 0.038 (-0.1σ)	$H(2.33)$	235.07	235.9 ± 3.4 $(+0.2\sigma)$
n_{s}	0.9648	0.9672 ± 0.0086 $(+0.1\sigma)$	$10^9A_{\text{s}}e^{-2\tau}$	1.8737	1.877 ± 0.020 $(+0.1\sigma)$	$D_{\text{M}}(2.33)$	5771	5759 ± 94 (-0.5σ)
y_{cal}	1.00044	1.0006 ± 0.0025 (-0.0σ)	D_{40}	1226.4	1224 ± 15 (-0.0σ)	$f\sigma_8(0.15)$	0.4576	0.4562 ± 0.0067 $(+0.2\sigma)$
A_{100}^{PS}	238.6	242 ± 25 $(+0.0\sigma)$	D_{220}	5710.6	5714 ± 40 (-0.0σ)	$\sigma_8(0.15)$	0.7569	0.751 ± 0.012 $(+0.6\sigma)$
A_{143}^{PS}	38.8	41 ± 9 (-0.0σ)	D_{810}	2532.1	2534 ± 14 (-0.0σ)	$f\sigma_8(0.38)$	0.4770	0.4752 ± 0.0066 $(+0.3\sigma)$
A_{217}^{PS}	99.7	101 ± 10 (-0.0σ)	D_{1420}	814.6	815.1 ± 5.3 (-0.0σ)	$\sigma_8(0.38)$	0.6712	0.666 ± 0.011 $(+0.7\sigma)$
A_{217}^{CIB}	45.3	41 ± 7 $(+0.0\sigma)$	D_{2000}	229.98	229.9 ± 2.3 (-0.0σ)	$f\sigma_8(0.51)$	0.4761	0.4741 ± 0.0066 $(+0.4\sigma)$
A_{143}^{tSZ}	6.10	$3.8^{+1.8}_{-2.6}$ $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.9648	0.9672 ± 0.0086 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6283	0.623 ± 0.011 $(+0.7\sigma)$
$r_{143 \times 217}^{\text{PS}}$	0.559	0.65 ± 0.13 (-0.0σ)	Y_{P}	0.24481	0.2454 ± 0.0032 $(+1.4\sigma)$	$f\sigma_8(0.61)$	0.4714	0.4693 ± 0.0066 $(+0.4\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	0.764	$0.58^{+0.42}_{-0.13}$ (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.24613	0.2468 ± 0.0032 $(+1.4\sigma)$	$\sigma_8(0.61)$	0.5979	0.593 ± 0.010 $(+0.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.01	—	$10^5\text{D}/\text{H}$	2.607	2.615 ± 0.068 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.3007	0.2992 ± 0.0050 $(+0.6\sigma)$
A^{kSZ}	0.9	—	Age/Gyr	13.817	13.79 ± 0.22 (-0.5σ)	$\sigma_8(2.33)$	0.3106	0.3086 ± 0.0055 $(+0.7\sigma)$
A_{100}^{dust}	1.018	1.01 ± 0.19 $(+0.0\sigma)$	z_*	1089.993	1090.03 ± 0.48 $(+0.1\sigma)$	f_{2000}^{143}	30.80	31 ± 4 $(+0.0\sigma)$
A_{143}^{dust}	0.986	0.97 ± 0.18 $(+0.0\sigma)$	r_*	145.11	144.7 ± 2.2 (-0.2σ)	f_{2000}^{217}	107.29	107.4 ± 2.4 $(+0.0\sigma)$
A_{217}^{dust}	0.963	0.97 ± 0.10 $(+0.0\sigma)$	$100\theta_*$	1.04129	1.04121 ± 0.00069 (-0.1σ)	$f_{2000}^{143 \times 217}$	32.61	32.8 ± 2.7 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	1.004	1.03 ± 0.16 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.936	13.90 ± 0.21 (-0.2σ)	χ_{lensing}^2	8.87	9.55 ± 0.93 $(+0.2\sigma)$
c_{100}	0.99757	0.9975 ± 0.0011 (-0.0σ)	z_{drag}	1059.40	1059.56 ± 0.86 $(+0.0\sigma)$	χ_{small}^2	395.85	397.1 ± 1.9 (-0.1σ)
c_{217}	1.00137	1.0012 ± 0.0016 $(+0.0\sigma)$	r_{drag}	147.84	147.4 ± 2.3 (-0.2σ)	χ_{lowl}^2	23.25	23.0 ± 1.2 $(+0.1\sigma)$
H_0	67.79	67.8 ± 1.4 $(+0.4\sigma)$	k_{D}	0.14008	0.1404 ± 0.0017 $(+0.1\sigma)$	χ_{CamSpec}^2	7050.1	7063.8 ± 5.5 $(+0.1\sigma)$
Ω_{Λ}	0.6934	0.6912 ± 0.0076 $(+0.2\sigma)$	$100\theta_{\text{D}}$	0.16094	0.16103 ± 0.00059 $(+0.1\sigma)$	χ_{JLA}^2	1034.856	1035.05 ± 0.35 (-0.1σ)
Ω_{m}	0.3066	0.3088 ± 0.0076 (-0.2σ)	z_{eq}	3383.9	3376 ± 29 $(+0.0\sigma)$	$\chi_{6\text{DF}}^2$	0.0030	0.049 ± 0.067 $(+0.0\sigma)$
$\Omega_{\text{m}}h^2$	0.14089	0.1420 ± 0.0040 $(+0.1\sigma)$	k_{eq}	0.010301	0.01031 ± 0.00014 $(+0.1\sigma)$	χ_{MGS}^2	1.54	1.47 ± 0.54 $(+0.3\sigma)$
$\Omega_{\nu}h^2$	$1.4 \cdot 10^{-5}$	< 0.000648	$100\theta_{\text{eq}}$	0.8161	0.8178 ± 0.0055 (-0.0σ)	χ_{DR12BAO}^2	3.65	4.5 ± 1.4 (-0.1σ)
$\Omega_{\text{m}}h^3$	0.09550	$0.0964^{+0.0042}_{-0.0047}$ $(+0.9\sigma)$	$100\theta_{\text{s,eq}}$	0.45100	0.4518 ± 0.0028 (-0.0σ)	χ_{prior}^2	2.17	7.6 ± 3.4 $(+0.0\sigma)$
σ_8	0.8187	0.813 ± 0.013 $(+0.6\sigma)$	$H(0.15)$	73.00	73.1 ± 1.4 $(+0.4\sigma)$	χ_{CMB}^2	7478.0	7493.5 ± 5.7 $(+0.1\sigma)$
S_8	0.8277	0.824 ± 0.013 $(+0.2\sigma)$	$D_{\text{M}}(0.15)$	639.9	640 ± 13 (-0.3σ)	χ_{BAO}^2	5.20	6.0 ± 1.1 $(+0.0\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 8520.27$; $\Delta\chi_{\text{eff}}^2 = -1.61$; $\bar{\chi}_{\text{eff}}^2 = 8542.17$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.67$; $R - 1 = 0.00504$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.54 (Δ 0.26) DR12BAO: 3.65 (Δ -0.53) CMB - smicadx12.Dec5.ftl.mv2.ndclpp-p.teb.consext8: 8.87 (Δ -0.15) small_100x143.offlike5_EE_Aplanc
395.85 (Δ -0.38) commander_dx12_v3.2_29: 23.25 (Δ 0.40) CamSpec like_10.7HM: 7050.07 (Δ -1.10) SN - JLA Pantheon18: 1034.86 (Δ -0.14)

9.41 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022135	0.02219 ± 0.00022	$\sigma_8 \Omega_m^{0.5}$	0.4536	0.4516 ± 0.0070	$H(0.38)$	82.61	82.7 ± 1.2
$\Omega_c h^2$	0.11799	0.1183 ± 0.0030	$\sigma_8 \Omega_m^{0.25}$	0.6086	0.6048 ± 0.0082	$D_M(0.38)$	1535.5	1536 ± 25
$100\theta_{MC}$	1.04120	1.04111 ± 0.00053	$\sigma_8/h^{0.5}$	0.9947	$0.987^{+0.012}_{-0.010}$	$H(0.51)$	89.25	89.4 ± 1.2
τ	0.0529	0.0547 ± 0.0075	$r_{\text{drag}} h$	99.98	99.72 ± 0.97	$D_M(0.51)$	1989.6	1989 ± 31
Σm_ν [eV]	0.0008	< 0.0610	$\langle d^2 \rangle^{1/2}$	2.4437	2.436 ± 0.023	$H(0.61)$	94.82	94.9 ± 1.3
N_{eff}	2.953	2.99 ± 0.18	z_{re}	7.54	7.70 ± 0.76	$D_M(0.61)$	2315.5	2315 ± 35
$\ln(10^{10} A_s)$	3.0338	3.039 ± 0.017	$10^9 A_s$	2.0776	$2.089^{+0.033}_{-0.037}$	$H(2.33)$	234.38	235.0 ± 2.7
n_s	0.9628	0.9647 ± 0.0073	$10^9 A_s e^{-2\tau}$	1.8690	1.872 ± 0.018	$D_M(2.33)$	5795	5787 ± 76
y_{cal}	1.00022	1.0006 ± 0.0025	D_{40}	1228.0	1227 ± 14	$f\sigma_8(0.15)$	0.4577	0.4561 ± 0.0066
A_{100}^{PS}	239.2	241 ± 25	D_{220}	5705.1	5713 ± 40	$\sigma_8(0.15)$	0.7547	0.749 ± 0.011
A_{143}^{PS}	38.0	40 ± 9	D_{810}	2529.9	2533 ± 14	$f\sigma_8(0.38)$	0.4766	0.4746 ± 0.0062
A_{217}^{PS}	99.8	101 ± 10	D_{1420}	814.4	815.4 ± 5.2	$\sigma_8(0.38)$	0.6691	0.664 ± 0.010
A_{217}^{CIB}	44.5	40 ± 7	D_{2000}	230.13	230.3 ± 2.1	$f\sigma_8(0.51)$	0.4755	0.4732 ± 0.0061
A_{143}^{tSZ}	5.75	$3.8^{+1.8}_{-2.5}$	$n_{s,0.002}$	0.9628	0.9647 ± 0.0073	$\sigma_8(0.51)$	0.6262	0.6211 ± 0.0095
$r_{143 \times 217}^{\text{PS}}$	0.568	0.65 ± 0.13	Y_P	0.24405	0.2446 ± 0.0025	$f\sigma_8(0.61)$	0.4707	0.4683 ± 0.0060
$r_{143 \times 217}^{\text{CIB}}$	0.742	$0.57^{+0.41}_{-0.15}$	Y_P^{BBN}	0.24537	0.2459 ± 0.0025	$\sigma_8(0.61)$	0.5958	0.5910 ± 0.0092
$\xi^{\text{tSZ} \times \text{CIB}}$	0.04	—	$10^5 \text{D}/\text{H}$	2.598	2.602 ± 0.058	$f\sigma_8(2.33)$	0.29956	0.2979 ± 0.0045
A^{kSZ}	1.45	$4.8^{+2.6}_{-3.6}$	Age/Gyr	13.873	13.85 ± 0.18	$\sigma_8(2.33)$	0.30941	0.3072 ± 0.0050
A_{100}^{dust}	1.010	1.01 ± 0.19	z_*	1089.945	1089.95 ± 0.42	f_{2000}^{143}	30.35	30 ± 3
A_{143}^{dust}	0.992	0.97 ± 0.17	r_*	145.61	145.3 ± 1.8	f_{2000}^{217}	106.97	107.0 ± 2.2
A_{217}^{dust}	0.961	0.97 ± 0.10	$100\theta_*$	1.04143	1.04135 ± 0.00061	$f_{2000}^{143 \times 217}$	32.31	32.4 ± 2.5
$A_{143 \times 217}^{\text{dust}}$	0.9998	1.03 ± 0.16	$D_M(z_*)/\text{Gpc}$	13.982	13.95 ± 0.16	χ_{lensing}^2	8.80	9.41 ± 0.87
c_{100}	0.99755	0.9975 ± 0.0011	z_{drag}	1059.17	1059.34 ± 0.73	χ_{small}^2	395.86	397.1 ± 1.8
c_{217}	1.00120	1.0012 ± 0.0016	r_{drag}	148.37	148.1 ± 1.8	χ_{lowl}^2	23.49	23.3 ± 1.2
H_0	67.39	67.4 ± 1.2	k_D	0.13970	0.1399 ± 0.0013	χ_{CamSpec}^2	7050.0	7063.3 ± 5.3
Ω_Λ	0.6914	0.6891 ± 0.0078	$100\theta_D$	0.160838	0.16089 ± 0.00049	χ_{Aver15}^2	0.014	0.45 ± 0.64
Ω_m	0.3086	0.3109 ± 0.0078	z_{eq}	3390.8	3383 ± 29	$\chi_{6\text{DF}}^2$	0.0105	0.064 ± 0.083
$\Omega_m h^2$	0.14014	0.1410 ± 0.0032	k_{eq}	0.010284	0.01029 ± 0.00012	χ_{MGS}^2	1.41	1.33 ± 0.53
$\Omega_\nu h^2$	$0.8 \cdot 10^{-5}$	< 0.000639	$100\theta_{\text{eq}}$	0.8148	0.8164 ± 0.0054	χ_{DR12BAO}^2	3.87	4.8 ± 1.7
$\Omega_m h^3$	0.09443	0.0950 ± 0.0035	$100\theta_{s,\text{eq}}$	0.45033	0.4511 ± 0.0027	χ_{prior}^2	2.06	7.5 ± 3.4
σ_8	0.8166	0.810 ± 0.012	$H(0.15)$	72.61	72.6 ± 1.2	χ_{CMB}^2	7478.1	7493.1 ± 5.5
S_8	0.8282	0.825 ± 0.013	$D_M(0.15)$	643.5	644 ± 11	χ_{BAO}^2	5.29	6.2 ± 1.4

Best-fit $\chi_{\text{eff}}^2 = 7485.47$; $\bar{\chi}_{\text{eff}}^2 = 7507.32$; $R - 1 = 0.00578$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.88 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.80 small_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 23.49 CamSpec like_10.7HM: 7049.95

9.42 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022159	0.02218 ± 0.00022	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6086	0.6051 ± 0.0079	$H(0.51)$	89.40	89.4 ± 1.2
$\Omega_{\mathrm{c}} h^2$	0.11818	0.1185 ± 0.0028	$\sigma_8 / h^{0.5}$	0.9943	$0.987^{+0.012}_{-0.010}$	$D_{\mathrm{M}}(0.51)$	1985.6	1988 ± 30
$100\theta_{\mathrm{MC}}$	1.041106	1.04109 ± 0.00050	$r_{\mathrm{drag}} h$	100.09	99.72 ± 0.97	$H(0.61)$	94.97	95.0 ± 1.2
τ	0.0530	0.0546 ± 0.0075	$\langle d^2 \rangle^{1/2}$	2.4415	2.436 ± 0.023	$D_{\mathrm{M}}(0.61)$	2311.0	2313 ± 34
$\Sigma m_{\nu} [\mathrm{eV}]$	0.0024	< 0.0613	z_{re}	7.55	7.70 ± 0.76	$H(2.33)$	234.59	235.2 ± 2.5
N_{eff}	2.973	3.00 ± 0.17	$10^9 A_{\mathrm{s}}$	2.0802	$2.090^{+0.033}_{-0.037}$	$D_{\mathrm{M}}(2.33)$	5786	5783 ± 71
$\ln(10^{10} A_{\mathrm{s}})$	3.0351	3.039 ± 0.017	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8711	1.873 ± 0.017	$f\sigma_8(0.15)$	0.4574	0.4563 ± 0.0064
n_{s}	0.9638	0.9650 ± 0.0071	D_{40}	1227.1	1227 ± 14	$\sigma_8(0.15)$	0.7554	$0.749^{+0.011}_{-0.0099}$
y_{cal}	1.00059	1.0006 ± 0.0025	D_{220}	5708.9	5712 ± 39	$f\sigma_8(0.38)$	0.4766	0.4748 ± 0.0060
A_{100}^{PS}	237.8	242 ± 25	D_{810}	2531.7	2533 ± 14	$\sigma_8(0.38)$	0.6698	$0.664^{+0.010}_{-0.0091}$
A_{143}^{PS}	37.8	40 ± 9	D_{1420}	814.9	815.2 ± 5.1	$f\sigma_8(0.51)$	0.4756	0.4735 ± 0.0059
A_{217}^{PS}	99.2	101 ± 10	D_{2000}	230.21	230.2 ± 1.9	$\sigma_8(0.51)$	0.6269	$0.6214^{+0.0096}_{-0.0086}$
A_{217}^{CIB}	45.2	40 ± 7	$n_{\mathrm{s},0.002}$	0.9638	0.9650 ± 0.0071	$f\sigma_8(0.61)$	0.4708	0.4686 ± 0.0058
A_{143}^{tSZ}	6.05	$3.8^{+1.8}_{-2.5}$	Y_{P}	0.24433	0.2447 ± 0.0023	$\sigma_8(0.61)$	0.5965	$0.5913^{+0.0092}_{-0.0083}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.542	0.65 ± 0.13	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24565	0.2460 ± 0.0023	$f\sigma_8(2.33)$	0.29998	0.2980 ± 0.0044
$r_{143 \times 217}^{\mathrm{CIB}}$	0.794	$0.57^{+0.41}_{-0.15}$	$10^5 \mathrm{D}/\mathrm{H}$	2.6004	2.606 ± 0.049	$\sigma_8(2.33)$	0.30987	0.3073 ± 0.0048
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.01	—	Age/Gyr	13.853	13.85 ± 0.17	f_{2000}^{143}	30.44	30.2 ± 3.2
A^{kSZ}	1.06	$4.9^{+2.7}_{-3.5}$	z_*	1089.951	1089.98 ± 0.36	f_{2000}^{217}	107.02	107.1 ± 2.1
A_{100}^{dust}	1.010	1.01 ± 0.19	r_*	145.44	145.2 ± 1.6	$f_{2000}^{143 \times 217}$	32.25	32.5 ± 2.3
A_{143}^{dust}	0.995	0.97 ± 0.18	$100\theta_*$	1.04133	1.04132 ± 0.00057	$\chi_{\mathrm{lensing}}^2$	8.82	9.42 ± 0.85
A_{217}^{dust}	0.963	0.97 ± 0.10	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.967	13.95 ± 0.15	χ_{simall}^2	395.85	397.0 ± 1.8
$A_{143 \times 217}^{\mathrm{dust}}$	0.982	1.03 ± 0.16	z_{drag}	1059.25	1059.35 ± 0.72	χ_{lowl}^2	23.32	23.3 ± 1.1
c_{100}	0.99752	0.9975 ± 0.0011	r_{drag}	148.19	148.0 ± 1.7	$\chi_{\mathrm{CamSpec}}^2$	7049.98	7063.1 ± 5.3
c_{217}	1.00128	1.0012 ± 0.0016	k_{D}	0.13983	0.1400 ± 0.0013	χ_{Aver15}^2	0.036	0.41 ± 0.57
H_0	67.54	67.4 ± 1.1	$100\theta_{\mathrm{D}}$	0.160864	0.16093 ± 0.00042	$\chi_{\mathrm{Cooke17}}^2$	0.035	0.29 ± 0.41
Ω_{Λ}	0.6923	0.6891 ± 0.0078	z_{eq}	3386.7	3382 ± 28	$\chi_{6\mathrm{DF}}^2$	0.0064	0.064 ± 0.083
Ω_{m}	0.3077	0.3109 ± 0.0078	k_{eq}	0.010286	0.01029 ± 0.00011	χ_{MGS}^2	1.47	1.33 ± 0.53
$\Omega_{\mathrm{m}} h^2$	0.14037	0.1412 ± 0.0030	$100\theta_{\mathrm{eq}}$	0.8155	0.8165 ± 0.0053	$\chi_{\mathrm{DR12BAO}}^2$	3.76	4.8 ± 1.7
$\Omega_{\nu} h^2$	$2.6 \cdot 10^{-5}$	< 0.000644	$100\theta_{\mathrm{s,eq}}$	0.45070	0.4512 ± 0.0027	χ_{prior}^2	2.22	7.6 ± 3.4
$\Omega_{\mathrm{m}} h^3$	0.09481	0.0952 ± 0.0033	$H(0.15)$	72.76	72.7 ± 1.1	χ_{CMB}^2	7478.0	7492.9 ± 5.5
σ_8	0.8172	$0.810^{+0.012}_{-0.010}$	$D_{\mathrm{M}}(0.15)$	642.1	643 ± 10	χ_{BAO}^2	5.24	6.2 ± 1.4
S_8	0.8276	0.825 ± 0.012	$H(0.38)$	82.76	82.7 ± 1.1	χ_{Abund}^2	0.071	0.70 ± 0.78
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4533	0.4518 ± 0.0068	$D_{\mathrm{M}}(0.38)$	1532.3	1534 ± 23			

Best-fit $\chi_{\mathrm{eff}}^2 = 7485.51$; $\bar{\chi}_{\mathrm{eff}}^2 = 7507.35$; $R - 1 = 0.00593$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.04 D_Cooke2017: 0.04 BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.76 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.82
simall_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2_29: 23.32 CamSpec like_10.7HM: 7049.98

9.43 base_nnu_mnu_CamSpecHM_TT_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02224 \pm 0.00023 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4515 \pm 0.0070 \quad (+0.2\sigma)$	$H(0.38)$	$83.2 \pm 1.5 \quad (+0.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1192 \pm 0.0038 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6059 \pm 0.0087 \quad (+0.3\sigma)$	$D_{\text{M}}(0.38)$	$1526 \pm 29 \quad (-0.4\sigma)$
$100\theta_{\text{MC}}$	$1.04102 \pm 0.00058 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.987^{+0.012}_{-0.010} \quad (+0.4\sigma)$	$H(0.51)$	$89.9 \pm 1.5 \quad (+0.6\sigma)$
τ	$0.0558^{+0.0055}_{-0.0079} \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$100.00 \pm 0.95 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1977 \pm 37 \quad (-0.4\sigma)$
$\Sigma m_{\nu} [\text{eV}]$	< 0.0629	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.023 \quad (+0.0\sigma)$	$H(0.61)$	$95.5 \pm 1.6 \quad (+0.7\sigma)$
N_{eff}	3.06 ± 0.23	z_{re}	$7.84^{+0.60}_{-0.78} \quad (-0.1\sigma)$	$D_{\text{M}}(0.61)$	$2301 \pm 43 \quad (-0.4\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.044^{+0.015}_{-0.018} \quad (-0.1\sigma)$	10^9A_{s}	$2.099^{+0.032}_{-0.039} \quad (-0.1\sigma)$	$H(2.33)$	$235.9 \pm 3.4 \quad (+0.2\sigma)$
n_{s}	$0.9674 \pm 0.0085 \quad (+0.1\sigma)$	$10^9A_{\text{s}}e^{-2\tau}$	$1.877 \pm 0.020 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5758 \pm 94 \quad (-0.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1224 \pm 15 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4563 \pm 0.0067 \quad (+0.2\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5713 \pm 40 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.752 \pm 0.012 \quad (+0.7\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4753 \pm 0.0066 \quad (+0.3\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.0 \pm 5.3 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.666 \pm 0.011 \quad (+0.7\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 2.3 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4743 \pm 0.0066 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9674 \pm 0.0085 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.624 \pm 0.010 \quad (+0.7\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.2455 \pm 0.0032 \quad (+1.8\sigma)$	$f\sigma_8(0.61)$	$0.4695 \pm 0.0066 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.58^{+0.41}_{-0.14} \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2468 \pm 0.0032 \quad (+1.8\sigma)$	$\sigma_8(0.61)$	$0.594 \pm 0.010 \quad (+0.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5\text{D}/\text{H}$	$2.615 \pm 0.067 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2994 \pm 0.0050 \quad (+0.7\sigma)$
A^{kSZ}	—	Age/Gyr	$13.79 \pm 0.22 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3088 \pm 0.0055 \quad (+0.7\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1090.03 \pm 0.48 \quad (+0.1\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.0\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.7 \pm 2.2 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.4 \pm 2.4 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00069 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.7 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.90 \pm 0.21 \quad (-0.3\sigma)$	χ_{lensing}^2	$9.52 \pm 0.91 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.58 \pm 0.86 \quad (+0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.4 \pm 2.3 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.0 \pm 1.2 \quad (+0.1\sigma)$
H_0	$67.8 \pm 1.4 \quad (+0.4\sigma)$	k_{D}	$0.1404 \pm 0.0017 \quad (+0.2\sigma)$	χ_{CamSpec}^2	$7063.8 \pm 5.5 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6914 \pm 0.0076 \quad (+0.2\sigma)$	$100\theta_{\text{D}}$	$0.16103 \pm 0.00059 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.04 \pm 0.34 \quad (-0.1\sigma)$
Ω_{m}	$0.3086 \pm 0.0076 \quad (-0.2\sigma)$	z_{eq}	$3374 \pm 29 \quad (+0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.047 \pm 0.065 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1420 \pm 0.0040 \quad (+0.2\sigma)$	k_{eq}	$0.01031 \pm 0.00014 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.48 \pm 0.55 \quad (+0.3\sigma)$
$\Omega_{\nu}h^2$	< 0.000663	$100\theta_{\text{eq}}$	$0.8180 \pm 0.0055 \quad (-0.0\sigma)$	χ_{DR12BAO}^2	$4.5 \pm 1.4 \quad (-0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.0964^{+0.0043}_{-0.0047} \quad (+1.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4520 \pm 0.0028 \quad (-0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.813 \pm 0.013 \quad (+0.6\sigma)$	$H(0.15)$	$73.1 \pm 1.4 \quad (+0.5\sigma)$	χ_{CMB}^2	$7493.4 \pm 5.6 \quad (+0.1\sigma)$
S_8	$0.824 \pm 0.013 \quad (+0.2\sigma)$	$D_{\text{M}}(0.15)$	$639 \pm 13 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.0\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 8542.04; \Delta\bar{\chi}_{\text{eff}}^2 = 0.69; R - 1 = 0.00589$$

9.44 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022261	0.02228 ± 0.00019 (-0.4σ)	S_8	0.8250	0.822 ± 0.011 $(+0.0\sigma)$	$H(0.38)$	82.32	82.6 ± 1.3 (-1.6σ)
$\Omega_c h^2$	0.11682	0.1178 ± 0.0033 (-1.3σ)	$\sigma_8 \Omega_m^{0.5}$	0.4519	0.4504 ± 0.0062 $(+0.0\sigma)$	$D_M(0.38)$	1540.8	1537 ± 27 $(+1.2\sigma)$
$100\theta_{MC}$	1.041213	1.04111 ± 0.00047 $(+0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6064	0.6034 ± 0.0079 $(+0.0\sigma)$	$H(0.51)$	88.94	89.2 ± 1.4 (-2.2σ)
τ	0.0531	0.0545 ± 0.0073 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9929	$0.985^{+0.012}_{-0.0094}$ $(+0.3\sigma)$	$D_M(0.51)$	1996.5	1992 ± 34 $(+1.3\sigma)$
Σm_ν [eV]	0.0008	< 0.0604	$r_{\text{drag}} h$	99.99	99.73 ± 0.92 $(+0.0\sigma)$	$H(0.61)$	94.48	94.8 ± 1.4 (-2.7σ)
N_{eff}	2.889	2.96 ± 0.20	$\langle d^2 \rangle^{1/2}$	2.4431	2.435 ± 0.022 $(+0.2\sigma)$	$D_M(0.61)$	2323.6	2318 ± 39 $(+1.4\sigma)$
$\ln(10^{10} A_s)$	3.0331	3.038 ± 0.017 (-0.3σ)	z_{re}	7.51	7.65 ± 0.74 (-0.1σ)	$H(2.33)$	233.51	234.7 ± 3.0 (-2.1σ)
n_s	0.9621	0.9641 ± 0.0077 (-0.8σ)	$10^9 A_s$	2.0762	2.087 ± 0.036 (-0.3σ)	$D_M(2.33)$	5815	5794 ± 84 $(+3.5\sigma)$
y_{cal}	1.00066	1.0007 ± 0.0024 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8669	1.871 ± 0.019 (-0.6σ)	$f\sigma_8(0.15)$	0.4559	0.4550 ± 0.0060 $(+0.0\sigma)$
A_{100}^{PS}	226.8	238 ± 25 (-0.1σ)	D_{40}	1230.5	1229 ± 13 $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7521	0.747 ± 0.011 (-0.0σ)
A_{143}^{PS}	45.8	38 ± 9 (-0.1σ)	D_{220}	5725.4	5725 ± 38 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4749	0.4734 ± 0.0059 (-0.0σ)
A_{217}^{PS}	105.8	103 ± 10 $(+0.0\sigma)$	D_{810}	2534.8	2535 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6668	0.662 ± 0.011 (-0.0σ)
A_{217}^{CIB}	41.1	39 ± 7 (-0.1σ)	D_{1420}	817.99	816.8 ± 5.0 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4737	0.4721 ± 0.0060 (-0.0σ)
A_{143}^{tSZ}	6.50	$3.9^{+1.9}_{-2.5}$ (-0.0σ)	D_{2000}	231.81	231.0 ± 2.0 $(+0.3\sigma)$	$\sigma_8(0.51)$	0.6240	0.620 ± 0.010 (-0.0σ)
$r_{143 \times 217}^{\text{PS}}$	0.715	0.66 ± 0.13 (-0.0σ)	$n_{s,0.002}$	0.9621	0.9641 ± 0.0077 (-0.8σ)	$f\sigma_8(0.61)$	0.4690	0.4672 ± 0.0060 (-0.0σ)
$r_{143 \times 217}^{\text{CIB}}$	0.841	$0.54^{+0.37}_{-0.21}$ (-0.0σ)	Y_P	0.24322	0.2442 ± 0.0028 (-20.5σ)	$\sigma_8(0.61)$	0.5938	0.5897 ± 0.0096 (-0.0σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.69	—	Y_P^{BBN}	0.24454	0.2455 ± 0.0028 (-20.5σ)	$f\sigma_8(2.33)$	0.29854	0.2972 ± 0.0048 (-0.1σ)
A^{kSZ}	0.01	< 6.00 (-0.0σ)	$10^5 D/H$	2.552	2.573 ± 0.055 (-0.7σ)	$\sigma_8(2.33)$	0.3084	0.3065 ± 0.0053 (-0.1σ)
A_{100}^{dust}	0.9995	1.01 ± 0.20 $(+0.0\sigma)$	Age/Gyr	13.923	13.87 ± 0.20 $(+3.7\sigma)$	f_{2000}^{143}	28.30	29 ± 3 (-0.2σ)
A_{143}^{dust}	0.973	0.96 ± 0.18 (-0.0σ)	z_*	1089.618	1089.75 ± 0.40 (-0.6σ)	f_{2000}^{217}	105.51	106.3 ± 2.2 (-0.2σ)
A_{217}^{dust}	0.983	0.98 ± 0.10 $(+0.0\sigma)$	r_*	146.15	145.5 ± 2.0 $(+3.6\sigma)$	$f_{2000}^{143 \times 217}$	30.75	31.4 ± 2.4 (-0.3σ)
$A_{143 \times 217}^{\text{dust}}$	1.001	1.02 ± 0.16 (-0.0σ)	$100\theta_*$	1.04148	1.04135 ± 0.00058 $(+0.7\sigma)$	χ_{lensing}^2	8.62	9.27 ± 0.82 (-0.0σ)
c_{100}	0.99780	0.9976 ± 0.0010 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.033	13.97 ± 0.18 $(+3.4\sigma)$	χ_{small}^2	395.85	397.0 ± 1.7 (-0.1σ)
c_{217}	1.00113	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1059.32	1059.50 ± 0.75 (-0.9σ)	χ_{lowl}^2	23.58	23.4 ± 1.2 $(+0.6\sigma)$
c_{TE}	0.9954	0.9961 ± 0.0051 (-0.1σ)	r_{drag}	148.88	148.2 ± 2.0 $(+3.5\sigma)$	χ_{CamSpec}^2	11498.2	11514.1 ± 5.7 (-0.0σ)
c_{EE}	0.9901	0.9914 ± 0.0055 (-0.2σ)	k_D	0.13952	0.1400 ± 0.0014 (-1.9σ)	$\chi_{6\text{DF}}^2$	0.0104	0.059 ± 0.077 $(+0.2\sigma)$
H_0	67.16	67.3 ± 1.3 (-0.9σ)	$100\theta_D$	0.160455	0.16066 ± 0.00049 (-1.0σ)	χ_{MGS}^2	1.407	1.33 ± 0.50 $(+0.0\sigma)$
Ω_Λ	0.6916	0.6893 ± 0.0074 (-0.1σ)	z_{eq}	3395.2	3386 ± 26 $(+0.3\sigma)$	χ_{DR12BAO}^2	3.90	4.8 ± 1.6 $(+0.1\sigma)$
Ω_m	0.3084	0.3107 ± 0.0074 $(+0.1\sigma)$	k_{eq}	0.010252	0.01028 ± 0.00012 (-0.6σ)	χ_{prior}^2	2.01	7.8 ± 3.4 (-0.0σ)
$\Omega_m h^2$	0.13909	0.1406 ± 0.0035 (-1.6σ)	$100\theta_{\text{eq}}$	0.8143	0.8160 ± 0.0050 (-0.3σ)	χ_{CMB}^2	11926.3	11943.7 ± 5.9 $(+0.0\sigma)$
$\Omega_\nu h^2$	$0.9 \cdot 10^{-5}$	< 0.000630	$100\theta_{s,\text{eq}}$	0.44999	0.4509 ± 0.0025 (-0.3σ)	χ_{BAO}^2	5.31	6.2 ± 1.3 $(+0.2\sigma)$
$\Omega_m h^3$	0.09341	0.0947 ± 0.0039 (-4.6σ)	$H(0.15)$	72.36	72.5 ± 1.3 (-1.1σ)			
σ_8	0.8137	0.808 ± 0.012 (-0.0σ)	$D_M(0.15)$	645.7	645 ± 12 $(+1.0\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 11933.58$; $\bar{\chi}_{\text{eff}}^2 = 11957.66$; $\Delta\chi_{\text{eff}}^2 = 0.26$; $R - 1 = 0.00614$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.90 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.62 small_100x143.offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2.29: 23.58 CamSpec like_10.7HM.1400_unified: 11498.22

9.45 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022256	0.02230 ± 0.00019 (-0.3σ)	S_8	0.8240	0.822 ± 0.011 $(+0.1\sigma)$	$H(0.38)$	82.43	82.7 ± 1.3 (-1.3σ)
$\Omega_{\mathrm{c}}h^2$	0.11693	0.1180 ± 0.0033 (-1.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4513	0.4501 ± 0.0062 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1538.4	1534 ± 26 $(+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	1.041216	1.04109 ± 0.00047 $(+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6061	0.6035 ± 0.0078 $(+0.1\sigma)$	$H(0.51)$	89.05	89.4 ± 1.4 (-1.7σ)
τ	0.0532	0.0547 ± 0.0073 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9922	$0.985^{+0.011}_{-0.0093}$ $(+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	1993.5	1988 ± 33 $(+1.0\sigma)$
Σm_{ν} [eV]	0.0006	< 0.0576	$r_{\mathrm{drag}}h$	100.10	99.87 ± 0.86 $(+0.1\sigma)$	$H(0.61)$	94.58	95.0 ± 1.4 (-2.2σ)
N_{eff}	2.903	2.98 ± 0.20	$\langle d^2 \rangle^{1/2}$	2.4400	2.434 ± 0.022 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	2320.2	2313 ± 38 $(+1.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0331	3.039 ± 0.017 (-0.3σ)	z_{re}	7.52	7.68 ± 0.74 (-0.1σ)	$H(2.33)$	233.63	234.8 ± 2.9 (-1.8σ)
n_{s}	0.9629	0.9648 ± 0.0075 (-0.7σ)	$10^9 A_{\mathrm{s}}$	2.0761	2.088 ± 0.036 (-0.3σ)	$D_{\mathrm{M}}(2.33)$	5810	5787 ± 83 $(+2.9\sigma)$
y_{cal}	1.00048	1.0007 ± 0.0024 (-0.0σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8665	1.872 ± 0.019 (-0.5σ)	$f\sigma_8(0.15)$	0.4554	0.4547 ± 0.0059 $(+0.1\sigma)$
A_{100}^{PS}	228.2	238 ± 25 (-0.0σ)	D_{40}	1228.3	1228 ± 13 $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7523	0.748 ± 0.011 $(+0.2\sigma)$
A_{143}^{PS}	42.6	38 ± 9 (-0.1σ)	D_{220}	5720.4	5726 ± 38 (-0.0σ)	$f\sigma_8(0.38)$	0.4746	0.4734 ± 0.0059 $(+0.1\sigma)$
A_{217}^{PS}	104.7	103 ± 10 $(+0.0\sigma)$	D_{810}	2533.7	2535 ± 14 (-0.1σ)	$\sigma_8(0.38)$	0.6671	0.663 ± 0.010 $(+0.2\sigma)$
A_{217}^{CIB}	41.7	39^{+7}_{-8} (-0.1σ)	D_{1420}	817.5	816.7 ± 5.0 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4736	0.4723 ± 0.0059 $(+0.1\sigma)$
A_{143}^{tSZ}	6.47	$3.9^{+1.9}_{-2.5}$ (-0.0σ)	D_{2000}	231.58	231.0 ± 2.1 $(+0.3\sigma)$	$\sigma_8(0.51)$	0.6244	0.6207 ± 0.0097 $(+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	0.680	0.66 ± 0.13 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9629	0.9648 ± 0.0075 (-0.7σ)	$f\sigma_8(0.61)$	0.4689	0.4675 ± 0.0060 $(+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.790	$0.55^{+0.38}_{-0.21}$ (-0.0σ)	Y_{P}	0.24341	0.2444 ± 0.0028 (-17.2σ)	$\sigma_8(0.61)$	0.5941	0.5907 ± 0.0094 $(+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.47	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24473	0.2457 ± 0.0028 (-17.2σ)	$f\sigma_8(2.33)$	0.29875	0.2977 ± 0.0046 $(+0.1\sigma)$
A^{kSZ}	0.01	< 6.01 (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.557	2.575 ± 0.055 (-0.6σ)	$\sigma_8(2.33)$	0.3086	0.3071 ± 0.0051 $(+0.1\sigma)$
A_{100}^{dust}	1.006	1.01 ± 0.20 $(+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	13.909	13.86 ± 0.20 $(+3.0\sigma)$	f_{2000}^{143}	28.37	29 ± 3 (-0.2σ)
A_{143}^{dust}	0.967	0.96 ± 0.18 $(+0.0\sigma)$	z_*	1089.650	1089.76 ± 0.40 (-0.5σ)	f_{2000}^{217}	105.61	106.4 ± 2.2 (-0.2σ)
A_{217}^{dust}	0.982	0.98 ± 0.10 $(+0.0\sigma)$	r_*	146.06	145.4 ± 2.0 $(+3.0\sigma)$	$f_{2000}^{143 \times 217}$	30.84	31.5 ± 2.4 (-0.2σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.011	1.03 ± 0.16 $(+0.0\sigma)$	$100\theta_*$	1.04147	1.04132 ± 0.00058 $(+0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.66	9.30 ± 0.83 (-0.0σ)
c_{100}	0.99774	0.9976 ± 0.0010 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.024	13.96 ± 0.18 $(+2.9\sigma)$	χ_{small}^2	395.86	397.0 ± 1.7 (-0.1σ)
c_{217}	1.00119	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1059.32	1059.56 ± 0.74 (-0.8σ)	χ_{lowl}^2	23.43	23.3 ± 1.1 $(+0.5\sigma)$
c_{TE}	0.9954	0.9962 ± 0.0051 (-0.1σ)	r_{drag}	148.78	148.1 ± 2.0 $(+2.9\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	11498.3	11514.2 ± 5.7 (-0.0σ)
c_{EE}	0.9904	0.9916 ± 0.0054 (-0.2σ)	k_{D}	0.13956	0.1400 ± 0.0014 (-1.6σ)	χ_{JLA}^2	1034.885	1035.06 ± 0.33 $(+0.1\sigma)$
H_0	67.28	67.5 ± 1.3 (-0.6σ)	$100\theta_{\mathrm{D}}$	0.160512	0.16069 ± 0.00049 (-0.8σ)	$\chi_{6\mathrm{DF}}^2$	0.0061	0.047 ± 0.063 $(+0.1\sigma)$
Ω_{Λ}	0.6925	0.6905 ± 0.0070 $(+0.0\sigma)$	z_{eq}	3391.2	3383 ± 25 $(+0.3\sigma)$	χ_{MGS}^2	1.473	1.40 ± 0.49 $(+0.1\sigma)$
Ω_{m}	0.3075	0.3095 ± 0.0070 (-0.0σ)	k_{eq}	0.010250	0.01028 ± 0.00012 (-0.5σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.77	4.5 ± 1.3 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.13919	0.1407 ± 0.0035 (-1.4σ)	$100\theta_{\mathrm{eq}}$	0.81501	0.8167 ± 0.0048 (-0.3σ)	χ_{prior}^2	2.07	7.8 ± 3.4 (-0.0σ)
$\Omega_{\nu}h^2$	$0.6 \cdot 10^{-5}$	< 0.000600	$100\theta_{\mathrm{s,eq}}$	0.45036	0.4512 ± 0.0024 (-0.3σ)	χ_{CMB}^2	11926.3	11943.8 ± 5.9 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09365	0.0950 ± 0.0039 (-3.7σ)	$H(0.15)$	72.47	72.7 ± 1.3 (-0.8σ)	χ_{BAO}^2	5.245	6.0 ± 1.1 $(+0.1\sigma)$
σ_8	0.8139	0.809 ± 0.012 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	644.6	643 ± 12 $(+0.8\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 12968.49$; $\Delta\chi_{\mathrm{eff}}^2 = -2.00$; $\bar{\chi}_{\mathrm{eff}}^2 = 12992.58$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.19$; $R - 1 = 0.00612$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.02) MGS: 1.47 (Δ 0.19) DR12BAO: 3.77 (Δ -0.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.66 (Δ -0.31) small_100x143_offlike5_EE_Aplanc
395.86 (Δ -0.19) commander_dx12_v3.2_29: 23.43 (Δ 0.66) CamSpec like_10.7HM_1400_unified: 11498.34 (Δ -1.83) SN - JLA Pantheon18: 1034.88 (Δ -0.10)

9.46 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022234	0.02227 ± 0.00018	S_8	0.8245	0.822 ± 0.011	$H(0.38)$	82.26	82.5 ± 1.1
$\Omega_c h^2$	0.11665	0.1176 ± 0.0027	$\sigma_8 \Omega_m^{0.5}$	0.4516	0.4503 ± 0.0062	$D_M(0.38)$	1542.0	1539 ± 23
$100\theta_{MC}$	1.041261	1.04113 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6059	0.6031 ± 0.0076	$H(0.51)$	88.88	89.1 ± 1.1
τ	0.0531	0.0544 ± 0.0073	$\sigma_8/h^{0.5}$	0.9925	$0.985_{-0.0094}^{+0.012}$	$D_M(0.51)$	1998.0	1994 ± 29
Σm_ν [eV]	0.0022	< 0.0590	$r_{\text{drag}} h$	99.99	99.70 ± 0.88	$H(0.61)$	94.41	94.7 ± 1.2
N_{eff}	2.881	2.95 ± 0.17	$\langle d^2 \rangle^{1/2}$	2.4419	2.436 ± 0.022	$D_M(0.61)$	2325.3	2320 ± 33
$\ln(10^{10} A_s)$	3.0323	3.037 ± 0.016	z_{re}	7.51	7.64 ± 0.74	$H(2.33)$	233.35	234.5 ± 2.5
n_s	0.9621	0.9636 ± 0.0067	$10^9 A_s$	2.0744	2.085 ± 0.034	$D_M(2.33)$	5820	5801 ± 70
y_{cal}	1.00037	1.0007 ± 0.0024	$10^9 A_s e^{-2\tau}$	1.8653	1.870 ± 0.016	$f\sigma_8(0.15)$	0.4557	0.4548 ± 0.0059
A_{100}^{PS}	224.9	237 ± 25	D_{40}	1229.3	1229 ± 13	$\sigma_8(0.15)$	0.7515	$0.746_{-0.0097}^{+0.011}$
A_{143}^{PS}	49.7	38 ± 8	D_{220}	5719.8	5725 ± 38	$f\sigma_8(0.38)$	0.4746	0.4732 ± 0.0057
A_{217}^{PS}	106.4	103 ± 10	D_{810}	2533.7	2534 ± 13	$\sigma_8(0.38)$	0.6663	$0.6617_{-0.0089}^{+0.0099}$
A_{217}^{CIB}	40.5	39_{-7}^{+7}	D_{1420}	817.72	816.9 ± 4.9	$f\sigma_8(0.51)$	0.4734	0.4719 ± 0.0057
A_{143}^{tSZ}	6.50	$3.9_{-2.5}^{+1.9}$	D_{2000}	231.74	231.1 ± 1.9	$\sigma_8(0.51)$	0.6236	$0.6193_{-0.0085}^{+0.0094}$
$r_{143 \times 217}^{\text{PS}}$	0.752	0.66 ± 0.13	$n_{s,0.002}$	0.9621	0.9636 ± 0.0067	$f\sigma_8(0.61)$	0.4686	0.4670 ± 0.0056
$r_{143 \times 217}^{\text{CIB}}$	0.895	$0.54_{-0.21}^{+0.37}$	Y_P	0.24310	0.2440 ± 0.0023	$\sigma_8(0.61)$	0.5933	0.5893 ± 0.0088
$\xi^{\text{tSZ} \times \text{CIB}}$	0.93	—	Y_P^{BBN}	0.24441	0.2453 ± 0.0023	$f\sigma_8(2.33)$	0.29834	0.2970 ± 0.0043
A^{kSZ}	0.01	< 5.96	$10^5 D/H$	2.5537	2.570 ± 0.049	$\sigma_8(2.33)$	0.30815	0.3063 ± 0.0048
A_{100}^{dust}	1.010	1.01 ± 0.20	Age/Gyr	13.933	13.89 ± 0.17	f_{2000}^{143}	28.40	28.7 ± 3.1
A_{143}^{dust}	0.979	0.96 ± 0.18	z_*	1089.628	1089.73 ± 0.35	f_{2000}^{217}	105.40	106.2 ± 2.1
A_{217}^{dust}	0.991	0.98 ± 0.10	r_*	146.26	145.7 ± 1.6	$f_{2000}^{143 \times 217}$	30.79	31.3 ± 2.3
$A_{143 \times 217}^{\text{dust}}$	1.005	1.03 ± 0.16	$100\theta_*$	1.04153	1.04139 ± 0.00051	χ_{lensing}^2	8.62	9.24 ± 0.81
c_{100}	0.99787	0.9976 ± 0.0010	$D_M(z_*)/\text{Gpc}$	14.043	13.99 ± 0.15	χ_{simall}^2	395.85	397.0 ± 1.7
c_{217}	1.00123	1.0011 ± 0.0016	z_{drag}	1059.25	1059.45 ± 0.64	χ_{lowl}^2	23.55	23.5 ± 1.1
c_{TE}	0.9956	0.9960 ± 0.0050	r_{drag}	149.00	148.4 ± 1.7	χ_{CamSpec}^2	11498.3	11513.7 ± 5.6
c_{EE}	0.9905	0.9912 ± 0.0053	k_D	0.13941	0.1398 ± 0.0012	χ_{Aver15}^2	0.014	0.35 ± 0.48
H_0	67.11	67.2 ± 1.1	$100\theta_D$	0.160472	0.16062 ± 0.00042	$\chi_{6\text{DF}}^2$	0.0102	0.058 ± 0.076
Ω_Λ	0.6916	0.6891 ± 0.0071	z_{eq}	3394.4	3387 ± 25	χ_{MGS}^2	1.407	1.31 ± 0.48
Ω_m	0.3084	0.3109 ± 0.0071	k_{eq}	0.010244	0.01027 ± 0.00010	χ_{DR12BAO}^2	3.88	4.8 ± 1.6
$\Omega_m h^2$	0.13891	0.1404 ± 0.0029	$100\theta_{\text{eq}}$	0.81439	0.8158 ± 0.0047	χ_{prior}^2	1.92	7.8 ± 3.4
$\Omega_\nu h^2$	$2.3 \cdot 10^{-5}$	< 0.000612	$100\theta_{s,\text{eq}}$	0.45006	0.4507 ± 0.0024	χ_{CMB}^2	11926.4	11943.4 ± 5.8
$\Omega_m h^3$	0.09322	0.0943 ± 0.0032	$H(0.15)$	72.30	72.4 ± 1.1	χ_{BAO}^2	5.30	6.1 ± 1.3
σ_8	0.8131	$0.808_{-0.010}^{+0.011}$	$D_M(0.15)$	646.2	645 ± 10			

Best-fit $\chi_{\text{eff}}^2 = 11933.58$; $\bar{\chi}_{\text{eff}}^2 = 11957.68$; $R - 1 = 0.00718$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.88 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb.consext8: 8.62 simall_100x143.offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2.29: 23.55 CamSpec like_10.7HM_1400.unified: 11498.33

9.47 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022234	0.02227 ± 0.00018	$\sigma_8 \Omega_m^{0.5}$	0.4525	0.4508 ± 0.0061	$H(0.51)$	89.13	89.3 ± 1.1
$\Omega_c h^2$	0.11744	0.1181 ± 0.0026	$\sigma_8 \Omega_m^{0.25}$	0.6073	0.6039 ± 0.0074	$D_M(0.51)$	1992.1	1990 ± 27
$100\theta_{MC}$	1.041130	1.04107 ± 0.00040	$\sigma_8/h^{0.5}$	0.9934	$0.986^{+0.012}_{-0.0093}$	$H(0.61)$	94.69	94.9 ± 1.1
τ	0.0531	0.0543 ± 0.0073	$r_{\text{drag}} h$	99.99	99.72 ± 0.88	$D_M(0.61)$	2318.5	2316 ± 31
Σm_ν [eV]	0.0012	< 0.0598	$\langle d^2 \rangle^{1/2}$	2.4418	2.435 ± 0.022	$H(2.33)$	234.01	234.9 ± 2.3
N_{eff}	2.925	2.98 ± 0.16	z_{re}	7.52	7.64 ± 0.74	$D_M(2.33)$	5803	5790 ± 66
$\ln(10^{10} A_s)$	3.0332	3.038 ± 0.016	$10^9 A_s$	2.0765	2.087 ± 0.034	$f\sigma_8(0.15)$	0.4566	0.4554 ± 0.0058
n_s	0.9629	0.9644 ± 0.0065	$10^9 A_s e^{-2\tau}$	1.8672	1.872 ± 0.016	$\sigma_8(0.15)$	0.7533	$0.748^{+0.011}_{-0.0094}$
y_{cal}	1.00013	1.0006 ± 0.0024	D_{40}	1227.8	1228 ± 13	$f\sigma_8(0.38)$	0.4756	0.4738 ± 0.0056
A_{100}^{PS}	230.5	238 ± 25	D_{220}	5713.7	5723 ± 38	$\sigma_8(0.38)$	0.6679	$0.6627^{+0.0099}_{-0.0086}$
A_{143}^{PS}	42.3	38 ± 8	D_{810}	2531.4	2534 ± 13	$f\sigma_8(0.51)$	0.4745	0.4725 ± 0.0055
A_{217}^{PS}	103.4	103 ± 10	D_{1420}	816.14	816.5 ± 4.9	$\sigma_8(0.51)$	0.6250	$0.6202^{+0.0094}_{-0.0082}$
A_{217}^{CIB}	42.8	39^{+7}_{-7}	D_{2000}	231.02	230.8 ± 1.8	$f\sigma_8(0.61)$	0.4697	0.4676 ± 0.0055
A_{143}^{tSZ}	6.50	$3.9^{+1.9}_{-2.5}$	$n_{s,0.002}$	0.9629	0.9644 ± 0.0065	$\sigma_8(0.61)$	0.5947	$0.5901^{+0.0090}_{-0.0079}$
$r_{143 \times 217}^{\text{PS}}$	0.661	0.66 ± 0.13	Y_P	0.24370	0.2444 ± 0.0022	$f\sigma_8(2.33)$	0.29904	0.2974 ± 0.0042
$r_{143 \times 217}^{\text{CIB}}$	0.794	$0.55^{+0.38}_{-0.20}$	Y_P^{BBN}	0.24502	0.2457 ± 0.0022	$\sigma_8(2.33)$	0.30888	0.3067 ± 0.0047
$\xi^{\text{tSZ} \times \text{CIB}}$	0.38	—	$10^5 \text{D}/\text{H}$	2.5692	2.580 ± 0.044	f_{2000}^{143}	28.95	29.1 ± 3.0
A^{kSZ}	0.02	< 6.04	Age/Gyr	13.893	13.86 ± 0.16	f_{2000}^{217}	105.93	106.4 ± 2.1
A_{100}^{dust}	0.998	1.01 ± 0.20	z_*	1089.741	1089.80 ± 0.32	$f_{2000}^{143 \times 217}$	31.29	31.6 ± 2.2
A_{143}^{dust}	0.972	0.96 ± 0.18	r_*	145.83	145.4 ± 1.5	χ_{lensing}^2	8.70	9.28 ± 0.79
A_{217}^{dust}	0.974	0.98 ± 0.10	$100\theta_*$	1.041376	1.04131 ± 0.00048	χ_{small}^2	395.85	396.9 ± 1.7
$A_{143 \times 217}^{\text{dust}}$	1.008	1.03 ± 0.16	$D_M(z_*)/\text{Gpc}$	14.003	13.96 ± 0.14	χ_{lowl}^2	23.46	23.4 ± 1.0
c_{100}	0.99768	0.9976 ± 0.0010	z_{drag}	1059.32	1059.51 ± 0.63	χ_{CamSpec}^2	11498.3	11513.7 ± 5.6
c_{217}	1.00121	1.0011 ± 0.0016	r_{drag}	148.55	148.1 ± 1.6	χ_{Aver15}^2	0.001	0.33 ± 0.46
c_{TE}	0.99580	0.9963 ± 0.0050	k_D	0.13969	0.1400 ± 0.0011	χ_{Cooke17}^2	0.269	0.38 ± 0.48
c_{EE}	0.9910	0.9918 ± 0.0051	$100\theta_D$	0.160600	0.16071 ± 0.00038	$\chi_{6\text{DF}}^2$	0.0101	0.057 ± 0.075
H_0	67.31	67.3 ± 1.1	z_{eq}	3392.9	3386 ± 25	χ_{MGS}^2	1.407	1.32 ± 0.48
Ω_Λ	0.6917	$0.6893^{+0.0073}_{-0.0066}$	k_{eq}	0.010271	0.010284 ± 0.000098	χ_{DR12BAO}^2	3.89	4.8 ± 1.6
Ω_m	0.3083	0.3107 ± 0.0071	$100\theta_{\text{eq}}$	0.81459	0.8160 ± 0.0047	χ_{prior}^2	2.09	7.8 ± 3.4
$\Omega_m h^2$	0.13969	0.1408 ± 0.0027	$100\theta_{s,\text{eq}}$	0.45016	0.4509 ± 0.0024	χ_{CMB}^2	11926.3	11943.3 ± 5.8
$\Omega_\nu h^2$	$1.2 \cdot 10^{-5}$	< 0.000628	$H(0.15)$	72.52	72.6 ± 1.0	χ_{BAO}^2	5.31	6.1 ± 1.3
$\Omega_m h^3$	0.09402	0.0949 ± 0.0031	$D_M(0.15)$	644.3	644.0 ± 9.7	χ_{Abund}^2	0.270	0.72 ± 0.67
σ_8	0.8150	$0.809^{+0.011}_{-0.0099}$	$H(0.38)$	82.50	82.6 ± 1.1			
S_8	0.8262	0.823 ± 0.011	$D_M(0.38)$	1537.4	1536 ± 22			

Best-fit $\chi_{\text{eff}}^2 = 11933.95$; $\bar{\chi}_{\text{eff}}^2 = 11957.95$; $R - 1 = 0.00786$
 χ_{eff}^2 : Abund - Yp_Aver2015: 0.00 D.Cooke2017: 0.27 BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.89 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.70
simall_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2_29: 23.46 CamSpec like_10.7HM_1400_unified: 11498.26

9.48 base_nnu_mnu_CamSpecHM_TTTEEE_lowl_lowE_lensing_BAO_post_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00019 \quad (-0.3\sigma)$	S_8	$0.822 \pm 0.011 \quad (+0.1\sigma)$	$H(0.38)$	$82.7 \pm 1.3 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1180 \pm 0.0032 \quad (-1.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4502 \pm 0.0062 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534 \pm 26 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04109 \pm 0.00047 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6037 \pm 0.0078 \quad (+0.1\sigma)$	$H(0.51)$	$89.4 \pm 1.4 \quad (-1.7\sigma)$
τ	$0.0555^{+0.0054}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.986^{+0.011}_{-0.0092} \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1987 \pm 33 \quad (+1.0\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0589	$r_{\mathrm{drag}}h$	$99.89 \pm 0.86 \quad (+0.1\sigma)$	$H(0.61)$	$95.0 \pm 1.4 \quad (-2.1\sigma)$
N_{eff}	2.98 ± 0.20	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.022 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2313 \pm 38 \quad (+1.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.014}_{-0.017} \quad (-0.3\sigma)$	z_{re}	$7.76^{+0.58}_{-0.76} \quad (-0.1\sigma)$	$H(2.33)$	$234.8 \pm 2.9 \quad (-1.8\sigma)$
n_{s}	$0.9650 \pm 0.0075 \quad (-0.6\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.029}_{-0.037} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5786 \pm 83 \quad (+2.8\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.018 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.4548 \pm 0.0059 \quad (+0.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1228 \pm 13 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.748 \pm 0.011 \quad (+0.2\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5725 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4736 \pm 0.0059 \quad (+0.1\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.664 \pm 0.010 \quad (+0.2\sigma)$
A_{217}^{CIB}	$39^{+7}_{-8} \quad (-0.1\sigma)$	D_{1420}	$816.7 \pm 5.0 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0059 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$231.0 \pm 2.0 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6211 \pm 0.0097 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9650 \pm 0.0075 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0059 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.38}_{-0.21} \quad (-0.0\sigma)$	Y_{P}	$0.2444 \pm 0.0028 \quad (-16.7\sigma)$	$\sigma_8(0.61)$	$0.5910 \pm 0.0093 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2458 \pm 0.0028 \quad (-16.7\sigma)$	$f\sigma_8(2.33)$	$0.2979 \pm 0.0046 \quad (+0.1\sigma)$
A^{kSZ}	$< 6.01 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.575 \pm 0.055 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3073 \pm 0.0051 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.85 \pm 0.20 \quad (+3.0\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.75 \pm 0.40 \quad (-0.5\sigma)$	f_{2000}^{217}	$106.4 \pm 2.2 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$145.4 \pm 2.0 \quad (+3.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.5 \pm 2.4 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04132 \pm 0.00058 \quad (+0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.25 \pm 0.78 \quad (-0.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.18 \quad (+2.8\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.57 \pm 0.74 \quad (-0.7\sigma)$	χ_{lowl}^2	$23.3 \pm 1.1 \quad (+0.5\sigma)$
c_{TE}	$0.9961 \pm 0.0051 \quad (-0.1\sigma)$	r_{drag}	$148.1 \pm 2.0 \quad (+2.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.1 \pm 5.7 \quad (-0.0\sigma)$
c_{EE}	$0.9916 \pm 0.0054 \quad (-0.1\sigma)$	k_{D}	$0.1401 \pm 0.0014 \quad (-1.5\sigma)$	χ_{JLA}^2	$1035.05 \pm 0.33 \quad (+0.1\sigma)$
H_0	$67.5 \pm 1.3 \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16069 \pm 0.00049 \quad (-0.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.045 \pm 0.062 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6907 \pm 0.0069 \quad (+0.0\sigma)$	z_{eq}	$3382 \pm 25 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.41 \pm 0.49 \quad (+0.1\sigma)$
Ω_{m}	$0.3093 \pm 0.0069 \quad (-0.0\sigma)$	k_{eq}	$0.01027 \pm 0.00012 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.3 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1408 \pm 0.0035 \quad (-1.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8168 \pm 0.0048 \quad (-0.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\nu}h^2$	< 0.000614	$100\theta_{\mathrm{s,eq}}$	$0.4513 \pm 0.0024 \quad (-0.3\sigma)$	χ_{CMB}^2	$11943.7 \pm 5.9 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0950 \pm 0.0039 \quad (-3.6\sigma)$	$H(0.15)$	$72.7 \pm 1.3 \quad (-0.8\sigma)$	χ_{BAO}^2	$5.9 \pm 1.0 \quad (+0.1\sigma)$
σ_8	$0.810 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$643 \pm 12 \quad (+0.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.45; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.20; R - 1 = 0.00689$$

9.49 base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02194	0.02209 ± 0.00070	D_{810}	2560	2159 ± 500	$D_{\text{M}}(0.51)$	1929	1862 ± 92
$\Omega_{\text{c}}h^2$	0.1349	$0.155^{+0.022}_{-0.029}$	D_{1420}	790	629^{+200}_{-200}	$H(0.61)$	99.8	$105.2^{+6.0}_{-7.6}$
$100\theta_{\text{MC}}$	1.0843	$1.110^{+0.038}_{-0.033}$	D_{2000}	230	182^{+50}_{-70}	$D_{\text{M}}(0.61)$	2239	2158 ± 110
$\Sigma m_{\nu} [\text{eV}]$	0.95	$1.69^{+0.60}_{-1.2}$	$n_{\text{s},0.002}$	0.9616	0.960 ± 0.020	$H(2.33)$	254.1	273^{+21}_{-26}
N_{eff}	2.908	2.96 ± 0.28	Y_{P}	0.24334	0.2441 ± 0.0041	$D_{\text{M}}(2.33)$	5486	5224 ± 340
$\ln(10^{10}A_{\text{s}})$	3.103	3.02 ± 0.12	$Y_{\text{P}}^{\text{BBN}}$	0.24466	0.2454 ± 0.0041	$f\sigma_{\text{s}}(0.15)$	0.4566	0.457 ± 0.018
n_{s}	0.9616	0.960 ± 0.020	$10^5\text{D}/\text{H}$	2.618	2.612 ± 0.095	$\sigma_{\text{s}}(0.15)$	0.6938	0.668 ± 0.040
H_0	68.39	$70.2^{+2.4}_{-3.0}$	Age/Gyr	13.13	12.50 ± 0.83	$f\sigma_{\text{s}}(0.38)$	0.4655	$0.458^{+0.019}_{-0.017}$
Ω_{Λ}	0.6438	$0.608^{+0.052}_{-0.045}$	z_*	1091.90	$1093.8^{+2.2}_{-2.8}$	$\sigma_{\text{s}}(0.38)$	0.6119	0.586 ± 0.038
Ω_{m}	0.3562	$0.392^{+0.045}_{-0.052}$	r_*	141.3	136.2 ± 6.8	$f\sigma_{\text{s}}(0.51)$	0.4599	$0.450^{+0.020}_{-0.017}$
$\Omega_{\text{m}}h^2$	0.1666	$0.195^{+0.028}_{-0.041}$	$100\theta_*$	1.0849	$1.111^{+0.038}_{-0.033}$	$\sigma_{\text{s}}(0.51)$	0.5715	0.547 ± 0.036
$\Omega_{\nu}h^2$	0.0098	$0.0175^{+0.0062}_{-0.012}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.02	$12.29^{+0.92}_{-1.0}$	$f\sigma_{\text{s}}(0.61)$	0.4525	$0.441^{+0.022}_{-0.018}$
$\Omega_{\text{m}}h^3$	0.1140	$0.137^{+0.022}_{-0.035}$	z_{drag}	1060.12	1062.1 ± 3.0	$\sigma_{\text{s}}(0.61)$	0.5432	0.519 ± 0.035
σ_{s}	0.7542	0.729 ± 0.040	r_{drag}	144.0	138.7 ± 7.0	$f\sigma_{\text{s}}(2.33)$	0.2799	$0.266^{+0.021}_{-0.017}$
S_{s}	0.8219	0.830 ± 0.036	k_{D}	0.1446	$0.1511^{+0.0073}_{-0.0091}$	$\sigma_{\text{s}}(2.33)$	0.2826	0.268 ± 0.020
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	0.4502	0.455 ± 0.020	$100\theta_{\text{D}}$	0.16680	$0.1700^{+0.0048}_{-0.0044}$	χ^2_{lensing}	7.55	10.0 ± 2.1
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	0.5827	0.576 ± 0.023	z_{eq}	3818	4281^{+500}_{-700}	χ^2_{Aver15}	0.00	1.0 ± 1.5
$\sigma_{\text{s}}/h^{0.5}$	0.912	0.871 ± 0.056	k_{eq}	0.01156	$0.0131^{+0.0016}_{-0.0022}$	χ^2_{Cooke17}	0.00	1.0 ± 1.4
$r_{\text{drag}}h$	98.49	97.2 ± 2.0	$100\theta_{\text{eq}}$	0.779	$0.744^{+0.046}_{-0.056}$	$\chi^2_{6\text{DF}}$	0.106	0.41 ± 0.41
$\langle d^2 \rangle^{1/2}$	2.519	2.503 ± 0.054	$100\theta_{\text{s,eq}}$	0.4325	$0.415^{+0.024}_{-0.029}$	χ^2_{MGS}	0.927	0.70 ± 0.63
z_{re}	8.27	$8.66^{+0.50}_{-0.58}$	$H(0.15)$	74.47	$77.0^{+3.1}_{-3.9}$	χ^2_{DR12BAO}	2.11	3.8 ± 1.6
10^9A_{s}	2.226	$2.07^{+0.22}_{-0.27}$	$D_{\text{M}}(0.15)$	630.8	613 ± 26	χ^2_{prior}	0.01	1.0 ± 1.4
$10^9A_{\text{s}}e^{-2\tau}$	1.994	$1.85^{+0.20}_{-0.24}$	$H(0.38)$	86.0	$89.9^{+4.5}_{-5.6}$	χ^2_{BAO}	3.14	4.9 ± 1.8
D_{40}	1268	1153^{+200}_{-200}	$D_{\text{M}}(0.38)$	1494	1445 ± 68	χ^2_{Abund}	0.00	2.1 ± 2.0
D_{220}	5675	4980^{+900}_{-1000}	$H(0.51)$	93.5	$98.3^{+5.3}_{-6.7}$			

Best-fit $\chi^2_{\text{eff}} = 10.70$; $\bar{\chi}^2_{\text{eff}} = 17.95$; $R - 1 = 0.01127$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.11 MGS: 0.93 DR12BAO: 2.11 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged:
7.55

9.50 base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02206	$0.02213^{+0.00065}_{-0.00074}$	D_{810}	2768	2842 ± 310	$D_M(0.51)$	1983	1972 ± 64
$\Omega_c h^2$	0.1173	$0.119^{+0.011}_{-0.013}$	D_{1420}	886	902 ± 100	$H(0.61)$	95.28	96.2 ± 3.5
$100\theta_{MC}$	1.0487	$1.054^{+0.016}_{-0.019}$	D_{2000}	250.3	257^{+28}_{-32}	$D_M(0.61)$	2308	2294 ± 75
Σm_ν [eV]	0.297	$0.50^{+0.20}_{-0.40}$	$n_{s,0.002}$	0.9572	0.960 ± 0.020	$H(2.33)$	236.1	239^{+10}_{-11}
N_{eff}	2.949	2.99 ± 0.28	Y_P	0.24396	0.2444 ± 0.0039	$D_M(2.33)$	5765	5715 ± 210
$\ln(10^{10} A_s)$	3.128	3.159 ± 0.091	Y_P^{BBN}	0.24529	0.2458 ± 0.0039	$f\sigma_8(0.15)$	0.4501	0.445 ± 0.016
n_s	0.9572	0.960 ± 0.020	$10^5 D/H$	2.610	$2.614^{+0.096}_{-0.087}$	$\sigma_8(0.15)$	0.7322	0.717 ± 0.027
H_0	67.50	67.8 ± 2.1	Age/Gyr	13.80	13.68 ± 0.51	$f\sigma_8(0.38)$	0.4684	0.462 ± 0.015
Ω_Λ	0.6874	$0.682^{+0.020}_{-0.017}$	z_*	1090.01	1090.2 ± 1.1	$\sigma_8(0.38)$	0.6496	0.635 ± 0.024
Ω_m	0.3126	$0.318^{+0.017}_{-0.020}$	r_*	145.82	145.0 ± 4.3	$f\sigma_8(0.51)$	0.4672	0.460 ± 0.015
$\Omega_m h^2$	0.1424	$0.147^{+0.012}_{-0.015}$	$100\theta_*$	1.0491	$1.055^{+0.016}_{-0.019}$	$\sigma_8(0.51)$	0.6082	0.595 ± 0.023
$\Omega_\nu h^2$	0.00312	$0.0052^{+0.0020}_{-0.0042}$	$D_M(z_*)/\text{Gpc}$	13.90	13.76 ± 0.57	$f\sigma_8(0.61)$	0.4624	0.455 ± 0.014
$\Omega_m h^3$	0.0962	$0.0998^{+0.010}_{-0.013}$	z_{drag}	1058.98	1059.3 ± 2.3	$\sigma_8(0.61)$	0.5789	0.566 ± 0.022
σ_8	0.7920	0.775 ± 0.028	r_{drag}	148.61	147.8 ± 4.6	$f\sigma_8(2.33)$	0.2954	$0.290^{+0.010}_{-0.0089}$
S_8	0.8085	0.798 ± 0.031	k_D	0.13944	0.1404 ± 0.0044	$\sigma_8(2.33)$	0.3025	$0.296^{+0.012}_{-0.011}$
$\sigma_8 \Omega_m^{0.5}$	0.4428	0.437 ± 0.017	$100\theta_D$	0.16209	0.1629 ± 0.0024	χ^2_{lensing}	7.62	9.4 ± 2.0
$\sigma_8 \Omega_m^{0.25}$	0.5922	0.582 ± 0.020	z_{eq}	3373	3409^{+220}_{-270}	χ^2_{Aver15}	0.009	1.0 ± 1.5
$\sigma_8/h^{0.5}$	0.9640	$0.942^{+0.038}_{-0.032}$	k_{eq}	0.01023	$0.01037^{+0.00074}_{-0.00086}$	χ^2_{Cooke17}	0.007	0.99 ± 1.4
$r_{\text{drag}} h$	100.32	100.2 ± 1.2	$100\theta_{\text{eq}}$	0.8240	0.825 ± 0.032	χ^2_{JLA}	1035.11	1036.1 ± 1.8
$\langle d^2 \rangle^{1/2}$	2.506	2.527 ± 0.054	$100\theta_{s,\text{eq}}$	0.4554	0.456 ± 0.016	$\chi^2_{6\text{DF}}$	0.0003	0.054 ± 0.075
z_{re}	7.811	7.87 ± 0.24	$H(0.15)$	72.80	73.3 ± 2.3	χ^2_{MGS}	1.68	1.71 ± 0.67
$10^9 A_s$	2.283	2.37 ± 0.22	$D_M(0.15)$	642.2	639 ± 20	χ^2_{DR12BAO}	2.98	3.8 ± 1.4
$10^9 A_s e^{-2\tau}$	2.045	2.12 ± 0.19	$H(0.38)$	82.93	83.6 ± 2.8	χ^2_{prior}	0.02	1.0 ± 1.4
D_{40}	1365	1397^{+120}_{-140}	$D_M(0.38)$	1531.2	1523 ± 48	χ^2_{BAO}	4.66	5.6 ± 1.7
D_{220}	6296	6494^{+720}_{-830}	$H(0.51)$	89.66	90.5 ± 3.2	χ^2_{Abund}	0.02	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 1047.43$; $\bar{\chi}^2_{\text{eff}} = 1054.19$; $R - 1 = 0.07982$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.01 D_Cooke2017: 0.01 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.98 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged:
7.62 SN - JLA Pantheon18: 1035.11

9.51 base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02194	0.02203 ± 0.00072	D_{810}	2908	2928^{+210}_{-310}	$D_{\mathrm{M}}(0.51)$	2012	2010 ± 51
$\Omega_{\mathrm{c}} h^2$	0.1114	0.1118 ± 0.0061	D_{1420}	931	938^{+71}_{-100}	$H(0.61)$	93.65	93.8 ± 2.3
$100\theta_{\mathrm{MC}}$	1.04089	1.04092 ± 0.00058	D_{2000}	262.2	264^{+21}_{-30}	$D_{\mathrm{M}}(0.61)$	2342	2340 ± 59
Σm_{ν} [eV]	0.267	$0.29^{+0.13}_{-0.24}$	$n_{\mathrm{s},0.002}$	0.9602	0.962 ± 0.019	$H(2.33)$	231.1	231.6 ± 5.4
N_{eff}	2.910	2.94 ± 0.28	Y_{P}	0.24337	0.2437 ± 0.0041	$D_{\mathrm{M}}(2.33)$	5868	5860 ± 140
$\ln(10^{10} A_{\mathrm{s}})$	3.169	$3.172^{+0.074}_{-0.093}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24469	0.2450 ± 0.0041	$f\sigma_8(0.15)$	0.4442	$0.442^{+0.013}_{-0.012}$
n_{s}	0.9602	0.962 ± 0.019	$10^5 \mathrm{D}/\mathrm{H}$	2.619	2.616 ± 0.092	$\sigma_8(0.15)$	0.7302	$0.727^{+0.026}_{-0.021}$
H_0	66.69	66.8 ± 1.8	Age/Gyr	14.051	14.03 ± 0.33	$f\sigma_8(0.38)$	0.4638	$0.462^{+0.014}_{-0.012}$
Ω_{Λ}	0.6939	0.6931 ± 0.0090	z_*	1089.59	1089.57 ± 0.64	$\sigma_8(0.38)$	0.6484	$0.645^{+0.023}_{-0.019}$
Ω_{m}	0.3061	0.3069 ± 0.0090	r_*	147.71	147.5 ± 3.4	$f\sigma_8(0.51)$	0.4633	$0.461^{+0.014}_{-0.011}$
$\Omega_{\mathrm{m}} h^2$	0.1362	0.1369 ± 0.0063	$100\theta_*$	1.04133	1.04133 ± 0.00064	$\sigma_8(0.51)$	0.6074	$0.604^{+0.021}_{-0.018}$
$\Omega_{\nu} h^2$	0.00278	$0.0030^{+0.0013}_{-0.0025}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.185	14.16 ± 0.33	$f\sigma_8(0.61)$	0.4591	$0.457^{+0.013}_{-0.011}$
$\Omega_{\mathrm{m}} h^3$	0.0908	$0.0915^{+0.0059}_{-0.0068}$	z_{drag}	1058.22	1058.5 ± 2.2	$\sigma_8(0.61)$	0.5783	$0.575^{+0.020}_{-0.017}$
σ_8	0.7892	$0.785^{+0.028}_{-0.023}$	r_{drag}	150.59	150.3 ± 3.7	$f\sigma_8(2.33)$	0.2951	$0.2936^{+0.0084}_{-0.0074}$
S_8	0.7972	$0.794^{+0.027}_{-0.023}$	k_{D}	0.13748	0.1378 ± 0.0032	$\sigma_8(2.33)$	0.3027	$0.3011^{+0.0098}_{-0.0084}$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4367	$0.435^{+0.015}_{-0.013}$	$100\theta_{\mathrm{D}}$	0.16109	0.16108 ± 0.00073	$\chi^2_{\mathrm{lensing}}$	7.51	9.2 ± 1.7
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.5870	$0.585^{+0.020}_{-0.017}$	z_{eq}	3247	3245^{+89}_{-80}	χ^2_{Aver15}	0.00	1.0 ± 1.5
$\sigma_8/h^{0.5}$	0.9664	$0.961^{+0.032}_{-0.027}$	k_{eq}	0.009820	0.00983 ± 0.00033	$\chi^2_{\mathrm{Cooke17}}$	0.000	0.97 ± 1.4
$r_{\mathrm{drag}} h$	100.43	100.3 ± 1.2	$100\theta_{\mathrm{eq}}$	0.8412	$0.842^{+0.014}_{-0.018}$	$\chi^2_{6\mathrm{DF}}$	0.0001	0.057 ± 0.078
$\langle d^2 \rangle^{1/2}$	2.523	$2.522^{+0.049}_{-0.056}$	$100\theta_{\mathrm{s,eq}}$	0.4642	$0.4648^{+0.0075}_{-0.0096}$	χ^2_{MGS}	1.68	1.70 ± 0.69
z_{re}	7.716	7.71 ± 0.11	$H(0.15)$	71.81	71.9 ± 1.9	$\chi^2_{\mathrm{DR12BAO}}$	3.39	4.3 ± 1.4
$10^9 A_{\mathrm{s}}$	2.379	$2.39^{+0.16}_{-0.23}$	$D_{\mathrm{M}}(0.15)$	650.5	650 ± 17	χ^2_{prior}	0.00	1.9 ± 1.9
$10^9 A_{\mathrm{s}} e^{-2\tau}$	2.131	$2.14^{+0.14}_{-0.21}$	$H(0.38)$	81.64	81.8 ± 2.0	χ^2_{BAO}	5.07	6.1 ± 1.4
D_{40}	1426	1426^{+100}_{-120}	$D_{\mathrm{M}}(0.38)$	1552.6	1551 ± 40	χ^2_{Abund}	0.00	2.0 ± 2.0
D_{220}	6689	6733^{+490}_{-730}	$H(0.51)$	88.18	88.3 ± 2.1			

Best-fit $\chi^2_{\mathrm{eff}} = 12.58$; $\bar{\chi}^2_{\mathrm{eff}} = 19.19$; $R - 1 = 0.00759$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.39 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmarged: 7.51

9.52 base_nnu_mnu_lensing_lenspriors_BAO_Cooke17_Aver15_theta_post_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02198	$0.02204^{+0.00067}_{-0.00075}$	D_{810}	2893	2928^{+210}_{-310}	$D_M(0.51)$	2008	2007 ± 50
$\Omega_c h^2$	0.1117	$0.1119^{+0.0057}_{-0.0063}$	D_{1420}	926	938^{+71}_{-100}	$H(0.61)$	93.80	93.9 ± 2.2
$100\theta_{MC}$	1.04090	1.04091 ± 0.00058	D_{2000}	260.9	264^{+21}_{-30}	$D_M(0.61)$	2337	2337 ± 58
Σm_ν [eV]	0.261	$0.29^{+0.12}_{-0.24}$	$n_{s,0.002}$	0.9608	0.962 ± 0.019	$H(2.33)$	231.3	231.6 ± 5.4
N_{eff}	2.924	2.95 ± 0.28	Y_P	0.24359	0.2438 ± 0.0041	$D_M(2.33)$	5859	5856 ± 140
$\ln(10^{10} A_s)$	3.165	$3.173^{+0.074}_{-0.093}$	Y_P^{BBN}	0.24491	0.2451 ± 0.0041	$f\sigma_8(0.15)$	0.4436	$0.442^{+0.014}_{-0.011}$
n_s	0.9608	0.962 ± 0.019	$10^5 D/H$	2.616	2.615 ± 0.092	$\sigma_8(0.15)$	0.7304	$0.728^{+0.025}_{-0.021}$
H_0	66.85	66.9 ± 1.8	Age/Gyr	14.030	14.02 ± 0.33	$f\sigma_8(0.38)$	0.4634	$0.462^{+0.014}_{-0.011}$
Ω_Λ	0.6948	0.6942 ± 0.0083	z_*	1089.57	1089.56 ± 0.64	$\sigma_8(0.38)$	0.6487	$0.646^{+0.022}_{-0.018}$
Ω_m	0.3052	0.3058 ± 0.0083	r_*	147.54	147.4 ± 3.5	$f\sigma_8(0.51)$	0.4630	$0.461^{+0.014}_{-0.011}$
$\Omega_m h^2$	0.1364	0.1369 ± 0.0064	$100\theta_*$	1.04132	1.04132 ± 0.00064	$\sigma_8(0.51)$	0.6077	$0.605^{+0.021}_{-0.017}$
$\Omega_\nu h^2$	0.00272	$0.0030^{+0.0012}_{-0.0026}$	$D_M(z_*)/\text{Gpc}$	14.168	14.16 ± 0.33	$f\sigma_8(0.61)$	0.4588	$0.457^{+0.014}_{-0.011}$
$\Omega_m h^3$	0.0912	$0.0917^{+0.0059}_{-0.0067}$	z_{drag}	1058.33	1058.5 ± 2.2	$\sigma_8(0.61)$	0.5786	$0.576^{+0.020}_{-0.016}$
σ_8	0.7893	$0.786^{+0.028}_{-0.022}$	r_{drag}	150.39	150.2 ± 3.7	$f\sigma_8(2.33)$	0.2952	$0.2941^{+0.0083}_{-0.0072}$
S_8	0.7961	$0.794^{+0.027}_{-0.023}$	k_D	0.13765	0.1379 ± 0.0032	$\sigma_8(2.33)$	0.3029	$0.3016^{+0.0097}_{-0.0082}$
$\sigma_8 \Omega_m^{0.5}$	0.4360	$0.435^{+0.015}_{-0.012}$	$100\theta_D$	0.16109	0.16108 ± 0.00072	χ^2_{lensing}	7.51	9.2 ± 1.7
$\sigma_8 \Omega_m^{0.25}$	0.5867	$0.585^{+0.020}_{-0.016}$	z_{eq}	3247	3243^{+89}_{-79}	χ^2_{Aver15}	0.00	1.0 ± 1.5
$\sigma_8/h^{0.5}$	0.9654	$0.962^{+0.032}_{-0.026}$	k_{eq}	0.009832	0.00983 ± 0.00033	χ^2_{Cooke17}	0.000	0.96 ± 1.3
$r_{\text{drag}} h$	100.54	100.5 ± 1.1	$100\theta_{\text{eq}}$	0.8411	$0.843^{+0.014}_{-0.018}$	χ^2_{JLA}	1034.814	1034.97 ± 0.30
$\langle d^2 \rangle^{1/2}$	2.516	$2.522^{+0.049}_{-0.056}$	$100\theta_{s,\text{eq}}$	0.4642	$0.4650^{+0.0075}_{-0.0095}$	$\chi^2_{6\text{DF}}$	0.0002	0.049 ± 0.067
z_{re}	7.713	7.71 ± 0.11	$H(0.15)$	71.97	72.0 ± 1.8	χ^2_{MGS}	1.75	1.77 ± 0.66
$10^9 A_s$	2.368	$2.39^{+0.16}_{-0.23}$	$D_M(0.15)$	649.0	649 ± 17	χ^2_{DR12BAO}	3.35	4.2 ± 1.2
$10^9 A_s e^{-2\tau}$	2.122	$2.15^{+0.14}_{-0.21}$	$H(0.38)$	81.80	81.9 ± 2.0	χ^2_{prior}	0.00	1.9 ± 1.9
D_{40}	1418	1427^{+100}_{-120}	$D_M(0.38)$	1549.3	1549 ± 39	χ^2_{BAO}	5.10	6.0 ± 1.2
D_{220}	6655	6737^{+490}_{-730}	$H(0.51)$	88.33	88.4 ± 2.1	χ^2_{Abund}	0.00	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 1047.43$; $\bar{\chi}^2_{\text{eff}} = 1054.04$; $R - 1 = 0.00615$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.35 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8_CMBmargd: 7.51 SN - JLA Pantheon18: 1034.81

9.53 base_nnu_mnu_BAO_Cooke17_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02201	0.02211 ± 0.00070	Age/Gyr	12.45	12.6 ± 1.2	$H(0.38)$	90.1	$89.4^{+6.5}_{-8.7}$
$\Omega_{\text{c}}h^2$	0.164	$0.148^{+0.041}_{-0.062}$	z_*	1093.95	$1093.6^{+3.3}_{-4.1}$	$D_{\text{M}}(0.38)$	1432	1460 ± 110
$100\theta_{\text{MC}}$	1.0994	1.111 ± 0.040	r_*	135.1	138 ± 11	$H(0.51)$	98.3	$97.8^{+7.6}_{-10}$
Σm_{ν} [eV]	0.31	—	$100\theta_*$	1.0997	1.112 ± 0.040	$D_{\text{M}}(0.51)$	1846	1880 ± 150
N_{eff}	2.940	2.97 ± 0.28	$D_{\text{M}}(z_*)/\text{Gpc}$	12.28	$12.4^{+1.3}_{-1.5}$	$H(0.61)$	105.1	$104.7^{+8.5}_{-11}$
H_0	71.01	$69.7^{+3.8}_{-5.0}$	z_{drag}	1061.99	$1062.0^{+3.4}_{-4.2}$	$D_{\text{M}}(0.61)$	2141	2179 ± 180
Ω_{Λ}	0.625	$0.605^{+0.059}_{-0.049}$	r_{drag}	137.6	140 ± 11	$H(2.33)$	270.3	272^{+28}_{-37}
Ω_{m}	0.375	$0.395^{+0.049}_{-0.059}$	k_{D}	0.1515	$0.150^{+0.011}_{-0.014}$	$D_{\text{M}}(2.33)$	5205	5276 ± 520
$\Omega_{\text{m}}h^2$	0.1893	$0.195^{+0.034}_{-0.057}$	$100\theta_{\text{D}}$	0.1689	0.1700 ± 0.0055	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\nu}h^2$	0.0032	< 0.0343	z_{eq}	4509	4100^{+1000}_{-1000}	χ^2_{Cooke17}	0.00	1.0 ± 1.5
$\Omega_{\text{m}}h^3$	0.1344	$0.138^{+0.026}_{-0.051}$	k_{eq}	0.01367	$0.0126^{+0.0028}_{-0.0045}$	$\chi^2_{6\text{DF}}$	0.204	0.45 ± 0.47
$r_{\text{drag}}h$	97.73	97.1 ± 2.2	$100\theta_{\text{eq}}$	0.698	$0.82^{+0.10}_{-0.21}$	χ^2_{MGS}	0.672	0.71 ± 0.67
Y_{P}	0.24382	0.2442 ± 0.0040	$100\theta_{\text{s,eq}}$	0.390	$0.453^{+0.057}_{-0.11}$	χ^2_{DR12BAO}	2.11	4.0 ± 1.9
$Y_{\text{P}}^{\text{BBN}}$	0.24514	0.2455 ± 0.0040	$H(0.15)$	77.6	$76.5^{+4.8}_{-6.3}$	χ^2_{BAO}	2.98	5.1 ± 2.1
$10^5\text{D}/\text{H}$	2.618	2.610 ± 0.094	$D_{\text{M}}(0.15)$	606.2	619 ± 43	χ^2_{Abund}	0.00	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 2.99$; $\bar{\chi}^2_{\text{eff}} = 7.18$; $R - 1 = 0.00490$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.20 MGS: 0.67 DR12BAO: 2.11

9.54 base_nnu_mnu_BAO_Cooke17_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02200	0.02208 ± 0.00069	z_*	1090.45	$1088.5^{+1.5}_{-1.9}$	$H(0.51)$	90.30	$86.1^{+4.0}_{-5.0}$
$\Omega_{\text{c}}h^2$	0.1220	$0.085^{+0.024}_{-0.031}$	r_*	144.8	152.3 ± 7.1	$D_{\text{M}}(0.51)$	1970	2071 ± 100
$100\theta_{\text{MC}}$	1.0497	1.050 ± 0.020	$100\theta_*$	1.0500	1.051 ± 0.020	$H(0.61)$	95.97	$91.6^{+4.3}_{-5.4}$
Σm_{ν} [eV]	0.06	—	$D_{\text{M}}(z_*)/\text{Gpc}$	13.79	14.51 ± 0.89	$D_{\text{M}}(0.61)$	2292	2410 ± 120
N_{eff}	2.925	2.96 ± 0.28	z_{drag}	1059.09	1057.8 ± 2.6	$H(2.33)$	237.9	227^{+13}_{-16}
H_0	67.97	$64.7^{+2.6}_{-3.3}$	r_{drag}	147.6	155.2 ± 7.4	$D_{\text{M}}(2.33)$	5723	6017 ± 330
Ω_{Λ}	0.6870	0.685 ± 0.021	k_{D}	0.1405	$0.1341^{+0.0056}_{-0.0070}$	χ^2_{Aver15}	0.00	1.0 ± 1.4
Ω_{m}	0.3130	0.315 ± 0.021	$100\theta_{\text{D}}$	0.16212	0.1619 ± 0.0027	χ^2_{Cooke17}	0.002	0.96 ± 1.3
$\Omega_{\text{m}}h^2$	0.1446	$0.133^{+0.014}_{-0.020}$	z_{eq}	3497	2592^{+600}_{-700}	χ^2_{JLA}	1035.14	1036.1 ± 1.8
$\Omega_{\nu}h^2$	0.0006	< 0.0342	k_{eq}	0.01059	$0.0081^{+0.0016}_{-0.0021}$	$\chi^2_{6\text{DF}}$	0.0003	0.053 ± 0.075
$\Omega_{\text{m}}h^3$	0.0983	$0.086^{+0.011}_{-0.017}$	$100\theta_{\text{eq}}$	0.802	$1.07^{+0.13}_{-0.27}$	χ^2_{MGS}	1.68	1.75 ± 0.67
$r_{\text{drag}}h$	100.32	100.3 ± 1.2	$100\theta_{\text{s,eq}}$	0.444	$0.581^{+0.067}_{-0.14}$	χ^2_{DR12BAO}	2.95	4.0 ± 1.6
Y_{P}	0.24361	0.2441 ± 0.0040	$H(0.15)$	73.30	$69.8^{+2.9}_{-3.7}$	χ^2_{BAO}	4.63	5.8 ± 1.8
$Y_{\text{P}}^{\text{BBN}}$	0.24493	0.2454 ± 0.0040	$D_{\text{M}}(0.15)$	637.8	671 ± 31	χ^2_{Abund}	0.00	2.0 ± 1.9
$10^5\text{D}/\text{H}$	2.614	2.613 ± 0.092	$H(0.38)$	83.51	$79.6^{+3.5}_{-4.4}$			
Age/Gyr	13.70	14.41 ± 0.80	$D_{\text{M}}(0.38)$	1521	1599 ± 76			

Best-fit $\chi^2_{\text{eff}} = 1039.77$; $\bar{\chi}^2_{\text{eff}} = 1043.83$; $R - 1 = 0.00972$

χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.95 SN - JLA Pantheon18: 1035.14

9.55 base_nnu_mnu_BAO_Cooke17_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02187	$0.02207^{+0.00066}_{-0.00074}$	z_*	1089.32	$1087.87^{+0.92}_{-1.3}$	$H(0.51)$	87.41	$84.5^{+2.5}_{-3.6}$
$\Omega_{\text{c}}h^2$	0.1072	$0.078^{+0.019}_{-0.029}$	r_*	149.0	$154.3^{+6.1}_{-4.9}$	$D_{\text{M}}(0.51)$	2030	2102^{+85}_{-70}
$100\theta_{\text{MC}}$	1.04087	1.04092 ± 0.00059	$100\theta_*$	1.04143	1.04174 ± 0.00068	$H(0.61)$	92.84	$89.8^{+2.7}_{-3.8}$
Σm_{ν} [eV]	0.47	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.31	$14.81^{+0.58}_{-0.47}$	$D_{\text{M}}(0.61)$	2363	2447^{+99}_{-81}
N_{eff}	2.883	2.96 ± 0.28	z_{drag}	1057.76	1057.2 ± 2.3	$H(2.33)$	229.1	$221.7^{+6.5}_{-9.1}$
H_0	66.09	$63.9^{+2.0}_{-2.8}$	r_{drag}	151.9	$157.2^{+6.3}_{-5.2}$	$D_{\text{M}}(2.33)$	5920	6128^{+240}_{-200}
Ω_{Λ}	0.6935	0.6926 ± 0.0091	k_{D}	0.13623	$0.1321^{+0.0035}_{-0.0052}$	χ^2_{Aver15}	0.02	1.0 ± 1.4
Ω_{m}	0.3065	0.3074 ± 0.0091	$100\theta_{\text{D}}$	0.16117	0.16075 ± 0.00083	χ^2_{Cooke17}	0.00	1.0 ± 1.5
$\Omega_{\text{m}}h^2$	0.1339	$0.1255^{+0.0070}_{-0.011}$	z_{eq}	3153	2429^{+400}_{-700}	$\chi^2_{6\text{DF}}$	0.0001	0.058 ± 0.082
$\Omega_{\nu}h^2$	0.0048	< 0.0340	k_{eq}	0.00952	$0.0076^{+0.0011}_{-0.0020}$	χ^2_{MGS}	1.68	1.71 ± 0.70
$\Omega_{\text{m}}h^3$	0.0885	$0.0804^{+0.0064}_{-0.010}$	$100\theta_{\text{eq}}$	0.860	$1.10^{+0.11}_{-0.28}$	χ^2_{DR12BAO}	3.37	4.3 ± 1.5
$r_{\text{drag}}h$	100.42	100.3 ± 1.2	$100\theta_{\text{s,eq}}$	0.474	$0.597^{+0.059}_{-0.14}$	χ^2_{prior}	0.002	0.98 ± 1.4
Y_{P}	0.24297	0.2440 ± 0.0040	$H(0.15)$	71.18	$68.8^{+2.1}_{-3.0}$	χ^2_{BAO}	5.04	6.1 ± 1.5
$Y_{\text{P}}^{\text{BBN}}$	0.24429	0.2453 ± 0.0040	$D_{\text{M}}(0.15)$	656.3	680^{+28}_{-23}	χ^2_{Abund}	0.03	2.1 ± 2.1
$10^5\text{D}/\text{H}$	2.623	2.615 ± 0.096	$H(0.38)$	80.92	$78.3^{+2.4}_{-3.3}$			
Age/Gyr	14.17	$14.67^{+0.58}_{-0.47}$	$D_{\text{M}}(0.38)$	1567	1622^{+66}_{-55}			

Best-fit $\chi^2_{\text{eff}} = 5.07$; $\bar{\chi}^2_{\text{eff}} = 9.13$; $R - 1 = 0.00353$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.02 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.37

9.56 base_nnu_mnu_BAO_Cooke17_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02193	0.02204 ± 0.00068	z_*	1089.73	$1087.83^{+0.86}_{-1.3}$	$H(0.51)$	88.47	$84.4^{+2.4}_{-3.6}$
$\Omega_{\text{c}}h^2$	0.1130	$0.078^{+0.018}_{-0.030}$	r_*	147.3	$154.6^{+6.2}_{-4.8}$	$D_{\text{M}}(0.51)$	2005	2104^{+86}_{-68}
$100\theta_{\text{MC}}$	1.04090	1.04090 ± 0.00058	$100\theta_*$	1.04129	1.04174 ± 0.00066	$H(0.61)$	93.95	$89.7^{+2.6}_{-3.8}$
Σm_{ν} [eV]	0.18	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.14	$14.84^{+0.59}_{-0.46}$	$D_{\text{M}}(0.61)$	2334	2449^{+100}_{-79}
N_{eff}	2.916	2.94 ± 0.27	z_{drag}	1058.29	$1057.1^{+2.1}_{-2.3}$	$H(2.33)$	231.7	$221.2^{+6.3}_{-9.1}$
H_0	66.96	$63.9^{+2.0}_{-2.8}$	r_{drag}	150.2	$157.6^{+6.4}_{-5.0}$	$D_{\text{M}}(2.33)$	5850	6137^{+240}_{-190}
Ω_{Λ}	0.6949	0.6939 ± 0.0084	k_{D}	0.13787	$0.1319^{+0.0034}_{-0.0052}$	χ^2_{Aver15}	0.001	0.98 ± 1.4
Ω_{m}	0.3051	0.3061 ± 0.0084	$100\theta_{\text{D}}$	0.16109	0.16074 ± 0.00081	χ^2_{Cooke17}	0.002	0.97 ± 1.4
$\Omega_{\text{m}}h^2$	0.1368	$0.1249^{+0.0068}_{-0.010}$	z_{eq}	3281	2422^{+400}_{-700}	χ^2_{JLA}	1034.813	1034.98 ± 0.32
$\Omega_{\nu}h^2$	0.0019	< 0.0338	k_{eq}	0.00993	$0.0075^{+0.0011}_{-0.0020}$	$\chi^2_{6\text{DF}}$	0.0002	0.049 ± 0.069
$\Omega_{\text{m}}h^3$	0.0916	$0.0800^{+0.0062}_{-0.010}$	$100\theta_{\text{eq}}$	0.834	$1.11^{+0.11}_{-0.28}$	χ^2_{MGS}	1.75	1.81 ± 0.66
$r_{\text{drag}}h$	100.54	100.5 ± 1.1	$100\theta_{\text{s,eq}}$	0.461	$0.599^{+0.058}_{-0.14}$	χ^2_{DR12BAO}	3.348	4.1 ± 1.2
Y_{P}	0.24345	0.2437 ± 0.0039	$H(0.15)$	72.09	$68.8^{+2.1}_{-3.0}$	χ^2_{prior}	0.000	0.9 ± 1.3
$Y_{\text{P}}^{\text{BBN}}$	0.24477	0.2451 ± 0.0040	$D_{\text{M}}(0.15)$	647.9	680^{+28}_{-23}	χ^2_{BAO}	5.10	5.9 ± 1.2
$10^5\text{D}/\text{H}$	2.623	2.614 ± 0.092	$H(0.38)$	81.93	$78.2^{+2.3}_{-3.3}$	χ^2_{Abund}	0.00	1.9 ± 1.9
Age/Gyr	14.01	$14.69^{+0.59}_{-0.46}$	$D_{\text{M}}(0.38)$	1547	1623^{+67}_{-53}			

Best-fit $\chi^2_{\text{eff}} = 1039.91$; $\bar{\chi}^2_{\text{eff}} = 1043.81$; $R - 1 = 0.00806$
 χ^2_{eff} : Abund - Yp_Aver2015: 0.00 D_Cooke2017: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.35 SN - JLA Pantheon18: 1034.81

9.57 base_nnu_mnu_BAO_Cooke17Marc_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02175	0.02185 ± 0.00056	Age/Gyr	13.23	12.7 ± 1.2	$H(0.38)$	84.9	$88.9^{+6.2}_{-8.3}$
$\Omega_{\text{c}}h^2$	0.1178	$0.145^{+0.039}_{-0.060}$	z_*	1091.92	$1093.7^{+3.1}_{-3.9}$	$D_{\text{M}}(0.38)$	1520	1467 ± 110
$100\theta_{\text{MC}}$	1.0968	1.110 ± 0.038	r_*	143.3	138 ± 11	$H(0.51)$	92.6	$97.2^{+7.2}_{-9.8}$
Σm_{ν} [eV]	2.67	—	$100\theta_*$	1.0976	1.111 ± 0.038	$D_{\text{M}}(0.51)$	1960	1890 ± 140
N_{eff}	2.923	2.98 ± 0.28	$D_{\text{M}}(z_*)/\text{Gpc}$	13.06	$12.5^{+1.2}_{-1.4}$	$H(0.61)$	98.9	$104.0^{+8.1}_{-11}$
H_0	66.90	$69.3^{+3.7}_{-4.9}$	z_{drag}	1059.47	$1061.3^{+3.2}_{-3.9}$	$D_{\text{M}}(0.61)$	2274	2191 ± 170
Ω_{Λ}	0.626	$0.607^{+0.055}_{-0.048}$	r_{drag}	146.1	141 ± 11	$H(2.33)$	254.3	270^{+27}_{-35}
Ω_{m}	0.374	$0.393^{+0.048}_{-0.055}$	k_{D}	0.1430	$0.149^{+0.010}_{-0.013}$	$D_{\text{M}}(2.33)$	5530	5305 ± 500
$\Omega_{\text{m}}h^2$	0.1674	$0.192^{+0.033}_{-0.054}$	$100\theta_{\text{D}}$	0.1682	0.1702 ± 0.0053	$\chi^2_{\text{Cooke17Marc}}$	0.00	1.0 ± 1.4
$\Omega_{\nu}h^2$	0.0279	< 0.0343	z_{eq}	3391	4018^{+900}_{-1000}	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^3$	0.1120	$0.135^{+0.026}_{-0.048}$	k_{eq}	0.01041	$0.0124^{+0.0027}_{-0.0042}$	$\chi^2_{6\text{DF}}$	0.203	0.43 ± 0.43
$r_{\text{drag}}h$	97.75	97.2 ± 2.1	$100\theta_{\text{eq}}$	0.869	$0.82^{+0.10}_{-0.21}$	χ^2_{MGS}	0.672	0.70 ± 0.66
Y_{P}	0.24345	0.2441 ± 0.0040	$100\theta_{\text{s,eq}}$	0.481	$0.456^{+0.056}_{-0.11}$	χ^2_{DR12BAO}	2.11	3.9 ± 1.8
$Y_{\text{P}}^{\text{BBN}}$	0.24477	0.2455 ± 0.0041	$H(0.15)$	73.1	$76.1^{+4.6}_{-6.1}$	χ^2_{BAO}	2.98	5.0 ± 2.0
$10^5\text{D}/\text{H}$	2.6610	2.659 ± 0.043	$D_{\text{M}}(0.15)$	643.6	623 ± 41	χ^2_{Abund}	0.00	2.0 ± 2.0

Best-fit $\chi^2_{\text{eff}} = 2.99$; $\bar{\chi}^2_{\text{eff}} = 7.06$; $R - 1 = 0.00313$

χ^2_{eff} : Abund - D_Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.20 MGS: 0.67 DR12BAO: 2.11

9.58 base_nnu_mnu_BAO_Cooke17Marc_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02179	0.02186 ± 0.00054	z_*	1090.16	$1088.8^{+1.5}_{-1.8}$	$H(0.51)$	89.06	$86.0^{+3.8}_{-4.8}$
$\Omega_{\text{c}}h^2$	0.1150	$0.085^{+0.024}_{-0.031}$	r_*	146.7	152.4 ± 6.8	$D_{\text{M}}(0.51)$	1996	2073 ± 96
$100\theta_{\text{MC}}$	1.0475	1.050 ± 0.019	$100\theta_*$	1.0479	1.051 ± 0.019	$H(0.61)$	94.65	$91.5^{+4.2}_{-5.2}$
Σm_{ν} [eV]	0.35	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.00	14.51 ± 0.84	$D_{\text{M}}(0.61)$	2323	2412 ± 110
N_{eff}	2.939	2.98 ± 0.27	z_{drag}	1058.14	1057.2 ± 2.3	$H(2.33)$	234.5	227^{+13}_{-15}
H_0	67.08	$64.7^{+2.5}_{-3.2}$	r_{drag}	149.6	155.4 ± 7.0	$D_{\text{M}}(2.33)$	5803	6021 ± 320
Ω_{Λ}	0.6879	0.685 ± 0.020	k_{D}	0.1383	$0.1338^{+0.0053}_{-0.0067}$	$\chi^2_{\text{Cooke17Marc}}$	0.00	1.0 ± 1.4
Ω_{m}	0.3121	0.315 ± 0.020	$100\theta_{\text{D}}$	0.16231	0.1623 ± 0.0025	χ^2_{Aver15}	0.001	0.97 ± 1.4
$\Omega_{\text{m}}h^2$	0.1404	$0.132^{+0.014}_{-0.019}$	z_{eq}	3317	2585^{+600}_{-700}	χ^2_{JLA}	1035.09	1036.0 ± 1.6
$\Omega_{\nu}h^2$	0.0036	< 0.0340	k_{eq}	0.01005	$0.0080^{+0.0015}_{-0.0021}$	$\chi^2_{6\text{DF}}$	0.0002	0.054 ± 0.075
$\Omega_{\text{m}}h^3$	0.0942	$0.086^{+0.011}_{-0.017}$	$100\theta_{\text{eq}}$	0.833	$1.07^{+0.13}_{-0.27}$	χ^2_{MGS}	1.68	1.74 ± 0.67
$r_{\text{drag}}h$	100.34	100.3 ± 1.2	$100\theta_{\text{s,eq}}$	0.460	$0.580^{+0.066}_{-0.14}$	χ^2_{DR12BAO}	3.00	3.9 ± 1.6
Y_{P}	0.24369	0.2442 ± 0.0039	$H(0.15)$	72.33	$69.8^{+2.8}_{-3.6}$	χ^2_{BAO}	4.68	5.7 ± 1.8
$Y_{\text{P}}^{\text{BBN}}$	0.24501	0.2455 ± 0.0039	$D_{\text{M}}(0.15)$	646.2	672 ± 30	χ^2_{Abund}	0.00	2.0 ± 2.0
$10^5\text{D}/\text{H}$	2.6597	2.660 ± 0.043	$H(0.38)$	82.39	$79.5^{+3.4}_{-4.3}$			
Age/Gyr	13.89	14.42 ± 0.76	$D_{\text{M}}(0.38)$	1541	1601 ± 73			

Best-fit $\chi^2_{\text{eff}} = 1039.76$; $\bar{\chi}^2_{\text{eff}} = 1043.75$; $R - 1 = 0.00814$

χ^2_{eff} : Abund - D_Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.00 SN - JLA Pantheon18: 1035.09

9.59 base_nnu_mnu_BAO_Cooke17Marc_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02173	0.02181 ± 0.00056	z_*	1088.67	$1088.10^{+0.64}_{-1.3}$	$H(0.51)$	85.48	$84.2^{+2.5}_{-3.5}$
$\Omega_{\text{c}}h^2$	0.0931	$0.077^{+0.018}_{-0.030}$	r_*	152.3	$154.8^{+6.1}_{-5.0}$	$D_{\text{M}}(0.51)$	2077	2112^{+85}_{-70}
$100\theta_{\text{MC}}$	1.04086	1.04092 ± 0.00060	$100\theta_*$	1.04167	1.04179 ± 0.00068	$H(0.61)$	90.80	$89.4^{+2.7}_{-3.7}$
Σm_{ν} [eV]	1.31	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.62	$14.86^{+0.58}_{-0.48}$	$D_{\text{M}}(0.61)$	2417	2458^{+99}_{-81}
N_{eff}	2.912	$2.95^{+0.26}_{-0.30}$	z_{drag}	1056.73	1056.5 ± 2.0	$H(2.33)$	224.4	$220.9^{+6.6}_{-8.9}$
H_0	64.56	$63.6^{+2.0}_{-2.7}$	r_{drag}	155.3	$157.9^{+6.3}_{-5.3}$	$D_{\text{M}}(2.33)$	6051	6152^{+240}_{-200}
Ω_{Λ}	0.6919	0.6919 ± 0.0090	k_{D}	0.13307	$0.1314^{+0.0036}_{-0.0050}$	$\chi^2_{\text{Cooke17Marc}}$	0.001	0.99 ± 1.4
Ω_{m}	0.3081	0.3081 ± 0.0090	$100\theta_{\text{D}}$	0.16148	0.16106 ± 0.00055	χ^2_{Aver15}	0.01	1.0 ± 1.5
$\Omega_{\text{m}}h^2$	0.1284	$0.1247^{+0.0072}_{-0.010}$	z_{eq}	2794	2388^{+400}_{-700}	$\chi^2_{6\text{DF}}$	0.0011	0.057 ± 0.083
$\Omega_{\nu}h^2$	0.0136	0.026 ± 0.015	k_{eq}	0.00850	$0.0075^{+0.0011}_{-0.0020}$	χ^2_{MGS}	1.61	1.69 ± 0.69
$\Omega_{\text{m}}h^3$	0.0829	$0.0795^{+0.0065}_{-0.010}$	$100\theta_{\text{eq}}$	0.946	$1.12^{+0.13}_{-0.29}$	χ^2_{DR12BAO}	3.37	4.3 ± 1.5
$r_{\text{drag}}h$	100.30	100.3 ± 1.2	$100\theta_{\text{s,eq}}$	0.519	$0.606^{+0.068}_{-0.15}$	χ^2_{prior}	0.004	1.0 ± 1.5
Y_{P}	0.24329	0.2438 ± 0.0041	$H(0.15)$	69.55	$68.5^{+2.1}_{-2.9}$	χ^2_{BAO}	4.98	6.0 ± 1.5
$Y_{\text{P}}^{\text{BBN}}$	0.24461	0.2451 ± 0.0041	$D_{\text{M}}(0.15)$	671.7	683^{+28}_{-23}	χ^2_{Abund}	0.01	2.0 ± 2.1
$10^5\text{D}/\text{H}$	2.6616	2.661 ± 0.043	$H(0.38)$	79.12	$77.9^{+2.4}_{-3.3}$			
Age/Gyr	14.49	$14.73^{+0.58}_{-0.48}$	$D_{\text{M}}(0.38)$	1603	1630^{+66}_{-55}			

Best-fit $\chi^2_{\text{eff}} = 4.99$; $\bar{\chi}^2_{\text{eff}} = 9.06$; $R - 1 = 0.01055$

χ^2_{eff} : Abund - D.Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.01 BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.37

9.60 base_nnu_mnu_BAO_Cooke17Marc_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02176	0.02183 ± 0.00055	z_*	1089.95	$1088.13^{+0.67}_{-1.3}$	$H(0.51)$	88.34	$84.4^{+2.5}_{-3.6}$
$\Omega_{\text{c}}h^2$	0.1127	$0.078^{+0.019}_{-0.030}$	r_*	147.4	$154.5^{+6.2}_{-4.9}$	$D_{\text{M}}(0.51)$	2009	2104^{+86}_{-68}
$100\theta_{\text{MC}}$	1.04093	1.04091 ± 0.00061	$100\theta_*$	1.04136	1.04176 ± 0.00069	$H(0.61)$	93.82	$89.7^{+2.6}_{-3.8}$
Σm_{ν} [eV]	0.22	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.16	$14.83^{+0.59}_{-0.46}$	$D_{\text{M}}(0.61)$	2338	2449^{+100}_{-79}
N_{eff}	2.930	2.97 ± 0.28	z_{drag}	1057.87	$1056.6^{+1.9}_{-2.1}$	$H(2.33)$	231.6	$221.3^{+6.4}_{-9.2}$
H_0	66.79	$63.8^{+2.0}_{-2.8}$	r_{drag}	150.3	$157.6^{+6.4}_{-5.1}$	$D_{\text{M}}(2.33)$	5857	6136^{+250}_{-190}
Ω_{Λ}	0.6935	0.6934 ± 0.0082	k_{D}	0.13749	$0.1316^{+0.0034}_{-0.0052}$	$\chi^2_{\text{Cooke17Marc}}$	0.001	0.96 ± 1.3
Ω_{m}	0.3065	0.3066 ± 0.0082	$100\theta_{\text{D}}$	0.16141	$0.16109^{+0.00061}_{-0.00049}$	χ^2_{Aver15}	0.000	1.0 ± 1.5
$\Omega_{\text{m}}h^2$	0.1367	$0.1251^{+0.0069}_{-0.011}$	z_{eq}	3265	2414^{+400}_{-700}	χ^2_{JLA}	1034.851	1034.99 ± 0.32
$\Omega_{\nu}h^2$	0.0022	< 0.0343	k_{eq}	0.00989	$0.0075^{+0.0011}_{-0.0020}$	$\chi^2_{6\text{DF}}$	0.0001	0.048 ± 0.069
$\Omega_{\text{m}}h^3$	0.0913	$0.0801^{+0.0063}_{-0.010}$	$100\theta_{\text{eq}}$	0.837	$1.11^{+0.13}_{-0.29}$	χ^2_{MGS}	1.68	1.79 ± 0.65
$r_{\text{drag}}h$	100.42	100.5 ± 1.1	$100\theta_{\text{s,eq}}$	0.462	$0.601^{+0.067}_{-0.15}$	χ^2_{DR12BAO}	3.366	4.1 ± 1.2
Y_{P}	0.24355	0.2440 ± 0.0040	$H(0.15)$	71.93	$68.8^{+2.1}_{-3.0}$	χ^2_{prior}	0.00	1.0 ± 1.4
$Y_{\text{P}}^{\text{BBN}}$	0.24487	0.2453 ± 0.0040	$D_{\text{M}}(0.15)$	649.4	680^{+28}_{-23}	χ^2_{BAO}	5.04	5.9 ± 1.3
$10^5\text{D}/\text{H}$	2.6619	2.660 ± 0.042	$H(0.38)$	81.78	$78.2^{+2.3}_{-3.3}$	χ^2_{Abund}	0.00	2.0 ± 2.0
Age/Gyr	14.02	$14.69^{+0.59}_{-0.46}$	$D_{\text{M}}(0.38)$	1550	1624^{+67}_{-53}			

Best-fit $\chi^2_{\text{eff}} = 1039.90$; $\bar{\chi}^2_{\text{eff}} = 1043.87$; $R - 1 = 0.00926$

χ^2_{eff} : Abund - D.Cooke2017_marcucci: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 3.37 SN - JLA Pantheon18: 1034.85

9.61 base_nnu_mnu_BAO_Cooke17Adel_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02251	0.02252 ± 0.00064	Age/Gyr	12.33	$12.6^{+1.1}_{-1.3}$	$H(0.38)$	91.0	$89.4^{+6.6}_{-8.6}$
$\Omega_{\text{c}}h^2$	0.168	$0.147^{+0.041}_{-0.062}$	z_*	1093.53	$1092.9^{+3.2}_{-4.0}$	$D_{\text{M}}(0.38)$	1419	1459 ± 110
$100\theta_{\text{MC}}$	1.1016	$1.110^{+0.042}_{-0.037}$	r_*	134.0	138 ± 11	$H(0.51)$	99.3	$97.7^{+7.7}_{-10}$
Σm_{ν} [eV]	0.26	—	$100\theta_*$	1.1019	$1.111^{+0.042}_{-0.037}$	$D_{\text{M}}(0.51)$	1829	1880 ± 150
N_{eff}	2.934	2.94 ± 0.28	$D_{\text{M}}(z_*)/\text{Gpc}$	12.16	$12.4^{+1.2}_{-1.5}$	$H(0.61)$	106.1	$104.6^{+8.6}_{-11}$
H_0	71.66	$69.8^{+3.9}_{-5.0}$	z_{drag}	1063.37	$1062.9^{+3.4}_{-3.9}$	$D_{\text{M}}(0.61)$	2121	2179 ± 180
Ω_{Λ}	0.624	$0.608^{+0.056}_{-0.050}$	r_{drag}	136.4	140 ± 11	$H(2.33)$	273.1	271^{+28}_{-36}
Ω_{m}	0.376	$0.392^{+0.050}_{-0.056}$	k_{D}	0.1535	$0.151^{+0.011}_{-0.014}$	$D_{\text{M}}(2.33)$	5155	5280^{+480}_{-550}
$\Omega_{\text{m}}h^2$	0.1932	$0.194^{+0.035}_{-0.057}$	$100\theta_{\text{D}}$	0.1684	0.1691 ± 0.0055	$\chi^2_{\text{Cooke17Adel}}$	0.006	1.0 ± 1.4
$\Omega_{\nu}h^2$	0.0027	< 0.0341	z_{eq}	4622	4096^{+1000}_{-1000}	χ^2_{Aver15}	0.01	1.0 ± 1.5
$\Omega_{\text{m}}h^3$	0.1384	$0.138^{+0.027}_{-0.051}$	k_{eq}	0.01400	$0.0126^{+0.0028}_{-0.0044}$	$\chi^2_{6\text{DF}}$	0.206	0.43 ± 0.45
$r_{\text{drag}}h$	97.72	97.2 ± 2.2	$100\theta_{\text{eq}}$	0.688	$0.818^{+0.098}_{-0.21}$	χ^2_{MGS}	0.672	0.74 ± 0.69
Y_{P}	0.24394	0.2440 ± 0.0041	$100\theta_{\text{s,eq}}$	0.384	$0.452^{+0.053}_{-0.11}$	χ^2_{DR12BAO}	2.11	3.9 ± 1.9
$Y_{\text{P}}^{\text{BBN}}$	0.24526	0.2453 ± 0.0041	$H(0.15)$	78.4	$76.6^{+4.8}_{-6.3}$	χ^2_{BAO}	2.98	5.1 ± 2.1
$10^5\text{D}/\text{H}$	2.522	2.523 ± 0.067	$D_{\text{M}}(0.15)$	600.7	619 ± 43	χ^2_{Abund}	0.01	2.0 ± 2.1

Best-fit $\chi^2_{\text{eff}} = 3.00$; $\bar{\chi}^2_{\text{eff}} = 7.14$; $R - 1 = 0.00205$

χ^2_{eff} : Abund - D_Cooke2017_adelberger: 0.01 Yp_Aver2015: 0.01 BAO - 6DF: 0.21 MGS: 0.67 DR12BAO: 2.11

9.62 base_nnu_mnu_BAO_Cooke17Adel_Aver15_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02246	0.02252 ± 0.00065	z_*	1089.95	$1088.0^{+1.5}_{-1.8}$	$H(0.51)$	90.77	$86.5^{+4.2}_{-5.0}$
$\Omega_{\text{c}}h^2$	0.1231	$0.086^{+0.025}_{-0.031}$	r_*	144.2	151.8 ± 7.2	$D_{\text{M}}(0.51)$	1959	2063 ± 100
$100\theta_{\text{MC}}$	1.0506	1.052 ± 0.020	$100\theta_*$	1.0508	1.052 ± 0.020	$H(0.61)$	96.5	$92.0^{+4.6}_{-5.5}$
Σm_{ν} [eV]	0.05	—	$D_{\text{M}}(z_*)/\text{Gpc}$	13.72	14.44 ± 0.90	$D_{\text{M}}(0.61)$	2279	2400 ± 120
N_{eff}	2.921	2.94 ± 0.29	z_{drag}	1060.28	1058.8 ± 2.5	$H(2.33)$	239.1	228^{+13}_{-16}
H_0	68.34	$65.0^{+2.8}_{-3.3}$	r_{drag}	146.8	154.6 ± 7.5	$D_{\text{M}}(2.33)$	5693	5991 ± 340
Ω_{Λ}	0.6873	$0.685^{+0.022}_{-0.020}$	k_{D}	0.1417	$0.1352^{+0.0059}_{-0.0070}$	$\chi^2_{\text{Cooke17Adel}}$	0.00	1.0 ± 1.5
Ω_{m}	0.3127	$0.315^{+0.020}_{-0.022}$	$100\theta_{\text{D}}$	0.16155	0.1614 ± 0.0027	χ^2_{Aver15}	0.00	1.1 ± 1.5
$\Omega_{\text{m}}h^2$	0.1460	$0.134^{+0.015}_{-0.020}$	z_{eq}	3538	2625^{+600}_{-700}	χ^2_{JLA}	1035.12	1036.1 ± 1.8
$\Omega_{\nu}h^2$	0.0005	< 0.0348	k_{eq}	0.01071	$0.0082^{+0.0016}_{-0.0021}$	$\chi^2_{6\text{DF}}$	0.0002	0.053 ± 0.074
$\Omega_{\text{m}}h^3$	0.0998	$0.087^{+0.012}_{-0.018}$	$100\theta_{\text{eq}}$	0.797	$1.06^{+0.13}_{-0.27}$	χ^2_{MGS}	1.68	1.74 ± 0.66
$r_{\text{drag}}h$	100.33	100.3 ± 1.2	$100\theta_{\text{s,eq}}$	0.441	$0.577^{+0.067}_{-0.14}$	χ^2_{DR12BAO}	2.97	4.0 ± 1.6
Y_{P}	0.24375	0.2440 ± 0.0041	$H(0.15)$	73.70	$70.1^{+3.1}_{-3.7}$	χ^2_{BAO}	4.64	5.7 ± 1.8
$Y_{\text{P}}^{\text{BBN}}$	0.24507	0.2453 ± 0.0041	$D_{\text{M}}(0.15)$	634.3	668 ± 32	χ^2_{Abund}	0.00	2.1 ± 2.1
$10^5\text{D}/\text{H}$	2.526	2.525 ± 0.068	$H(0.38)$	83.96	$80.0^{+3.8}_{-4.5}$			
Age/Gyr	13.63	14.34 ± 0.81	$D_{\text{M}}(0.38)$	1512	1593 ± 78			

Best-fit $\chi^2_{\text{eff}} = 1039.76$; $\bar{\chi}^2_{\text{eff}} = 1043.96$; $R - 1 = 0.00624$

χ^2_{eff} : Abund - D_Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.68 DR12BAO: 2.96 SN - JLA Pantheon18: 1035.12

9.63 base_nnu_mnu_BAO_Cooke17Adel_Aver15_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02240	0.02249 ± 0.00062	z_*	1088.62	$1087.34^{+0.77}_{-1.3}$	$H(0.51)$	87.57	$84.7^{+2.5}_{-3.5}$
$\Omega_{\text{c}}h^2$	0.1061	$0.079^{+0.019}_{-0.029}$	r_*	148.8	$154.0^{+6.0}_{-4.9}$	$D_{\text{M}}(0.51)$	2026	2096^{+84}_{-70}
$100\theta_{\text{MC}}$	1.04089	1.04090 ± 0.00060	$100\theta_*$	1.04141	1.04167 ± 0.00068	$H(0.61)$	93.00	$90.0^{+2.7}_{-3.7}$
Σm_{ν} [eV]	0.56	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.29	$14.79^{+0.57}_{-0.47}$	$D_{\text{M}}(0.61)$	2359	2440^{+97}_{-81}
N_{eff}	2.895	2.94 ± 0.28	z_{drag}	1058.94	1058.2 ± 2.1	$H(2.33)$	229.5	$222.0^{+6.5}_{-9.0}$
H_0	66.22	$64.1^{+2.0}_{-2.7}$	r_{drag}	151.5	$156.8^{+6.2}_{-5.2}$	$D_{\text{M}}(2.33)$	5909	6114^{+240}_{-200}
Ω_{Λ}	0.6936	0.6940 ± 0.0090	k_{D}	0.13703	$0.1329^{+0.0036}_{-0.0051}$	$\chi^2_{\text{Cooke17Adel}}$	0.001	1.0 ± 1.5
Ω_{m}	0.3064	0.3060 ± 0.0090	$100\theta_{\text{D}}$	0.16049	$0.16010^{+0.00070}_{-0.00061}$	χ^2_{Aver15}	0.00	1.0 ± 1.4
$\Omega_{\text{m}}h^2$	0.1343	$0.1258^{+0.0071}_{-0.010}$	z_{eq}	3134	2456 ± 500	$\chi^2_{6\text{DF}}$	0.00098	0.056 ± 0.079
$\Omega_{\nu}h^2$	0.0058	< 0.0329	k_{eq}	0.00948	$0.0076^{+0.0011}_{-0.0020}$	χ^2_{MGS}	1.61	1.74 ± 0.70
$\Omega_{\text{m}}h^3$	0.0890	$0.0808^{+0.0065}_{-0.010}$	$100\theta_{\text{eq}}$	0.866	$1.09^{+0.10}_{-0.27}$	χ^2_{DR12BAO}	3.51	4.3 ± 1.4
$r_{\text{drag}}h$	100.32	100.4 ± 1.2	$100\theta_{\text{s,eq}}$	0.477	$0.592^{+0.054}_{-0.14}$	χ^2_{prior}	0.000	1.0 ± 1.5
Y_{P}	0.24337	0.2439 ± 0.0040	$H(0.15)$	71.31	$69.0^{+2.2}_{-2.9}$	χ^2_{BAO}	5.12	6.1 ± 1.4
$Y_{\text{P}}^{\text{BBN}}$	0.24469	0.2452 ± 0.0040	$D_{\text{M}}(0.15)$	655.1	678^{+27}_{-23}	χ^2_{Abund}	0.00	2.0 ± 2.0
$10^5\text{D}/\text{H}$	2.529	2.526 ± 0.067	$H(0.38)$	81.07	$78.5^{+2.4}_{-3.3}$			
Age/Gyr	14.15	$14.64^{+0.57}_{-0.47}$	$D_{\text{M}}(0.38)$	1564	1618^{+65}_{-55}			

Best-fit $\chi^2_{\text{eff}} = 5.12$; $\bar{\chi}^2_{\text{eff}} = 9.16$; $R - 1 = 0.00663$

χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 3.51

9.64 base_nnu_mnu_BAO_Cooke17Adel_Aver15_Pantheon18_theta

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02241	0.02248 ± 0.00062	z_*	1089.11	$1087.25^{+0.73}_{-1.2}$	$H(0.51)$	88.67	$84.5^{+2.3}_{-3.4}$
$\Omega_{\text{c}}h^2$	0.1128	$0.077^{+0.018}_{-0.027}$	r_*	147.0	$154.5^{+5.9}_{-4.6}$	$D_{\text{M}}(0.51)$	2000	2100^{+83}_{-64}
$100\theta_{\text{MC}}$	1.04095	1.04088 ± 0.00059	$100\theta_*$	1.04130	1.04167 ± 0.00066	$H(0.61)$	94.15	$89.8^{+2.5}_{-3.6}$
Σm_{ν} [eV]	0.19	—	$D_{\text{M}}(z_*)/\text{Gpc}$	14.12	$14.83^{+0.56}_{-0.44}$	$D_{\text{M}}(0.61)$	2328	2445^{+96}_{-75}
N_{eff}	2.898	2.93 ± 0.27	z_{drag}	1059.40	$1058.1^{+2.0}_{-2.2}$	$H(2.33)$	232.0	$221.3^{+6.1}_{-8.7}$
H_0	67.15	$64.0^{+1.9}_{-2.7}$	r_{drag}	149.7	$157.3^{+6.1}_{-4.8}$	$D_{\text{M}}(2.33)$	5838	6130^{+240}_{-180}
Ω_{Λ}	0.6957	0.6951 ± 0.0082	k_{D}	0.13872	$0.1325^{+0.0033}_{-0.0049}$	$\chi^2_{\text{Cooke17Adel}}$	0.000	0.9 ± 1.3
Ω_{m}	0.3043	0.3049 ± 0.0082	$100\theta_{\text{D}}$	0.16038	0.16008 ± 0.00065	χ^2_{Aver15}	0.002	0.97 ± 1.3
$\Omega_{\text{m}}h^2$	0.1372	$0.1250^{+0.0066}_{-0.010}$	z_{eq}	3297	2409^{+400}_{-700}	χ^2_{JLA}	1034.793	1034.94 ± 0.27
$\Omega_{\nu}h^2$	0.0020	$0.026^{+0.015}_{-0.018}$	k_{eq}	0.00996	$0.0075^{+0.0011}_{-0.0019}$	$\chi^2_{6\text{DF}}$	0.0002	0.048 ± 0.069
$\Omega_{\text{m}}h^3$	0.0921	$0.0802^{+0.0061}_{-0.0098}$	$100\theta_{\text{eq}}$	0.833	$1.11^{+0.12}_{-0.28}$	χ^2_{MGS}	1.75	1.82 ± 0.66
$r_{\text{drag}}h$	100.55	100.5 ± 1.1	$100\theta_{\text{s,eq}}$	0.459	$0.601^{+0.064}_{-0.14}$	χ^2_{DR12BAO}	3.418	4.1 ± 1.1
Y_{P}	0.24341	0.2438 ± 0.0039	$H(0.15)$	72.28	$68.9^{+2.0}_{-2.8}$	χ^2_{prior}	0.006	0.96 ± 1.3
$Y_{\text{P}}^{\text{BBN}}$	0.24473	0.2451 ± 0.0039	$D_{\text{M}}(0.15)$	646.1	679^{+27}_{-21}	χ^2_{BAO}	5.17	6.0 ± 1.2
$10^5\text{D}/\text{H}$	2.528	2.527 ± 0.065	$H(0.38)$	82.12	$78.3^{+2.2}_{-3.2}$	χ^2_{Abund}	0.00	1.9 ± 1.8
Age/Gyr	13.98	$14.68^{+0.56}_{-0.44}$	$D_{\text{M}}(0.38)$	1543	1620^{+64}_{-50}			

Best-fit $\chi^2_{\text{eff}} = 1039.97$; $\bar{\chi}^2_{\text{eff}} = 1043.82$; $R - 1 = 0.01456$

χ^2_{eff} : Abund - D.Cooke2017_adelberger: 0.00 Yp_Aver2015: 0.00 BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.42 SN - JLA Pantheon18: 1034.79

10 nnu+nrn

10.1 base_nnu_nrn_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022135	0.02216 ± 0.00023 (-1.4σ)	$\Omega_{\mathrm{m}}h^2$	0.13853	0.1390 ± 0.0034 (-3.2σ)	$100\theta_{\mathrm{eq}}$	0.8044	0.8049 ± 0.0077 (-1.3σ)
$\Omega_{\mathrm{c}}h^2$	0.11575	0.1162 ± 0.0032 (-2.9σ)	$\Omega_{\mathrm{m}}h^3$	0.08991	$0.0906^{+0.0039}_{-0.0044}$ (-19.9σ)	$100\theta_{\mathrm{s,eq}}$	0.44490	0.4452 ± 0.0039 (-1.3σ)
$100\theta_{\mathrm{MC}}$	1.041436	1.04139 ± 0.00048 $(+1.6\sigma)$	σ_8	0.7989	0.800 ± 0.012 (-1.7σ)	$H(0.15)$	70.25	70.5 ± 1.6 (-4.2σ)
τ	0.0548	0.0549 ± 0.0079 $(+0.1\sigma)$	S_8	0.8365	0.836 ± 0.016 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	666.7	665 ± 16 $(+4.0\sigma)$
N_{eff}	2.711	2.74 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4582	0.4579 ± 0.0089 $(+0.1\sigma)$	$H(0.38)$	80.43	80.7 ± 1.6 (-5.8σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0364	3.037 ± 0.018 (-0.5σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6050	0.6051 ± 0.0088 (-0.5σ)	$D_{\mathrm{M}}(0.38)$	1585.6	1582 ± 36 $(+4.5\sigma)$
n_{s}	0.9500	0.950 ± 0.011 (-3.4σ)	$\sigma_8/h^{0.5}$	0.9917	0.991 ± 0.012 $(+0.1\sigma)$	$H(0.51)$	87.17	87.4 ± 1.6 (-7.4σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0105	-0.0119 ± 0.0079	$r_{\mathrm{drag}}h$	97.52	97.6 ± 1.4 (-1.2σ)	$D_{\mathrm{M}}(0.51)$	2051.3	2046 ± 45 $(+4.8\sigma)$
y_{cal}	1.00054	1.0005 ± 0.0025 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4579	2.455 ± 0.030 $(+0.2\sigma)$	$H(0.61)$	92.79	93.0 ± 1.6 (-9.4σ)
A_{217}^{CIB}	46.8	47 ± 7 $(+0.1\sigma)$	z_{re}	7.68	7.66 ± 0.79 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2385	2379 ± 51 $(+5.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.49	—	$10^9 A_{\mathrm{s}}$	2.0830	2.085 ± 0.039 (-0.5σ)	$H(2.33)$	232.43	232.9 ± 3.0 (-4.7σ)
A_{143}^{tSZ}	7.06	5.2 ± 2.0 (-0.1σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8666	1.868 ± 0.019 (-1.3σ)	$D_{\mathrm{M}}(2.33)$	5912	5899 ± 100 $(+12.5\sigma)$
A_{100}^{PS}	249.9	261 ± 28 $(+0.1\sigma)$	D_{40}	1225.2	1223 ± 19 (-0.7σ)	$f\sigma_8(0.15)$	0.4613	0.4611 ± 0.0082 $(+0.0\sigma)$
A_{143}^{PS}	48.8	47 ± 8 $(+0.1\sigma)$	D_{220}	5729.1	5729 ± 39 (-0.0σ)	$\sigma_8(0.15)$	0.7366	0.737 ± 0.011 (-2.0σ)
$A_{143 \times 217}^{\mathrm{PS}}$	49.0	42 ± 9 (-0.0σ)	D_{810}	2540.0	2539 ± 14 (-0.0σ)	$f\sigma_8(0.38)$	0.4755	0.4755 ± 0.0070 (-0.4σ)
A_{217}^{PS}	120.4	115 ± 10 (-0.0σ)	D_{1420}	817.62	816.0 ± 5.0 (-0.2σ)	$\sigma_8(0.38)$	0.6511	0.652 ± 0.010 (-2.2σ)
A^{kSZ}	0.00	< 4.56 $(+0.1\sigma)$	D_{2000}	231.55	230.8 ± 1.9 (-0.1σ)	$f\sigma_8(0.51)$	0.4721	0.4722 ± 0.0066 (-0.7σ)
$A_{100}^{\mathrm{dust}TT}$	8.71	8.8 ± 1.8 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9838	0.988 ± 0.021 $(+5.3\sigma)$	$\sigma_8(0.51)$	0.6086	0.609 ± 0.010 (-2.4σ)
$A_{143}^{\mathrm{dust}TT}$	10.87	10.8 ± 1.8 (-0.0σ)	Y_{P}	0.24071	0.2411 ± 0.0031 (-72.7σ)	$f\sigma_8(0.61)$	0.4659	0.4660 ± 0.0064 (-0.9σ)
$A_{143 \times 217}^{\mathrm{dust}TT}$	19.76	18.5 ± 3.3 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24202	0.2424 ± 0.0031 (-72.7σ)	$\sigma_8(0.61)$	0.5787	0.5793 ± 0.0097 (-2.4σ)
$A_{217}^{\mathrm{dust}TT}$	95.1	93.6 ± 7.3 (-0.0σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.513	2.520 ± 0.053 (-2.5σ)	$f\sigma_8(2.33)$	0.2912	0.2915 ± 0.0051 (-2.6σ)
$A_{100}^{\mathrm{dust}TE}$	0.1152	0.114 ± 0.038 (-0.0σ)	Age/Gyr	14.148	14.12 ± 0.24 $(+13.2\sigma)$	$\sigma_8(2.33)$	0.2994	0.2998 ± 0.0056 (-2.7σ)
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.1350	0.134 ± 0.030 (-0.0σ)	z_*	1089.507	1089.55 ± 0.38 (-1.5σ)	f_{2000}^{143}	28.82	30.1 ± 3.1 $(+0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.484	0.481 ± 0.085 $(+0.0\sigma)$	r_*	147.47	147.2 ± 2.1 $(+9.3\sigma)$	$f_{2000}^{143 \times 217}$	31.94	32.5 ± 2.2 $(+0.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	0.224	0.224 ± 0.054 (-0.0σ)	$100\theta_*$	1.04186	1.04180 ± 0.00061 $(+2.3\sigma)$	f_{2000}^{217}	106.53	107.3 ± 2.0 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665	0.665 ± 0.081 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.154	14.13 ± 0.20 $(+9.2\sigma)$	χ_{simall}^2	396.09	397.1 ± 1.7 (-0.0σ)
$A_{217}^{\mathrm{dust}TE}$	2.087	2.08 ± 0.27 (-0.0σ)	z_{drag}	1058.83	1058.92 ± 0.85 (-3.4σ)	χ_{lowl}^2	22.41	22.5 ± 1.5 (-1.1σ)
c_{100}	0.99976	0.99971 ± 0.00061 $(+0.1\sigma)$	r_{drag}	150.24	150.0 ± 2.2 $(+9.8\sigma)$	χ_{plik}^2	2343.2	2360.1 ± 6.1 $(+0.1\sigma)$
c_{217}	0.99818	0.99821 ± 0.00063 $(+0.0\sigma)$	k_{D}	0.13872	0.1389 ± 0.0015 (-6.2σ)	χ_{prior}^2	1.51	11.4 ± 4.5 (-0.0σ)
H_0	64.90	65.1 ± 1.7 (-3.6σ)	$100\theta_{\mathrm{D}}$	0.16000	0.16007 ± 0.00050 (-4.0σ)	χ_{CMB}^2	2761.7	2779.7 ± 6.1 (-0.1σ)
Ω_{Λ}	0.6712	0.672 ± 0.012 (-1.4σ)	z_{eq}	3450.0	3448 ± 42 $(+1.3\sigma)$			
Ω_{m}	0.3288	0.328 ± 0.012 $(+1.4\sigma)$	k_{eq}	0.010290	0.01031 ± 0.00012 (-1.0σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2763.19$; $\Delta\chi_{\mathrm{eff}}^2 = -2.59$; $\bar{\chi}_{\mathrm{eff}}^2 = 2791.11$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.66$; $R - 1 = 0.01356$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.09 (Δ 0.04) commander_dx12_v3.2.29: 22.41 (Δ -0.85) plik_rd12_HM_v22b_TTTEEE: 2343.18 (Δ -1.47)

10.2 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022331	0.02236 ± 0.00018 (-0.4σ)	$\Omega_m h^3$	0.09294	$0.0937^{+0.0035}_{-0.0041}$ (-9.2σ)	$H(0.15)$	71.85	72.1 ± 1.3 (-2.3σ)
$\Omega_c h^2$	0.11659	$0.1172^{+0.0030}_{-0.0035}$ (-2.1σ)	σ_8	0.8022	0.803 ± 0.012 (-1.0σ)	$D_M(0.15)$	650.8	649 ± 12 $(+2.1\sigma)$
$100\theta_{MC}$	1.041312	1.04127 ± 0.00048 $(+0.9\sigma)$	S_8	0.8217	0.822 ± 0.013 (-0.2σ)	$H(0.38)$	81.90	82.1 ± 1.3 (-3.2σ)
τ	0.0568	0.0566 ± 0.0077 $(+0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4500	0.4501 ± 0.0073 (-0.2σ)	$D_M(0.38)$	1551.3	1547 ± 27 $(+2.4\sigma)$
N_{eff}	2.870	$2.91^{+0.18}_{-0.21}$	$\sigma_8 \Omega_m^{0.25}$	0.6008	0.6012 ± 0.0086 (-0.5σ)	$H(0.51)$	88.58	88.8 ± 1.4 (-4.1σ)
$\ln(10^{10} A_s)$	3.0423	3.043 ± 0.018 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9830	0.982 ± 0.010 (-0.2σ)	$D_M(0.51)$	2009.1	2003 ± 34 $(+2.6\sigma)$
n_s	0.9605	0.9602 ± 0.0083 (-1.8σ)	$r_{\text{drag}} h$	99.19	99.25 ± 0.87 (-0.5σ)	$H(0.61)$	94.16	94.4 ± 1.4 (-5.2σ)
$dn_s/d \ln k$	-0.0064	-0.0080 ± 0.0075	$\langle d^2 \rangle^{1/2}$	2.4329	2.431 ± 0.026 (-0.2σ)	$D_M(0.61)$	2337.4	2331 ± 39 $(+2.8\sigma)$
y_{cal}	1.00065	1.0006 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.86	7.83 ± 0.77 $(+0.0\sigma)$	$H(2.33)$	233.71	$234.3^{+2.7}_{-3.0}$ (-3.1σ)
A_{217}^{CIB}	47.1	47 ± 7 $(+0.1\sigma)$	$10^9 A_s$	2.0954	$2.098^{+0.035}_{-0.040}$ (-0.1σ)	$D_M(2.33)$	5832	5817 ± 84 $(+6.6\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.51	—	$10^9 A_s e^{-2\tau}$	1.8705	1.873 ± 0.018 (-0.6σ)	$f\sigma_8(0.15)$	0.4543	0.4545 ± 0.0070 (-0.3σ)
A_{143}^{tSZ}	7.11	5.3 ± 2.0 (-0.1σ)	D_{40}	1219.0	1217 ± 19 (-0.9σ)	$\sigma_8(0.15)$	0.7409	0.742 ± 0.011 (-1.0σ)
A_{100}^{PS}	249.2	262 ± 28 $(+0.1\sigma)$	D_{220}	5734.6	5738 ± 39 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4718	0.4720 ± 0.0067 (-0.5σ)
A_{143}^{PS}	48.7	47 ± 8 $(+0.2\sigma)$	D_{810}	2540.2	2539 ± 14 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6564	0.657 ± 0.010 (-1.1σ)
$A_{143 \times 217}^{\text{PS}}$	49.4	42 ± 9 $(+0.0\sigma)$	D_{1420}	818.51	817.0 ± 4.9 (-0.2σ)	$f\sigma_8(0.51)$	0.4700	0.4703 ± 0.0066 (-0.6σ)
A_{217}^{PS}	120.0	115 ± 10 (-0.0σ)	D_{2000}	231.61	230.8 ± 1.8 (-0.2σ)	$\sigma_8(0.51)$	0.6142	0.6150 ± 0.0095 (-1.2σ)
A^{kSZ}	0.00	< 4.71 $(+0.2\sigma)$	$n_{s,0.002}$	0.9812	0.986 ± 0.021 $(+5.0\sigma)$	$f\sigma_8(0.61)$	0.4648	0.4652 ± 0.0065 (-0.7σ)
A_{100}^{dustTT}	8.80	8.8 ± 1.8 (-0.0σ)	Y_P	0.24299	0.2435 ± 0.0027 (-37.5σ)	$\sigma_8(0.61)$	0.5843	0.5851 ± 0.0091 (-1.2σ)
A_{143}^{dustTT}	10.95	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.24431	0.2448 ± 0.0027 (-37.5σ)	$f\sigma_8(2.33)$	0.29451	0.2949 ± 0.0047 (-1.2σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.78	18.5 ± 3.2 (-0.0σ)	$10^5 D/H$	2.532	2.539 ± 0.052 (-1.5σ)	$\sigma_8(2.33)$	0.3035	0.3039 ± 0.0050 (-1.3σ)
A_{217}^{dustTT}	94.8	93.5 ± 7.3 (-0.0σ)	Age/Gyr	13.962	13.93 ± 0.20 $(+7.0\sigma)$	f_{2000}^{143}	28.68	30.0 ± 3.1 $(+0.3\sigma)$
A_{100}^{dustTE}	0.1141	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.496	1089.55 ± 0.38 (-1.1σ)	$f_{2000}^{143 \times 217}$	31.90	32.6 ± 2.2 $(+0.3\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1343	0.134 ± 0.029 (-0.0σ)	r_*	146.25	145.9 ± 2.0 $(+5.7\sigma)$	f_{2000}^{217}	106.47	107.3 ± 2.0 $(+0.3\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.479	0.479 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.04162	1.04155 ± 0.00059 $(+1.3\sigma)$	χ_{small}^2	396.37	397.2 ± 1.9 (-0.0σ)
A_{143}^{dustTE}	0.224	0.224 ± 0.055 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.041	14.01 ± 0.18 $(+5.5\sigma)$	χ_{lowl}^2	22.08	22.2 ± 1.5 (-1.1σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.661 ± 0.082 (-0.1σ)	z_{drag}	1059.47	1059.60 ± 0.73 (-1.4σ)	χ_{plik}^2	2344.7	2361.1 ± 6.2 $(+0.3\sigma)$
A_{217}^{dustTE}	2.071	2.06 ± 0.27 (-0.1σ)	r_{drag}	148.95	148.6 ± 2.0 $(+5.7\sigma)$	$\chi_{6\text{DF}}^2$	0.070	0.095 ± 0.10 $(+0.6\sigma)$
c_{100}	0.99975	0.99969 ± 0.00061 $(+0.0\sigma)$	k_D	0.13957	0.1399 ± 0.0014 (-3.2σ)	χ_{MGS}^2	0.982	1.07 ± 0.44 (-0.4σ)
c_{217}	0.99820	0.99819 ± 0.00063 $(+0.0\sigma)$	$100\theta_D$	0.160307	0.16038 ± 0.00047 (-2.1σ)	χ_{DR12BAO}^2	5.26	5.6 ± 2.0 $(+0.5\sigma)$
H_0	66.59	66.8 ± 1.3 (-1.9σ)	z_{eq}	3400.4	3399 ± 26 $(+0.5\sigma)$	χ_{prior}^2	1.58	11.6 ± 4.6 (-0.0σ)
Ω_Λ	0.6852	0.6857 ± 0.0072 (-0.5σ)	k_{eq}	0.010255	$0.01028^{+0.00011}_{-0.00013}$ (-0.9σ)	χ_{BAO}^2	6.31	6.8 ± 1.7 $(+0.5\sigma)$
Ω_m	0.3148	0.3143 ± 0.0072 $(+0.5\sigma)$	$100\theta_{\text{eq}}$	0.81369	0.8140 ± 0.0049 (-0.5σ)	χ_{CMB}^2	2763.1	2780.6 ± 6.2 $(+0.1\sigma)$
$\Omega_m h^2$	0.13957	$0.1402^{+0.0031}_{-0.0036}$ (-2.2σ)	$100\theta_{s,\text{eq}}$	0.44962	0.4497 ± 0.0025 (-0.5σ)			

Best-fit $\chi_{\text{eff}}^2 = 2770.98$; $\Delta\chi_{\text{eff}}^2 = -0.93$; $\bar{\chi}_{\text{eff}}^2 = 2798.94$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.03$; $R - 1 = 0.03824$

χ_{eff}^2 : BAO - 6DF: 0.07 (Δ 0.04) MGS: 0.98 (Δ -0.24) DR12BAO: 5.26 (Δ 0.85) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.37 (Δ 0.16) commander_dx12_v3_2_29: 22.08 (Δ -0.79) plik_rd12_HM_v22b_TTTEEE: 2344.66 (Δ -0.85)

10.3 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022113	0.02216 ± 0.00022 (-1.5σ)	$\Omega_{\mathrm{m}}h^2$	0.13764	0.1385 ± 0.0033 (-4.0σ)	$100\theta_{\mathrm{eq}}$	0.8049	0.8060 ± 0.0069 (-1.5σ)
$\Omega_{\mathrm{c}}h^2$	0.11489	0.1157 ± 0.0032 (-3.6σ)	$\Omega_{\mathrm{m}}h^3$	0.08913	0.0903 ± 0.0041 (-20.1σ)	$100\theta_{\mathrm{s,eq}}$	0.44518	0.4457 ± 0.0035 (-1.4σ)
$100\theta_{\mathrm{MC}}$	1.041532	1.04144 ± 0.00048 $(+1.7\sigma)$	σ_8	0.7952	0.797 ± 0.011 (-2.3σ)	$H(0.15)$	70.08	70.5 ± 1.6 (-4.8σ)
τ	0.0536	0.0540 ± 0.0074 (-0.0σ)	S_8	0.8317	0.831 ± 0.013 (-0.0σ)	$D_{\mathrm{M}}(0.15)$	668.2	665 ± 15 $(+4.6\sigma)$
N_{eff}	2.672	2.73 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4556	0.4554 ± 0.0070 (-0.0σ)	$H(0.38)$	80.22	80.6 ± 1.6 (-6.6σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0309	3.034 ± 0.017 (-0.7σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6019	0.6025 ± 0.0072 (-0.8σ)	$D_{\mathrm{M}}(0.38)$	1589.5	1581 ± 35 $(+5.2\sigma)$
n_{s}	0.9494	0.950 ± 0.011 (-3.6σ)	$\sigma_8/h^{0.5}$	0.9881	0.9876 ± 0.0090 (-0.1σ)	$H(0.51)$	86.94	87.4 ± 1.6 (-8.4σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0098	-0.0111 ± 0.0079	$r_{\mathrm{drag}}h$	97.61	97.8 ± 1.2 (-1.4σ)	$D_{\mathrm{M}}(0.51)$	2056.4	2046 ± 43 $(+5.6\sigma)$
y_{cal}	1.00027	1.0004 ± 0.0025 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4525	2.450 ± 0.024 $(+0.2\sigma)$	$H(0.61)$	92.54	93.0 ± 1.6 (-10.5σ)
A_{217}^{CIB}	45.6	47 ± 7 (-0.0σ)	z_{re}	7.53	7.57 ± 0.74 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2390.7	2379 ± 49 $(+5.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.68	—	$10^9 A_{\mathrm{s}}$	2.0716	2.078 ± 0.035 (-0.7σ)	$H(2.33)$	231.70	232.5 ± 2.9 (-5.8σ)
A_{143}^{tSZ}	6.95	5.2 ± 2.0 (-0.1σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8611	1.865 ± 0.018 (-1.7σ)	$D_{\mathrm{M}}(2.33)$	5928	5903 ± 98 $(+13.5\sigma)$
A_{100}^{PS}	247.2	261 ± 28 $(+0.0\sigma)$	D_{40}	1225.8	1223 ± 19 (-0.7σ)	$f\sigma_8(0.15)$	0.4587	0.4587 ± 0.0064 (-0.2σ)
A_{143}^{PS}	50.6	46 ± 8 $(+0.0\sigma)$	D_{220}	5727.1	5731 ± 39 (-0.1σ)	$\sigma_8(0.15)$	0.7332	0.735 ± 0.011 (-2.6σ)
$A_{143 \times 217}^{\mathrm{PS}}$	53.1	42 ± 9 (-0.1σ)	D_{810}	2538.1	2537 ± 14 (-0.2σ)	$f\sigma_8(0.38)$	0.4730	0.4734 ± 0.0057 (-0.7σ)
A_{217}^{PS}	121.8	115 ± 10 (-0.0σ)	D_{1420}	817.9	816.1 ± 5.0 (-0.2σ)	$\sigma_8(0.38)$	0.6482	0.650 ± 0.010 (-2.9σ)
A^{kSZ}	0.00	< 4.56 $(+0.1\sigma)$	D_{2000}	231.82	230.9 ± 1.9 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4697	0.4703 ± 0.0056 (-1.1σ)
$A_{100}^{\mathrm{dustTT}}$	8.72	8.8 ± 1.8 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9809	0.986 ± 0.021 $(+5.0\sigma)$	$\sigma_8(0.51)$	0.6059	0.6078 ± 0.0098 (-3.0σ)
$A_{143}^{\mathrm{dustTT}}$	10.90	10.8 ± 1.8 (-0.1σ)	Y_{P}	0.24014	0.2410 ± 0.0031 (-77.9σ)	$f\sigma_8(0.61)$	0.4636	0.4643 ± 0.0056 (-1.4σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.00	18.5 ± 3.2 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24145	0.2423 ± 0.0031 (-77.9σ)	$\sigma_8(0.61)$	0.5761	0.5779 ± 0.0095 (-3.0σ)
$A_{217}^{\mathrm{dustTT}}$	95.4	93.5 ± 7.3 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.503	2.515 ± 0.052 (-2.6σ)	$f\sigma_8(2.33)$	0.2899	0.2909 ± 0.0050 (-3.1σ)
$A_{100}^{\mathrm{dustTE}}$	0.1134	0.115 ± 0.038 $(+0.0\sigma)$	Age/Gyr	14.188	14.13 ± 0.23 $(+14.2\sigma)$	$\sigma_8(2.33)$	0.2981	0.2993 ± 0.0055 (-3.2σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1346	0.134 ± 0.030 (-0.0σ)	z_*	1089.420	1089.49 ± 0.37 (-1.7σ)	f_{2000}^{143}	28.30	29.9 ± 3.1 $(+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.479	0.482 ± 0.084 $(+0.0\sigma)$	r_*	147.93	147.4 ± 2.1 $(+11.2\sigma)$	$f_{2000}^{143 \times 217}$	31.60	32.4 ± 2.2 $(+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	0.226	0.225 ± 0.054 (-0.0σ)	$100\theta_*$	1.04198	1.04185 ± 0.00061 $(+2.5\sigma)$	f_{2000}^{217}	106.09	107.1 ± 2.0 $(+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.665 ± 0.081 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.197	14.15 ± 0.19 $(+11.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.63	9.17 ± 0.81 (-0.1σ)
$A_{217}^{\mathrm{dustTE}}$	2.074	2.07 ± 0.27 (-0.1σ)	z_{drag}	1058.67	1058.88 ± 0.84 (-3.5σ)	χ_{small}^2	395.91	396.8 ± 1.5 (-0.1σ)
c_{100}	0.99976	0.99971 ± 0.00061 $(+0.1\sigma)$	r_{drag}	150.72	150.2 ± 2.2 $(+11.6\sigma)$	χ_{lowl}^2	22.56	22.6 ± 1.5 (-1.0σ)
c_{217}	0.99817	0.99820 ± 0.00063 $(+0.0\sigma)$	k_{D}	0.13837	0.1388 ± 0.0015 (-6.9σ)	χ_{plik}^2	2343.4	2359.8 ± 5.9 $(+0.1\sigma)$
H_0	64.76	65.2 ± 1.6 (-4.1σ)	$100\theta_{\mathrm{D}}$	0.159919	0.16004 ± 0.00050 (-4.1σ)	χ_{prior}^2	1.39	11.4 ± 4.5 (-0.0σ)
Ω_{Λ}	0.6718	0.673 ± 0.011 (-1.5σ)	z_{eq}	3446.9	3441 ± 37 $(+1.5\sigma)$	χ_{CMB}^2	2770.6	2788.4 ± 6.1 (-0.1σ)
Ω_{m}	0.3282	0.327 ± 0.011 $(+1.5\sigma)$	k_{eq}	0.010253	0.01028 ± 0.00011 (-1.3σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2771.94$; $\Delta\chi_{\mathrm{eff}}^2 = -2.70$; $\bar{\chi}_{\mathrm{eff}}^2 = 2799.77$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.92$; $R - 1 = 0.01835$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.63 (Δ -0.24) simall_100x143_offlike5_EE_Aplanck_B: 395.92 (Δ -0.13) commander_dx12_v3.2.29: 22.56 (Δ -0.70) plik_rd12_HM_v22b_TTTEEE: 2343.45 (Δ -1.48)

10.4 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02235 \pm 0.00018 \quad (-0.5\sigma)$	$\Omega_{\text{m}}h^3$	$0.0934^{+0.0036}_{-0.0040} \quad (-10.1\sigma)$	$H(0.15)$	$71.9 \pm 1.3 \quad (-2.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1169^{+0.0030}_{-0.0033} \quad (-2.6\sigma)$	σ_8	$0.803 \pm 0.011 \quad (-1.3\sigma)$	$D_{\text{M}}(0.15)$	$650 \pm 12 \quad (+2.6\sigma)$
$100\theta_{\text{MC}}$	$1.04130 \pm 0.00048 \quad (+1.0\sigma)$	S_8	$0.822 \pm 0.011 \quad (-0.3\sigma)$	$H(0.38)$	$82.0 \pm 1.3 \quad (-3.9\sigma)$
τ	$0.0571 \pm 0.0072 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4503 \pm 0.0060 \quad (-0.3\sigma)$	$D_{\text{M}}(0.38)$	$1550 \pm 27 \quad (+3.0\sigma)$
N_{eff}	2.89 ± 0.19	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6012 \pm 0.0073 \quad (-0.7\sigma)$	$H(0.51)$	$88.7 \pm 1.3 \quad (-4.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.044 \pm 0.016 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9830 \pm 0.0084 \quad (-0.2\sigma)$	$D_{\text{M}}(0.51)$	$2007 \pm 34 \quad (+3.2\sigma)$
n_{s}	$0.9593 \pm 0.0083 \quad (-1.9\sigma)$	$r_{\text{drag}}h$	$99.20 \pm 0.84 \quad (-0.6\sigma)$	$H(0.61)$	$94.3 \pm 1.4 \quad (-6.1\sigma)$
$\text{d}n_{\text{s}}/\text{d}\ln k$	-0.0077 ± 0.0075	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.022 \quad (-0.2\sigma)$	$D_{\text{M}}(0.61)$	$2335 \pm 39 \quad (+3.4\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.88 \pm 0.71 \quad (+0.1\sigma)$	$H(2.33)$	$234.0 \pm 2.8 \quad (-3.9\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.099 \pm 0.034 \quad (-0.2\sigma)$	$D_{\text{M}}(2.33)$	$5826 \pm 83 \quad (+7.6\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}} e^{-2\tau}$	$1.872 \pm 0.017 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.4546 \pm 0.0058 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (-0.1\sigma)$	D_{40}	$1220 \pm 19 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.741 \pm 0.010 \quad (-1.3\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.1\sigma)$	D_{220}	$5741 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4720 \pm 0.0057 \quad (-0.6\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2540 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6569 \pm 0.0093 \quad (-1.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.2 \pm 4.9 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4703 \pm 0.0057 \quad (-0.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$231.0 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6146 \pm 0.0089 \quad (-1.5\sigma)$
A^{kSZ}	$< 4.62 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.984 \pm 0.021 \quad (+4.6\sigma)$	$f\sigma_8(0.61)$	$0.4651 \pm 0.0057 \quad (-0.9\sigma)$
$A_{100}^{\text{dust}TT}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.2432 \pm 0.0027 \quad (-42.5\sigma)$	$\sigma_8(0.61)$	$0.5847 \pm 0.0086 \quad (-1.5\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.7 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2445 \pm 0.0027 \quad (-42.5\sigma)$	$f\sigma_8(2.33)$	$0.2947 \pm 0.0045 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.5 \pm 3.2 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.535 \pm 0.051 \quad (-1.7\sigma)$	$\sigma_8(2.33)$	$0.3037 \pm 0.0048 \quad (-1.6\sigma)$
$A_{217}^{\text{dust}TT}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	Age/Gyr	$13.95 \pm 0.20 \quad (+8.0\sigma)$	f_{2000}^{143}	$29.9 \pm 3.1 \quad (+0.2\sigma)$
$A_{100}^{\text{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.52 \pm 0.37 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.2 \quad (+0.2\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$146.1 \pm 1.9 \quad (+7.0\sigma)$	f_{2000}^{217}	$107.2 \pm 2.0 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.480 \pm 0.084 \quad (-0.0\sigma)$	$100\theta_*$	$1.04159 \pm 0.00059 \quad (+1.4\sigma)$	χ_{lensing}^2	$9.09 \pm 0.64 \quad (-0.0\sigma)$
$A_{143}^{\text{dust}TE}$	$0.225 \pm 0.055 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.03 \pm 0.18 \quad (+6.7\sigma)$	χ_{small}^2	$397.2 \pm 1.8 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.661 \pm 0.081 \quad (-0.1\sigma)$	z_{drag}	$1059.53 \pm 0.73 \quad (-1.6\sigma)$	χ_{lowl}^2	$22.4 \pm 1.5 \quad (-1.1\sigma)$
$A_{217}^{\text{dust}TE}$	$2.06 \pm 0.27 \quad (-0.1\sigma)$	r_{drag}	$148.8 \pm 2.0 \quad (+6.9\sigma)$	χ_{plik}^2	$2360.6 \pm 6.1 \quad (+0.2\sigma)$
c_{100}	$0.99970 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1397 \pm 0.0014 \quad (-3.7\sigma)$	$\chi_{6\text{DF}}^2$	$0.099 \pm 0.098 \quad (+0.8\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16033 \pm 0.00046 \quad (-2.3\sigma)$	χ_{MGS}^2	$1.04 \pm 0.42 \quad (-0.5\sigma)$
H_0	$66.7 \pm 1.3 \quad (-2.3\sigma)$	z_{eq}	$3401 \pm 25 \quad (+0.7\sigma)$	χ_{DR12BAO}^2	$5.7 \pm 1.9 \quad (+0.7\sigma)$
Ω_{Λ}	$0.6853 \pm 0.0070 \quad (-0.7\sigma)$	k_{eq}	$0.01027^{+0.00011}_{-0.00012} \quad (-1.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.6 \quad (-0.0\sigma)$
Ω_{m}	$0.3147 \pm 0.0070 \quad (+0.7\sigma)$	$100\theta_{\text{eq}}$	$0.8137 \pm 0.0047 \quad (-0.6\sigma)$	χ_{CMB}^2	$2789.2 \pm 6.2 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1399^{+0.0031}_{-0.0034} \quad (-2.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4496 \pm 0.0024 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.8 \pm 1.7 \quad (+0.7\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 2807.63; \Delta\bar{\chi}_{\text{eff}}^2 = 0.78; R - 1 = 0.03868$$

10.5 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02216 \pm 0.00022 \quad (-1.3\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1390 \pm 0.0034 \quad (-3.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8051 \pm 0.0077 \quad (-1.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1162 \pm 0.0032 \quad (-2.9\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0906 \pm 0.0042 \quad (-19.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4452 \pm 0.0039 \quad (-1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04140 \pm 0.00048 \quad (+1.6\sigma)$	σ_8	$0.800 \pm 0.011 \quad (-1.8\sigma)$	$H(0.15)$	$70.5 \pm 1.6 \quad (-4.1\sigma)$
τ	$0.0559^{+0.0054}_{-0.0084} \quad (+0.1\sigma)$	S_8	$0.837 \pm 0.016 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$665 \pm 16 \quad (+4.0\sigma)$
N_{eff}	2.75 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4582 \pm 0.0089 \quad (+0.1\sigma)$	$H(0.38)$	$80.7 \pm 1.6 \quad (-5.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.039^{+0.015}_{-0.019} \quad (-0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6056 \pm 0.0087 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1581 \pm 36 \quad (+4.5\sigma)$
n_{s}	$0.950 \pm 0.011 \quad (-3.4\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.012 \quad (+0.1\sigma)$	$H(0.51)$	$87.4 \pm 1.6 \quad (-7.4\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0121 ± 0.0080	$r_{\mathrm{drag}}h$	$97.6 \pm 1.4 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$2045 \pm 45 \quad (+4.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.457 \pm 0.030 \quad (+0.2\sigma)$	$H(0.61)$	$93.1 \pm 1.6 \quad (-9.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	z_{re}	$7.78^{+0.58}_{-0.83} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2378 \pm 51 \quad (+5.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.089^{+0.031}_{-0.039} \quad (-0.5\sigma)$	$H(2.33)$	$232.9 \pm 3.0 \quad (-4.6\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.868 \pm 0.018 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5898 \pm 100 \quad (+12.4\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.1\sigma)$	D_{40}	$1222 \pm 19 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4614 \pm 0.0082 \quad (+0.0\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.738 \pm 0.011 \quad (-2.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4758 \pm 0.0069 \quad (-0.4\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.0 \pm 5.0 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.652 \pm 0.010 \quad (-2.4\sigma)$
A^{kSZ}	$< 4.54 \quad (+0.1\sigma)$	D_{2000}	$230.8 \pm 1.9 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4726 \pm 0.0065 \quad (-0.7\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.989 \pm 0.021 \quad (+5.5\sigma)$	$\sigma_8(0.51)$	$0.6099 \pm 0.0098 \quad (-2.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.2412 \pm 0.0031 \quad (-72.7\sigma)$	$f\sigma_8(0.61)$	$0.4664 \pm 0.0063 \quad (-0.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2425 \pm 0.0031 \quad (-72.7\sigma)$	$\sigma_8(0.61)$	$0.5799 \pm 0.0094 \quad (-2.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.6 \pm 7.3 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.519 \pm 0.053 \quad (-2.5\sigma)$	$f\sigma_8(2.33)$	$0.2918 \pm 0.0050 \quad (-2.8\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.12 \pm 0.24 \quad (+13.2\sigma)$	$\sigma_8(2.33)$	$0.3002 \pm 0.0054 \quad (-3.0\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.55 \pm 0.38 \quad (-1.5\sigma)$	f_{2000}^{143}	$30.1 \pm 3.1 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	r_*	$147.2 \pm 2.1 \quad (+9.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.2 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04180 \pm 0.00061 \quad (+2.3\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.665 \pm 0.081 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.13 \pm 0.20 \quad (+9.2\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1058.94 \pm 0.85 \quad (-3.3\sigma)$	χ_{lowl}^2	$22.5 \pm 1.5 \quad (-1.1\sigma)$
c_{100}	$0.99971 \pm 0.00062 \quad (+0.1\sigma)$	r_{drag}	$149.9 \pm 2.2 \quad (+9.7\sigma)$	χ_{plik}^2	$2360.0 \pm 6.1 \quad (+0.1\sigma)$
c_{217}	$0.99821 \pm 0.00063 \quad (+0.0\sigma)$	k_{D}	$0.1390 \pm 0.0015 \quad (-6.1\sigma)$	χ_{prior}^2	$11.4 \pm 4.5 \quad (-0.0\sigma)$
H_0	$65.1 \pm 1.7 \quad (-3.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16007 \pm 0.00050 \quad (-4.0\sigma)$	χ_{CMB}^2	$2779.5 \pm 6.0 \quad (-0.1\sigma)$
Ω_{Λ}	$0.672 \pm 0.012 \quad (-1.4\sigma)$	z_{eq}	$3447 \pm 42 \quad (+1.3\sigma)$		
Ω_{m}	$0.328 \pm 0.012 \quad (+1.4\sigma)$	k_{eq}	$0.01030 \pm 0.00012 \quad (-1.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2790.91$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.63$; $R - 1 = 0.01332$

10.6 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02236 \pm 0.00018 \quad (-0.4\sigma)$	$\Omega_{\text{m}}h^3$	$0.0937^{+0.0035}_{-0.0041} \quad (-9.2\sigma)$	$H(0.15)$	$72.1 \pm 1.3 \quad (-2.3\sigma)$
$\Omega_{\text{c}}h^2$	$0.1172^{+0.0030}_{-0.0035} \quad (-2.1\sigma)$	σ_8	$0.803 \pm 0.012 \quad (-1.0\sigma)$	$D_{\text{M}}(0.15)$	$649 \pm 12 \quad (+2.2\sigma)$
$100\theta_{\text{MC}}$	$1.04128 \pm 0.00048 \quad (+0.9\sigma)$	S_8	$0.822 \pm 0.013 \quad (-0.2\sigma)$	$H(0.38)$	$82.1 \pm 1.3 \quad (-3.2\sigma)$
τ	$0.0573^{+0.0062}_{-0.0080} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4503 \pm 0.0072 \quad (-0.2\sigma)$	$D_{\text{M}}(0.38)$	$1547 \pm 27 \quad (+2.5\sigma)$
N_{eff}	$2.91^{+0.18}_{-0.21}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6015 \pm 0.0085 \quad (-0.5\sigma)$	$H(0.51)$	$88.8 \pm 1.4 \quad (-4.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.045^{+0.015}_{-0.019} \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.983 \pm 0.010 \quad (-0.2\sigma)$	$D_{\text{M}}(0.51)$	$2003 \pm 34 \quad (+2.7\sigma)$
n_{s}	$0.9602 \pm 0.0083 \quad (-1.8\sigma)$	$r_{\text{drag}}h$	$99.26 \pm 0.87 \quad (-0.5\sigma)$	$H(0.61)$	$94.4 \pm 1.4 \quad (-5.2\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0081 ± 0.0075	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.025 \quad (-0.2\sigma)$	$D_{\text{M}}(0.61)$	$2331 \pm 39 \quad (+2.8\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.90^{+0.64}_{-0.80} \quad (+0.0\sigma)$	$H(2.33)$	$234.2^{+2.7}_{-3.0} \quad (-3.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$10^9 A_{\text{s}}$	$2.100^{+0.032}_{-0.039} \quad (-0.2\sigma)$	$D_{\text{M}}(2.33)$	$5818 \pm 84 \quad (+6.7\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}} e^{-2\tau}$	$1.873 \pm 0.018 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4547 \pm 0.0070 \quad (-0.3\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.2\sigma)$	D_{40}	$1217 \pm 19 \quad (-0.9\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.011 \quad (-1.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.1\sigma)$	D_{220}	$5737 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4723 \pm 0.0067 \quad (-0.5\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6576 \pm 0.0099 \quad (-1.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$816.9 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4706 \pm 0.0065 \quad (-0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.8 \pm 1.8 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6153 \pm 0.0094 \quad (-1.3\sigma)$
A^{kSZ}	$< 4.70 \quad (+0.2\sigma)$	$n_{\text{s},0.002}$	$0.986 \pm 0.021 \quad (+5.1\sigma)$	$f\sigma_8(0.61)$	$0.4654 \pm 0.0065 \quad (-0.7\sigma)$
$A_{100}^{\text{dust}TT}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.2435 \pm 0.0027 \quad (-37.9\sigma)$	$\sigma_8(0.61)$	$0.5854 \pm 0.0090 \quad (-1.3\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.2448 \pm 0.0027 \quad (-37.9\sigma)$	$f\sigma_8(2.33)$	$0.2951 \pm 0.0046 \quad (-1.3\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6 \pm 3.2 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.539 \pm 0.052 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3041 \pm 0.0049 \quad (-1.4\sigma)$
$A_{217}^{\text{dust}TT}$	$93.6 \pm 7.3 \quad (-0.0\sigma)$	Age/Gyr	$13.93 \pm 0.20 \quad (+7.1\sigma)$	f_{2000}^{143}	$30.1 \pm 3.1 \quad (+0.3\sigma)$
$A_{100}^{\text{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.54 \pm 0.38 \quad (-1.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.2 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$145.9 \pm 1.9 \quad (+5.7\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (+0.3\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.479 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04155 \pm 0.00059 \quad (+1.3\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (-0.0\sigma)$
$A_{143}^{\text{dust}TE}$	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.01 \pm 0.18 \quad (+5.5\sigma)$	χ_{lowl}^2	$22.2 \pm 1.5 \quad (-1.2\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.661 \pm 0.082 \quad (-0.1\sigma)$	z_{drag}	$1059.60 \pm 0.73 \quad (-1.4\sigma)$	χ_{plik}^2	$2361.0 \pm 6.2 \quad (+0.3\sigma)$
$A_{217}^{\text{dust}TE}$	$2.06 \pm 0.27 \quad (-0.1\sigma)$	r_{drag}	$148.6 \pm 2.0 \quad (+5.7\sigma)$	$\chi_{6\text{DF}}^2$	$0.094 \pm 0.099 \quad (+0.6\sigma)$
c_{100}	$0.99970 \pm 0.00062 \quad (+0.1\sigma)$	k_{D}	$0.1398 \pm 0.0014 \quad (-3.2\sigma)$	χ_{MGS}^2	$1.08 \pm 0.44 \quad (-0.4\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	$100\theta_{\text{D}}$	$0.16037 \pm 0.00047 \quad (-2.1\sigma)$	χ_{DR12BAO}^2	$5.6 \pm 2.0 \quad (+0.5\sigma)$
H_0	$66.8 \pm 1.3 \quad (-1.9\sigma)$	z_{eq}	$3399 \pm 26 \quad (+0.5\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6858 \pm 0.0072 \quad (-0.5\sigma)$	k_{eq}	$0.01028^{+0.00011}_{-0.00013} \quad (-0.9\sigma)$	χ_{BAO}^2	$6.8 \pm 1.7 \quad (+0.5\sigma)$
Ω_{m}	$0.3142 \pm 0.0072 \quad (+0.5\sigma)$	$100\theta_{\text{eq}}$	$0.8140 \pm 0.0049 \quad (-0.5\sigma)$	χ_{CMB}^2	$2780.4 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1402^{+0.0031}_{-0.0036} \quad (-2.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4498 \pm 0.0025 \quad (-0.5\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.78; \Delta\bar{\chi}_{\text{eff}}^2 = 1.06; R - 1 = 0.04433$$

10.7 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00022 \quad (-1.4\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1385 \pm 0.0033 \quad (-4.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8064 \pm 0.0069 \quad (-1.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1157 \pm 0.0032 \quad (-3.6\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0904 \pm 0.0041 \quad (-19.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4459 \pm 0.0035 \quad (-1.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04145 \pm 0.00048 \quad (+1.7\sigma)$	σ_8	$0.798 \pm 0.011 \quad (-2.4\sigma)$	$H(0.15)$	$70.5 \pm 1.6 \quad (-4.8\sigma)$
τ	$0.0551^{+0.0051}_{-0.0077} \quad (-0.0\sigma)$	S_8	$0.832 \pm 0.013 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$664 \pm 15 \quad (+4.6\sigma)$
N_{eff}	2.73 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4555 \pm 0.0070 \quad (-0.0\sigma)$	$H(0.38)$	$80.7 \pm 1.6 \quad (-6.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.036^{+0.014}_{-0.017} \quad (-0.8\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6028 \pm 0.0072 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1580 \pm 34 \quad (+5.2\sigma)$
n_{s}	$0.950 \pm 0.010 \quad (-3.6\sigma)$	$\sigma_8/h^{0.5}$	$0.9881 \pm 0.0089 \quad (-0.1\sigma)$	$H(0.51)$	$87.4 \pm 1.6 \quad (-8.4\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0112 ± 0.0079	$r_{\mathrm{drag}}h$	$97.9 \pm 1.2 \quad (-1.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2045 \pm 43 \quad (+5.6\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.451 \pm 0.024 \quad (+0.2\sigma)$	$H(0.61)$	$93.0 \pm 1.6 \quad (-10.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.69^{+0.54}_{-0.77} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2377 \pm 49 \quad (+5.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.082^{+0.029}_{-0.035} \quad (-0.8\sigma)$	$H(2.33)$	$232.5 \pm 2.9 \quad (-5.8\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.865 \pm 0.018 \quad (-1.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5901 \pm 98 \quad (+13.4\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.0\sigma)$	D_{40}	$1223 \pm 18 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4588 \pm 0.0065 \quad (-0.2\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{220}	$5731 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.736 \pm 0.010 \quad (-2.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4736 \pm 0.0057 \quad (-0.7\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 5.0 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6508 \pm 0.0099 \quad (-3.0\sigma)$
A^{kSZ}	$< 4.53 \quad (+0.1\sigma)$	D_{2000}	$230.9 \pm 1.8 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4706 \pm 0.0055 \quad (-1.1\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.986 \pm 0.021 \quad (+5.2\sigma)$	$\sigma_8(0.51)$	$0.6085 \pm 0.0095 \quad (-3.2\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.1\sigma)$	Y_{P}	$0.2410 \pm 0.0031 \quad (-77.4\sigma)$	$f\sigma_8(0.61)$	$0.4646 \pm 0.0055 \quad (-1.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.2 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2423 \pm 0.0031 \quad (-77.4\sigma)$	$\sigma_8(0.61)$	$0.5786 \pm 0.0092 \quad (-3.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.514 \pm 0.052 \quad (-2.6\sigma)$	$f\sigma_8(2.33)$	$0.2912 \pm 0.0049 \quad (-3.3\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.12 \pm 0.23 \quad (+14.2\sigma)$	$\sigma_8(2.33)$	$0.2997 \pm 0.0054 \quad (-3.4\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.48 \pm 0.37 \quad (-1.7\sigma)$	f_{2000}^{143}	$29.9 \pm 3.1 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.084 \quad (+0.0\sigma)$	r_*	$147.4 \pm 2.1 \quad (+11.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.2 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.225 \pm 0.055 \quad (+0.0\sigma)$	$100\theta_*$	$1.04185 \pm 0.00061 \quad (+2.4\sigma)$	f_{2000}^{217}	$107.1 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.665 \pm 0.081 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.14 \pm 0.19 \quad (+11.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.18 \pm 0.82 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.07 \pm 0.27 \quad (-0.1\sigma)$	z_{drag}	$1058.90 \pm 0.83 \quad (-3.5\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
c_{100}	$0.99971 \pm 0.00061 \quad (+0.1\sigma)$	r_{drag}	$150.1 \pm 2.2 \quad (+11.6\sigma)$	χ_{lowl}^2	$22.6 \pm 1.5 \quad (-1.1\sigma)$
c_{217}	$0.99821 \pm 0.00063 \quad (+0.0\sigma)$	k_{D}	$0.1388 \pm 0.0015 \quad (-6.9\sigma)$	χ_{plik}^2	$2359.6 \pm 5.9 \quad (+0.1\sigma)$
H_0	$65.2 \pm 1.6 \quad (-4.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16004 \pm 0.00050 \quad (-4.1\sigma)$	χ_{prior}^2	$11.4 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.674 \pm 0.011 \quad (-1.5\sigma)$	z_{eq}	$3440 \pm 37 \quad (+1.5\sigma)$	χ_{CMB}^2	$2788.2 \pm 6.0 \quad (-0.1\sigma)$
Ω_{m}	$0.326 \pm 0.011 \quad (+1.5\sigma)$	k_{eq}	$0.01027 \pm 0.00011 \quad (-1.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2799.54$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.96$; $R - 1 = 0.01748$

10.8 base_nnu_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235 \pm 0.00018 \quad (-0.6\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0933^{+0.0036}_{-0.0040} \quad (-10.2\sigma)$	$H(0.15)$	$72.0 \pm 1.3 \quad (-2.8\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1169^{+0.0030}_{-0.0033} \quad (-2.6\sigma)$	σ_8	$0.803 \pm 0.011 \quad (-1.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$650 \pm 12 \quad (+2.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04130 \pm 0.00048 \quad (+1.0\sigma)$	S_8	$0.822 \pm 0.011 \quad (-0.3\sigma)$	$H(0.38)$	$82.0 \pm 1.3 \quad (-3.9\sigma)$
τ	$0.0575^{+0.0063}_{-0.0074} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4503 \pm 0.0060 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1550 \pm 27 \quad (+3.0\sigma)$
N_{eff}	2.89 ± 0.19	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6013 \pm 0.0073 \quad (-0.7\sigma)$	$H(0.51)$	$88.7 \pm 1.3 \quad (-5.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.015}_{-0.016} \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9832 \pm 0.0083 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$2007 \pm 34 \quad (+3.3\sigma)$
n_{s}	$0.9593 \pm 0.0083 \quad (-1.9\sigma)$	$r_{\mathrm{drag}}h$	$99.21 \pm 0.84 \quad (-0.6\sigma)$	$H(0.61)$	$94.3 \pm 1.4 \quad (-6.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0078 ± 0.0075	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.022 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2335 \pm 39 \quad (+3.5\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.92^{+0.64}_{-0.73} \quad (+0.1\sigma)$	$H(2.33)$	$234.0 \pm 2.8 \quad (-3.9\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.030}_{-0.035} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5826 \pm 83 \quad (+7.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.017 \quad (-0.9\sigma)$	$f\sigma_8(0.15)$	$0.4546 \pm 0.0058 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (-0.1\sigma)$	D_{40}	$1219 \pm 19 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.010 \quad (-1.4\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.1\sigma)$	D_{220}	$5741 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4721 \pm 0.0057 \quad (-0.6\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6571 \pm 0.0093 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.1 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4704 \pm 0.0057 \quad (-0.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$231.0 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6148 \pm 0.0088 \quad (-1.6\sigma)$
A^{kSZ}	$< 4.61 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.984 \pm 0.021 \quad (+4.7\sigma)$	$f\sigma_8(0.61)$	$0.4652 \pm 0.0057 \quad (-0.9\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.2432 \pm 0.0027 \quad (-42.7\sigma)$	$\sigma_8(0.61)$	$0.5849 \pm 0.0085 \quad (-1.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.7 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2445 \pm 0.0027 \quad (-42.7\sigma)$	$f\sigma_8(2.33)$	$0.2948 \pm 0.0044 \quad (-1.6\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.535 \pm 0.051 \quad (-1.7\sigma)$	$\sigma_8(2.33)$	$0.3038 \pm 0.0048 \quad (-1.7\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.95 \pm 0.20 \quad (+8.0\sigma)$	f_{2000}^{143}	$29.9 \pm 3.1 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.52 \pm 0.37 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.2 \quad (+0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$146.1 \pm 1.9 \quad (+7.1\sigma)$	f_{2000}^{217}	$107.2 \pm 2.0 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.479 \pm 0.084 \quad (-0.0\sigma)$	$100\theta_*$	$1.04159 \pm 0.00059 \quad (+1.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.07 \pm 0.62 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.03 \pm 0.18 \quad (+6.8\sigma)$	χ_{small}^2	$397.2 \pm 1.8 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.661 \pm 0.081 \quad (-0.1\sigma)$	z_{drag}	$1059.53 \pm 0.72 \quad (-1.6\sigma)$	χ_{lowl}^2	$22.4 \pm 1.5 \quad (-1.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.06 \pm 0.27 \quad (-0.1\sigma)$	r_{drag}	$148.8 \pm 2.0 \quad (+6.9\sigma)$	χ_{plik}^2	$2360.5 \pm 6.1 \quad (+0.2\sigma)$
c_{100}	$0.99970 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1397 \pm 0.0014 \quad (-3.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.097 \pm 0.096 \quad (+0.8\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16033 \pm 0.00046 \quad (-2.3\sigma)$	χ_{MGS}^2	$1.05 \pm 0.42 \quad (-0.5\sigma)$
H_0	$66.7 \pm 1.3 \quad (-2.4\sigma)$	z_{eq}	$3401 \pm 25 \quad (+0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.7 \pm 1.9 \quad (+0.7\sigma)$
Ω_{Λ}	$0.6853 \pm 0.0069 \quad (-0.7\sigma)$	k_{eq}	$0.01027^{+0.00011}_{-0.00012} \quad (-1.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.6 \quad (-0.0\sigma)$
Ω_{m}	$0.3147 \pm 0.0069 \quad (+0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8137 \pm 0.0047 \quad (-0.7\sigma)$	χ_{CMB}^2	$2789.2 \pm 6.2 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1399 \pm 0.0033 \quad (-2.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4496 \pm 0.0024 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.8 \pm 1.6 \quad (+0.7\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2807.49$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.77$; $R - 1 = 0.04192$

11 nnu+yhe

11.1 base_nnu_yhe_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.021996	0.02207 ± 0.00032 (-0.2σ)	S_8	0.8463	0.841 ± 0.025 $(+0.1\sigma)$	$100\theta_{s,eq}$	0.4442	0.4467 ± 0.0075 (-0.4σ)
$\Omega_c h^2$	0.1168	$0.1190^{+0.0063}_{-0.0083}$ (-0.8σ)	$\sigma_8 \Omega_m^{0.5}$	0.4635	0.461 ± 0.014 $(+0.1\sigma)$	$H(0.15)$	70.22	$71.5^{+3.0}_{-3.6}$ (-1.0σ)
$100\theta_{MC}$	1.04151	1.0413 ± 0.0020 $(+1.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6107	0.610 ± 0.012 (-0.1σ)	$D_M(0.15)$	667.1	657 ± 32 $(+1.1\sigma)$
τ	0.0521	0.0516 ± 0.0081 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9994	0.994 ± 0.017 $(+0.1\sigma)$	$H(0.38)$	80.47	$81.7^{+3.0}_{-3.6}$ (-1.5σ)
N_{eff}	2.74	$2.92^{+0.44}_{-0.58}$	$r_{drag} h$	97.18	98.0 ± 2.4 (-0.3σ)	$D_M(0.38)$	1586	1562 ± 71 $(+1.3\sigma)$
Y_P	0.2526	$0.251^{+0.033}_{-0.029}$	$\langle d^2 \rangle^{1/2}$	2.4737	2.459 ± 0.046 $(+0.1\sigma)$	$H(0.51)$	87.25	$88.5^{+3.0}_{-3.7}$ (-1.9σ)
$\ln(10^{10} A_s)$	3.0334	3.036 ± 0.023 (-0.3σ)	z_{re}	7.50	7.44 ± 0.85 (-0.1σ)	$D_M(0.51)$	2051	2022 ± 89 $(+1.4\sigma)$
n_s	0.9561	0.960 ± 0.014 (-0.4σ)	$10^9 A_s$	2.0768	2.082 ± 0.047 (-0.3σ)	$H(0.61)$	92.91	$94.1^{+3.1}_{-3.8}$ (-2.4σ)
y_{cal}	1.00053	1.0005 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8713	1.878 ± 0.027 (-0.5σ)	$D_M(0.61)$	2384	2351 ± 100 $(+1.4\sigma)$
A_{217}^{CIB}	47.0	48 ± 7 $(+0.0\sigma)$	D_{40}	1240.3	1236 ± 23 $(+0.1\sigma)$	$H(2.33)$	233.1	$235.1^{+5.7}_{-7.2}$ (-1.3σ)
$\xi^{tSZ \times CIB}$	0.57	—	D_{220}	5708.2	5712 ± 42 (-0.0σ)	$D_M(2.33)$	5903	5837 ± 210 $(+3.6\sigma)$
A_{143}^{tSZ}	6.89	5.0 ± 2.0 (-0.0σ)	D_{810}	2537.2	2536 ± 14 (-0.0σ)	$f\sigma_8(0.15)$	0.4664	0.464 ± 0.012 $(+0.0\sigma)$
A_{100}^{PS}	250.5	264 ± 29 $(+0.0\sigma)$	D_{1420}	816.5	814.3 ± 5.3 (-0.0σ)	$\sigma_8(0.15)$	0.7417	0.745 ± 0.017 (-0.5σ)
A_{143}^{PS}	51.7	50 ± 9 $(+0.1\sigma)$	D_{2000}	230.78	229.5 ± 2.4 (-0.0σ)	$f\sigma_8(0.38)$	0.4801	0.4790 ± 0.0098 (-0.1σ)
$A_{143 \times 217}^{PS}$	52.6	44 ± 9 $(+0.0\sigma)$	$n_{s,0.002}$	0.9561	0.960 ± 0.014 (-0.4σ)	$\sigma_8(0.38)$	0.6553	0.659 ± 0.016 (-0.7σ)
A_{217}^{PS}	121.7	115 ± 10 $(+0.0\sigma)$	Y_P	0.2526	$0.251^{+0.033}_{-0.029}$ $(+61.3\sigma)$	$f\sigma_8(0.51)$	0.4763	0.4761 ± 0.0091 (-0.2σ)
A^{kSZ}	0.01	< 4.96 $(+0.0\sigma)$	Y_P^{BBN}	0.2540	$0.253^{+0.033}_{-0.029}$ $(+61.2\sigma)$	$\sigma_8(0.51)$	0.6124	0.616 ± 0.015 (-0.7σ)
A_{100}^{dustTT}	8.82	8.9 ± 1.8 (-0.0σ)	Age/Gyr	14.127	13.97 ± 0.49 $(+3.8\sigma)$	$f\sigma_8(0.61)$	0.4698	0.4701 ± 0.0088 (-0.2σ)
A_{143}^{dustTT}	10.74	10.7 ± 1.8 (-0.0σ)	z_*	1090.28	1090.41 ± 0.72 $(+0.3\sigma)$	$\sigma_8(0.61)$	0.5822	0.586 ± 0.015 (-0.7σ)
$A_{143 \times 217}^{dustTT}$	19.63	18.3 ± 3.3 $(+0.0\sigma)$	r_*	147.06	$145.7^{+4.8}_{-4.3}$ $(+2.7\sigma)$	$f\sigma_8(2.33)$	0.2928	0.2950 ± 0.0080 (-0.8σ)
A_{217}^{dustTT}	95.0	93.4 ± 7.3 $(+0.0\sigma)$	$100\theta_*$	1.04163	1.0414 ± 0.0014 $(+0.9\sigma)$	$\sigma_8(2.33)$	0.3010	0.3037 ± 0.0089 (-0.8σ)
c_{100}	0.99965	0.99960 ± 0.00062 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	14.118	$13.99^{+0.44}_{-0.40}$ $(+2.7\sigma)$	f_{2000}^{143}	29.44	31 ± 4 $(+0.1\sigma)$
c_{217}	0.99824	0.99826 ± 0.00062 $(+0.0\sigma)$	z_{drag}	1058.98	1059.3 ± 1.2 (-0.1σ)	$f_{2000}^{143 \times 217}$	32.67	33.8 ± 2.8 $(+0.1\sigma)$
H_0	64.84	$66.1^{+3.0}_{-3.6}$ (-0.9σ)	r_{drag}	149.89	$148.5^{+4.9}_{-4.4}$ $(+2.8\sigma)$	f_{2000}^{217}	107.11	108.3 ± 2.6 $(+0.1\sigma)$
Ω_Λ	0.6682	$0.675^{+0.021}_{-0.019}$ (-0.3σ)	k_D	0.13838	$0.1395^{+0.0037}_{-0.0046}$ (-2.0σ)	χ_{small}^2	395.90	396.9 ± 1.6 (-0.0σ)
Ω_m	0.3318	0.325 ± 0.020 $(+0.3\sigma)$	$100\theta_D$	0.16080	0.16110 ± 0.00075 $(+0.1\sigma)$	χ_{lowl}^2	24.59	24.3 ± 2.3 $(+0.3\sigma)$
$\Omega_m h^2$	0.1395	$0.1417^{+0.0063}_{-0.0084}$ (-0.9σ)	z_{eq}	3457	3432 ± 84 $(+0.4\sigma)$	χ_{plik}^2	757.4	772.6 ± 6.1 $(+0.2\sigma)$
$\Omega_m h^3$	0.0904	$0.0938^{+0.0076}_{-0.011}$ (-4.5σ)	k_{eq}	0.010337	$0.01037^{+0.00019}_{-0.00024}$ (-0.3σ)	χ_{prior}^2	1.26	7.3 ± 3.6 (-0.0σ)
σ_8	0.8047	0.808 ± 0.017 (-0.4σ)	$100\theta_{eq}$	0.8028	0.808 ± 0.015 (-0.4σ)	χ_{CMB}^2	1177.9	1193.8 ± 5.9 $(+0.3\sigma)$

Best-fit $\chi_{eff}^2 = 1179.18$; $\Delta\chi_{eff}^2 = -0.40$; $\bar{\chi}_{eff}^2 = 1201.13$; $\Delta\bar{\chi}_{eff}^2 = 1.55$; $R - 1 = 0.01463$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.02) commander_dx12_v3.2.29: 24.59 (Δ 0.99) plik_rd12_HM_v22.TT: 757.43 (Δ -1.32)

11.2 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022258	0.02226 ± 0.00024 (+0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6026	0.606 ± 0.011 (+0.4 σ)	$D_{\mathrm{M}}(0.38)$	1526.0	1516 ± 47 (−1.4 σ)
$\Omega_{\mathrm{c}}h^2$	0.1192	$0.1212^{+0.0062}_{-0.0081}$ (+1.8 σ)	$\sigma_8/h^{0.5}$	0.9814	0.983 ± 0.012 (+0.1 σ)	$H(0.51)$	89.83	$90.5^{+2.3}_{-2.9}$ (+2.8 σ)
$100\theta_{\mathrm{MC}}$	1.04105	1.0408 ± 0.0019 (−0.5 σ)	$r_{\mathrm{drag}}h$	99.88	99.9 ± 1.1 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1977	1964 ± 60 (−1.6 σ)
τ	0.0533	0.0539 ± 0.0079 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4231	2.426 ± 0.028 (−0.1 σ)	$H(0.61)$	95.44	$96.1^{+2.4}_{-3.0}$ (+3.5 σ)
N_{eff}	3.065	$3.18^{+0.39}_{-0.51}$	z_{re}	7.60	7.66 ± 0.82 (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2301	2286 ± 69 (−1.7 σ)
Y_{P}	0.2473	$0.245^{+0.033}_{-0.029}$	$10^9 A_{\mathrm{s}}$	2.0910	2.100 ± 0.042 (+0.2 σ)	$H(2.33)$	236.0	$237.6^{+5.4}_{-6.7}$ (+2.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0402	3.044 ± 0.020 (+0.2 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8797	1.886 ± 0.024 (+0.7 σ)	$D_{\mathrm{M}}(2.33)$	5757	5721^{+170}_{-150} (−3.7 σ)
n_{s}	0.9685	0.9697 ± 0.0087 (+0.8 σ)	D_{40}	1221.8	1222 ± 17 (−0.3 σ)	$f\sigma_8(0.15)$	0.4541	0.4562 ± 0.0090 (+0.2 σ)
y_{cal}	1.00045	1.0006 ± 0.0025 (+0.0 σ)	D_{220}	5718.4	5719 ± 41 (−0.0 σ)	$\sigma_8(0.15)$	0.7469	0.751 ± 0.015 (+0.7 σ)
A_{217}^{CIB}	50.2	48 ± 7 (+0.1 σ)	D_{810}	2537.1	2537 ± 14 (+0.1 σ)	$f\sigma_8(0.38)$	0.4729	0.4752 ± 0.0089 (+0.4 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.11	—	D_{1420}	815.9	814.8 ± 5.4 (−0.1 σ)	$\sigma_8(0.38)$	0.6623	0.666 ± 0.014 (+0.8 σ)
A_{143}^{tSZ}	7.13	5.0 ± 2.0 (−0.0 σ)	D_{2000}	229.94	229.3 ± 2.4 (−0.3 σ)	$f\sigma_8(0.51)$	0.4718	0.4741 ± 0.0089 (+0.4 σ)
A_{100}^{PS}	256.4	266 ± 29 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9685	0.9697 ± 0.0087 (+0.8 σ)	$\sigma_8(0.51)$	0.6199	0.623 ± 0.013 (+0.8 σ)
A_{143}^{PS}	46.6	50 ± 9 (+0.2 σ)	Y_{P}	0.2473	$0.245^{+0.033}_{-0.029}$ (−5.7 σ)	$f\sigma_8(0.61)$	0.4670	0.4694 ± 0.0088 (+0.5 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	41.4	44^{+9}_{-10} (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2487	$0.246^{+0.033}_{-0.029}$ (−5.8 σ)	$\sigma_8(0.61)$	0.5899	0.593 ± 0.013 (+0.8 σ)
A_{217}^{PS}	116.9	115 ± 10 (+0.0 σ)	Age/Gyr	13.782	$13.70^{+0.40}_{-0.36}$ (−3.9 σ)	$f\sigma_8(2.33)$	0.2975	0.2993 ± 0.0064 (+0.8 σ)
A^{kSZ}	0.00	< 5.09 (+0.1 σ)	z_*	1090.08	1090.21 ± 0.68 (+0.6 σ)	$\sigma_8(2.33)$	0.3068	0.3087 ± 0.0069 (+0.9 σ)
$A_{100}^{\mathrm{dustTT}}$	8.95	9.0 ± 1.8 (+0.0 σ)	r_*	144.62	$143.7^{+4.1}_{-3.7}$ (−3.4 σ)	f_{2000}^{143}	30.68	32 ± 4 (+0.3 σ)
$A_{143}^{\mathrm{dustTT}}$	10.80	10.8 ± 1.8 (−0.0 σ)	$100\theta_*$	1.04118	1.0409 ± 0.0013 (−0.6 σ)	$f_{2000}^{143 \times 217}$	33.37	34.0 ± 2.9 (+0.3 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.14	18.4 ± 3.3 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.890	$13.81^{+0.38}_{-0.34}$ (−3.3 σ)	f_{2000}^{217}	107.90	108.4 ± 2.6 (+0.3 σ)
$A_{217}^{\mathrm{dustTT}}$	94.1	93.4 ± 7.4 (+0.0 σ)	z_{drag}	1059.70	1059.8 ± 1.1 (+0.7 σ)	χ_{small}^2	395.88	397.0 ± 1.8 (−0.0 σ)
c_{100}	0.99964	0.99962 ± 0.00061 (+0.0 σ)	r_{drag}	147.32	$146.4^{+4.2}_{-3.8}$ (−3.2 σ)	χ_{lowl}^2	22.69	22.8 ± 1.3 (−0.3 σ)
c_{217}	0.99827	0.99828 ± 0.00062 (+0.0 σ)	k_{D}	0.14040	$0.1412^{+0.0034}_{-0.0042}$ (+2.1 σ)	χ_{plik}^2	760.2	774.2 ± 5.9 (+0.4 σ)
H_0	67.80	$68.3^{+2.0}_{-2.4}$ (+1.3 σ)	$100\theta_{\mathrm{D}}$	0.16110	0.16125 ± 0.00074 (+0.9 σ)	$\chi_{6\mathrm{DF}}^2$	0.0154	0.059 ± 0.080 (−0.0 σ)
Ω_{Λ}	0.6908	0.6913 ± 0.0086 (+0.2 σ)	z_{eq}	3372.3	3368 ± 44 (−0.2 σ)	χ_{MGS}^2	1.34	1.45 ± 0.60 (+0.2 σ)
Ω_{m}	0.3092	0.3087 ± 0.0086 (−0.2 σ)	k_{eq}	0.010306	$0.01037^{+0.00020}_{-0.00025}$ (+0.8 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.04	4.7 ± 1.6 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.1421	$0.1441^{+0.0062}_{-0.0081}$ (+1.9 σ)	$100\theta_{\mathrm{eq}}$	0.8185	0.8192 ± 0.0074 (+0.2 σ)	χ_{prior}^2	1.52	7.3 ± 3.6 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.0964	$0.0986^{+0.0066}_{-0.0091}$ (+5.8 σ)	$100\theta_{\mathrm{s,eq}}$	0.45217	0.4525 ± 0.0038 (+0.2 σ)	χ_{BAO}^2	5.39	6.2 ± 1.4 (+0.0 σ)
σ_8	0.8080	0.813 ± 0.016 (+0.7 σ)	$H(0.15)$	73.06	$73.6^{+2.1}_{-2.5}$ (+1.5 σ)	χ_{CMB}^2	1178.8	1194.0 ± 5.9 (+0.3 σ)
S_8	0.8204	0.824 ± 0.017 (+0.2 σ)	$D_{\mathrm{M}}(0.15)$	639.6	635 ± 20 (−1.3 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4493	0.4514 ± 0.0092 (+0.2 σ)	$H(0.38)$	83.13	$83.7^{+2.2}_{-2.7}$ (+2.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1185.69$; $\Delta\chi_{\mathrm{eff}}^2 = -0.05$; $\bar{\chi}_{\mathrm{eff}}^2 = 1207.58$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.55$; $R - 1 = 0.02042$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.04 (Δ -0.15) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.01) commander_dx12_v3_2_29: 22.69 (Δ -0.14) plik_rd12_HM_v22_TT: 760.21 (Δ 0.11)

11.3 base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022005	0.02207 ± 0.00030 (-0.3σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4582	0.4576 ± 0.0090 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	671.6	661 ± 29 $(+2.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.1145	$0.1170^{+0.0060}_{-0.0077}$ (-2.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6043	0.6061 ± 0.0089 (-0.3σ)	$H(0.38)$	79.90	$81.1^{+2.8}_{-3.3}$ (-3.4σ)
$100\theta_{\mathrm{MC}}$	1.04200	1.0417 ± 0.0019 $(+1.9\sigma)$	$\sigma_8/h^{0.5}$	0.9930	0.992 ± 0.012 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	1597	1573 ± 66 $(+2.8\sigma)$
τ	0.0502	0.0514 ± 0.0080 (-0.1σ)	$r_{\mathrm{drag}}h$	97.35	98.0 ± 1.9 (-0.6σ)	$H(0.51)$	86.62	$87.8^{+2.9}_{-3.4}$ (-4.4σ)
N_{eff}	2.627	$2.81^{+0.43}_{-0.54}$	$\langle d^2 \rangle^{1/2}$	2.4621	2.455 ± 0.032 $(+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	2066	2036 ± 83 $(+3.0\sigma)$
Y_{P}	0.2565	$0.256^{+0.032}_{-0.028}$	z_{re}	7.27	7.40 ± 0.83 (-0.1σ)	$H(0.61)$	92.22	$93.5^{+2.9}_{-3.4}$ (-5.4σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0242	3.031 ± 0.022 (-0.6σ)	$10^9 A_{\mathrm{s}}$	2.0578	2.073 ± 0.046 (-0.6σ)	$D_{\mathrm{M}}(0.61)$	2401	2367 ± 94 $(+3.2\sigma)$
n_{s}	0.9547	0.959 ± 0.012 (-0.9σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8613	1.871 ± 0.026 (-1.1σ)	$H(2.33)$	231.3	$233.4^{+5.5}_{-6.7}$ (-3.2σ)
y_{cal}	1.00029	1.0004 ± 0.0025 (-0.0σ)	D_{40}	1239.1	1235 ± 19 $(+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	5948	5878 ± 200 $(+7.2\sigma)$
A_{217}^{CIB}	46.5	48 ± 7 (-0.0σ)	D_{220}	5710.9	5714 ± 42 (-0.0σ)	$f\sigma_8(0.15)$	0.4612	0.4610 ± 0.0081 (-0.0σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.62	—	D_{810}	2534.9	2535 ± 14 (-0.1σ)	$\sigma_8(0.15)$	0.7346	0.741 ± 0.016 (-1.3σ)
A_{143}^{tSZ}	6.87	5.0 ± 2.0 $(+0.0\sigma)$	D_{1420}	816.6	814.5 ± 5.4 (-0.0σ)	$f\sigma_8(0.38)$	0.4750	0.4762 ± 0.0070 (-0.3σ)
A_{100}^{PS}	250.2	263 ± 29 (-0.0σ)	D_{2000}	230.93	229.6 ± 2.4 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6492	0.655 ± 0.015 (-1.5σ)
A_{143}^{PS}	52.2	49 ± 9 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9547	0.959 ± 0.012 (-0.9σ)	$f\sigma_8(0.51)$	0.4714	0.4732 ± 0.0070 (-0.5σ)
$A_{143 \times 217}^{\mathrm{PS}}$	53.5	44 ± 9 $(+0.0\sigma)$	Y_{P}	0.2565	$0.256^{+0.032}_{-0.028}$ $(+115.9\sigma)$	$\sigma_8(0.51)$	0.6067	0.613 ± 0.015 (-1.5σ)
A_{217}^{PS}	122.2	115 ± 10 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2579	$0.257^{+0.032}_{-0.028}$ $(+115.8\sigma)$	$f\sigma_8(0.61)$	0.4651	0.4673 ± 0.0073 (-0.6σ)
A^{kSZ}	0.00	< 4.92 (-0.0σ)	Age/Gyr	14.234	14.07 ± 0.47 $(+7.6\sigma)$	$\sigma_8(0.61)$	0.5768	0.583 ± 0.014 (-1.6σ)
$A_{100}^{\mathrm{dustTT}}$	8.83	8.9 ± 1.8 (-0.0σ)	z_*	1090.17	1090.36 ± 0.70 $(+0.4\sigma)$	$f\sigma_8(2.33)$	0.2902	0.2933 ± 0.0076 (-1.6σ)
$A_{143}^{\mathrm{dustTT}}$	10.81	10.7 ± 1.8 (-0.0σ)	r_*	148.29	146.8 ± 4.4 $(+6.2\sigma)$	$\sigma_8(2.33)$	0.2983	0.3018 ± 0.0085 (-1.6σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.83	18.3 ± 3.3 $(+0.0\sigma)$	$100\theta_*$	1.04205	1.0417 ± 0.0013 $(+1.5\sigma)$	f_{2000}^{143}	29.35	31 ± 4 $(+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	95.4	93.4 ± 7.2 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.231	14.09 ± 0.40 $(+6.0\sigma)$	$f_{2000}^{143 \times 217}$	32.56	33.7 ± 2.8 $(+0.0\sigma)$
c_{100}	0.99966	0.99959 ± 0.00062 (-0.0σ)	z_{drag}	1058.90	1059.3 ± 1.2 (-0.3σ)	f_{2000}^{217}	106.95	108.2 ± 2.6 $(+0.0\sigma)$
c_{217}	0.99822	0.99827 ± 0.00062 $(+0.0\sigma)$	r_{drag}	151.14	149.6 ± 4.5 $(+6.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.48	9.3 ± 1.0 (-0.2σ)
H_0	64.41	$65.6^{+2.8}_{-3.2}$ (-2.1σ)	k_{D}	0.13737	$0.1385^{+0.0036}_{-0.0043}$ (-4.3σ)	χ_{small}^2	395.70	396.8 ± 1.5 (-0.1σ)
Ω_{Λ}	0.6694	$0.675^{+0.018}_{-0.016}$ (-0.7σ)	$100\theta_{\mathrm{D}}$	0.16070	0.16105 ± 0.00074 (-0.1σ)	χ_{lowl}^2	24.56	24.3 ± 2.0 $(+0.6\sigma)$
Ω_{m}	0.3306	0.325 ± 0.017 $(+0.7\sigma)$	z_{eq}	3457	3435 ± 72 $(+1.0\sigma)$	χ_{plik}^2	757.9	772.0 ± 5.8 $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.1372	$0.1397^{+0.0061}_{-0.0077}$ (-2.2σ)	k_{eq}	0.010251	$0.01031^{+0.00017}_{-0.00021}$ (-0.7σ)	χ_{prior}^2	1.16	7.3 ± 3.6 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.0884	$0.0918^{+0.0072}_{-0.0096}$ (-9.0σ)	$100\theta_{\mathrm{eq}}$	0.8031	0.807 ± 0.012 (-0.8σ)	χ_{CMB}^2	1186.7	1202.4 ± 5.9 $(+0.2\sigma)$
σ_8	0.7969	0.803 ± 0.016 (-1.2σ)	$100\theta_{\mathrm{s,eq}}$	0.4443	0.4465 ± 0.0064 (-0.8σ)			
S_8	0.8366	0.836 ± 0.017 $(+0.1\sigma)$	$H(0.15)$	69.74	$70.9^{+2.8}_{-3.2}$ (-2.4σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1187.84$; $\Delta\chi_{\mathrm{eff}}^2 = -0.73$; $\bar{\chi}_{\mathrm{eff}}^2 = 1209.69$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.28$; $R - 1 = 0.01748$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.48 (Δ -0.42) small_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ -0.16) commander_dx12_v3_2_29: 24.56 (Δ 1.32) plik_rd12_HM_v22_TT: 757.94 (Δ -1.38)

11.4 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022245	0.02226 ± 0.00024 (+0.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4511	0.4517 ± 0.0071 (+0.0 σ)	$D_M(0.15)$	641.9	639 ± 20 (−0.6 σ)
$\Omega_c h^2$	0.1190	$0.1200^{+0.0058}_{-0.0072}$ (+0.8 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6040	0.6053 ± 0.0089 (+0.2 σ)	$H(0.38)$	82.90	$83.3^{+2.1}_{-2.5}$ (+1.1 σ)
$100\theta_{MC}$	1.04108	1.0410 ± 0.0018 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9842	0.9847 ± 0.0095 (+0.0 σ)	$D_M(0.38)$	1531.0	1525 ± 45 (−0.7 σ)
τ	0.0544	0.0550 ± 0.0073 (−0.0 σ)	$r_{drag}h$	99.65	99.8 ± 1.0 (+0.2 σ)	$H(0.51)$	89.61	$90.0^{+2.2}_{-2.6}$ (+1.4 σ)
N_{eff}	3.036	$3.10^{+0.37}_{-0.46}$	$\langle d^2 \rangle^{1/2}$	2.4306	2.432 ± 0.023 (−0.2 σ)	$D_M(0.51)$	1983	1976 ± 58 (−0.8 σ)
Y_P	0.2473	$0.247^{+0.031}_{-0.028}$	z_{re}	7.71	7.77 ± 0.74 (−0.0 σ)	$H(0.61)$	95.22	$95.6^{+2.3}_{-2.7}$ (+1.7 σ)
$\ln(10^{10} A_s)$	3.0425	3.045 ± 0.017 (+0.1 σ)	$10^9 A_s$	2.0957	2.102 ± 0.036 (+0.1 σ)	$D_M(0.61)$	2308	2299 ± 66 (−0.8 σ)
n_s	0.9675	0.9682 ± 0.0085 (+0.6 σ)	$10^9 A_s e^{-2\tau}$	1.8796	1.883 ± 0.022 (+0.4 σ)	$H(2.33)$	235.8	$236.6^{+5.0}_{-6.0}$ (+1.1 σ)
y_{cal}	1.00046	1.0007 ± 0.0025 (−0.0 σ)	D_{40}	1224.0	1225 ± 17 (−0.3 σ)	$D_M(2.33)$	5769	5749 ± 150 (−1.6 σ)
A_{217}^{CIB}	48.4	48 ± 7 (+0.1 σ)	D_{220}	5720.0	5723 ± 41 (−0.0 σ)	$f\sigma_8(0.15)$	0.4557	0.4564 ± 0.0069 (+0.1 σ)
$\xi^{tSZ \times CIB}$	0.34	—	D_{810}	2538.3	2538 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7475	0.750 ± 0.013 (+0.4 σ)
A_{143}^{tSZ}	7.06	5.0 ± 2.0 (−0.1 σ)	D_{1420}	816.5	815.2 ± 5.4 (−0.1 σ)	$f\sigma_8(0.38)$	0.4741	0.4751 ± 0.0070 (+0.1 σ)
A_{100}^{PS}	252.8	266 ± 29 (+0.1 σ)	D_{2000}	230.28	229.6 ± 2.4 (−0.3 σ)	$\sigma_8(0.38)$	0.6626	0.665 ± 0.012 (+0.4 σ)
A_{143}^{PS}	49.2	50 ± 9 (+0.1 σ)	$n_{s,0.002}$	0.9675	0.9682 ± 0.0085 (+0.6 σ)	$f\sigma_8(0.51)$	0.4728	0.4738 ± 0.0070 (+0.2 σ)
$A_{143 \times 217}^{PS}$	47.3	44 ± 9 (+0.0 σ)	Y_P	0.2473	$0.247^{+0.031}_{-0.028}$ (+26.0 σ)	$\sigma_8(0.51)$	0.6201	0.622 ± 0.011 (+0.4 σ)
A_{217}^{PS}	119.8	115 ± 10 (+0.0 σ)	Y_P^{BBN}	0.2487	$0.249^{+0.031}_{-0.029}$ (+25.9 σ)	$f\sigma_8(0.61)$	0.4678	0.4690 ± 0.0071 (+0.2 σ)
A^{kSZ}	0.00	< 5.01 (+0.1 σ)	Age/Gyr	13.812	13.76 ± 0.36 (−1.7 σ)	$\sigma_8(0.61)$	0.5901	0.592 ± 0.011 (+0.4 σ)
A_{100}^{dustTT}	8.90	8.9 ± 1.8 (−0.0 σ)	z_*	1090.07	1090.19 ± 0.68 (+0.5 σ)	$f\sigma_8(2.33)$	0.2975	0.2986 ± 0.0057 (+0.4 σ)
A_{143}^{dustTT}	10.75	10.7 ± 1.8 (+0.0 σ)	r_*	144.83	144.4 ± 3.7 (−1.4 σ)	$\sigma_8(2.33)$	0.3068	0.3079 ± 0.0062 (+0.4 σ)
$A_{143 \times 217}^{dustTT}$	19.37	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.04123	1.0411 ± 0.0012 (−0.2 σ)	$\chi^2_{lensing}$	8.87	9.43 ± 0.85 (+0.2 σ)
A_{217}^{dustTT}	94.6	93.3 ± 7.5 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.909	13.87 ± 0.34 (−1.4 σ)	χ^2_{small}	396.08	397.1 ± 1.7 (−0.0 σ)
c_{100}	0.99968	0.99962 ± 0.00061 (−0.0 σ)	z_{drag}	1059.63	1059.8 ± 1.1 (+0.6 σ)	χ^2_{lowl}	22.88	23.0 ± 1.3 (−0.3 σ)
c_{217}	0.99826	0.99828 ± 0.00062 (+0.0 σ)	r_{drag}	147.54	147.1 ± 3.7 (−1.4 σ)	χ^2_{plik}	759.9	773.4 ± 5.8 (+0.3 σ)
H_0	67.54	$67.9^{+1.9}_{-2.3}$ (+0.7 σ)	k_D	0.14025	$0.1406^{+0.0032}_{-0.0038}$ (+0.8 σ)	χ^2_{6DF}	0.0290	0.064 ± 0.084 (+0.1 σ)
Ω_Λ	0.6890	0.6898 ± 0.0083 (+0.2 σ)	$100\theta_D$	0.16104	0.16120 ± 0.00074 (+0.7 σ)	χ^2_{MGS}	1.22	1.36 ± 0.56 (+0.2 σ)
Ω_m	0.3110	0.3102 ± 0.0083 (−0.2 σ)	z_{eq}	3379.7	3376 ± 44 (−0.1 σ)	$\chi^2_{DR12BAO}$	4.36	4.9 ± 1.7 (−0.0 σ)
$\Omega_m h^2$	0.1419	$0.1429^{+0.0058}_{-0.0072}$ (+0.9 σ)	k_{eq}	0.010308	$0.01034^{+0.00018}_{-0.00021}$ (+0.3 σ)	χ^2_{prior}	1.32	7.3 ± 3.7 (+0.0 σ)
$\Omega_m h^3$	0.0958	$0.0972^{+0.0063}_{-0.0082}$ (+2.8 σ)	$100\theta_{eq}$	0.8171	0.8179 ± 0.0072 (+0.1 σ)	χ^2_{CMB}	1187.7	1202.9 ± 5.9 (+0.3 σ)
σ_8	0.8088	0.811 ± 0.014 (+0.3 σ)	$100\theta_{s,eq}$	0.45146	0.4518 ± 0.0037 (+0.1 σ)	χ^2_{BAO}	5.61	6.3 ± 1.4 (+0.1 σ)
S_8	0.8236	0.825 ± 0.013 (+0.0 σ)	$H(0.15)$	72.81	$73.2^{+2.0}_{-2.4}$ (+0.8 σ)			

Best-fit $\chi^2_{eff} = 1194.67$; $\Delta\chi^2_{eff} = -0.01$; $\bar{\chi}^2_{eff} = 1216.49$; $\Delta\bar{\chi}^2_{eff} = 1.76$; $R - 1 = 0.01644$
 χ^2_{eff} : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.36 (Δ -0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 (Δ -0.01) small_100x143_offlike5_EE_Aplanck
396.08 (Δ -0.01) commander_dx12_v3.2.29: 22.88 (Δ -0.08) plik_rd12_HM_v22_TT: 759.91 (Δ 0.10)

11.5 base_nnu_yhe_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02210 \pm 0.00032 \quad (-0.1\sigma)$	S_8	$0.841 \pm 0.025 \quad (+0.0\sigma)$	$100\theta_{s,eq}$	$0.4472 \pm 0.0074 \quad (-0.3\sigma)$
$\Omega_c h^2$	$0.1191^{+0.0062}_{-0.0083} \quad (-0.7\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.460 \pm 0.014 \quad (+0.0\sigma)$	$H(0.15)$	$71.6^{+2.9}_{-3.6} \quad (-0.8\sigma)$
$100\theta_{MC}$	$1.0413 \pm 0.0020 \quad (+1.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.611 \pm 0.012 \quad (-0.1\sigma)$	$D_M(0.15)$	$655 \pm 31 \quad (+0.9\sigma)$
τ	$0.0535^{+0.0044}_{-0.0085} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.995 \pm 0.017 \quad (+0.1\sigma)$	$H(0.38)$	$81.9^{+2.9}_{-3.6} \quad (-1.2\sigma)$
N_{eff}	$2.94^{+0.44}_{-0.58}$	$r_{drag} h$	$98.2 \pm 2.3 \quad (-0.2\sigma)$	$D_M(0.38)$	$1558 \pm 70 \quad (+1.1\sigma)$
Y_P	$0.251^{+0.033}_{-0.029}$	$\langle d^2 \rangle^{1/2}$	$2.460 \pm 0.046 \quad (+0.1\sigma)$	$H(0.51)$	$88.7^{+3.0}_{-3.7} \quad (-1.6\sigma)$
$\ln(10^{10} A_s)$	$3.040 \pm 0.020 \quad (-0.3\sigma)$	z_{re}	$7.65^{+0.49}_{-0.87} \quad (-0.0\sigma)$	$D_M(0.51)$	$2017 \pm 88 \quad (+1.1\sigma)$
n_s	$0.961 \pm 0.013 \quad (-0.3\sigma)$	$10^9 A_s$	$2.091^{+0.038}_{-0.043} \quad (-0.2\sigma)$	$H(0.61)$	$94.3^{+3.0}_{-3.8} \quad (-2.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.879 \pm 0.027 \quad (-0.4\sigma)$	$D_M(0.61)$	$2345 \pm 100 \quad (+1.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1235 \pm 22 \quad (+0.1\sigma)$	$H(2.33)$	$235.3^{+5.7}_{-7.2} \quad (-1.1\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5712 \pm 42 \quad (-0.0\sigma)$	$D_M(2.33)$	$5827 \pm 210 \quad (+3.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.464 \pm 0.012 \quad (+0.0\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (+0.0\sigma)$	D_{1420}	$814.3 \pm 5.3 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.747^{+0.015}_{-0.017} \quad (-0.5\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.1\sigma)$	D_{2000}	$229.5 \pm 2.4 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4795 \pm 0.0098 \quad (-0.1\sigma)$
$A_{143 \times 217}^{PS}$	$44^{+9}_{-10} \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.961 \pm 0.013 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.661^{+0.014}_{-0.016} \quad (-0.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_P	$0.251^{+0.033}_{-0.029} \quad (+60.6\sigma)$	$f\sigma_8(0.51)$	$0.4767 \pm 0.0090 \quad (-0.1\sigma)$
A^{kSZ}	$< 4.97 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.253^{+0.033}_{-0.029} \quad (+60.6\sigma)$	$\sigma_8(0.51)$	$0.618^{+0.014}_{-0.015} \quad (-0.6\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	$13.95 \pm 0.49 \quad (+3.2\sigma)$	$f\sigma_8(0.61)$	$0.4708 \pm 0.0087 \quad (-0.2\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.40 \pm 0.72 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.588^{+0.013}_{-0.015} \quad (-0.7\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$145.6^{+4.8}_{-4.3} \quad (+2.3\sigma)$	$f\sigma_8(2.33)$	$0.2959^{+0.0071}_{-0.0080} \quad (-0.7\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.0413 \pm 0.0014 \quad (+0.8\sigma)$	$\sigma_8(2.33)$	$0.3046^{+0.0079}_{-0.0089} \quad (-0.7\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.98^{+0.44}_{-0.39} \quad (+2.3\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.1\sigma)$
c_{217}	$0.99826 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.4 \pm 1.2 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.8 \pm 2.9 \quad (+0.1\sigma)$
H_0	$66.3^{+3.0}_{-3.6} \quad (-0.7\sigma)$	r_{drag}	$148.4^{+4.9}_{-4.4} \quad (+2.4\sigma)$	f_{2000}^{217}	$108.3 \pm 2.6 \quad (+0.1\sigma)$
Ω_Λ	$0.676 \pm 0.020 \quad (-0.3\sigma)$	k_D	$0.1396^{+0.0037}_{-0.0046} \quad (-1.8\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_m	$0.324 \pm 0.020 \quad (+0.3\sigma)$	$100\theta_D$	$0.16112 \pm 0.00075 \quad (+0.2\sigma)$	χ_{lowl}^2	$24.2 \pm 2.3 \quad (+0.2\sigma)$
$\Omega_m h^2$	$0.1419^{+0.0063}_{-0.0084} \quad (-0.7\sigma)$	z_{eq}	$3427 \pm 83 \quad (+0.4\sigma)$	χ_{plik}^2	$772.5 \pm 6.2 \quad (+0.2\sigma)$
$\Omega_m h^3$	$0.0942^{+0.0075}_{-0.011} \quad (-3.6\sigma)$	k_{eq}	$0.01037^{+0.00019}_{-0.00024} \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (+0.0\sigma)$
σ_8	$0.810^{+0.015}_{-0.017} \quad (-0.4\sigma)$	$100\theta_{eq}$	$0.809 \pm 0.014 \quad (-0.3\sigma)$	χ_{CMB}^2	$1193.5 \pm 5.8 \quad (+0.3\sigma)$

$\bar{\chi}_{eff}^2 = 1200.83$; $\Delta\bar{\chi}_{eff}^2 = 1.51$; $R - 1 = 0.01329$

11.6 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02227 \pm 0.00024 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.606^{+0.010}_{-0.012} \quad (+0.4\sigma)$	$D_{\text{M}}(0.38)$	$1516 \pm 47 \quad (-1.4\sigma)$
$\Omega_{\text{c}}h^2$	$0.1211^{+0.0062}_{-0.0080} \quad (+1.8\sigma)$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.011 \quad (+0.1\sigma)$	$H(0.51)$	$90.5^{+2.3}_{-2.8} \quad (+2.8\sigma)$
$100\theta_{\text{MC}}$	$1.0408 \pm 0.0019 \quad (-0.5\sigma)$	$r_{\text{drag}}h$	$99.96 \pm 1.1 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1964 \pm 60 \quad (-1.6\sigma)$
τ	$0.0551^{+0.0056}_{-0.0078} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.429 \pm 0.027 \quad (-0.1\sigma)$	$H(0.61)$	$96.1^{+2.4}_{-3.0} \quad (+3.4\sigma)$
N_{eff}	$3.18^{+0.39}_{-0.50}$	z_{re}	$7.79^{+0.59}_{-0.81} \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2286 \pm 69 \quad (-1.7\sigma)$
Y_{P}	$0.245^{+0.032}_{-0.029}$	$10^9 A_{\text{s}}$	$2.105^{+0.033}_{-0.041} \quad (+0.3\sigma)$	$H(2.33)$	$237.5^{+5.4}_{-6.6} \quad (+2.3\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.016}_{-0.019} \quad (+0.3\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.886 \pm 0.024 \quad (+0.7\sigma)$	$D_{\text{M}}(2.33)$	$5721 \pm 160 \quad (-3.7\sigma)$
n_{s}	$0.9699 \pm 0.0087 \quad (+0.8\sigma)$	D_{40}	$1222 \pm 17 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4566^{+0.0083}_{-0.0093} \quad (+0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 41 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.752^{+0.014}_{-0.016} \quad (+0.8\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4757^{+0.0081}_{-0.0093} \quad (+0.4\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$814.8 \pm 5.4 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.667^{+0.012}_{-0.014} \quad (+0.9\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.3 \pm 2.4 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4746^{+0.0080}_{-0.0092} \quad (+0.4\sigma)$
A_{100}^{PS}	$266 \pm 29 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9699 \pm 0.0087 \quad (+0.8\sigma)$	$\sigma_8(0.51)$	$0.624^{+0.012}_{-0.013} \quad (+0.9\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.2\sigma)$	Y_{P}	$0.245^{+0.032}_{-0.029} \quad (-1.2\sigma)$	$f\sigma_8(0.61)$	$0.4699^{+0.0079}_{-0.0092} \quad (+0.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$44^{+9}_{-10} \quad (+0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.247^{+0.032}_{-0.029} \quad (-1.3\sigma)$	$\sigma_8(0.61)$	$0.594^{+0.011}_{-0.013} \quad (+0.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Age/Gyr	$13.70 \pm 0.38 \quad (-3.9\sigma)$	$f\sigma_8(2.33)$	$0.2997^{+0.0058}_{-0.0066} \quad (+0.9\sigma)$
A^{kSZ}	$< 5.05 \quad (+0.1\sigma)$	z_*	$1090.21 \pm 0.68 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3091^{+0.0062}_{-0.0071} \quad (+1.0\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	r_*	$143.7 \pm 3.9 \quad (-3.4\sigma)$	f_{2000}^{143}	$32 \pm 4 \quad (+0.3\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.0409 \pm 0.0013 \quad (-0.6\sigma)$	$f_{2000}^{143 \times 217}$	$33.9 \pm 2.9 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.81^{+0.38}_{-0.34} \quad (-3.3\sigma)$	f_{2000}^{217}	$108.4 \pm 2.6 \quad (+0.3\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.4 \quad (+0.0\sigma)$	z_{drag}	$1059.8 \pm 1.1 \quad (+0.7\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$146.4 \pm 4.0 \quad (-3.2\sigma)$	χ_{lowl}^2	$22.8 \pm 1.3 \quad (-0.3\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.1412^{+0.0034}_{-0.0041} \quad (+2.0\sigma)$	χ_{plik}^2	$774.0 \pm 5.9 \quad (+0.4\sigma)$
H_0	$68.3^{+2.0}_{-2.4} \quad (+1.3\sigma)$	$100\theta_{\text{D}}$	$0.16126 \pm 0.00074 \quad (+0.9\sigma)$	$\chi_{6\text{DF}}^2$	$0.058 \pm 0.079 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6915 \pm 0.0086 \quad (+0.2\sigma)$	z_{eq}	$3368 \pm 44 \quad (-0.2\sigma)$	χ_{MGS}^2	$1.47 \pm 0.60 \quad (+0.2\sigma)$
Ω_{m}	$0.3085 \pm 0.0086 \quad (-0.2\sigma)$	k_{eq}	$0.01036^{+0.00020}_{-0.00024} \quad (+0.8\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.6 \quad (-0.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1440^{+0.0062}_{-0.0080} \quad (+1.9\sigma)$	$100\theta_{\text{eq}}$	$0.8193 \pm 0.0074 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\Omega_{\text{m}}h^3$	$0.0986^{+0.0067}_{-0.0090} \quad (+5.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4526 \pm 0.0038 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (+0.0\sigma)$
σ_8	$0.813^{+0.014}_{-0.017} \quad (+0.7\sigma)$	$H(0.15)$	$73.6^{+2.1}_{-2.5} \quad (+1.5\sigma)$	χ_{CMB}^2	$1193.8 \pm 5.8 \quad (+0.3\sigma)$
S_8	$0.825^{+0.016}_{-0.017} \quad (+0.2\sigma)$	$D_{\text{M}}(0.15)$	$635 \pm 20 \quad (-1.3\sigma)$		
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4518^{+0.0085}_{-0.0095} \quad (+0.2\sigma)$	$H(0.38)$	$83.8^{+2.2}_{-2.7} \quad (+2.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1207.34$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.58$; $R - 1 = 0.02392$

11.7 base_nnu_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02210 \pm 0.00029 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4572 \pm 0.0090 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$659 \pm 28 \quad (+2.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1171^{+0.0060}_{-0.0076} \quad (-2.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6065 \pm 0.0089 \quad (-0.3\sigma)$	$H(0.38)$	$81.3^{+2.7}_{-3.2} \quad (-3.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0416 \pm 0.0019 \quad (+1.8\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1568 \pm 64 \quad (+2.6\sigma)$
τ	$0.0533^{+0.0045}_{-0.0082} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.3 \pm 1.9 \quad (-0.5\sigma)$	$H(0.51)$	$88.0^{+2.8}_{-3.3} \quad (-4.0\sigma)$
N_{eff}	$2.83^{+0.42}_{-0.53}$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.032 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$2030 \pm 81 \quad (+2.8\sigma)$
Y_{P}	$0.255^{+0.032}_{-0.028}$	z_{re}	$7.61^{+0.47}_{-0.86} \quad (-0.1\sigma)$	$H(0.61)$	$93.7^{+2.9}_{-3.4} \quad (-4.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.036 \pm 0.019 \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.082 \pm 0.041 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2360 \pm 92 \quad (+2.9\sigma)$
n_{s}	$0.960 \pm 0.012 \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.871 \pm 0.026 \quad (-1.0\sigma)$	$H(2.33)$	$233.6^{+5.5}_{-6.6} \quad (-3.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1234 \pm 19 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5866 \pm 190 \quad (+6.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5714 \pm 42 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4608 \pm 0.0081 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2535 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.015 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{1420}	$814.5 \pm 5.4 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4764 \pm 0.0070 \quad (-0.3\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (-0.0\sigma)$	D_{2000}	$229.6 \pm 2.4 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.657 \pm 0.014 \quad (-1.4\sigma)$
A_{143}^{PS}	$49 \pm 9 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.960 \pm 0.012 \quad (-0.7\sigma)$	$f\sigma_8(0.51)$	$0.4737 \pm 0.0069 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	Y_{P}	$0.255^{+0.032}_{-0.028} \quad (+115.4\sigma)$	$\sigma_8(0.51)$	$0.614 \pm 0.014 \quad (-1.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.257^{+0.032}_{-0.029} \quad (+115.3\sigma)$	$f\sigma_8(0.61)$	$0.4679 \pm 0.0071 \quad (-0.6\sigma)$
A^{kSZ}	$< 4.93 \quad (-0.0\sigma)$	Age/Gyr	$14.04 \pm 0.46 \quad (+6.9\sigma)$	$\sigma_8(0.61)$	$0.584 \pm 0.014 \quad (-1.5\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.34 \pm 0.70 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2942 \pm 0.0073 \quad (-1.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$146.6 \pm 4.3 \quad (+5.7\sigma)$	$\sigma_8(2.33)$	$0.3028 \pm 0.0081 \quad (-1.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.0416 \pm 0.0013 \quad (+1.4\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.2 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.08 \pm 0.40 \quad (+5.6\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.8 \quad (+0.1\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.4 \pm 1.2 \quad (-0.1\sigma)$	f_{2000}^{217}	$108.2 \pm 2.6 \quad (+0.1\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$149.4 \pm 4.4 \quad (+5.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.3 \pm 1.0 \quad (-0.1\sigma)$
H_0	$65.8^{+2.7}_{-3.1} \quad (-1.9\sigma)$	k_{D}	$0.1387^{+0.0036}_{-0.0043} \quad (-3.9\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.1\sigma)$
Ω_{Λ}	$0.677 \pm 0.016 \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16107 \pm 0.00074 \quad (+0.1\sigma)$	χ_{lowl}^2	$24.1 \pm 1.9 \quad (+0.4\sigma)$
Ω_{m}	$0.323 \pm 0.016 \quad (+0.6\sigma)$	z_{eq}	$3428 \pm 70 \quad (+0.9\sigma)$	χ_{plik}^2	$772.0 \pm 5.8 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1398^{+0.0061}_{-0.0077} \quad (-2.1\sigma)$	k_{eq}	$0.01030^{+0.00017}_{-0.00021} \quad (-0.7\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0923^{+0.0072}_{-0.0095} \quad (-8.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.809 \pm 0.012 \quad (-0.7\sigma)$	χ_{CMB}^2	$1202.1 \pm 5.8 \quad (+0.2\sigma)$
σ_8	$0.805 \pm 0.015 \quad (-1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4471 \pm 0.0062 \quad (-0.7\sigma)$		
S_8	$0.835 \pm 0.016 \quad (+0.0\sigma)$	$H(0.15)$	$71.2^{+2.7}_{-3.2} \quad (-2.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1209.43$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.27$; $R - 1 = 0.01928$

11.8 base_nnu_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02226 \pm 0.00024 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6055 \pm 0.0089 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1525 \pm 45 \quad (-0.7\sigma)$
$\Omega_{\text{c}}h^2$	$0.1199^{+0.0058}_{-0.0071} \quad (+0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.9851 \pm 0.0093 \quad (+0.0\sigma)$	$H(0.51)$	$90.0^{+2.2}_{-2.6} \quad (+1.3\sigma)$
$100\theta_{\text{MC}}$	$1.0410 \pm 0.0018 \quad (+0.1\sigma)$	$r_{\text{drag}}h$	$99.8 \pm 1.0 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1976 \pm 57 \quad (-0.7\sigma)$
τ	$0.0557^{+0.0059}_{-0.0074} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.022 \quad (-0.2\sigma)$	$H(0.61)$	$95.6^{+2.3}_{-2.7} \quad (+1.6\sigma)$
N_{eff}	$3.10^{+0.37}_{-0.46}$	z_{re}	$7.85^{+0.62}_{-0.75} \quad (-0.0\sigma)$	$D_{\text{M}}(0.61)$	$2299 \pm 66 \quad (-0.8\sigma)$
Y_{P}	0.248 ± 0.030	$10^9 A_{\text{s}}$	$2.105^{+0.031}_{-0.035} \quad (+0.1\sigma)$	$H(2.33)$	$236.5^{+5.0}_{-5.9} \quad (+1.0\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.047^{+0.015}_{-0.017} \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.883 \pm 0.022 \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5750 \pm 150 \quad (-1.5\sigma)$
n_{s}	$0.9683 \pm 0.0085 \quad (+0.6\sigma)$	D_{40}	$1225 \pm 17 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4565 \pm 0.0069 \quad (+0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5723 \pm 41 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.750 \pm 0.013 \quad (+0.4\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0069 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$815.2 \pm 5.4 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.665 \pm 0.012 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.6 \pm 2.4 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4740 \pm 0.0070 \quad (+0.2\sigma)$
A_{100}^{PS}	$266 \pm 29 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9683 \pm 0.0085 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.622 \pm 0.011 \quad (+0.4\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.1\sigma)$	Y_{P}	$0.248 \pm 0.030 \quad (+30.8\sigma)$	$f\sigma_8(0.61)$	$0.4691 \pm 0.0070 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.249 \pm 0.030 \quad (+30.7\sigma)$	$\sigma_8(0.61)$	$0.592 \pm 0.011 \quad (+0.4\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Age/Gyr	$13.77 \pm 0.36 \quad (-1.5\sigma)$	$f\sigma_8(2.33)$	$0.2987 \pm 0.0057 \quad (+0.4\sigma)$
A^{kSZ}	$< 4.99 \quad (+0.0\sigma)$	z_*	$1090.19 \pm 0.68 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3081 \pm 0.0061 \quad (+0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.4 \pm 3.6 \quad (-1.3\sigma)$	f_{2000}^{143}	$32 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.0411 \pm 0.0012 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.8 \pm 2.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.87 \pm 0.33 \quad (-1.3\sigma)$	f_{2000}^{217}	$108.3 \pm 2.6 \quad (+0.2\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.5 \quad (+0.0\sigma)$	z_{drag}	$1059.8 \pm 1.1 \quad (+0.7\sigma)$	χ_{lensing}^2	$9.39 \pm 0.81 \quad (+0.2\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.1 \pm 3.7 \quad (-1.2\sigma)$	χ_{simall}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.1406^{+0.0032}_{-0.0038} \quad (+0.7\sigma)$	χ_{lowl}^2	$23.0 \pm 1.3 \quad (-0.3\sigma)$
H_0	$67.9^{+1.9}_{-2.3} \quad (+0.7\sigma)$	$100\theta_{\text{D}}$	$0.16120 \pm 0.00074 \quad (+0.7\sigma)$	χ_{plik}^2	$773.3 \pm 5.8 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6900 \pm 0.0083 \quad (+0.2\sigma)$	z_{eq}	$3376 \pm 44 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.062 \pm 0.082 \quad (+0.1\sigma)$
Ω_{m}	$0.3100 \pm 0.0083 \quad (-0.2\sigma)$	k_{eq}	$0.01033^{+0.00018}_{-0.00021} \quad (+0.3\sigma)$	χ_{MGS}^2	$1.37 \pm 0.56 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^2$	$0.1428^{+0.0058}_{-0.0071} \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8180 \pm 0.0072 \quad (+0.1\sigma)$	χ_{DR12BAO}^2	$4.8 \pm 1.7 \quad (-0.0\sigma)$
$\Omega_{\text{m}}h^3$	$0.0971^{+0.0063}_{-0.0081} \quad (+2.6\sigma)$	$100\theta_{\text{s,eq}}$	$0.4519 \pm 0.0037 \quad (+0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.812 \pm 0.013 \quad (+0.3\sigma)$	$H(0.15)$	$73.2^{+2.0}_{-2.3} \quad (+0.8\sigma)$	χ_{CMB}^2	$1202.8 \pm 5.8 \quad (+0.3\sigma)$
S_8	$0.825 \pm 0.013 \quad (+0.0\sigma)$	$D_{\text{M}}(0.15)$	$639 \pm 19 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.2 \pm 1.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4518 \pm 0.0071 \quad (+0.0\sigma)$	$H(0.38)$	$83.3^{+2.1}_{-2.5} \quad (+1.1\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1216.32$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.75$; $R - 1 = 0.01882$

11.9 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022215	0.02225 ± 0.00022 (-0.7σ)	Ω_m	0.3227	0.321 ± 0.011 $(+0.5\sigma)$	k_{eq}	0.010297	0.01033 ± 0.00016 (-0.7σ)
$\Omega_c h^2$	0.11668	$0.1179^{+0.0045}_{-0.0050}$ (-1.7σ)	$\Omega_m h^2$	0.13954	$0.1408^{+0.0045}_{-0.0051}$ (-1.9σ)	$100\theta_{\text{eq}}$	0.8083	0.8094 ± 0.0079 (-0.5σ)
$100\theta_{\text{MC}}$	1.04140	1.0413 ± 0.0012 $(+1.3\sigma)$	$\Omega_m h^3$	0.0918	$0.0934^{+0.0050}_{-0.0060}$ (-10.3σ)	$100\theta_{\text{s,eq}}$	0.44689	0.4474 ± 0.0040 (-0.5σ)
τ	0.0539	0.0536 ± 0.0079 (-0.1σ)	σ_8	0.8029	0.806 ± 0.013 (-0.9σ)	$H(0.15)$	71.08	$71.6^{+1.7}_{-2.0}$ (-2.0σ)
N_{eff}	2.807	$2.89^{+0.29}_{-0.33}$	S_8	0.8327	0.833 ± 0.017 (-0.0σ)	$D_{\text{M}}(0.15)$	658.4	654 ± 18 $(+1.9\sigma)$
Y_{P}	0.2449	0.246 ± 0.018	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4561	0.4564 ± 0.0092 (-0.0σ)	$H(0.38)$	81.22	$81.7^{+1.8}_{-2.0}$ (-2.9σ)
$\ln(10^{10} A_{\text{s}})$	3.0357	3.038 ± 0.019 (-0.4σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6051	0.6063 ± 0.0096 (-0.3σ)	$D_{\text{M}}(0.38)$	1567.6	1558 ± 40 $(+2.2\sigma)$
n_{s}	0.9584	0.9597 ± 0.0086 (-1.2σ)	$\sigma_8/h^{0.5}$	0.9901	0.990 ± 0.012 (-0.0σ)	$H(0.51)$	87.95	$88.5^{+1.8}_{-2.1}$ (-3.8σ)
y_{cal}	1.00047	1.0007 ± 0.0025 $(+0.1\sigma)$	$r_{\text{drag}} h$	98.23	98.4 ± 1.3 (-0.5σ)	$D_{\text{M}}(0.51)$	2029	2017 ± 50 $(+2.4\sigma)$
A_{217}^{CIB}	43.8	46 ± 7 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4575	2.456 ± 0.031 $(+0.3\sigma)$	$H(0.61)$	93.57	$94.1^{+1.9}_{-2.2}$ (-4.8σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.89	—	z_{re}	7.60	7.58 ± 0.81 (-0.1σ)	$D_{\text{M}}(0.61)$	2359	2345 ± 57 $(+2.5\sigma)$
A_{143}^{tSZ}	6.90	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0815	2.086 ± 0.040 (-0.4σ)	$H(2.33)$	233.45	234.5 ± 4.1 (-2.6σ)
A_{100}^{PS}	243.8	257 ± 28 (-0.1σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8689	1.874 ± 0.020 (-0.8σ)	$D_{\text{M}}(2.33)$	5865	5834 ± 120 $(+6.5\sigma)$
A_{143}^{PS}	51.4	45 ± 8 (-0.1σ)	D_{40}	1238.1	1238 ± 16 $(+0.5\sigma)$	$f\sigma_8(0.15)$	0.4597	0.4602 ± 0.0086 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	57.2	42 ± 9 (-0.0σ)	D_{220}	5729.7	5733 ± 38 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7408	0.743 ± 0.012 (-1.0σ)
A_{217}^{PS}	124.0	115 ± 10 $(+0.0\sigma)$	D_{810}	2539.1	2538 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4754	0.4762 ± 0.0076 (-0.3σ)
A^{kSZ}	0.00	< 3.97 (-0.1σ)	D_{1420}	819.66	817.9 ± 4.7 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6555	0.658 ± 0.011 (-1.1σ)
A_{100}^{dustTT}	8.69	8.9 ± 1.8 (-0.0σ)	D_{2000}	232.45	231.5 ± 1.8 $(+0.4\sigma)$	$f\sigma_8(0.51)$	0.4727	0.4737 ± 0.0073 (-0.4σ)
A_{143}^{dustTT}	10.86	10.8 ± 1.8 (-0.0σ)	$n_{\text{s},0.002}$	0.9584	0.9597 ± 0.0086 (-1.2σ)	$\sigma_8(0.51)$	0.6130	0.615 ± 0.011 (-1.2σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.06	18.5 ± 3.3 (-0.0σ)	Y_{P}	0.2449	0.246 ± 0.018 $(+12.5\sigma)$	$f\sigma_8(0.61)$	0.4669	0.4681 ± 0.0071 (-0.5σ)
A_{217}^{dustTT}	95.8	93.9 ± 7.3 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.2463	0.247 ± 0.018 $(+12.5\sigma)$	$\sigma_8(0.61)$	0.5829	0.585 ± 0.010 (-1.2σ)
A_{100}^{dustTE}	0.1149	0.115 ± 0.038 $(+0.0\sigma)$	Age/Gyr	14.039	13.97 ± 0.29 $(+6.9\sigma)$	$f\sigma_8(2.33)$	0.2935	0.2948 ± 0.0053 (-1.2σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1340	0.135 ± 0.029 (-0.0σ)	z_*	1089.700	1089.85 ± 0.45 (-0.4σ)	$\sigma_8(2.33)$	0.3021	0.3035 ± 0.0058 (-1.3σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.483 ± 0.084 $(+0.0\sigma)$	r_*	146.63	145.9 ± 2.8 $(+5.1\sigma)$	f_{2000}^{143}	27.20	28.9 ± 3.1 (-0.2σ)
A_{143}^{dustTE}	0.222	0.225 ± 0.054 (-0.0σ)	$100\theta_*$	1.04168	1.04153 ± 0.00094 $(+1.4\sigma)$	$f_{2000}^{143 \times 217}$	30.92	31.7 ± 2.2 (-0.3σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.667 ± 0.080 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	14.077	14.01 ± 0.26 $(+5.1\sigma)$	f_{2000}^{217}	105.51	106.6 ± 2.1 (-0.2σ)
A_{217}^{dustTE}	2.094	2.09 ± 0.27 (-0.0σ)	z_{drag}	1059.25	1059.48 ± 0.84 (-1.5σ)	χ_{small}^2	396.03	397.1 ± 1.8 (-0.0σ)
c_{100}	0.99974	0.99967 ± 0.00061 $(+0.0\sigma)$	r_{drag}	149.38	148.7 ± 2.9 $(+5.4\sigma)$	χ_{lowl}^2	24.26	24.3 ± 1.6 $(+0.8\sigma)$
c_{217}	0.99814	0.99818 ± 0.00063 (-0.0σ)	k_{D}	0.13918	$0.1397^{+0.0024}_{-0.0027}$ (-3.8σ)	χ_{plik}^2	2343.1	2360.3 ± 6.2 $(+0.1\sigma)$
H_0	65.76	$66.2^{+1.7}_{-2.0}$ (-1.7σ)	$100\theta_{\text{D}}$	0.160354	0.16056 ± 0.00048 (-1.2σ)	χ_{prior}^2	1.37	11.5 ± 4.5 (-0.0σ)
Ω_{Λ}	0.6773	0.679 ± 0.011 (-0.5σ)	z_{eq}	3429.1	3424 ± 44 $(+0.6\sigma)$	χ_{CMB}^2	2763.3	2781.7 ± 6.1 $(+0.3\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 2764.72$; $\Delta\chi_{\text{eff}}^2 = -1.05$; $\bar{\chi}_{\text{eff}}^2 = 2793.18$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.41$; $R - 1 = 0.01243$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3_2_29: 24.26 (Δ 1.00) plik_rd12_HM_v22b_TTTEEE: 2343.05 (Δ -1.59)

11.10 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022350	0.02239 ± 0.00019 (-0.2σ)	$\Omega_m h^3$	0.0946	0.0956 ± 0.0054 (-2.7σ)	$D_M(0.15)$	645.7	643 ± 15 $(+0.7\sigma)$
$\Omega_c h^2$	0.11794	0.1186 ± 0.0048 (-0.7σ)	σ_8	0.8053	0.807 ± 0.013 (-0.4σ)	$H(0.38)$	82.48	82.8 ± 1.7 (-1.0σ)
$100\theta_{MC}$	1.04108	1.0411 ± 0.0012 $(+0.4\sigma)$	S_8	0.8222	0.823 ± 0.014 (-0.1σ)	$D_M(0.38)$	1539.7	1534 ± 34 $(+0.8\sigma)$
τ	0.0551	0.0555 ± 0.0079 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4503	0.4508 ± 0.0079 (-0.1σ)	$H(0.51)$	89.17	89.5 ± 1.8 (-1.3σ)
N_{eff}	2.962	3.01 ± 0.30	$\sigma_8 \Omega_m^{0.25}$	0.6022	0.6033 ± 0.0096 (-0.2σ)	$D_M(0.51)$	1994.3	1987 ± 43 $(+0.9\sigma)$
Y_P	0.2422	0.244 ± 0.018	$\sigma_8/h^{0.5}$	0.9829	0.983 ± 0.011 (-0.1σ)	$H(0.61)$	94.77	95.1 ± 1.9 (-1.6σ)
$\ln(10^{10} A_s)$	3.0401	3.043 ± 0.019 (-0.2σ)	$r_{\text{drag}} h$	99.42	99.55 ± 0.88 (-0.1σ)	$D_M(0.61)$	2320	2313 ± 50 $(+0.9\sigma)$
n_s	0.9648	0.9652 ± 0.0072 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4350	2.437 ± 0.026 $(+0.0\sigma)$	$H(2.33)$	234.91	235.5 ± 4.1 (-1.0σ)
y_{cal}	1.00029	1.0007 ± 0.0024 $(+0.1\sigma)$	z_{re}	7.71	7.75 ± 0.80 (-0.1σ)	$D_M(2.33)$	5796	5779 ± 110 $(+2.3\sigma)$
A_{217}^{CIB}	44.5	46 ± 7 (-0.0σ)	$10^9 A_s$	2.0908	2.097 ± 0.040 (-0.2σ)	$f\sigma_8(0.15)$	0.4548	0.4553 ± 0.0077 (-0.2σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.82	—	$10^9 A_s e^{-2\tau}$	1.8726	1.877 ± 0.020 (-0.3σ)	$\sigma_8(0.15)$	0.7440	0.746 ± 0.012 (-0.4σ)
A_{143}^{tSZ}	7.03	$5.6^{+2.2}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1227.9	1230 ± 14 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.4728	0.4735 ± 0.0075 (-0.2σ)
A_{100}^{PS}	244.5	257 ± 28 (-0.0σ)	D_{220}	5729.3	5738 ± 38 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6594	0.661 ± 0.011 (-0.4σ)
A_{143}^{PS}	50.7	45 ± 8 (-0.1σ)	D_{810}	2538.4	2539 ± 14 (-0.0σ)	$f\sigma_8(0.51)$	0.4712	0.4721 ± 0.0074 (-0.3σ)
$A_{143 \times 217}^{\text{PS}}$	55.6	42 ± 9 (-0.0σ)	D_{1420}	819.43	818.2 ± 4.8 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6170	0.619 ± 0.010 (-0.4σ)
A_{217}^{PS}	122.8	115.0 ± 9.9 $(+0.0\sigma)$	D_{2000}	232.14	231.4 ± 1.8 $(+0.2\sigma)$	$f\sigma_8(0.61)$	0.4662	0.4671 ± 0.0073 (-0.3σ)
A^{kSZ}	0.01	< 4.03 (-0.0σ)	$n_{s,0.002}$	0.9648	0.9652 ± 0.0072 (-0.5σ)	$\sigma_8(0.61)$	0.5871	0.589 ± 0.010 (-0.4σ)
A_{100}^{dustTT}	8.83	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.2422	0.244 ± 0.018 (-19.3σ)	$f\sigma_8(2.33)$	0.2960	0.2969 ± 0.0052 (-0.4σ)
A_{143}^{dustTT}	10.99	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.2435	0.246 ± 0.018 (-19.3σ)	$\sigma_8(2.33)$	0.3051	0.3061 ± 0.0055 (-0.4σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.28	18.6 ± 3.2 $(+0.0\sigma)$	Age/Gyr	13.874	13.83 ± 0.27 $(+2.4\sigma)$	f_{2000}^{143}	27.46	29.0 ± 3.1 (-0.1σ)
A_{217}^{dustTT}	95.9	93.8 ± 7.1 $(+0.0\sigma)$	z_*	1089.600	1089.73 ± 0.43 (-0.3σ)	$f_{2000}^{143 \times 217}$	31.06	31.8 ± 2.2 (-0.1σ)
A_{100}^{dustTE}	0.1142	0.114 ± 0.038 $(+0.0\sigma)$	r_*	145.42	145.1 ± 2.7 $(+2.0\sigma)$	f_{2000}^{217}	105.56	106.7 ± 2.1 (-0.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1341	0.135 ± 0.029 (-0.0σ)	$100\theta_*$	1.04138	1.04133 ± 0.00092 $(+0.5\sigma)$	χ_{small}^2	396.16	397.3 ± 2.0 (-0.0σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.481 ± 0.085 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.964	13.93 ± 0.25 $(+1.9\sigma)$	χ_{lowl}^2	23.25	23.4 ± 1.2 $(+0.3\sigma)$
A_{143}^{dustTE}	0.225	0.225 ± 0.055 (-0.0σ)	z_{drag}	1059.59	1059.83 ± 0.78 (-0.6σ)	χ_{plik}^2	2344.8	2361.2 ± 6.2 $(+0.3\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.667	0.664 ± 0.081 (-0.0σ)	r_{drag}	148.10	147.7 ± 2.8 $(+2.1\sigma)$	$\chi_{6\text{DF}}^2$	0.0474	0.069 ± 0.082 $(+0.2\sigma)$
A_{217}^{dustTE}	2.081	2.08 ± 0.27 (-0.0σ)	k_D	0.14020	0.1405 ± 0.0025 (-1.1σ)	χ_{MGS}^2	1.097	1.23 ± 0.47 (-0.1σ)
c_{100}	0.99974	0.99966 ± 0.00061 (-0.0σ)	$100\theta_D$	0.160470	0.16063 ± 0.00047 (-0.6σ)	χ_{DR12BAO}^2	4.80	5.1 ± 1.7 $(+0.1\sigma)$
c_{217}	0.99817	0.99817 ± 0.00063 (-0.0σ)	z_{eq}	3390.9	3389 ± 33 $(+0.1\sigma)$	χ_{prior}^2	1.48	11.6 ± 4.5 $(+0.0\sigma)$
H_0	67.13	67.4 ± 1.6 (-0.5σ)	k_{eq}	0.010291	0.01031 ± 0.00016 (-0.3σ)	χ_{BAO}^2	5.94	6.4 ± 1.4 $(+0.1\sigma)$
Ω_Λ	0.6873	0.6882 ± 0.0072 (-0.1σ)	$100\theta_{\text{eq}}$	0.8153	0.8158 ± 0.0056 (-0.1σ)	χ_{CMB}^2	2764.2	2781.9 ± 6.0 $(+0.3\sigma)$
Ω_m	0.3127	0.3118 ± 0.0072 $(+0.1\sigma)$	$100\theta_{s,\text{eq}}$	0.45045	0.4507 ± 0.0029 (-0.1σ)			
$\Omega_m h^2$	0.14094	0.1417 ± 0.0049 (-0.7σ)	$H(0.15)$	72.40	72.7 ± 1.6 (-0.7σ)			

Best-fit $\chi_{\text{eff}}^2 = 2771.61$; $\Delta\chi_{\text{eff}}^2 = -0.31$; $\bar{\chi}_{\text{eff}}^2 = 2799.87$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.96$; $R - 1 = 0.02630$

χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.80 (Δ 0.39) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.16 (Δ -0.04) commander_dx12_v3_2_29: 23.25 (Δ 0.38) plik_rd12_HM_v22b_TTTEEE: 2344.78 (Δ -0.73)

11.11 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022215	0.02224 ± 0.00022 (-0.9σ)	$\Omega_{\mathrm{m}}h^2$	0.13914	$0.1400^{+0.0042}_{-0.0049}$ (-2.7σ)	$100\theta_{\mathrm{s,eq}}$	0.44698	0.4474 ± 0.0038 (-0.8σ)
$\Omega_{\mathrm{c}}h^2$	0.11628	$0.1171^{+0.0042}_{-0.0049}$ (-2.5σ)	$\Omega_{\mathrm{m}}h^3$	0.0914	$0.0925^{+0.0048}_{-0.0059}$ (-12.8σ)	$H(0.15)$	71.01	$71.3^{+1.7}_{-1.9}$ (-2.9σ)
$100\theta_{\mathrm{MC}}$	1.04151	1.0415 ± 0.0012 $(+1.8\sigma)$	σ_8	0.8019	0.803 ± 0.011 (-1.3σ)	$D_{\mathrm{M}}(0.15)$	659.0	656 ± 17 $(+2.8\sigma)$
τ	0.0539	0.0535 ± 0.0076 (-0.1σ)	S_8	0.8312	0.831 ± 0.013 (-0.0σ)	$H(0.38)$	81.14	$81.5^{+1.7}_{-2.0}$ (-4.1σ)
N_{eff}	2.787	$2.84^{+0.27}_{-0.32}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4552	0.4552 ± 0.0071 (-0.0σ)	$D_{\mathrm{M}}(0.38)$	1569.1	1563 ± 39 $(+3.2\sigma)$
Y_{P}	0.2458	0.247 ± 0.018	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042	0.6046 ± 0.0076 (-0.5σ)	$H(0.51)$	87.85	$88.2^{+1.8}_{-2.0}$ (-5.3σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0349	3.036 ± 0.018 (-0.6σ)	$\sigma_8/h^{0.5}$	0.9893	0.9886 ± 0.0095 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	2030.9	2023 ± 49 $(+3.4\sigma)$
n_{s}	0.9583	0.9589 ± 0.0085 (-1.4σ)	$r_{\mathrm{drag}}h$	98.28	98.4 ± 1.2 (-0.7σ)	$H(0.61)$	93.46	$93.8^{+1.8}_{-2.1}$ (-6.6σ)
y_{cal}	1.00046	1.0007 ± 0.0024 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4559	2.454 ± 0.024 $(+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	2362	2353 ± 56 $(+3.6\sigma)$
A_{217}^{CIB}	44.0	46 ± 7 (-0.1σ)	z_{re}	7.60	7.55 ± 0.77 (-0.2σ)	$H(2.33)$	233.12	$233.8^{+3.7}_{-4.2}$ (-3.9σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.89	—	$10^9 A_{\mathrm{s}}$	2.0799	2.082 ± 0.037 (-0.6σ)	$D_{\mathrm{M}}(2.33)$	5872	5853 ± 120 $(+8.6\sigma)$
A_{143}^{tSZ}	6.95	$5.6^{+2.1}_{-1.9}$ $(+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8673	1.871 ± 0.019 (-1.2σ)	$f\sigma_8(0.15)$	0.4589	0.4589 ± 0.0067 (-0.1σ)
A_{100}^{PS}	243.8	256 ± 28 (-0.1σ)	D_{40}	1237.7	1238 ± 16 $(+0.5\sigma)$	$\sigma_8(0.15)$	0.7399	0.741 ± 0.011 (-1.5σ)
A_{143}^{PS}	51.6	45 ± 8 (-0.2σ)	D_{220}	5729.7	5734 ± 38 (-0.0σ)	$f\sigma_8(0.38)$	0.4747	0.4749 ± 0.0060 (-0.4σ)
$A_{143 \times 217}^{\mathrm{PS}}$	57.1	42 ± 9 (-0.0σ)	D_{810}	2538.7	2538 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6547	0.656 ± 0.010 (-1.6σ)
A_{217}^{PS}	123.5	115 ± 10 $(+0.1\sigma)$	D_{1420}	819.62	817.9 ± 4.7 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4720	0.4724 ± 0.0059 (-0.6σ)
A^{kSZ}	0.00	< 3.96 (-0.1σ)	D_{2000}	232.44	231.6 ± 1.8 $(+0.4\sigma)$	$\sigma_8(0.51)$	0.6123	0.614 ± 0.010 (-1.7σ)
$A_{100}^{\mathrm{dustTT}}$	8.71	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9583	0.9589 ± 0.0085 (-1.4σ)	$f\sigma_8(0.61)$	0.4663	0.4667 ± 0.0059 (-0.8σ)
$A_{143}^{\mathrm{dustTT}}$	10.92	10.8 ± 1.8 (-0.1σ)	Y_{P}	0.2458	0.247 ± 0.018 $(+33.8\sigma)$	$\sigma_8(0.61)$	0.5823	0.5836 ± 0.0097 (-1.7σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.27	18.5 ± 3.3 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2472	0.249 ± 0.018 $(+33.7\sigma)$	$f\sigma_8(2.33)$	0.2932	0.2939 ± 0.0051 (-1.7σ)
$A_{217}^{\mathrm{dustTT}}$	96.0	93.9 ± 7.2 $(+0.1\sigma)$	Age/Gyr	14.056	14.01 ± 0.28 $(+9.1\sigma)$	$\sigma_8(2.33)$	0.3018	0.3026 ± 0.0056 (-1.8σ)
$A_{100}^{\mathrm{dustTE}}$	0.1139	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.692	1089.82 ± 0.44 (-0.4σ)	f_{2000}^{143}	27.34	28.8 ± 3.1 (-0.3σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1353	0.135 ± 0.029 $(+0.0\sigma)$	r_*	146.84	146.4 ± 2.7 $(+7.5\sigma)$	$f_{2000}^{143 \times 217}$	30.98	31.6 ± 2.2 (-0.3σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.483	0.483 ± 0.084 $(+0.0\sigma)$	$100\theta_*$	1.04177	1.04166 ± 0.00092 $(+1.8\sigma)$	f_{2000}^{217}	105.51	106.6 ± 2.1 (-0.3σ)
$A_{143}^{\mathrm{dustTE}}$	0.227	0.225 ± 0.054 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.096	14.05 ± 0.25 $(+7.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.49	9.01 ± 0.75 (-0.3σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.667	0.667 ± 0.080 (-0.0σ)	z_{drag}	1059.25	1059.42 ± 0.84 (-1.7σ)	χ_{small}^2	396.03	396.9 ± 1.6 (-0.0σ)
$A_{217}^{\mathrm{dustTE}}$	2.090	2.09 ± 0.27 $(+0.0\sigma)$	r_{drag}	149.59	149.1 ± 2.8 $(+7.7\sigma)$	χ_{lowl}^2	24.24	24.3 ± 1.5 $(+0.9\sigma)$
c_{100}	0.99974	0.99968 ± 0.00061 $(+0.0\sigma)$	k_{D}	0.13899	$0.1393^{+0.0023}_{-0.0026}$ (-5.2σ)	χ_{plik}^2	2343.0	2359.9 ± 6.0 $(+0.1\sigma)$
c_{217}	0.99817	0.99817 ± 0.00063 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.160353	0.16052 ± 0.00048 (-1.4σ)	χ_{prior}^2	1.47	11.5 ± 4.5 (-0.0σ)
H_0	65.70	$66.0^{+1.7}_{-1.9}$ (-2.5σ)	z_{eq}	3428.5	3425 ± 42 $(+0.9\sigma)$	χ_{CMB}^2	2771.8	2790.2 ± 6.2 $(+0.2\sigma)$
Ω_{Λ}	0.6777	0.679 ± 0.010 (-0.8σ)	k_{eq}	0.010281	$0.01030^{+0.00013}_{-0.00015}$ (-1.0σ)			
Ω_{m}	0.3223	0.321 ± 0.010 $(+0.8\sigma)$	$100\theta_{\mathrm{eq}}$	0.8085	0.8092 ± 0.0074 (-0.8σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2773.24$; $\Delta\chi_{\mathrm{eff}}^2 = -1.39$; $\bar{\chi}_{\mathrm{eff}}^2 = 2801.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.95$; $R - 1 = 0.01539$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.49 (Δ -0.37) small_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ -0.02) commander_dx12_v3_2_29: 24.23 (Δ 0.98) plik_rd12_HM_v22b_TTTEEE: 2343.02 (Δ -1.91)

11.12 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022358	0.02238 ± 0.00019 (-0.3σ)	$\Omega_{\mathrm{m}}h^2$	0.14037	0.1412 ± 0.0046 (-1.4σ)	$100\theta_{\mathrm{s,eq}}$	0.45028	0.4504 ± 0.0028 (-0.2σ)
$\Omega_{\mathrm{c}}h^2$	0.11736	0.1182 ± 0.0045 (-1.3σ)	$\Omega_{\mathrm{m}}h^3$	0.0940	$0.0950^{+0.0048}_{-0.0054}$ (-4.6σ)	$H(0.15)$	72.24	72.5 ± 1.6 (-1.3σ)
$100\theta_{\mathrm{MC}}$	1.04126	1.0412 ± 0.0012 $(+0.7\sigma)$	σ_8	0.8054	0.807 ± 0.011 (-0.5σ)	$D_{\mathrm{M}}(0.15)$	647.1	645 ± 14 $(+1.2\sigma)$
τ	0.0563	0.0562 ± 0.0073 $(+0.0\sigma)$	S_8	0.8225	0.824 ± 0.012 (-0.1σ)	$H(0.38)$	82.30	82.6 ± 1.7 (-1.8σ)
N_{eff}	2.926	2.97 ± 0.29	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4505	0.4511 ± 0.0063 (-0.1σ)	$D_{\mathrm{M}}(0.38)$	1543.0	1538 ± 33 $(+1.4\sigma)$
Y_{P}	0.2443	0.245 ± 0.018	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6024	0.6033 ± 0.0077 (-0.3σ)	$H(0.51)$	88.98	89.3 ± 1.7 (-2.3σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0426	3.044 ± 0.017 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9841	0.9843 ± 0.0090 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	1998.6	1993 ± 42 $(+1.5\sigma)$
n_{s}	0.9644	0.9644 ± 0.0071 (-0.6σ)	$r_{\mathrm{drag}}h$	99.42	99.46 ± 0.85 (-0.2σ)	$H(0.61)$	94.57	94.9 ± 1.8 (-2.8σ)
y_{cal}	1.00073	1.0008 ± 0.0024 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4386	2.440 ± 0.021 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	2325.5	2319 ± 49 $(+1.6\sigma)$
A_{217}^{CIB}	44.4	46 ± 7 (-0.1σ)	z_{re}	7.83	7.82 ± 0.73 $(+0.0\sigma)$	$H(2.33)$	234.43	235.1 ± 3.9 (-1.9σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.80	—	$10^9 A_{\mathrm{s}}$	2.0959	2.099 ± 0.035 (-0.2σ)	$D_{\mathrm{M}}(2.33)$	5808	5791 ± 110 $(+3.7\sigma)$
A_{143}^{tSZ}	7.00	$5.6^{+2.1}_{-1.9}$ $(+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8727	1.875 ± 0.019 (-0.5σ)	$f\sigma_8(0.15)$	0.4550	0.4556 ± 0.0062 (-0.2σ)
A_{100}^{PS}	244.8	257 ± 28 (-0.1σ)	D_{40}	1229.6	1231 ± 14 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7441	0.746 ± 0.011 (-0.6σ)
A_{143}^{PS}	50.5	45 ± 8 (-0.1σ)	D_{220}	5736.6	5741 ± 37 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4729	0.4736 ± 0.0060 (-0.3σ)
$A_{143 \times 217}^{\mathrm{PS}}$	55.2	42 ± 9 (-0.0σ)	D_{810}	2540.5	2539 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6595	0.6609 ± 0.0098 (-0.6σ)
A_{217}^{PS}	123.0	115.2 ± 9.8 $(+0.0\sigma)$	D_{1420}	820.11	818.4 ± 4.7 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4713	0.4721 ± 0.0060 (-0.3σ)
A^{kSZ}	0.00	< 3.94 (-0.1σ)	D_{2000}	232.36	231.5 ± 1.8 $(+0.3\sigma)$	$\sigma_8(0.51)$	0.6171	0.6184 ± 0.0094 (-0.6σ)
$A_{100}^{\mathrm{dustTT}}$	8.82	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9644	0.9644 ± 0.0071 (-0.6σ)	$f\sigma_8(0.61)$	0.4663	0.4671 ± 0.0060 (-0.4σ)
$A_{143}^{\mathrm{dustTT}}$	10.98	10.8 ± 1.8 (-0.0σ)	Y_{P}	0.2443	0.245 ± 0.018 (-6.2σ)	$\sigma_8(0.61)$	0.5871	0.5884 ± 0.0090 (-0.6σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.22	18.6 ± 3.2 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2456	0.246 ± 0.018 (-6.2σ)	$f\sigma_8(2.33)$	0.29600	0.2967 ± 0.0047 (-0.6σ)
$A_{217}^{\mathrm{dustTT}}$	96.0	93.9 ± 7.2 $(+0.1\sigma)$	Age/Gyr	13.904	13.86 ± 0.26 $(+3.9\sigma)$	$\sigma_8(2.33)$	0.3051	0.3058 ± 0.0050 (-0.6σ)
$A_{100}^{\mathrm{dustTE}}$	0.1152	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.607	1089.71 ± 0.43 (-0.4σ)	$\chi_{\mathrm{lensing}}^2$	8.56	9.06 ± 0.70 (-0.1σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1336	0.135 ± 0.030 (-0.0σ)	r_*	145.73	145.3 ± 2.6 $(+3.5\sigma)$	χ_{small}^2	396.43	397.3 ± 1.9 $(+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.484	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.04150	1.04141 ± 0.00089 $(+0.8\sigma)$	χ_{lowl}^2	23.32	23.5 ± 1.2 $(+0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	0.223	0.224 ± 0.054 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.993	13.96 ± 0.24 $(+3.4\sigma)$	χ_{plik}^2	2344.5	2360.6 ± 6.0 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.665	0.664 ± 0.081 (-0.0σ)	z_{drag}	1059.63	1059.78 ± 0.78 (-0.8σ)	$\chi_{6\mathrm{DF}}^2$	0.0477	0.074 ± 0.083 $(+0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.080	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	148.42	148.0 ± 2.7 $(+3.5\sigma)$	χ_{MGS}^2	1.097	1.18 ± 0.45 (-0.2σ)
c_{100}	0.99975	0.99967 ± 0.00061 $(+0.0\sigma)$	k_{D}	0.13991	0.1402 ± 0.0024 (-2.0σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.79	5.2 ± 1.7 $(+0.3\sigma)$
c_{217}	0.99816	0.99816 ± 0.00063 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.160471	0.16060 ± 0.00047 (-0.7σ)	χ_{prior}^2	1.48	11.6 ± 4.5 $(+0.0\sigma)$
H_0	66.98	67.2 ± 1.6 (-1.1σ)	z_{eq}	3393.4	3393 ± 32 $(+0.3\sigma)$	χ_{CMB}^2	2772.8	2790.5 ± 6.0 $(+0.2\sigma)$
Ω_{Λ}	0.6872	0.6875 ± 0.0071 (-0.3σ)	k_{eq}	0.010274	0.01030 ± 0.00014 (-0.6σ)	χ_{BAO}^2	5.94	6.4 ± 1.4 $(+0.3\sigma)$
Ω_{m}	0.3128	0.3125 ± 0.0071 $(+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	0.8150	0.8152 ± 0.0055 (-0.2σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2780.20$; $\Delta\chi_{\mathrm{eff}}^2 = -0.50$; $\bar{\chi}_{\mathrm{eff}}^2 = 2808.46$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.62$; $R - 1 = 0.02254$
 χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.79 (Δ 0.37) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p-teb_consext8: 8.56 (Δ -0.17) small_100x143_offlike5_EE_Aplanck 396.44 (Δ -0.09) commander_dx12_v3.2.29: 23.32 (Δ 0.42) plik_rd12_HM_v22b_TTTEEE: 2344.47 (Δ -0.85)

11.13 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00022 \quad (-0.7\sigma)$	Ω_{m}	$0.321 \pm 0.011 \quad (+0.5\sigma)$	k_{eq}	$0.01033 \pm 0.00016 \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1179^{+0.0045}_{-0.0050} \quad (-1.6\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1409^{+0.0045}_{-0.0051} \quad (-1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8097 \pm 0.0078 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0413 \pm 0.0012 \quad (+1.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0935^{+0.0050}_{-0.0060} \quad (-9.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4476 \pm 0.0040 \quad (-0.5\sigma)$
τ	$0.0550^{+0.0051}_{-0.0083} \quad (-0.1\sigma)$	σ_8	$0.807 \pm 0.012 \quad (-0.9\sigma)$	$H(0.15)$	$71.6^{+1.7}_{-2.0} \quad (-1.9\sigma)$
N_{eff}	$2.89^{+0.29}_{-0.33}$	S_8	$0.834 \pm 0.017 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$654 \pm 17 \quad (+1.9\sigma)$
Y_{P}	0.246 ± 0.018	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4567 \pm 0.0091 \quad (-0.0\sigma)$	$H(0.38)$	$81.8^{+1.8}_{-2.0} \quad (-2.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.015}_{-0.019} \quad (-0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6070 \pm 0.0095 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1557 \pm 39 \quad (+2.1\sigma)$
n_{s}	$0.9601 \pm 0.0085 \quad (-1.1\sigma)$	$\sigma_8/h^{0.5}$	$0.991 \pm 0.012 \quad (+0.0\sigma)$	$H(0.51)$	$88.5^{+1.8}_{-2.1} \quad (-3.6\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.5 \pm 1.3 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2015 \pm 50 \quad (+2.3\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.458 \pm 0.030 \quad (+0.3\sigma)$	$H(0.61)$	$94.2^{+1.9}_{-2.1} \quad (-4.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.72^{+0.57}_{-0.82} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2344 \pm 57 \quad (+2.5\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.032}_{-0.040} \quad (-0.4\sigma)$	$H(2.33)$	$234.6 \pm 4.1 \quad (-2.6\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.874 \pm 0.020 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5832 \pm 120 \quad (+6.3\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1238 \pm 16 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.4605 \pm 0.0085 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{220}	$5733 \pm 38 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.745 \pm 0.012 \quad (-1.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4767 \pm 0.0075 \quad (-0.3\sigma)$
A^{kSZ}	$< 3.97 \quad (-0.1\sigma)$	D_{1420}	$817.8 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.659 \pm 0.011 \quad (-1.1\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	D_{2000}	$231.5 \pm 1.8 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4743 \pm 0.0071 \quad (-0.4\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9601 \pm 0.0085 \quad (-1.1\sigma)$	$\sigma_8(0.51)$	$0.616 \pm 0.010 \quad (-1.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.246 \pm 0.018 \quad (+15.3\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0069 \quad (-0.5\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.9 \pm 7.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.248 \pm 0.018 \quad (+15.3\sigma)$	$\sigma_8(0.61)$	$0.5862 \pm 0.0099 \quad (-1.2\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	Age/Gyr	$13.96 \pm 0.29 \quad (+6.7\sigma)$	$f\sigma_8(2.33)$	$0.2953 \pm 0.0051 \quad (-1.3\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.85 \pm 0.45 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3040 \pm 0.0056 \quad (-1.3\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.483 \pm 0.084 \quad (+0.0\sigma)$	r_*	$145.9 \pm 2.8 \quad (+5.0\sigma)$	f_{2000}^{143}	$28.9 \pm 3.1 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04152 \pm 0.00094 \quad (+1.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.2 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.667 \pm 0.080 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.01 \pm 0.26 \quad (+4.9\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.51 \pm 0.83 \quad (-1.4\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$148.6 \pm 2.9 \quad (+5.3\sigma)$	χ_{lowl}^2	$24.3 \pm 1.5 \quad (+0.7\sigma)$
c_{217}	$0.99818 \pm 0.00063 \quad (-0.0\sigma)$	k_{D}	$0.1397^{+0.0024}_{-0.0027} \quad (-3.7\sigma)$	χ_{plik}^2	$2360.1 \pm 6.1 \quad (+0.1\sigma)$
H_0	$66.3^{+1.7}_{-2.0} \quad (-1.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16057 \pm 0.00047 \quad (-1.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.679 \pm 0.011 \quad (-0.5\sigma)$	z_{eq}	$3422 \pm 44 \quad (+0.5\sigma)$	χ_{CMB}^2	$2781.4 \pm 6.1 \quad (+0.3\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2792.90$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.36$; $R - 1 = 0.01223$

11.14 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00019 \quad (-0.2\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0956 \pm 0.0054 \quad (-2.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$643 \pm 15 \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1186 \pm 0.0048 \quad (-0.6\sigma)$	σ_8	$0.808 \pm 0.013 \quad (-0.3\sigma)$	$H(0.38)$	$82.8 \pm 1.7 \quad (-0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0411 \pm 0.0012 \quad (+0.4\sigma)$	S_8	$0.824 \pm 0.014 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534 \pm 34 \quad (+0.8\sigma)$
τ	$0.0564^{+0.0059}_{-0.0082} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4511 \pm 0.0078 \quad (-0.1\sigma)$	$H(0.51)$	$89.5 \pm 1.8 \quad (-1.2\sigma)$
N_{eff}	3.01 ± 0.30	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6038 \pm 0.0093 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1987 \pm 43 \quad (+0.8\sigma)$
Y_{P}	0.244 ± 0.018	$\sigma_8/h^{0.5}$	$0.984 \pm 0.011 \quad (-0.1\sigma)$	$H(0.61)$	$95.1 \pm 1.9 \quad (-1.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.016}_{-0.019} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.56 \pm 0.88 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2312 \pm 49 \quad (+0.9\sigma)$
n_{s}	$0.9653 \pm 0.0071 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.025 \quad (+0.1\sigma)$	$H(2.33)$	$235.5 \pm 4.1 \quad (-1.0\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	$7.85^{+0.64}_{-0.82} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5778 \pm 110 \quad (+2.2\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.033}_{-0.041} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0076 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.020 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.747 \pm 0.012 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1230 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4739 \pm 0.0073 \quad (-0.2\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5738 \pm 38 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.662 \pm 0.011 \quad (-0.4\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0072 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.1 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.619 \pm 0.010 \quad (-0.4\sigma)$
A_{217}^{PS}	$115.0 \pm 9.9 \quad (+0.0\sigma)$	D_{2000}	$231.4 \pm 1.8 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4676 \pm 0.0071 \quad (-0.3\sigma)$
A^{kSZ}	$< 4.03 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9653 \pm 0.0071 \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.5895 \pm 0.0098 \quad (-0.4\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.244 \pm 0.018 \quad (-18.0\sigma)$	$f\sigma_8(2.33)$	$0.2972 \pm 0.0050 \quad (-0.4\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246 \pm 0.018 \quad (-18.0\sigma)$	$\sigma_8(2.33)$	$0.3064 \pm 0.0053 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	Age/Gyr	$13.83 \pm 0.27 \quad (+2.3\sigma)$	f_{2000}^{143}	$29.0 \pm 3.1 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.8 \pm 7.1 \quad (+0.0\sigma)$	z_*	$1089.73 \pm 0.44 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.2 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$145.0 \pm 2.7 \quad (+2.0\sigma)$	f_{2000}^{217}	$106.7 \pm 2.1 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$100\theta_*$	$1.04133 \pm 0.00092 \quad (+0.5\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (-0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.93 \pm 0.25 \quad (+1.9\sigma)$	χ_{lowl}^2	$23.4 \pm 1.2 \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1059.84 \pm 0.78 \quad (-0.6\sigma)$	χ_{plik}^2	$2361.0 \pm 6.1 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$147.7 \pm 2.8 \quad (+2.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.068 \pm 0.080 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	k_{D}	$0.1405 \pm 0.0025 \quad (-1.1\sigma)$	χ_{MGS}^2	$1.23 \pm 0.47 \quad (-0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16064 \pm 0.00047 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.1 \pm 1.7 \quad (+0.1\sigma)$
c_{217}	$0.99817 \pm 0.00064 \quad (-0.0\sigma)$	z_{eq}	$3389 \pm 33 \quad (+0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
H_0	$67.4 \pm 1.6 \quad (-0.5\sigma)$	k_{eq}	$0.01031 \pm 0.00016 \quad (-0.3\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6883 \pm 0.0072 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8159 \pm 0.0056 \quad (-0.1\sigma)$	χ_{CMB}^2	$2781.7 \pm 6.0 \quad (+0.3\sigma)$
Ω_{m}	$0.3117 \pm 0.0072 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0029 \quad (-0.1\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1417 \pm 0.0048 \quad (-0.7\sigma)$	$H(0.15)$	$72.7 \pm 1.6 \quad (-0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.64; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.93; R - 1 = 0.02640$$

11.15 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02225 \pm 0.00022 \quad (-0.9\sigma)$	$\Omega_{\text{m}}h^2$	$0.1400^{+0.0042}_{-0.0049} \quad (-2.7\sigma)$	$100\theta_{\text{s,eq}}$	$0.4476 \pm 0.0037 \quad (-0.8\sigma)$
$\Omega_{\text{c}}h^2$	$0.1171^{+0.0042}_{-0.0048} \quad (-2.5\sigma)$	$\Omega_{\text{m}}h^3$	$0.0926^{+0.0048}_{-0.0058} \quad (-12.5\sigma)$	$H(0.15)$	$71.4^{+1.7}_{-1.9} \quad (-2.9\sigma)$
$100\theta_{\text{MC}}$	$1.0415 \pm 0.0012 \quad (+1.8\sigma)$	σ_8	$0.804 \pm 0.011 \quad (-1.3\sigma)$	$D_{\text{M}}(0.15)$	$656 \pm 17 \quad (+2.8\sigma)$
τ	$0.0547^{+0.0050}_{-0.0078} \quad (-0.1\sigma)$	S_8	$0.831 \pm 0.013 \quad (-0.0\sigma)$	$H(0.38)$	$81.5^{+1.7}_{-2.0} \quad (-4.0\sigma)$
N_{eff}	$2.85^{+0.27}_{-0.32}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4552 \pm 0.0071 \quad (-0.0\sigma)$	$D_{\text{M}}(0.38)$	$1561 \pm 39 \quad (+3.1\sigma)$
Y_{P}	0.248 ± 0.018	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6050 \pm 0.0076 \quad (-0.5\sigma)$	$H(0.51)$	$88.3^{+1.8}_{-2.0} \quad (-5.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.038^{+0.014}_{-0.017} \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.9892 \pm 0.0093 \quad (+0.0\sigma)$	$D_{\text{M}}(0.51)$	$2021 \pm 49 \quad (+3.4\sigma)$
n_{s}	$0.9594 \pm 0.0083 \quad (-1.4\sigma)$	$r_{\text{drag}}h$	$98.5 \pm 1.2 \quad (-0.7\sigma)$	$H(0.61)$	$93.9^{+1.8}_{-2.1} \quad (-6.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.024 \quad (+0.4\sigma)$	$D_{\text{M}}(0.61)$	$2351 \pm 56 \quad (+3.6\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	z_{re}	$7.68^{+0.54}_{-0.79} \quad (-0.1\sigma)$	$H(2.33)$	$233.8^{+3.7}_{-4.2} \quad (-3.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.087^{+0.030}_{-0.037} \quad (-0.6\sigma)$	$D_{\text{M}}(2.33)$	$5850 \pm 120 \quad (+8.5\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.9} \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.870 \pm 0.019 \quad (-1.2\sigma)$	$f\sigma_8(0.15)$	$0.4590 \pm 0.0067 \quad (-0.1\sigma)$
A_{100}^{PS}	$256 \pm 28 \quad (-0.1\sigma)$	D_{40}	$1238 \pm 15 \quad (+0.5\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.011 \quad (-1.5\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.2\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0060 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.657 \pm 0.010 \quad (-1.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	D_{1420}	$817.9 \pm 4.7 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4728 \pm 0.0058 \quad (-0.6\sigma)$
A^{kSZ}	$< 3.96 \quad (-0.1\sigma)$	D_{2000}	$231.5 \pm 1.8 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6144 \pm 0.0097 \quad (-1.7\sigma)$
$A_{100}^{\text{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9594 \pm 0.0083 \quad (-1.4\sigma)$	$f\sigma_8(0.61)$	$0.4671 \pm 0.0058 \quad (-0.8\sigma)$
$A_{143}^{\text{dust}TT}$	$10.8 \pm 1.8 \quad (-0.1\sigma)$	Y_{P}	$0.248 \pm 0.018 \quad (+38.6\sigma)$	$\sigma_8(0.61)$	$0.5844 \pm 0.0094 \quad (-1.7\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.5 \pm 3.2 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.249 \pm 0.018 \quad (+38.5\sigma)$	$f\sigma_8(2.33)$	$0.2944 \pm 0.0049 \quad (-1.8\sigma)$
$A_{217}^{\text{dust}TT}$	$93.9 \pm 7.2 \quad (+0.1\sigma)$	Age/Gyr	$14.00 \pm 0.28 \quad (+8.9\sigma)$	$\sigma_8(2.33)$	$0.3031 \pm 0.0054 \quad (-1.8\sigma)$
$A_{100}^{\text{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.81 \pm 0.44 \quad (-0.4\sigma)$	f_{2000}^{143}	$28.8 \pm 3.1 \quad (-0.3\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$146.4 \pm 2.7 \quad (+7.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.2 \quad (-0.3\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.483 \pm 0.084 \quad (+0.0\sigma)$	$100\theta_*$	$1.04166 \pm 0.00092 \quad (+1.8\sigma)$	f_{2000}^{217}	$106.5 \pm 2.1 \quad (-0.3\sigma)$
$A_{143}^{\text{dust}TE}$	$0.225 \pm 0.054 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$14.05 \pm 0.25 \quad (+7.3\sigma)$	χ_{lensing}^2	$9.00 \pm 0.75 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.666 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.46 \pm 0.83 \quad (-1.6\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
$A_{217}^{\text{dust}TE}$	$2.09 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$149.1 \pm 2.8 \quad (+7.6\sigma)$	χ_{lowl}^2	$24.3 \pm 1.5 \quad (+0.8\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.1393^{+0.0023}_{-0.0026} \quad (-5.2\sigma)$	χ_{plik}^2	$2359.7 \pm 6.0 \quad (+0.1\sigma)$
c_{217}	$0.99817 \pm 0.00063 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16053 \pm 0.00048 \quad (-1.3\sigma)$	χ_{prior}^2	$11.4 \pm 4.5 \quad (-0.0\sigma)$
H_0	$66.1^{+1.7}_{-1.9} \quad (-2.4\sigma)$	z_{eq}	$3423 \pm 41 \quad (+0.8\sigma)$	χ_{CMB}^2	$2789.9 \pm 6.1 \quad (+0.2\sigma)$
Ω_{Λ}	$0.679 \pm 0.010 \quad (-0.8\sigma)$	k_{eq}	$0.01030 \pm 0.00014 \quad (-1.0\sigma)$		
Ω_{m}	$0.321 \pm 0.010 \quad (+0.8\sigma)$	$100\theta_{\text{eq}}$	$0.8097 \pm 0.0072 \quad (-0.8\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2801.36; \Delta\bar{\chi}_{\text{eff}}^2 = 0.85; R - 1 = 0.01489$$

11.16 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238 \pm 0.00019 \quad (-0.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0950 \pm 0.0051 \quad (-4.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$645 \pm 14 \quad (+1.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0045 \quad (-1.3\sigma)$	σ_8	$0.807 \pm 0.011 \quad (-0.5\sigma)$	$H(0.38)$	$82.6 \pm 1.7 \quad (-1.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0412 \pm 0.0012 \quad (+0.7\sigma)$	S_8	$0.824 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1538 \pm 33 \quad (+1.4\sigma)$
τ	$0.0568^{+0.0060}_{-0.0076} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0063 \quad (-0.1\sigma)$	$H(0.51)$	$89.3 \pm 1.7 \quad (-2.3\sigma)$
N_{eff}	2.97 ± 0.29	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6036 \pm 0.0076 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1993 \pm 42 \quad (+1.5\sigma)$
Y_{P}	0.245 ± 0.018	$\sigma_8/h^{0.5}$	$0.9847 \pm 0.0088 \quad (-0.1\sigma)$	$H(0.61)$	$94.9 \pm 1.8 \quad (-2.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.015}_{-0.017} \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.48 \pm 0.84 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2318 \pm 49 \quad (+1.6\sigma)$
n_{s}	$0.9645 \pm 0.0071 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.021 \quad (+0.1\sigma)$	$H(2.33)$	$235.1 \pm 3.9 \quad (-1.9\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.88^{+0.64}_{-0.74} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5791 \pm 110 \quad (+3.8\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.030}_{-0.036} \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0061 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.875 \pm 0.019 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.746 \pm 0.011 \quad (-0.6\sigma)$
A_{143}^{tSZ}	$5.6^{+2.1}_{-1.9} \quad (+0.1\sigma)$	D_{40}	$1231 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4738 \pm 0.0060 \quad (-0.3\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5740 \pm 37 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6612 \pm 0.0097 \quad (-0.6\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4723 \pm 0.0060 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$818.3 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6187 \pm 0.0093 \quad (-0.6\sigma)$
A_{217}^{PS}	$115.2 \pm 9.9 \quad (+0.0\sigma)$	D_{2000}	$231.5 \pm 1.8 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4673 \pm 0.0060 \quad (-0.4\sigma)$
A^{kSZ}	$< 3.95 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9645 \pm 0.0071 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.5887 \pm 0.0089 \quad (-0.6\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245 \pm 0.018 \quad (-3.1\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0046 \quad (-0.7\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.247 \pm 0.018 \quad (-3.2\sigma)$	$\sigma_8(2.33)$	$0.3060 \pm 0.0050 \quad (-0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	Age/Gyr	$13.86 \pm 0.26 \quad (+3.9\sigma)$	f_{2000}^{143}	$28.9 \pm 3.1 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.9 \pm 7.2 \quad (+0.0\sigma)$	z_*	$1089.71 \pm 0.43 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.2 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$145.3 \pm 2.6 \quad (+3.6\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (-0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	$100\theta_*$	$1.04141 \pm 0.00089 \quad (+0.8\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.03 \pm 0.66 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.96 \pm 0.24 \quad (+3.4\sigma)$	χ_{small}^2	$397.3 \pm 1.9 \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1059.79 \pm 0.78 \quad (-0.7\sigma)$	χ_{lowl}^2	$23.5 \pm 1.2 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.665 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$148.0 \pm 2.7 \quad (+3.5\sigma)$	χ_{plik}^2	$2360.5 \pm 6.0 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	k_{D}	$0.1402 \pm 0.0024 \quad (-2.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.072 \pm 0.081 \quad (+0.3\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16060 \pm 0.00047 \quad (-0.7\sigma)$	χ_{MGS}^2	$1.19 \pm 0.44 \quad (-0.2\sigma)$
c_{217}	$0.99816 \pm 0.00063 \quad (-0.0\sigma)$	z_{eq}	$3392 \pm 32 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.1 \pm 1.7 \quad (+0.3\sigma)$
H_0	$67.2 \pm 1.6 \quad (-1.1\sigma)$	k_{eq}	$0.01030 \pm 0.00014 \quad (-0.6\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6876 \pm 0.0070 \quad (-0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8153 \pm 0.0055 \quad (-0.2\sigma)$	χ_{CMB}^2	$2790.3 \pm 6.0 \quad (+0.2\sigma)$
Ω_{m}	$0.3124 \pm 0.0070 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0028 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.4 \pm 1.4 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1412 \pm 0.0046 \quad (-1.4\sigma)$	$H(0.15)$	$72.5 \pm 1.6 \quad (-1.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2808.31; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.59; R - 1 = 0.02301$$

11.17 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022190	0.02222 ± 0.00023 (-0.5σ)	$\Omega_{\mathrm{m}}h^3$	0.0905	$0.0915^{+0.0049}_{-0.0059}$ (-14.9σ)	$100\theta_{\mathrm{eq}}$	0.8098	0.8107 ± 0.0079 (-0.7σ)
$\Omega_{\mathrm{c}}h^2$	0.11508	$0.1157^{+0.0044}_{-0.0050}$ (-2.8σ)	σ_8	0.7983	0.800 ± 0.013 (-1.1σ)	$100\theta_{\mathrm{s,eq}}$	0.44771	0.4481 ± 0.0040 (-0.7σ)
$100\theta_{\mathrm{MC}}$	1.04185	1.0419 ± 0.0014 $(+3.2\sigma)$	S_8	0.8246	0.824 ± 0.016 (-0.2σ)	$H(0.15)$	70.90	71.2 ± 1.9 (-2.8σ)
τ	0.0527	0.0525 ± 0.0080 (-0.0σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4516	0.4515 ± 0.0089 (-0.2σ)	$D_{\mathrm{M}}(0.15)$	659.9	657 ± 18 $(+2.7\sigma)$
N_{eff}	2.738	$2.78^{+0.28}_{-0.33}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6004	0.6009 ± 0.0094 (-0.5σ)	$H(0.38)$	80.96	81.3 ± 1.9 (-4.1σ)
Y_{P}	0.2548	$0.256^{+0.024}_{-0.021}$	$\sigma_8/h^{0.5}$	0.9853	0.985 ± 0.012 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	1571.6	1566 ± 41 $(+3.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0295	3.031 ± 0.020 (-0.5σ)	$r_{\mathrm{drag}}h$	98.58	98.8 ± 1.3 (-0.5σ)	$H(0.51)$	87.63	$88.0^{+1.8}_{-2.1}$ (-5.4σ)
n_{s}	0.9609	0.9620 ± 0.0097 (-0.8σ)	$\langle d^2 \rangle^{1/2}$	2.4401	2.438 ± 0.031 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	2034	2027 ± 51 $(+3.4\sigma)$
y_{cal}	1.00029	1.0005 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.50	7.47 ± 0.83 (-0.1σ)	$H(0.61)$	93.20	$93.5^{+1.9}_{-2.1}$ (-7.0σ)
A_{100}^{PS}	232.0	240 ± 26 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.0687	2.072 ± 0.041 (-0.5σ)	$D_{\mathrm{M}}(0.61)$	2366	2358 ± 58 $(+3.6\sigma)$
A_{143}^{PS}	44.4	40 ± 9 $(+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8617	1.865 ± 0.021 (-1.2σ)	$H(2.33)$	232.16	$232.7^{+3.9}_{-4.4}$ (-4.2σ)
A_{217}^{PS}	106.8	102 ± 10 $(+0.0\sigma)$	D_{40}	1228.2	1228 ± 18 $(+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	5889	5872 ± 120 $(+9.4\sigma)$
A_{217}^{CIB}	39.8	40 ± 7 $(+0.0\sigma)$	D_{220}	5711.3	5715 ± 39 (-0.1σ)	$f\sigma_8(0.15)$	0.4555	0.4555 ± 0.0084 (-0.2σ)
A_{143}^{tSZ}	5.46	$3.8^{+1.9}_{-2.5}$ (-0.0σ)	D_{810}	2533.2	2533 ± 14 (-0.1σ)	$\sigma_8(0.15)$	0.7368	0.738 ± 0.012 (-1.2σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.731	0.66 ± 0.13 $(+0.0\sigma)$	D_{1420}	816.8	815.7 ± 5.2 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4716	0.4719 ± 0.0075 (-0.4σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.649	$0.56^{+0.39}_{-0.17}$ $(+0.0\sigma)$	D_{2000}	230.99	230.4 ± 2.3 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6522	0.654 ± 0.011 (-1.4σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.62	—	$n_{\mathrm{s},0.002}$	0.9609	0.9620 ± 0.0097 (-0.8σ)	$f\sigma_8(0.51)$	0.4693	0.4697 ± 0.0072 (-0.6σ)
A^{kSZ}	1.62	$4.7^{+2.0}_{-4.2}$ (-0.0σ)	Y_{P}	0.2548	$0.256^{+0.024}_{-0.021}$ $(+173.0\sigma)$	$\sigma_8(0.51)$	0.6100	0.611 ± 0.011 (-1.4σ)
A_{100}^{dust}	0.994	1.01 ± 0.20 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2561	$0.258^{+0.024}_{-0.021}$ $(+172.9\sigma)$	$f\sigma_8(0.61)$	0.4637	0.4642 ± 0.0070 (-0.7σ)
A_{143}^{dust}	0.963	0.96 ± 0.17 (-0.0σ)	Age/Gyr	14.097	14.06 ± 0.30 $(+10.1\sigma)$	$\sigma_8(0.61)$	0.5802	0.582 ± 0.010 (-1.5σ)
A_{217}^{dust}	0.978	0.97 ± 0.10 (-0.0σ)	z_*	1089.96	1090.08 ± 0.61 $(+0.3\sigma)$	$f\sigma_8(2.33)$	0.2922	0.2930 ± 0.0055 (-1.5σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.046	1.02 ± 0.16 (-0.0σ)	r_*	147.41	147.1 ± 2.9 $(+8.0\sigma)$	$\sigma_8(2.33)$	0.3009	0.3018 ± 0.0059 (-1.6σ)
c_{100}	0.99771	0.9975 ± 0.0011 (-0.0σ)	$100\theta_*$	1.04190	1.04188 ± 0.00099 $(+2.6\sigma)$	f_{2000}^{143}	28.99	30 ± 4 $(+0.0\sigma)$
c_{217}	1.00096	1.0011 ± 0.0016 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.149	14.12 ± 0.27 $(+7.8\sigma)$	f_{2000}^{217}	106.16	107.0 ± 2.6 $(+0.0\sigma)$
c_{TE}	0.9966	0.9970 ± 0.0055 $(+0.0\sigma)$	z_{drag}	1059.36	1059.5 ± 1.0 (-0.6σ)	$f_{2000}^{143 \times 217}$	31.73	32.3 ± 2.9 $(+0.0\sigma)$
c_{EE}	0.9917	0.9926 ± 0.0066 $(+0.1\sigma)$	r_{drag}	150.19	149.8 ± 3.0 $(+8.2\sigma)$	χ_{small}^2	395.87	396.9 ± 1.7 (-0.0σ)
H_0	65.64	65.9 ± 1.9 (-2.4σ)	k_{D}	0.13817	$0.1384^{+0.0024}_{-0.0028}$ (-6.4σ)	χ_{lowl}^2	23.44	23.5 ± 1.6 $(+0.4\sigma)$
Ω_{Λ}	0.6799	$0.681^{+0.012}_{-0.010}$ (-0.6σ)	$100\theta_{\mathrm{D}}$	0.16070	0.16087 ± 0.00070 (-0.0σ)	$\chi_{\mathrm{CamSpec}}^2$	11498.8	11515.3 ± 6.1 $(+0.1\sigma)$
Ω_{m}	0.3201	$0.319^{+0.010}_{-0.012}$ $(+0.6\sigma)$	z_{eq}	3421.7	3418 ± 44 $(+0.8\sigma)$	χ_{prior}^2	1.94	7.9 ± 3.5 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.13791	$0.1386^{+0.0045}_{-0.0051}$ (-3.1σ)	k_{eq}	0.010225	0.01024 ± 0.00016 (-1.2σ)	χ_{CMB}^2	11918.1	11935.7 ± 6.2 $(+0.2\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.00$; $\Delta\chi_{\mathrm{eff}}^2 = -0.76$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.57$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.12$; $R - 1 = 0.00989$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ -0.03) commander_dx12_v3.2.29: 23.44 (Δ 0.44) CamSpec like_10.7HM_1400_unified: 11498.75 (Δ -0.90)

11.18 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00020 \quad (-0.1\sigma)$	S_8	$0.816 \pm 0.014 \quad (-0.2\sigma)$	$H(0.38)$	$82.2^{+1.6}_{-1.8} \quad (-3.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1164^{+0.0045}_{-0.0051} \quad (-2.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4472 \pm 0.0075 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1545 \pm 34 \quad (+2.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0418 \pm 0.0014 \quad (+2.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5988 \pm 0.0091 \quad (-0.4\sigma)$	$H(0.51)$	$88.8^{+1.7}_{-1.9} \quad (-4.0\sigma)$
τ	$0.0541 \pm 0.0077 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$2002 \pm 44 \quad (+2.4\sigma)$
N_{eff}	$2.88^{+0.27}_{-0.32}$	$r_{\mathrm{drag}}h$	$99.70 \pm 0.89 \quad (-0.1\sigma)$	$H(0.61)$	$94.4^{+1.8}_{-2.0} \quad (-5.0\sigma)$
Y_{P}	0.257 ± 0.022	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.026 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2330 \pm 50 \quad (+2.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.036 \pm 0.019 \quad (-0.2\sigma)$	z_{re}	$7.63 \pm 0.78 \quad (+0.0\sigma)$	$H(2.33)$	$233.6 \pm 4.1 \quad (-3.5\sigma)$
n_{s}	$0.9672 \pm 0.0078 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.082 \pm 0.039 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5823 \pm 110 \quad (+6.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.869 \pm 0.020 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4518 \pm 0.0073 \quad (-0.3\sigma)$
A_{100}^{PS}	$242 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1220 \pm 16 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.741 \pm 0.012 \quad (-0.7\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{220}	$5719 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4700 \pm 0.0072 \quad (-0.4\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.657 \pm 0.011 \quad (-0.7\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.1\sigma)$	D_{1420}	$815.7 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4687 \pm 0.0071 \quad (-0.4\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 2.3 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.615 \pm 0.010 \quad (-0.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9672 \pm 0.0078 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4639 \pm 0.0070 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.14} \quad (+0.1\sigma)$	Y_{P}	$0.257 \pm 0.022 \quad (+197.3\sigma)$	$\sigma_8(0.61)$	$0.5851 \pm 0.0098 \quad (-0.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.258 \pm 0.022 \quad (+197.2\sigma)$	$f\sigma_8(2.33)$	$0.2951 \pm 0.0050 \quad (-0.7\sigma)$
A^{kSZ}	—	Age/Gyr	$13.94 \pm 0.27 \quad (+6.9\sigma)$	$\sigma_8(2.33)$	$0.3042 \pm 0.0054 \quad (-0.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.05 \pm 0.59 \quad (+0.8\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.3\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	r_*	$146.3 \pm 2.8 \quad (+6.2\sigma)$	f_{2000}^{217}	$107.3 \pm 2.6 \quad (+0.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$100\theta_*$	$1.04170 \pm 0.00097 \quad (+1.8\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.8 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.04 \pm 0.26 \quad (+5.9\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.91 \pm 0.90 \quad (+0.4\sigma)$	χ_{lowl}^2	$22.7 \pm 1.2 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$149.0 \pm 2.9 \quad (+6.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11516.0 \pm 6.0 \quad (+0.2\sigma)$
c_{TE}	$0.9975 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.1390^{+0.0024}_{-0.0028} \quad (-4.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.058 \pm 0.073 \quad (+0.2\sigma)$
c_{EE}	$0.9937 \pm 0.0064 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00066 \quad (+0.9\sigma)$	χ_{MGS}^2	$1.32 \pm 0.49 \quad (-0.1\sigma)$
H_0	$67.0^{+1.5}_{-1.7} \quad (-1.7\sigma)$	z_{eq}	$3390 \pm 33 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.5 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6891 \pm 0.0073 \quad (-0.2\sigma)$	k_{eq}	$0.01023 \pm 0.00016 \quad (-1.1\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
Ω_{m}	$0.3109 \pm 0.0073 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8160 \pm 0.0056 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1394^{+0.0045}_{-0.0051} \quad (-2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4508 \pm 0.0029 \quad (-0.4\sigma)$	χ_{CMB}^2	$11935.7 \pm 6.1 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0934^{+0.0048}_{-0.0057} \quad (-8.7\sigma)$	$H(0.15)$	$72.2^{+1.5}_{-1.7} \quad (-2.0\sigma)$		
σ_8	$0.802 \pm 0.013 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$648 \pm 15 \quad (+1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.72; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.44; R - 1 = 0.01974$$

11.19 base_nnu_yhe_CamSpecHM_TTTEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00023 \quad (-0.6\sigma)$	σ_8	$0.800 \pm 0.011 \quad (-1.5\sigma)$	$H(0.15)$	$71.0^{+1.7}_{-2.0} \quad (-3.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1156^{+0.0041}_{-0.0049} \quad (-3.4\sigma)$	S_8	$0.827 \pm 0.013 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$659 \pm 18 \quad (+3.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0419 \pm 0.0014 \quad (+3.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4530 \pm 0.0072 \quad (-0.1\sigma)$	$H(0.38)$	$81.1^{+1.7}_{-2.0} \quad (-5.2\sigma)$
τ	$0.0536 \pm 0.0074 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6021 \pm 0.0076 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1570 \pm 40 \quad (+4.0\sigma)$
N_{eff}	$2.76^{+0.27}_{-0.33}$	$\sigma_8/h^{0.5}$	$0.9873 \pm 0.0096 \quad (+0.2\sigma)$	$H(0.51)$	$87.8^{+1.8}_{-2.1} \quad (-6.7\sigma)$
Y_{P}	0.255 ± 0.022	$r_{\mathrm{drag}}h$	$98.6 \pm 1.3 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$2033 \pm 51 \quad (+4.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.033 \pm 0.018 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.025 \quad (+0.4\sigma)$	$H(0.61)$	$93.4^{+1.8}_{-2.1} \quad (-8.5\sigma)$
n_{s}	$0.9606 \pm 0.0094 \quad (-1.2\sigma)$	z_{re}	$7.58 \pm 0.75 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2364 \pm 58 \quad (+4.5\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.075 \pm 0.037 \quad (-0.6\sigma)$	$H(2.33)$	$232.5^{+3.7}_{-4.3} \quad (-5.1\sigma)$
A_{100}^{PS}	$239 \pm 26 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.864 \pm 0.020 \quad (-1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5883 \pm 120 \quad (+11.1\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.0\sigma)$	D_{40}	$1231 \pm 17 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4568 \pm 0.0067 \quad (-0.2\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5717 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.739 \pm 0.011 \quad (-1.6\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4729 \pm 0.0060 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 5.1 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.654 \pm 0.010 \quad (-1.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.6 \pm 2.3 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4705 \pm 0.0059 \quad (-0.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9606 \pm 0.0094 \quad (-1.2\sigma)$	$\sigma_8(0.51)$	$0.612 \pm 0.010 \quad (-1.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.255 \pm 0.022 \quad (+162.8\sigma)$	$f\sigma_8(0.61)$	$0.4649 \pm 0.0059 \quad (-0.9\sigma)$
A^{kSZ}	$4.6^{+1.7}_{-4.3} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.257 \pm 0.022 \quad (+162.8\sigma)$	$\sigma_8(0.61)$	$0.5817 \pm 0.0098 \quad (-1.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	Age/Gyr	$14.08 \pm 0.29 \quad (+11.8\sigma)$	$f\sigma_8(2.33)$	$0.2930 \pm 0.0052 \quad (-1.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.04 \pm 0.59 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3017 \pm 0.0057 \quad (-1.9\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$147.2 \pm 2.8 \quad (+9.6\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04190 \pm 0.00097 \quad (+2.7\sigma)$	f_{2000}^{217}	$106.8 \pm 2.6 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.13 \pm 0.26 \quad (+9.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.45 \pm 0.99 \quad (-0.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.05 \pm 0.78 \quad (-0.4\sigma)$
c_{TE}	$0.9966 \pm 0.0054 \quad (-0.0\sigma)$	r_{drag}	$150.0 \pm 2.9 \quad (+9.7\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.0\sigma)$
c_{EE}	$0.9920 \pm 0.0065 \quad (-0.0\sigma)$	k_{D}	$0.1383^{+0.0024}_{-0.0027} \quad (-7.0\sigma)$	χ_{lowl}^2	$23.8 \pm 1.5 \quad (+0.6\sigma)$
H_0	$65.7^{+1.7}_{-1.9} \quad (-3.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16079 \pm 0.00069 \quad (-0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.7 \pm 5.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.679 \pm 0.011 \quad (-0.9\sigma)$	z_{eq}	$3424 \pm 44 \quad (+1.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
Ω_{m}	$0.321 \pm 0.011 \quad (+0.9\sigma)$	k_{eq}	$0.01024 \pm 0.00014 \quad (-1.3\sigma)$	χ_{CMB}^2	$11944.4 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1384^{+0.0042}_{-0.0050} \quad (-3.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8096 \pm 0.0076 \quad (-1.0\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.0910^{+0.0047}_{-0.0059} \quad (-16.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4476 \pm 0.0039 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11952.22; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.78; R - 1 = 0.01363$$

11.20 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02232 \pm 0.00019 \quad (-0.1\sigma)$	S_8	$0.820 \pm 0.011 \quad (-0.2\sigma)$	$H(0.38)$	$82.1 \pm 1.7 \quad (-3.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1164^{+0.0043}_{-0.0048} \quad (-2.8\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0062 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1548 \pm 34 \quad (+2.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0417 \pm 0.0014 \quad (+2.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6009 \pm 0.0075 \quad (-0.4\sigma)$	$H(0.51)$	$88.7 \pm 1.8 \quad (-4.5\sigma)$
τ	$0.0559 \pm 0.0072 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9835 \pm 0.0089 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2005 \pm 43 \quad (+2.9\sigma)$
N_{eff}	$2.88^{+0.27}_{-0.31}$	$r_{\mathrm{drag}}h$	$99.54 \pm 0.86 \quad (-0.3\sigma)$	$H(0.61)$	$94.3 \pm 1.8 \quad (-5.6\sigma)$
Y_{P}	0.256 ± 0.022	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2333 \pm 49 \quad (+3.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040 \pm 0.016 \quad (-0.2\sigma)$	z_{re}	$7.82 \pm 0.72 \quad (+0.1\sigma)$	$H(2.33)$	$233.6 \pm 4.0 \quad (-3.9\sigma)$
n_{s}	$0.9661 \pm 0.0078 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.091 \pm 0.034 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5828 \pm 110 \quad (+7.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.870 \pm 0.019 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4537 \pm 0.0060 \quad (-0.2\sigma)$
A_{100}^{PS}	$242 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1224 \pm 15 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.743 \pm 0.010 \quad (-0.8\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5724 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4717 \pm 0.0059 \quad (-0.4\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6583 \pm 0.0097 \quad (-0.8\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.1\sigma)$	D_{1420}	$816.2 \pm 5.2 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4702 \pm 0.0059 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.1\sigma)$	D_{2000}	$230.3 \pm 2.3 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6161 \pm 0.0092 \quad (-0.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9661 \pm 0.0078 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4652 \pm 0.0059 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15} \quad (+0.0\sigma)$	Y_{P}	$0.256 \pm 0.022 \quad (+185.3\sigma)$	$\sigma_8(0.61)$	$0.5862 \pm 0.0089 \quad (-0.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.257 \pm 0.022 \quad (+185.3\sigma)$	$f\sigma_8(2.33)$	$0.2956 \pm 0.0046 \quad (-0.9\sigma)$
A^{kSZ}	—	Age/Gyr	$13.95 \pm 0.26 \quad (+7.6\sigma)$	$\sigma_8(2.33)$	$0.3047 \pm 0.0050 \quad (-0.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.03 \pm 0.60 \quad (+0.7\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	r_*	$146.3 \pm 2.7 \quad (+7.0\sigma)$	f_{2000}^{217}	$107.2 \pm 2.6 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$100\theta_*$	$1.04170 \pm 0.00095 \quad (+1.9\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.04 \pm 0.25 \quad (+6.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.27 \pm 0.86 \quad (-0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.86 \pm 0.90 \quad (+0.2\sigma)$	χ_{small}^2	$397.2 \pm 1.8 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$149.0 \pm 2.7 \quad (+6.7\sigma)$	χ_{lowl}^2	$23.0 \pm 1.2 \quad (+0.0\sigma)$
c_{TE}	$0.9972 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.1390^{+0.0023}_{-0.0027} \quad (-4.9\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.3 \pm 6.0 \quad (+0.2\sigma)$
c_{EE}	$0.9934 \pm 0.0064 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16097 \pm 0.00067 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.068 \pm 0.079 \quad (+0.4\sigma)$
H_0	$66.8 \pm 1.6 \quad (-2.0\sigma)$	z_{eq}	$3395 \pm 33 \quad (+0.7\sigma)$	χ_{MGS}^2	$1.22 \pm 0.46 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6877 \pm 0.0071 \quad (-0.3\sigma)$	k_{eq}	$0.01024 \pm 0.00015 \quad (-1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.6 \quad (+0.3\sigma)$
Ω_{m}	$0.3123 \pm 0.0071 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8151 \pm 0.0056 \quad (-0.6\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1394^{+0.0043}_{-0.0049} \quad (-2.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0029 \quad (-0.6\sigma)$	χ_{CMB}^2	$11944.7 \pm 6.2 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0932^{+0.0047}_{-0.0055} \quad (-9.4\sigma)$	$H(0.15)$	$72.1 \pm 1.6 \quad (-2.4\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.3\sigma)$
σ_8	$0.804 \pm 0.011 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$649 \pm 15 \quad (+2.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.81; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.41; R - 1 = 0.01792$$

11.21 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02223 \pm 0.00023 \quad (-0.4\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0915^{+0.0049}_{-0.0059} \quad (-14.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8110 \pm 0.0078 \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1157^{+0.0044}_{-0.0050} \quad (-2.8\sigma)$	σ_8	$0.801 \pm 0.012 \quad (-1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4483 \pm 0.0040 \quad (-0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0419 \pm 0.0014 \quad (+3.3\sigma)$	S_8	$0.825 \pm 0.016 \quad (-0.2\sigma)$	$H(0.15)$	$71.3 \pm 1.9 \quad (-2.8\sigma)$
τ	$0.0542^{+0.0046}_{-0.0083} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4518 \pm 0.0089 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$657 \pm 18 \quad (+2.7\sigma)$
N_{eff}	$2.78^{+0.28}_{-0.33}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6016 \pm 0.0093 \quad (-0.5\sigma)$	$H(0.38)$	$81.3 \pm 1.9 \quad (-4.1\sigma)$
Y_{P}	$0.257^{+0.024}_{-0.021}$	$\sigma_8/h^{0.5}$	$0.986 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1565 \pm 40 \quad (+3.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.034^{+0.016}_{-0.019} \quad (-0.6\sigma)$	$r_{\mathrm{drag}}h$	$98.8 \pm 1.3 \quad (-0.5\sigma)$	$H(0.51)$	$88.0 \pm 2.0 \quad (-5.4\sigma)$
n_{s}	$0.9625 \pm 0.0096 \quad (-0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.440 \pm 0.030 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2026 \pm 51 \quad (+3.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.65^{+0.50}_{-0.86} \quad (-0.1\sigma)$	$H(0.61)$	$93.6 \pm 2.0 \quad (-6.9\sigma)$
A_{100}^{PS}	$240 \pm 26 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.078^{+0.032}_{-0.041} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2357 \pm 58 \quad (+3.6\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.865 \pm 0.021 \quad (-1.2\sigma)$	$H(2.33)$	$232.7 \pm 4.2 \quad (-4.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{40}	$1227 \pm 18 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5871 \pm 120 \quad (+9.4\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5715 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0084 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.740 \pm 0.012 \quad (-1.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{1420}	$815.7 \pm 5.2 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4724 \pm 0.0074 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 2.3 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.655 \pm 0.011 \quad (-1.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9625 \pm 0.0096 \quad (-0.8\sigma)$	$f\sigma_8(0.51)$	$0.4703 \pm 0.0071 \quad (-0.6\sigma)$
A^{kSZ}	$4.7^{+1.8}_{-4.3} \quad (-0.0\sigma)$	Y_{P}	$0.257^{+0.024}_{-0.021} \quad (+179.3\sigma)$	$\sigma_8(0.51)$	$0.613 \pm 0.011 \quad (-1.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.258^{+0.024}_{-0.021} \quad (+179.3\sigma)$	$f\sigma_8(0.61)$	$0.4649 \pm 0.0069 \quad (-0.7\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.05 \pm 0.30 \quad (+10.0\sigma)$	$\sigma_8(0.61)$	$0.583 \pm 0.010 \quad (-1.7\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.08 \pm 0.61 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2936 \pm 0.0053 \quad (-1.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$147.1 \pm 2.9 \quad (+7.9\sigma)$	$\sigma_8(2.33)$	$0.3024 \pm 0.0058 \quad (-1.8\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	$100\theta_*$	$1.04188 \pm 0.00099 \quad (+2.6\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.11 \pm 0.27 \quad (+7.8\sigma)$	f_{2000}^{217}	$107.0 \pm 2.6 \quad (+0.1\sigma)$
c_{TE}	$0.9969 \pm 0.0055 \quad (+0.1\sigma)$	z_{drag}	$1059.6 \pm 1.0 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.9 \quad (+0.1\sigma)$
c_{EE}	$0.9926 \pm 0.0066 \quad (+0.1\sigma)$	r_{drag}	$149.8 \pm 3.0 \quad (+8.1\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.0\sigma)$
H_0	$66.0 \pm 1.9 \quad (-2.3\sigma)$	k_{D}	$0.1384^{+0.0024}_{-0.0028} \quad (-6.4\sigma)$	χ_{lowl}^2	$23.5 \pm 1.6 \quad (+0.3\sigma)$
Ω_{Λ}	$0.682 \pm 0.011 \quad (-0.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16088 \pm 0.00071 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.2 \pm 6.1 \quad (+0.1\sigma)$
Ω_{m}	$0.318 \pm 0.011 \quad (+0.6\sigma)$	z_{eq}	$3417 \pm 44 \quad (+0.8\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1385^{+0.0045}_{-0.0051} \quad (-3.1\sigma)$	k_{eq}	$0.01024 \pm 0.00016 \quad (-1.2\sigma)$	χ_{CMB}^2	$11935.4 \pm 6.1 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.30; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.12; R - 1 = 0.00937$$

11.22 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00020 \quad (-0.1\sigma)$	S_8	$0.817 \pm 0.014 \quad (-0.3\sigma)$	$H(0.38)$	$82.2^{+1.6}_{-1.8} \quad (-3.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1164^{+0.0044}_{-0.0051} \quad (-2.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4476 \pm 0.0075 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1545 \pm 34 \quad (+2.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0418 \pm 0.0014 \quad (+2.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5994 \pm 0.0089 \quad (-0.4\sigma)$	$H(0.51)$	$88.8^{+1.7}_{-1.9} \quad (-4.0\sigma)$
τ	$0.0552^{+0.0053}_{-0.0078} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9812^{+0.0096}_{-0.011} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$2002 \pm 44 \quad (+2.5\sigma)$
N_{eff}	$2.88^{+0.27}_{-0.32}$	$r_{\mathrm{drag}}h$	$99.72 \pm 0.89 \quad (-0.1\sigma)$	$H(0.61)$	$94.4^{+1.7}_{-2.0} \quad (-5.0\sigma)$
Y_{P}	$0.257^{+0.023}_{-0.021}$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.025 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2329 \pm 50 \quad (+2.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.016}_{-0.018} \quad (-0.3\sigma)$	z_{re}	$7.75^{+0.57}_{-0.80} \quad (-0.0\sigma)$	$H(2.33)$	$233.6^{+3.9}_{-4.3} \quad (-3.5\sigma)$
n_{s}	$0.9674 \pm 0.0079 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.087^{+0.033}_{-0.038} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5823 \pm 110 \quad (+6.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.869 \pm 0.020 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4522 \pm 0.0072 \quad (-0.3\sigma)$
A_{100}^{PS}	$242 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1220 \pm 16 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.012 \quad (-0.8\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{220}	$5719 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4705 \pm 0.0070 \quad (-0.4\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.658 \pm 0.011 \quad (-0.8\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.1\sigma)$	D_{1420}	$815.7 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4692 \pm 0.0069 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 2.3 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.616 \pm 0.010 \quad (-0.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9674 \pm 0.0079 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4643 \pm 0.0068 \quad (-0.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.42}_{-0.14} \quad (+0.1\sigma)$	Y_{P}	$0.257^{+0.023}_{-0.021} \quad (+199.9\sigma)$	$\sigma_8(0.61)$	$0.5858 \pm 0.0096 \quad (-0.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.258^{+0.023}_{-0.021} \quad (+199.9\sigma)$	$f\sigma_8(2.33)$	$0.2954 \pm 0.0049 \quad (-0.9\sigma)$
A^{kSZ}	—	Age/Gyr	$13.94 \pm 0.27 \quad (+6.9\sigma)$	$\sigma_8(2.33)$	$0.3046 \pm 0.0052 \quad (-0.9\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.05 \pm 0.59 \quad (+0.8\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.3\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	r_*	$146.3 \pm 2.8 \quad (+6.2\sigma)$	f_{2000}^{217}	$107.3 \pm 2.6 \quad (+0.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.11 \quad (-0.0\sigma)$	$100\theta_*$	$1.04171 \pm 0.00097 \quad (+1.9\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.8 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.04 \pm 0.25 \quad (+5.9\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.92 \pm 0.90 \quad (+0.4\sigma)$	χ_{lowl}^2	$22.8 \pm 1.2 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$149.0 \pm 2.8 \quad (+6.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.8 \pm 6.0 \quad (+0.3\sigma)$
c_{TE}	$0.9975 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.1390^{+0.0024}_{-0.0028} \quad (-4.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.071 \quad (+0.2\sigma)$
c_{EE}	$0.9936 \pm 0.0064 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00067 \quad (+1.0\sigma)$	χ_{MGS}^2	$1.33 \pm 0.49 \quad (-0.1\sigma)$
H_0	$67.0^{+1.5}_{-1.7} \quad (-1.7\sigma)$	z_{eq}	$3389 \pm 33 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6892 \pm 0.0073 \quad (-0.2\sigma)$	k_{eq}	$0.01023 \pm 0.00016 \quad (-1.1\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
Ω_{m}	$0.3108 \pm 0.0073 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8161 \pm 0.0056 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1393^{+0.0045}_{-0.0051} \quad (-2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4509 \pm 0.0029 \quad (-0.4\sigma)$	χ_{CMB}^2	$11935.5 \pm 6.0 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0934^{+0.0047}_{-0.0057} \quad (-8.7\sigma)$	$H(0.15)$	$72.2^{+1.5}_{-1.7} \quad (-2.0\sigma)$		
σ_8	$0.803 \pm 0.012 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$648 \pm 15 \quad (+1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.50; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.52; R - 1 = 0.02228$$

11.23 base_nnu_yhe_CamSpecHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02221 \pm 0.00023 \quad (-0.6\sigma)$	σ_8	$0.801 \pm 0.011 \quad (-1.5\sigma)$	$H(0.15)$	$71.1^{+1.7}_{-1.9} \quad (-3.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1155^{+0.0041}_{-0.0049} \quad (-3.5\sigma)$	S_8	$0.827 \pm 0.013 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$659 \pm 18 \quad (+3.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0419 \pm 0.0014 \quad (+3.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4530 \pm 0.0072 \quad (-0.1\sigma)$	$H(0.38)$	$81.1^{+1.7}_{-2.0} \quad (-5.2\sigma)$
τ	$0.0546^{+0.0050}_{-0.0077} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6024 \pm 0.0075 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1569 \pm 40 \quad (+4.0\sigma)$
N_{eff}	$2.76^{+0.27}_{-0.33}$	$\sigma_8/h^{0.5}$	$0.9878 \pm 0.0094 \quad (+0.2\sigma)$	$H(0.51)$	$87.8^{+1.8}_{-2.1} \quad (-6.7\sigma)$
Y_{P}	0.256 ± 0.022	$r_{\mathrm{drag}}h$	$98.6 \pm 1.2 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$2031 \pm 51 \quad (+4.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.035^{+0.015}_{-0.017} \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.025 \quad (+0.4\sigma)$	$H(0.61)$	$93.4^{+1.8}_{-2.1} \quad (-8.4\sigma)$
n_{s}	$0.9611 \pm 0.0093 \quad (-1.1\sigma)$	z_{re}	$7.70^{+0.55}_{-0.78} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2363 \pm 58 \quad (+4.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.080^{+0.031}_{-0.036} \quad (-0.6\sigma)$	$H(2.33)$	$232.5^{+3.7}_{-4.3} \quad (-5.2\sigma)$
A_{100}^{PS}	$239 \pm 26 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.864 \pm 0.020 \quad (-1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5881 \pm 120 \quad (+11.1\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.0\sigma)$	D_{40}	$1230 \pm 17 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4569 \pm 0.0067 \quad (-0.2\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5717 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.739 \pm 0.011 \quad (-1.7\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4731 \pm 0.0059 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 5.1 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.655 \pm 0.010 \quad (-1.9\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.6 \pm 2.3 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4708 \pm 0.0058 \quad (-0.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9611 \pm 0.0093 \quad (-1.1\sigma)$	$\sigma_8(0.51)$	$0.6123 \pm 0.0099 \quad (-1.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.256 \pm 0.022 \quad (+169.8\sigma)$	$f\sigma_8(0.61)$	$0.4652 \pm 0.0058 \quad (-0.9\sigma)$
A^{kSZ}	$4.6^{+1.8}_{-4.3} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.257 \pm 0.022 \quad (+169.7\sigma)$	$\sigma_8(0.61)$	$0.5824 \pm 0.0096 \quad (-2.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	Age/Gyr	$14.08 \pm 0.29 \quad (+11.7\sigma)$	$f\sigma_8(2.33)$	$0.2934 \pm 0.0051 \quad (-2.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.04 \pm 0.60 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3021 \pm 0.0055 \quad (-2.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$147.2 \pm 2.8 \quad (+9.7\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04190 \pm 0.00097 \quad (+2.7\sigma)$	f_{2000}^{217}	$106.8 \pm 2.6 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.13 \pm 0.26 \quad (+9.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.48 \pm 0.98 \quad (-0.8\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.02 \pm 0.75 \quad (-0.4\sigma)$
c_{TE}	$0.9966 \pm 0.0054 \quad (+0.0\sigma)$	r_{drag}	$150.0 \pm 2.9 \quad (+9.7\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.0\sigma)$
c_{EE}	$0.9921 \pm 0.0065 \quad (+0.0\sigma)$	k_{D}	$0.1383^{+0.0024}_{-0.0027} \quad (-7.1\sigma)$	χ_{lowl}^2	$23.7 \pm 1.5 \quad (+0.6\sigma)$
H_0	$65.8^{+1.7}_{-1.9} \quad (-3.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16081 \pm 0.00069 \quad (-0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.6 \pm 5.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.680 \pm 0.011 \quad (-0.8\sigma)$	z_{eq}	$3422 \pm 43 \quad (+1.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
Ω_{m}	$0.320 \pm 0.011 \quad (+0.8\sigma)$	k_{eq}	$0.01024 \pm 0.00014 \quad (-1.3\sigma)$	χ_{CMB}^2	$11944.2 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1384^{+0.0042}_{-0.0050} \quad (-3.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8099 \pm 0.0076 \quad (-1.0\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.0911^{+0.0047}_{-0.0059} \quad (-16.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4477 \pm 0.0039 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11952.01; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.76; R - 1 = 0.01202$$

11.24 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02232 \pm 0.00019 \quad (-0.1\sigma)$	S_8	$0.820 \pm 0.011 \quad (-0.2\sigma)$	$H(0.38)$	$82.1^{+1.6}_{-1.8} \quad (-3.6\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1164^{+0.0043}_{-0.0048} \quad (-2.9\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4492 \pm 0.0062 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1548 \pm 34 \quad (+2.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0418 \pm 0.0014 \quad (+2.7\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6011 \pm 0.0075 \quad (-0.4\sigma)$	$H(0.51)$	$88.7^{+1.7}_{-1.9} \quad (-4.6\sigma)$
τ	$0.0565^{+0.0058}_{-0.0074} \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9839 \pm 0.0087 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$2005 \pm 43 \quad (+2.9\sigma)$
N_{eff}	$2.87^{+0.27}_{-0.31}$	$r_{\mathrm{drag}} h$	$99.55 \pm 0.86 \quad (-0.3\sigma)$	$H(0.61)$	$94.3^{+1.7}_{-1.9} \quad (-5.7\sigma)$
Y_{P}	0.256 ± 0.022	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2333 \pm 49 \quad (+3.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041 \pm 0.015 \quad (-0.2\sigma)$	z_{re}	$7.87^{+0.61}_{-0.74} \quad (+0.1\sigma)$	$H(2.33)$	$233.6 \pm 4.0 \quad (-4.0\sigma)$
n_{s}	$0.9662 \pm 0.0078 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093 \pm 0.032 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5828 \pm 110 \quad (+7.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870 \pm 0.019 \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0060 \quad (-0.2\sigma)$
A_{100}^{PS}	$241 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1224 \pm 15 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.743 \pm 0.010 \quad (-0.8\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5724 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4718 \pm 0.0059 \quad (-0.4\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6586 \pm 0.0096 \quad (-0.9\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.1\sigma)$	D_{1420}	$816.2 \pm 5.2 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4704 \pm 0.0059 \quad (-0.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.1\sigma)$	D_{2000}	$230.3 \pm 2.3 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6164 \pm 0.0091 \quad (-0.9\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66^{+0.12}_{-0.14} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9662 \pm 0.0078 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4654 \pm 0.0059 \quad (-0.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15} \quad (+0.0\sigma)$	Y_{P}	$0.256 \pm 0.022 \quad (+188.7\sigma)$	$\sigma_8(0.61)$	$0.5865 \pm 0.0088 \quad (-0.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.258 \pm 0.022 \quad (+188.6\sigma)$	$f\sigma_8(2.33)$	$0.2957 \pm 0.0046 \quad (-0.9\sigma)$
A^{kSZ}	—	Age/Gyr	$13.95 \pm 0.26 \quad (+7.7\sigma)$	$\sigma_8(2.33)$	$0.3048 \pm 0.0049 \quad (-1.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.03 \pm 0.60 \quad (+0.7\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	r_*	$146.3 \pm 2.7 \quad (+7.1\sigma)$	f_{2000}^{217}	$107.2 \pm 2.6 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$100\theta_*$	$1.04171 \pm 0.00095 \quad (+1.9\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$14.05 \pm 0.25 \quad (+6.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.23 \pm 0.81 \quad (-0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.87 \pm 0.90 \quad (+0.2\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$149.0 \pm 2.7 \quad (+6.8\sigma)$	χ_{lowl}^2	$23.0 \pm 1.2 \quad (+0.0\sigma)$
c_{TE}	$0.9972 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.1390^{+0.0023}_{-0.0027} \quad (-5.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.2 \pm 6.0 \quad (+0.2\sigma)$
c_{EE}	$0.9934 \pm 0.0064 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16097 \pm 0.00067 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.067 \pm 0.077 \quad (+0.4\sigma)$
H_0	$66.8 \pm 1.6 \quad (-2.0\sigma)$	z_{eq}	$3394 \pm 33 \quad (+0.7\sigma)$	χ_{MGS}^2	$1.23 \pm 0.46 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6879 \pm 0.0071 \quad (-0.3\sigma)$	k_{eq}	$0.01024 \pm 0.00015 \quad (-1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.0 \pm 1.6 \quad (+0.3\sigma)$
Ω_{m}	$0.3121 \pm 0.0071 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8152 \pm 0.0056 \quad (-0.6\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1394^{+0.0043}_{-0.0049} \quad (-3.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0028 \quad (-0.6\sigma)$	χ_{CMB}^2	$11944.6 \pm 6.1 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0932^{+0.0046}_{-0.0055} \quad (-9.5\sigma)$	$H(0.15)$	$72.1 \pm 1.6 \quad (-2.4\sigma)$	χ_{BAO}^2	$6.3 \pm 1.3 \quad (+0.3\sigma)$
σ_8	$0.804 \pm 0.011 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$649 \pm 15 \quad (+2.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.67; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.41; R - 1 = 0.01939$$

11.25 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022013	0.02207 ± 0.00032	S_8	0.8425	0.840 ± 0.025	$100\theta_{s,eq}$	0.4460	0.4475 ± 0.0066
$\Omega_c h^2$	0.11853	0.1201 ± 0.0047	$\sigma_8 \Omega_m^{0.5}$	0.4615	0.460 ± 0.014	$H(0.15)$	71.04	71.9 ± 2.6
$100\theta_{MC}$	1.04099	1.04082 ± 0.00076	$\sigma_8 \Omega_m^{0.25}$	0.6100	0.610 ± 0.012	$D_M(0.15)$	659.2	652 ± 25
τ	0.0515	0.0512 ± 0.0082	$\sigma_8/h^{0.5}$	0.9951	0.993 ± 0.016	$H(0.38)$	81.30	82.1 ± 2.5
N_{eff}	2.879	3.00 ± 0.34	$r_{drag}h$	97.65	98.2 ± 2.3	$D_M(0.38)$	1568	1552 ± 55
Y_P	0.24393	0.2439 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.4651	2.458 ± 0.046	$H(0.51)$	88.10	89.0 ± 2.5
$\ln(10^{10} A_s)$	3.0337	3.036 ± 0.022	z_{re}	7.43	7.39 ± 0.86	$D_M(0.51)$	2029	2009 ± 68
n_s	0.9575	0.960 ± 0.014	$10^9 A_s$	2.0773	2.084 ± 0.045	$H(0.61)$	93.77	94.6 ± 2.5
y_{cal}	1.00024	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8739	1.881 ± 0.024	$D_M(0.61)$	2359	2336 ± 77
A_{217}^{CIB}	47.0	48 ± 7	D_{40}	1238.6	1237 ± 22	$H(2.33)$	234.69	236.1 ± 4.2
$\xi^{tSZ \times CIB}$	0.51	—	D_{220}	5706.3	5714 ± 41	$D_M(2.33)$	5851	5803 ± 150
A_{143}^{tSZ}	6.97	5.1 ± 2.0	D_{810}	2535.3	2536 ± 14	$f\sigma_8(0.15)$	0.4647	0.464 ± 0.012
A_{100}^{PS}	249.7	262 ± 29	D_{1420}	816.1	814.9 ± 5.0	$\sigma_8(0.15)$	0.7435	0.747 ± 0.014
A_{143}^{PS}	50.0	48 ± 8	D_{2000}	230.76	229.9 ± 2.1	$f\sigma_8(0.38)$	0.4793	0.4794 ± 0.0095
$A_{143 \times 217}^{PS}$	50.4	43 ± 9	$n_{s,0.002}$	0.9575	0.960 ± 0.014	$\sigma_8(0.38)$	0.6574	0.661 ± 0.014
A_{217}^{PS}	120.9	115 ± 10	Y_P	0.24393	0.2439 ± 0.0040	$f\sigma_8(0.51)$	0.4761	0.4765 ± 0.0085
A^{kSZ}	0.01	< 4.67	Y_P^{BBN}	0.24525	0.2452 ± 0.0040	$\sigma_8(0.51)$	0.6145	0.618 ± 0.013
A_{100}^{dustTT}	8.83	8.9 ± 1.8	Age/Gyr	14.003	13.89 ± 0.35	$f\sigma_8(0.61)$	0.4699	0.4706 ± 0.0081
A_{143}^{dustTT}	10.75	10.7 ± 1.8	z_*	1090.116	1090.23 ± 0.45	$\sigma_8(0.61)$	0.5843	0.588 ± 0.013
$A_{143 \times 217}^{dustTT}$	19.50	18.2 ± 3.3	r_*	145.93	145.0 ± 3.0	$f\sigma_8(2.33)$	0.2940	0.2958 ± 0.0069
A_{217}^{dustTT}	94.9	93.4 ± 7.4	$100\theta_*$	1.04129	1.04108 ± 0.00083	$\sigma_8(2.33)$	0.3024	0.3045 ± 0.0077
c_{100}	0.99964	0.99959 ± 0.00061	$D_M(z_*)/\text{Gpc}$	14.015	13.92 ± 0.28	χ_{small}^2	395.81	396.9 ± 1.6
c_{217}	0.99824	0.99825 ± 0.00062	z_{drag}	1058.90	1059.2 ± 1.1	χ_{lowl}^2	24.45	24.5 ± 2.3
H_0	65.65	66.5 ± 2.6	r_{drag}	148.73	147.7 ± 3.1	χ_{plik}^2	757.7	771.7 ± 5.9
Ω_Λ	0.6724	$0.676^{+0.020}_{-0.018}$	k_D	0.13948	0.1402 ± 0.0024	χ_{Aver15}^2	0.008	1.0 ± 1.4
Ω_m	0.3276	$0.324^{+0.018}_{-0.020}$	$100\theta_D$	0.16071	0.16094 ± 0.00061	χ_{prior}^2	1.30	7.3 ± 3.7
$\Omega_m h^2$	0.14119	0.1428 ± 0.0048	z_{eq}	3436	3421 ± 70	χ_{CMB}^2	1178.0	1193.0 ± 5.7
$\Omega_m h^3$	0.0927	$0.0950^{+0.0060}_{-0.0068}$	k_{eq}	0.010368	0.01040 ± 0.00017			
σ_8	0.8063	0.809 ± 0.015	$100\theta_{eq}$	0.8063	0.809 ± 0.013			

Best-fit $\chi_{eff}^2 = 1179.25$; $\bar{\chi}_{eff}^2 = 1201.30$; $R - 1 = 0.00666$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.81 commander_dx12_v3.2_29: 24.45 plik_rd12_HM_v22_TT: 757.69

11.26 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02226 ± 0.00023	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.605 ± 0.010	$D_{\mathrm{M}}(0.38)$	1515 ± 33
$\Omega_{\mathrm{c}}h^2$	0.1211 ± 0.0045	$\sigma_8/h^{0.5}$	0.983 ± 0.012	$H(0.51)$	90.5 ± 1.8
$100\theta_{\mathrm{MC}}$	1.04068 ± 0.00072	$r_{\mathrm{drag}}h$	99.95 ± 1.0	$D_{\mathrm{M}}(0.51)$	1963 ± 42
τ	0.0534 ± 0.0079	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.027	$H(0.61)$	96.1 ± 1.8
N_{eff}	3.18 ± 0.27	z_{re}	7.61 ± 0.82	$D_{\mathrm{M}}(0.61)$	2285 ± 48
Y_{P}	0.2439 ± 0.0039	$10^9 A_{\mathrm{s}}$	2.098 ± 0.041	$H(2.33)$	237.6 ± 3.9
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.020}_{-0.018}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.886 ± 0.022	$D_{\mathrm{M}}(2.33)$	5718 ± 110
n_{s}	0.9694 ± 0.0084	D_{40}	1223 ± 15	$f\sigma_8(0.15)$	0.4558 ± 0.0085
y_{cal}	1.0006 ± 0.0024	D_{220}	5720 ± 41	$\sigma_8(0.15)$	0.751 ± 0.013
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	0.4749 ± 0.0082
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.1 ± 5.0	$\sigma_8(0.38)$	0.666 ± 0.012
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.5 ± 2.1	$f\sigma_8(0.51)$	0.4738 ± 0.0080
A_{100}^{PS}	265 ± 29	$n_{\mathrm{s},0.002}$	0.9694 ± 0.0084	$\sigma_8(0.51)$	0.623 ± 0.011
A_{143}^{PS}	49 ± 8	Y_{P}	0.2439 ± 0.0039	$f\sigma_8(0.61)$	0.4691 ± 0.0079
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0039	$\sigma_8(0.61)$	0.593 ± 0.011
A_{217}^{PS}	115 ± 10	Age/Gyr	13.69 ± 0.25	$f\sigma_8(2.33)$	0.2991 ± 0.0056
A^{kSZ}	< 4.93	z_*	$1090.14^{+0.42}_{-0.47}$	$\sigma_8(2.33)$	0.3086 ± 0.0060
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	r_*	143.7 ± 2.5	f_{2000}^{143}	31.5 ± 3.3
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	$100\theta_*$	1.04088 ± 0.00077	$f_{2000}^{143 \times 217}$	33.8 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.80 ± 0.23	f_{2000}^{217}	108.3 ± 2.2
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.3	z_{drag}	1059.76 ± 0.81	χ_{simall}^2	397.0 ± 1.7
c_{100}	0.99961 ± 0.00060	r_{drag}	146.3 ± 2.6	χ_{lowl}^2	22.8 ± 1.1
c_{217}	0.99825 ± 0.00064	k_{D}	0.1413 ± 0.0020	χ_{plik}^2	773.2 ± 5.5
H_0	68.3 ± 1.6	$100\theta_{\mathrm{D}}$	0.16119 ± 0.00054	χ_{Aver15}^2	0.96 ± 1.4
Ω_{Λ}	0.6915 ± 0.0083	z_{eq}	3366 ± 33	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.078
Ω_{m}	0.3085 ± 0.0083	k_{eq}	0.01036 ± 0.00016	χ_{MGS}^2	1.46 ± 0.59
$\Omega_{\mathrm{m}}h^2$	0.1440 ± 0.0046	$100\theta_{\mathrm{eq}}$	0.8194 ± 0.0060	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.6
$\Omega_{\mathrm{m}}h^3$	$0.0984^{+0.0049}_{-0.0054}$	$100\theta_{\mathrm{s,eq}}$	0.4527 ± 0.0031	χ_{prior}^2	7.3 ± 3.6
σ_8	0.812 ± 0.014	$H(0.15)$	73.6 ± 1.6	χ_{BAO}^2	6.2 ± 1.3
S_8	0.823 ± 0.016	$D_{\mathrm{M}}(0.15)$	635 ± 14	χ_{CMB}^2	1193.0 ± 5.5
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4510 ± 0.0088	$H(0.38)$	83.7 ± 1.7		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1207.49; R - 1 = 0.02393$$

11.27 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02206 ± 0.00030	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4576 ± 0.0091	$D_{\mathrm{M}}(0.15)$	654 ± 23
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0044	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6071 ± 0.0084	$H(0.38)$	81.9 ± 2.3
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00074	$\sigma_8/h^{0.5}$	0.990 ± 0.011	$D_{\mathrm{M}}(0.38)$	1557 ± 50
τ	0.0511 ± 0.0082	$r_{\mathrm{drag}}h$	98.3 ± 1.9	$H(0.51)$	88.6 ± 2.3
N_{eff}	2.94 ± 0.32	$\langle d^2 \rangle^{1/2}$	2.454 ± 0.032	$D_{\mathrm{M}}(0.51)$	2015 ± 63
Y_{P}	0.2439 ± 0.0040	z_{re}	7.36 ± 0.86	$H(0.61)$	94.3 ± 2.4
$\ln(10^{10}A_{\mathrm{s}})$	3.033 ± 0.022	$10^9 A_{\mathrm{s}}$	2.077 ± 0.045	$D_{\mathrm{M}}(0.61)$	2343 ± 71
n_{s}	0.959 ± 0.012	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.023	$H(2.33)$	235.2 ± 4.1
y_{cal}	1.0004 ± 0.0024	D_{40}	1238 ± 19	$D_{\mathrm{M}}(2.33)$	5824 ± 140
A_{217}^{CIB}	47 ± 7	D_{220}	5716 ± 41	$f\sigma_8(0.15)$	0.4611 ± 0.0082
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2535 ± 14	$\sigma_8(0.15)$	0.743 ± 0.014
A_{143}^{tSZ}	5.2 ± 2.0	D_{1420}	815.0 ± 5.0	$f\sigma_8(0.38)$	0.4768 ± 0.0067
A_{100}^{PS}	262 ± 29	D_{2000}	230.1 ± 2.1	$\sigma_8(0.38)$	0.658 ± 0.013
A_{143}^{PS}	48 ± 8	$n_{\mathrm{s},0.002}$	0.959 ± 0.012	$f\sigma_8(0.51)$	0.4742 ± 0.0065
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	0.2439 ± 0.0040	$\sigma_8(0.51)$	0.615 ± 0.013
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0040	$f\sigma_8(0.61)$	0.4684 ± 0.0066
A^{kSZ}	< 4.63	Age/Gyr	13.94 ± 0.33	$\sigma_8(0.61)$	0.585 ± 0.013
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.9	z_*	$1090.11^{+0.39}_{-0.44}$	$f\sigma_8(2.33)$	0.2946 ± 0.0068
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	145.6 ± 2.9	$\sigma_8(2.33)$	0.3033 ± 0.0075
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.2 ± 3.3	$100\theta_*$	1.04123 ± 0.00081	f_{2000}^{143}	30.5 ± 3.3
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.98 ± 0.27	$f_{2000}^{143 \times 217}$	33.0 ± 2.4
c_{100}	0.99960 ± 0.00061	z_{drag}	1059.1 ± 1.0	f_{2000}^{217}	107.7 ± 2.2
c_{217}	0.99826 ± 0.00063	r_{drag}	148.3 ± 3.0	$\chi_{\mathrm{lensing}}^2$	9.4 ± 1.0
H_0	66.3 ± 2.4	k_{D}	0.1398 ± 0.0023	χ_{simall}^2	396.8 ± 1.6
Ω_{Λ}	0.677 ± 0.016	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00058	χ_{lowl}^2	24.5 ± 2.0
Ω_{m}	0.323 ± 0.016	z_{eq}	3417 ± 57	χ_{plik}^2	771.1 ± 5.4
$\Omega_{\mathrm{m}}h^2$	0.1416 ± 0.0046	k_{eq}	0.01035 ± 0.00014	χ_{Aver15}^2	0.99 ± 1.4
$\Omega_{\mathrm{m}}h^3$	0.0940 ± 0.0062	$100\theta_{\mathrm{eq}}$	0.810 ± 0.011	χ_{prior}^2	7.3 ± 3.7
σ_8	0.806 ± 0.014	$100\theta_{\mathrm{s,eq}}$	0.4478 ± 0.0053	χ_{CMB}^2	1201.8 ± 5.6
S_8	0.835 ± 0.017	$H(0.15)$	71.6 ± 2.3		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1210.08; R - 1 = 0.01169$$

11.28 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02225 ± 0.00023	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6055 ± 0.0082	$D_{\mathrm{M}}(0.38)$	1521 ± 32
$\Omega_{\mathrm{c}}h^2$	0.1205 ± 0.0041	$\sigma_8/h^{0.5}$	0.9840 ± 0.0089	$H(0.51)$	90.2 ± 1.7
$100\theta_{\mathrm{MC}}$	1.04074 ± 0.00069	$r_{\mathrm{drag}}h$	99.80 ± 0.99	$D_{\mathrm{M}}(0.51)$	1970 ± 41
τ	0.0546 ± 0.0074	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.023	$H(0.61)$	95.8 ± 1.7
N_{eff}	3.14 ± 0.26	z_{re}	7.73 ± 0.74	$D_{\mathrm{M}}(0.61)$	2293 ± 47
Y_{P}	0.2439 ± 0.0039	$10^9 A_{\mathrm{s}}$	2.102 ± 0.036	$H(2.33)$	237.0 ± 3.6
$\ln(10^{10} A_{\mathrm{s}})$	3.045 ± 0.017	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.884 ± 0.020	$D_{\mathrm{M}}(2.33)$	5734 ± 100
n_{s}	0.9679 ± 0.0082	D_{40}	1226 ± 14	$f\sigma_8(0.15)$	0.4564 ± 0.0066
y_{cal}	1.0007 ± 0.0024	D_{220}	5724 ± 40	$\sigma_8(0.15)$	0.750 ± 0.012
A_{217}^{CIB}	48 ± 7	D_{810}	2538 ± 14	$f\sigma_8(0.38)$	0.4752 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.4 ± 5.1	$\sigma_8(0.38)$	0.665 ± 0.011
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.8 ± 2.1	$f\sigma_8(0.51)$	0.4740 ± 0.0064
A_{100}^{PS}	264 ± 29	$n_{\mathrm{s},0.002}$	0.9679 ± 0.0082	$\sigma_8(0.51)$	0.623 ± 0.010
A_{143}^{PS}	49 ± 8	Y_{P}	0.2439 ± 0.0039	$f\sigma_8(0.61)$	0.4692 ± 0.0064
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0039	$\sigma_8(0.61)$	0.5925 ± 0.0098
A_{217}^{PS}	115 ± 10	Age/Gyr	13.73 ± 0.24	$f\sigma_8(2.33)$	0.2988 ± 0.0051
A^{kSZ}	< 4.82	z_*	$1090.09^{+0.39}_{-0.44}$	$\sigma_8(2.33)$	0.3082 ± 0.0055
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	r_*	144.0 ± 2.4	f_{2000}^{143}	31.2 ± 3.3
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.9	$100\theta_*$	1.04095 ± 0.00073	$f_{2000}^{143 \times 217}$	33.5 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.4	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.83 ± 0.22	f_{2000}^{217}	108.1 ± 2.2
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	z_{drag}	1059.68 ± 0.79	$\chi_{\mathrm{lensing}}^2$	9.43 ± 0.82
c_{100}	0.99962 ± 0.00060	r_{drag}	146.7 ± 2.4	χ_{simall}^2	397.0 ± 1.7
c_{217}	0.99825 ± 0.00065	k_{D}	0.1410 ± 0.0019	χ_{lowl}^2	23.1 ± 1.2
H_0	68.1 ± 1.6	$100\theta_{\mathrm{D}}$	0.16110 ± 0.00052	χ_{plik}^2	772.4 ± 5.3
Ω_{Λ}	0.6902 ± 0.0080	z_{eq}	3371 ± 31	χ_{Aver15}^2	0.97 ± 1.4
Ω_{m}	0.3098 ± 0.0080	k_{eq}	0.01035 ± 0.00014	$\chi_{6\mathrm{DF}}^2$	0.060 ± 0.080
$\Omega_{\mathrm{m}}h^2$	0.1434 ± 0.0042	$100\theta_{\mathrm{eq}}$	0.8185 ± 0.0058	χ_{MGS}^2	1.37 ± 0.55
$\Omega_{\mathrm{m}}h^3$	0.0977 ± 0.0049	$100\theta_{\mathrm{s,eq}}$	0.4522 ± 0.0029	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.7
σ_8	0.812 ± 0.012	$H(0.15)$	73.3 ± 1.6	χ_{prior}^2	7.3 ± 3.7
S_8	0.825 ± 0.013	$D_{\mathrm{M}}(0.15)$	637 ± 14	χ_{CMB}^2	1201.9 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4517 ± 0.0068	$H(0.38)$	83.5 ± 1.6	χ_{BAO}^2	6.2 ± 1.4

$\bar{\chi}_{\mathrm{eff}}^2 = 1216.46$; $R - 1 = 0.02078$

11.29 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02210 ± 0.00031	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.460 ± 0.014	$D_{\mathrm{M}}(0.15)$	650 ± 24
$\Omega_{\mathrm{c}}h^2$	0.1203 ± 0.0047	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.611 ± 0.012	$H(0.38)$	82.3 ± 2.5
$100\theta_{\mathrm{MC}}$	1.04079 ± 0.00076	$\sigma_8/h^{0.5}$	0.994 ± 0.016	$D_{\mathrm{M}}(0.38)$	1548 ± 53
τ	$0.0533^{+0.0043}_{-0.0081}$	$r_{\mathrm{drag}}h$	98.3 ± 2.2	$H(0.51)$	89.1 ± 2.5
N_{eff}	3.02 ± 0.34	$\langle d^2 \rangle^{1/2}$	2.460 ± 0.046	$D_{\mathrm{M}}(0.51)$	2003 ± 67
Y_{P}	0.2439 ± 0.0040	z_{re}	$7.62^{+0.47}_{-0.86}$	$H(0.61)$	94.8 ± 2.5
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.017}_{-0.020}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.035}_{-0.043}$	$D_{\mathrm{M}}(0.61)$	2330 ± 75
n_{s}	0.961 ± 0.013	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.881 ± 0.023	$H(2.33)$	236.3 ± 4.2
y_{cal}	1.0005 ± 0.0025	D_{40}	1236 ± 22	$D_{\mathrm{M}}(2.33)$	5793 ± 140
A_{217}^{CIB}	48 ± 7	D_{220}	5714 ± 41	$f\sigma_8(0.15)$	0.464 ± 0.012
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.749 ± 0.013
A_{143}^{tSZ}	5.1 ± 2.0	D_{1420}	814.9 ± 5.0	$f\sigma_8(0.38)$	0.4799 ± 0.0094
A_{100}^{PS}	262 ± 29	D_{2000}	229.9 ± 2.1	$\sigma_8(0.38)$	0.663 ± 0.013
A_{143}^{PS}	49 ± 8	$n_{\mathrm{s},0.002}$	0.961 ± 0.013	$f\sigma_8(0.51)$	0.4773 ± 0.0084
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	0.2439 ± 0.0040	$\sigma_8(0.51)$	0.620 ± 0.012
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0040	$f\sigma_8(0.61)$	0.4715 ± 0.0079
A^{kSZ}	< 4.66	Age/Gyr	13.87 ± 0.34	$\sigma_8(0.61)$	0.589 ± 0.012
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	z_*	1090.22 ± 0.45	$f\sigma_8(2.33)$	0.2968 ± 0.0065
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.8 ± 3.0	$\sigma_8(2.33)$	0.3055 ± 0.0073
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.2 ± 3.3	$100\theta_*$	1.04105 ± 0.00082	f_{2000}^{143}	30.8 ± 3.4
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.91 ± 0.27	$f_{2000}^{143 \times 217}$	33.2 ± 2.4
c_{100}	0.99959 ± 0.00061	z_{drag}	1059.3 ± 1.0	f_{2000}^{217}	107.9 ± 2.2
c_{217}	0.99826 ± 0.00063	r_{drag}	147.5 ± 3.1	χ_{simall}^2	396.7 ± 1.6
H_0	66.7 ± 2.6	k_{D}	0.1404 ± 0.0023	χ_{lowl}^2	24.3 ± 2.3
Ω_{Λ}	$0.678^{+0.020}_{-0.018}$	$100\theta_{\mathrm{D}}$	0.16096 ± 0.00061	χ_{plik}^2	771.6 ± 5.9
Ω_{m}	$0.322^{+0.018}_{-0.020}$	z_{eq}	3415 ± 68	χ_{Aver15}^2	1.0 ± 1.4
$\Omega_{\mathrm{m}}h^2$	0.1430 ± 0.0048	k_{eq}	0.01040 ± 0.00017	χ_{prior}^2	7.3 ± 3.7
$\Omega_{\mathrm{m}}h^3$	$0.0955^{+0.0060}_{-0.0068}$	$100\theta_{\mathrm{eq}}$	0.810 ± 0.013	χ_{CMB}^2	1192.7 ± 5.6
σ_8	0.811 ± 0.014	$100\theta_{\mathrm{s,eq}}$	0.4480 ± 0.0065		
S_8	0.841 ± 0.025	$H(0.15)$	72.1 ± 2.5		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1200.97; R - 1 = 0.00742$$

11.30 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02227 ± 0.00023	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.606 ± 0.010	$D_{\mathrm{M}}(0.38)$	1514 ± 33
$\Omega_{\mathrm{c}}h^2$	0.1211 ± 0.0045	$\sigma_8/h^{0.5}$	0.984 ± 0.011	$H(0.51)$	90.5 ± 1.8
$100\theta_{\mathrm{MC}}$	1.04067 ± 0.00072	$r_{\mathrm{drag}}h$	99.98 ± 1.0	$D_{\mathrm{M}}(0.51)$	1962 ± 42
τ	$0.0548^{+0.0054}_{-0.0079}$	$\langle d^2 \rangle^{1/2}$	2.428 ± 0.026	$H(0.61)$	96.2 ± 1.8
N_{eff}	3.18 ± 0.27	z_{re}	$7.76^{+0.59}_{-0.82}$	$D_{\mathrm{M}}(0.61)$	2284 ± 48
Y_{P}	0.2439 ± 0.0039	$10^9 A_{\mathrm{s}}$	2.104 ± 0.037	$H(2.33)$	237.6 ± 3.9
$\ln(10^{10} A_{\mathrm{s}})$	3.046 ± 0.018	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.886 ± 0.022	$D_{\mathrm{M}}(2.33)$	5716 ± 110
n_{s}	0.9696 ± 0.0084	D_{40}	1223 ± 15	$f\sigma_8(0.15)$	0.4564 ± 0.0084
y_{cal}	1.0006 ± 0.0024	D_{220}	5719 ± 41	$\sigma_8(0.15)$	0.752 ± 0.013
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	0.4755 ± 0.0080
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.0 ± 5.0	$\sigma_8(0.38)$	0.667 ± 0.012
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.5 ± 2.1	$f\sigma_8(0.51)$	0.4745 ± 0.0078
A_{100}^{PS}	264 ± 29	$n_{\mathrm{s},0.002}$	0.9696 ± 0.0084	$\sigma_8(0.51)$	0.624 ± 0.011
A_{143}^{PS}	49 ± 8	Y_{P}	0.2439 ± 0.0039	$f\sigma_8(0.61)$	0.4697 ± 0.0077
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0039	$\sigma_8(0.61)$	0.594 ± 0.011
A_{217}^{PS}	115 ± 10	Age/Gyr	13.69 ± 0.25	$f\sigma_8(2.33)$	0.2996 ± 0.0054
A^{kSZ}	< 4.87	z_*	$1090.14^{+0.42}_{-0.47}$	$\sigma_8(2.33)$	0.3091 ± 0.0058
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	r_*	143.6 ± 2.5	f_{2000}^{143}	31.5 ± 3.3
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.9	$100\theta_*$	1.04086 ± 0.00077	$f_{2000}^{143 \times 217}$	33.8 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.80 ± 0.23	f_{2000}^{217}	108.3 ± 2.2
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.3	z_{drag}	1059.77 ± 0.80	χ_{simall}^2	396.9 ± 1.7
c_{100}	0.99961 ± 0.00060	r_{drag}	146.3 ± 2.6	χ_{lowl}^2	22.8 ± 1.1
c_{217}	0.99826 ± 0.00065	k_{D}	0.1413 ± 0.0020	χ_{plik}^2	773.0 ± 5.6
H_0	68.4 ± 1.6	$100\theta_{\mathrm{D}}$	$0.16120^{+0.00051}_{-0.00056}$	χ_{Aver15}^2	0.97 ± 1.4
Ω_{Λ}	0.6917 ± 0.0083	z_{eq}	3365 ± 33	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.077
Ω_{m}	0.3083 ± 0.0083	k_{eq}	0.01036 ± 0.00016	χ_{MGS}^2	1.48 ± 0.59
$\Omega_{\mathrm{m}}h^2$	0.1440 ± 0.0046	$100\theta_{\mathrm{eq}}$	0.8196 ± 0.0061	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.6
$\Omega_{\mathrm{m}}h^3$	0.0985 ± 0.0052	$100\theta_{\mathrm{s,eq}}$	0.4527 ± 0.0031	χ_{prior}^2	7.3 ± 3.7
σ_8	0.813 ± 0.014	$H(0.15)$	73.7 ± 1.6	χ_{BAO}^2	6.2 ± 1.3
S_8	0.824 ± 0.016	$D_{\mathrm{M}}(0.15)$	635 ± 14	χ_{CMB}^2	1192.8 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515 ± 0.0087	$H(0.38)$	83.8 ± 1.7		

$\bar{\chi}_{\mathrm{eff}}^2 = 1207.26$; $R - 1 = 0.02342$

11.31 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02209 ± 0.00029	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4571 ± 0.0090	$D_{\mathrm{M}}(0.15)$	652 ± 22
$\Omega_{\mathrm{c}}h^2$	0.1190 ± 0.0044	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6075 ± 0.0083	$H(0.38)$	82.1 ± 2.3
$100\theta_{\mathrm{MC}}$	1.04092 ± 0.00074	$\sigma_8/h^{0.5}$	0.990 ± 0.011	$D_{\mathrm{M}}(0.38)$	1552 ± 48
τ	$0.0532^{+0.0043}_{-0.0081}$	$r_{\mathrm{drag}}h$	98.5 ± 1.8	$H(0.51)$	88.8 ± 2.3
N_{eff}	2.97 ± 0.32	$\langle d^2 \rangle^{1/2}$	2.454 ± 0.032	$D_{\mathrm{M}}(0.51)$	2009 ± 60
Y_{P}	0.2440 ± 0.0040	z_{re}	$7.59^{+0.45}_{-0.87}$	$H(0.61)$	94.5 ± 2.3
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.017}_{-0.020}$	$10^9 A_{\mathrm{s}}$	$2.087^{+0.034}_{-0.042}$	$D_{\mathrm{M}}(0.61)$	2336 ± 69
n_{s}	0.960 ± 0.012	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.023	$H(2.33)$	235.4 ± 4.1
y_{cal}	1.0004 ± 0.0024	D_{40}	1236 ± 18	$D_{\mathrm{M}}(2.33)$	5813 ± 140
A_{217}^{CIB}	47 ± 7	D_{220}	5717 ± 41	$f\sigma_8(0.15)$	0.4609 ± 0.0081
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2535 ± 14	$\sigma_8(0.15)$	0.745 ± 0.013
A_{143}^{tSZ}	5.2 ± 2.0	D_{1420}	815.0 ± 5.0	$f\sigma_8(0.38)$	0.4771 ± 0.0066
A_{100}^{PS}	262 ± 29	D_{2000}	230.1 ± 2.1	$\sigma_8(0.38)$	0.660 ± 0.012
A_{143}^{PS}	48 ± 8	$n_{\mathrm{s},0.002}$	0.960 ± 0.012	$f\sigma_8(0.51)$	0.4747 ± 0.0064
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	0.2440 ± 0.0040	$\sigma_8(0.51)$	0.617 ± 0.012
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0040	$f\sigma_8(0.61)$	0.4690 ± 0.0064
A^{kSZ}	< 4.62	Age/Gyr	13.91 ± 0.32	$\sigma_8(0.61)$	0.587 ± 0.012
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.9	z_*	$1090.10^{+0.38}_{-0.43}$	$f\sigma_8(2.33)$	0.2956 ± 0.0063
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	145.4 ± 2.9	$\sigma_8(2.33)$	0.3044 ± 0.0071
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04119 ± 0.00080	f_{2000}^{143}	30.5 ± 3.3
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.96 ± 0.27	$f_{2000}^{143 \times 217}$	33.0 ± 2.4
c_{100}	0.99960 ± 0.00061	z_{drag}	1059.1 ± 1.0	f_{2000}^{217}	107.7 ± 2.2
c_{217}	0.99826 ± 0.00063	r_{drag}	148.1 ± 3.0	$\chi_{\mathrm{lensing}}^2$	9.4 ± 1.0
H_0	66.5 ± 2.3	k_{D}	0.1399 ± 0.0023	χ_{simall}^2	396.7 ± 1.5
Ω_{Λ}	0.679 ± 0.015	$100\theta_{\mathrm{D}}$	$0.16085^{+0.00054}_{-0.00061}$	χ_{lowl}^2	24.3 ± 1.9
Ω_{m}	0.321 ± 0.015	z_{eq}	3410 ± 54	χ_{plik}^2	771.1 ± 5.5
$\Omega_{\mathrm{m}}h^2$	0.1418 ± 0.0046	k_{eq}	0.01035 ± 0.00014	χ_{Aver15}^2	1.0 ± 1.4
$\Omega_{\mathrm{m}}h^3$	$0.0944^{+0.0056}_{-0.0063}$	$100\theta_{\mathrm{eq}}$	0.811 ± 0.010	χ_{prior}^2	7.3 ± 3.7
σ_8	0.808 ± 0.013	$100\theta_{\mathrm{s,eq}}$	0.4485 ± 0.0051	χ_{CMB}^2	1201.5 ± 5.5
S_8	0.835 ± 0.016	$H(0.15)$	71.9 ± 2.3		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1209.75; R - 1 = 0.01470$$

11.32 base_nnu_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02226 ± 0.00023	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6058 ± 0.0081	$D_{\mathrm{M}}(0.38)$	1520 ± 32
$\Omega_{\mathrm{c}}h^2$	0.1205 ± 0.0041	$\sigma_8/h^{0.5}$	0.9845 ± 0.0087	$H(0.51)$	90.2 ± 1.7
$100\theta_{\mathrm{MC}}$	1.04074 ± 0.00069	$r_{\mathrm{drag}}h$	99.83 ± 0.99	$D_{\mathrm{M}}(0.51)$	1970 ± 41
τ	$0.0554^{+0.0058}_{-0.0075}$	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.022	$H(0.61)$	95.9 ± 1.7
N_{eff}	3.14 ± 0.26	z_{re}	$7.82^{+0.63}_{-0.74}$	$D_{\mathrm{M}}(0.61)$	2292 ± 47
Y_{P}	0.2440 ± 0.0039	$10^9 A_{\mathrm{s}}$	2.105 ± 0.034	$H(2.33)$	237.0 ± 3.6
$\ln(10^{10} A_{\mathrm{s}})$	3.047 ± 0.016	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.884 ± 0.020	$D_{\mathrm{M}}(2.33)$	5734 ± 100
n_{s}	0.9680 ± 0.0082	D_{40}	1226 ± 14	$f\sigma_8(0.15)$	0.4566 ± 0.0066
y_{cal}	1.0007 ± 0.0024	D_{220}	5724 ± 40	$\sigma_8(0.15)$	0.751 ± 0.011
A_{217}^{CIB}	48 ± 7	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	0.4754 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.3 ± 5.0	$\sigma_8(0.38)$	0.666 ± 0.011
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.7 ± 2.1	$f\sigma_8(0.51)$	0.4743 ± 0.0064
A_{100}^{PS}	264 ± 29	$n_{\mathrm{s},0.002}$	0.9680 ± 0.0082	$\sigma_8(0.51)$	0.623 ± 0.010
A_{143}^{PS}	49 ± 8	Y_{P}	0.2440 ± 0.0039	$f\sigma_8(0.61)$	0.4694 ± 0.0064
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0039	$\sigma_8(0.61)$	0.5930 ± 0.0097
A_{217}^{PS}	115 ± 10	Age/Gyr	13.73 ± 0.24	$f\sigma_8(2.33)$	0.2991 ± 0.0050
A^{kSZ}	< 4.79	z_*	$1090.09^{+0.39}_{-0.44}$	$\sigma_8(2.33)$	0.3084 ± 0.0054
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	r_*	144.0 ± 2.4	f_{2000}^{143}	31.2 ± 3.3
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.9	$100\theta_*$	1.04095 ± 0.00073	$f_{2000}^{143 \times 217}$	33.5 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.4	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.83 ± 0.22	f_{2000}^{217}	108.1 ± 2.2
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	z_{drag}	1059.69 ± 0.78	$\chi_{\mathrm{lensing}}^2$	9.39 ± 0.77
c_{100}	0.99962 ± 0.00060	r_{drag}	146.7 ± 2.4	χ_{simall}^2	397.0 ± 1.7
c_{217}	0.99825 ± 0.00065	k_{D}	0.1410 ± 0.0019	χ_{lowl}^2	23.1 ± 1.2
H_0	68.1 ± 1.6	$100\theta_{\mathrm{D}}$	0.16110 ± 0.00052	χ_{plik}^2	772.3 ± 5.3
Ω_{Λ}	0.6905 ± 0.0080	z_{eq}	3370 ± 31	χ_{Aver15}^2	0.97 ± 1.4
Ω_{m}	0.3095 ± 0.0080	k_{eq}	0.01035 ± 0.00014	$\chi_{6\mathrm{DF}}^2$	0.058 ± 0.078
$\Omega_{\mathrm{m}}h^2$	0.1434 ± 0.0042	$100\theta_{\mathrm{eq}}$	0.8187 ± 0.0057	χ_{MGS}^2	1.39 ± 0.55
$\Omega_{\mathrm{m}}h^3$	0.0977 ± 0.0049	$100\theta_{\mathrm{s,eq}}$	0.4523 ± 0.0029	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.6
σ_8	0.812 ± 0.012	$H(0.15)$	73.4 ± 1.6	χ_{prior}^2	7.3 ± 3.7
S_8	0.825 ± 0.012	$D_{\mathrm{M}}(0.15)$	637 ± 14	χ_{CMB}^2	1201.8 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518 ± 0.0068	$H(0.38)$	83.5 ± 1.6	χ_{BAO}^2	6.2 ± 1.3

$\bar{\chi}_{\mathrm{eff}}^2 = 1216.27$; $R - 1 = 0.02175$

11.34 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02238 ± 0.00018	$\Omega_{\mathrm{m}}h^3$	$0.0957^{+0.0039}_{-0.0044}$	$D_{\mathrm{M}}(0.15)$	643 ± 12
$\Omega_{\mathrm{c}}h^2$	0.1188 ± 0.0036	σ_8	0.808 ± 0.012	$H(0.38)$	82.8 ± 1.4
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00062	S_8	0.823 ± 0.014	$D_{\mathrm{M}}(0.38)$	1533 ± 27
τ	$0.0552^{+0.0073}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4508 ± 0.0075	$H(0.51)$	89.5 ± 1.4
N_{eff}	3.02 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6033 ± 0.0089	$D_{\mathrm{M}}(0.51)$	1986 ± 35
Y_{P}	0.2437 ± 0.0039	$\sigma_8/h^{0.5}$	0.983 ± 0.011	$H(0.61)$	95.2 ± 1.5
$\ln(10^{10}A_{\mathrm{s}})$	3.043 ± 0.018	$r_{\mathrm{drag}}h$	99.55 ± 0.86	$D_{\mathrm{M}}(0.61)$	2311 ± 40
n_{s}	0.9652 ± 0.0070	$\langle d^2 \rangle^{1/2}$	2.436 ± 0.025	$H(2.33)$	235.7 ± 3.2
y_{cal}	1.0007 ± 0.0025	z_{re}	7.72 ± 0.79	$D_{\mathrm{M}}(2.33)$	5774 ± 88
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}$	2.096 ± 0.039	$f\sigma_8(0.15)$	0.4553 ± 0.0073
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.019	$\sigma_8(0.15)$	0.746 ± 0.011
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	D_{40}	1230 ± 13	$f\sigma_8(0.38)$	0.4736 ± 0.0070
A_{100}^{PS}	258 ± 28	D_{220}	5737 ± 38	$\sigma_8(0.38)$	0.661 ± 0.010
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 14	$f\sigma_8(0.51)$	0.4722 ± 0.0069
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.1 ± 4.8	$\sigma_8(0.51)$	0.6190 ± 0.0097
A_{217}^{PS}	115 ± 10	D_{2000}	231.4 ± 1.8	$f\sigma_8(0.61)$	0.4672 ± 0.0068
A^{kSZ}	< 4.11	$n_{\mathrm{s},0.002}$	0.9652 ± 0.0070	$\sigma_8(0.61)$	0.5890 ± 0.0093
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2437 ± 0.0039	$f\sigma_8(2.33)$	0.2970 ± 0.0048
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0040	$\sigma_8(2.33)$	0.3062 ± 0.0051
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.2	Age/Gyr	13.82 ± 0.21	f_{2000}^{143}	29.0 ± 2.9
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	z_*	1089.72 ± 0.33	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.037	r_*	144.9 ± 2.1	f_{2000}^{217}	106.7 ± 1.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	$100\theta_*$	1.04126 ± 0.00065	χ_{simall}^2	397.2 ± 2.0
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.476 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.92 ± 0.19	χ_{lowl}^2	23.4 ± 1.1
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	z_{drag}	1059.81 ± 0.66	χ_{plik}^2	2360.6 ± 6.3
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.081	r_{drag}	147.6 ± 2.2	χ_{Aver15}^2	0.98 ± 1.4
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	k_{D}	0.1406 ± 0.0017	$\chi_{6\mathrm{DF}}^2$	0.067 ± 0.081
c_{100}	0.99966 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16062 ± 0.00038	χ_{MGS}^2	1.23 ± 0.46
c_{217}	0.99819 ± 0.00064	z_{eq}	3388 ± 26	$\chi_{\mathrm{DR12BAO}}^2$	5.1 ± 1.7
H_0	67.5 ± 1.3	k_{eq}	0.01032 ± 0.00013	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	$0.6883^{+0.0073}_{-0.0066}$	$100\theta_{\mathrm{eq}}$	0.8160 ± 0.0049	χ_{BAO}^2	6.3 ± 1.4
Ω_{m}	0.3117 ± 0.0070	$100\theta_{\mathrm{s,eq}}$	0.4508 ± 0.0025	χ_{CMB}^2	2781.2 ± 6.2
$\Omega_{\mathrm{m}}h^2$	0.1418 ± 0.0037	$H(0.15)$	72.7 ± 1.3		

$\bar{\chi}_{\mathrm{eff}}^2 = 2800.04$; $R - 1 = 0.03428$

11.35 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00021	$\Omega_{\mathrm{m}}h^2$	0.1406 ± 0.0035	$100\theta_{\mathrm{s,eq}}$	0.4477 ± 0.0034
$\Omega_{\mathrm{c}}h^2$	0.1177 ± 0.0034	$\Omega_{\mathrm{m}}h^3$	$0.0931^{+0.0040}_{-0.0045}$	$H(0.15)$	71.5 ± 1.5
$100\theta_{\mathrm{MC}}$	1.04122 ± 0.00062	σ_8	0.804 ± 0.011	$D_{\mathrm{M}}(0.15)$	654 ± 15
τ	0.0531 ± 0.0075	S_8	0.831 ± 0.013	$H(0.38)$	81.7 ± 1.6
N_{eff}	2.88 ± 0.23	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4553 ± 0.0071	$D_{\mathrm{M}}(0.38)$	1558 ± 33
Y_{P}	0.2438 ± 0.0040	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6049 ± 0.0074	$H(0.51)$	88.4 ± 1.6
$\ln(10^{10}A_{\mathrm{s}})$	3.036 ± 0.017	$\sigma_8/h^{0.5}$	0.9880 ± 0.0090	$D_{\mathrm{M}}(0.51)$	2017 ± 42
n_{s}	0.9587 ± 0.0084	$r_{\mathrm{drag}}h$	98.5 ± 1.2	$H(0.61)$	94.1 ± 1.6
y_{cal}	1.0005 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.454 ± 0.024	$D_{\mathrm{M}}(0.61)$	2346 ± 47
A_{217}^{CIB}	46 ± 7	z_{re}	7.51 ± 0.76	$H(2.33)$	234.4 ± 3.1
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.385	$10^9 A_{\mathrm{s}}$	2.082 ± 0.036	$D_{\mathrm{M}}(2.33)$	5837 ± 97
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.872 ± 0.018	$f\sigma_8(0.15)$	0.4590 ± 0.0066
A_{100}^{PS}	257 ± 27	D_{40}	1239 ± 15	$\sigma_8(0.15)$	0.742 ± 0.010
A_{143}^{PS}	44 ± 8	D_{220}	5734 ± 38	$f\sigma_8(0.38)$	0.4752 ± 0.0058
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{810}	2537 ± 14	$\sigma_8(0.38)$	0.6567 ± 0.0098
A_{217}^{PS}	115 ± 10	D_{1420}	817.8 ± 4.9	$f\sigma_8(0.51)$	0.4727 ± 0.0056
A^{kSZ}	< 3.91	D_{2000}	231.6 ± 1.8	$\sigma_8(0.51)$	0.6142 ± 0.0094
$A_{100}^{\mathrm{dust}TT}$	8.8 ± 1.8	$n_{\mathrm{s},0.002}$	0.9587 ± 0.0084	$f\sigma_8(0.61)$	0.4670 ± 0.0056
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	Y_{P}	0.2438 ± 0.0040	$\sigma_8(0.61)$	0.5842 ± 0.0091
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.4 ± 3.2	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2451 ± 0.0040	$f\sigma_8(2.33)$	0.2942 ± 0.0048
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	Age/Gyr	13.97 ± 0.23	$\sigma_8(2.33)$	0.3029 ± 0.0052
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	z_*	1089.75 ± 0.32	f_{2000}^{143}	28.6 ± 2.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.030	r_*	146.0 ± 2.1	$f_{2000}^{143 \times 217}$	31.5 ± 2.0
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.480 ± 0.085	$100\theta_*$	1.04150 ± 0.00065	f_{2000}^{217}	106.4 ± 1.9
$A_{143}^{\mathrm{dust}TE}$	0.226 ± 0.054	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.02 ± 0.20	$\chi_{\mathrm{lensing}}^2$	9.01 ± 0.71
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.667 ± 0.081	z_{drag}	1059.34 ± 0.73	χ_{simall}^2	396.9 ± 1.6
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	r_{drag}	148.7 ± 2.2	χ_{lowl}^2	24.4 ± 1.4
c_{100}	0.99967 ± 0.00061	k_{D}	0.1397 ± 0.0017	χ_{plik}^2	2359.1 ± 5.9
c_{217}	0.99817 ± 0.00064	$100\theta_{\mathrm{D}}$	0.16046 ± 0.00038	χ_{Aver15}^2	0.99 ± 1.4
H_0	66.2 ± 1.6	z_{eq}	3420 ± 36	χ_{prior}^2	11.5 ± 4.4
Ω_{Λ}	0.679 ± 0.010	k_{eq}	0.01032 ± 0.00012	χ_{CMB}^2	2789.4 ± 6.0
Ω_{m}	0.321 ± 0.010	$100\theta_{\mathrm{eq}}$	0.8099 ± 0.0067		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.87; R - 1 = 0.01524$$

11.36 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02237 ± 0.00018	$\Omega_{\mathrm{m}}h^3$	0.0953 ± 0.0040	$D_{\mathrm{M}}(0.15)$	644 ± 12
$\Omega_{\mathrm{c}}h^2$	0.1185 ± 0.0035	σ_8	0.807 ± 0.011	$H(0.38)$	82.7 ± 1.4
$100\theta_{\mathrm{MC}}$	1.04108 ± 0.00061	S_8	0.824 ± 0.011	$D_{\mathrm{M}}(0.38)$	1536 ± 27
τ	$0.0560^{+0.0068}_{-0.0078}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4511 ± 0.0061	$H(0.51)$	89.4 ± 1.4
N_{eff}	2.99 ± 0.21	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6035 ± 0.0073	$D_{\mathrm{M}}(0.51)$	1990 ± 34
Y_{P}	0.2437 ± 0.0039	$\sigma_8/h^{0.5}$	0.9840 ± 0.0084	$H(0.61)$	95.0 ± 1.4
$\ln(10^{10}A_{\mathrm{s}})$	3.044 ± 0.016	$r_{\mathrm{drag}}h$	99.47 ± 0.83	$D_{\mathrm{M}}(0.61)$	2315 ± 39
n_{s}	0.9643 ± 0.0070	$\langle d^2 \rangle^{1/2}$	2.440 ± 0.021	$H(2.33)$	235.4 ± 3.0
y_{cal}	1.0007 ± 0.0025	z_{re}	7.80 ± 0.73	$D_{\mathrm{M}}(2.33)$	5784 ± 86
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	2.098 ± 0.034	$f\sigma_8(0.15)$	0.4556 ± 0.0059
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.380	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.018	$\sigma_8(0.15)$	0.746 ± 0.010
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	D_{40}	1232 ± 13	$f\sigma_8(0.38)$	0.4737 ± 0.0057
A_{100}^{PS}	257 ± 27	D_{220}	5739 ± 38	$\sigma_8(0.38)$	0.6611 ± 0.0092
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 13	$f\sigma_8(0.51)$	0.4722 ± 0.0057
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.2 ± 4.8	$\sigma_8(0.51)$	0.6187 ± 0.0087
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.8	$f\sigma_8(0.61)$	0.4672 ± 0.0057
A^{kSZ}	< 4.06	$n_{\mathrm{s},0.002}$	0.9643 ± 0.0070	$\sigma_8(0.61)$	0.5887 ± 0.0084
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2437 ± 0.0039	$f\sigma_8(2.33)$	0.2968 ± 0.0044
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0040	$\sigma_8(2.33)$	0.3059 ± 0.0047
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.2	Age/Gyr	13.85 ± 0.20	f_{2000}^{143}	28.8 ± 2.9
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	z_*	1089.69 ± 0.32	$f_{2000}^{143 \times 217}$	31.6 ± 2.0
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.037	r_*	145.1 ± 2.0	f_{2000}^{217}	106.5 ± 1.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	$100\theta_*$	1.04133 ± 0.00064	$\chi_{\mathrm{lensing}}^2$	9.04 ± 0.65
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.476 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.94 ± 0.19	χ_{simall}^2	397.3 ± 2.0
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	z_{drag}	1059.75 ± 0.65	χ_{lowl}^2	23.5 ± 1.1
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.081	r_{drag}	147.8 ± 2.1	χ_{plik}^2	2359.9 ± 6.0
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	k_{D}	0.1404 ± 0.0016	χ_{Aver15}^2	0.98 ± 1.4
c_{100}	0.99967 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16058 ± 0.00037	$\chi_{6\mathrm{DF}}^2$	0.071 ± 0.082
c_{217}	$0.99818^{+0.00061}_{-0.00067}$	z_{eq}	3390 ± 26	χ_{MGS}^2	1.18 ± 0.44
H_0	67.3 ± 1.3	k_{eq}	0.01031 ± 0.00012	$\chi_{\mathrm{DR12BAO}}^2$	5.2 ± 1.7
Ω_{Λ}	$0.6877^{+0.0072}_{-0.0065}$	$100\theta_{\mathrm{eq}}$	0.8155 ± 0.0048	χ_{prior}^2	11.5 ± 4.4
Ω_{m}	0.3123 ± 0.0068	$100\theta_{\mathrm{s,eq}}$	0.4506 ± 0.0024	χ_{CMB}^2	2789.8 ± 6.1
$\Omega_{\mathrm{m}}h^2$	0.1415 ± 0.0036	$H(0.15)$	72.6 ± 1.3	χ_{BAO}^2	6.4 ± 1.4

$$\bar{\chi}_{\mathrm{eff}}^2 = 2808.62; R - 1 = 0.03124$$

11.37 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02226 ± 0.00021	$\Omega_{\mathrm{m}}h^2$	0.1413 ± 0.0037	$100\theta_{\mathrm{s,eq}}$	0.4478 ± 0.0036
$\Omega_{\mathrm{c}}h^2$	0.1184 ± 0.0036	$\Omega_{\mathrm{m}}h^3$	$0.0940^{+0.0041}_{-0.0047}$	$H(0.15)$	71.8 ± 1.6
$100\theta_{\mathrm{MC}}$	1.04111 ± 0.00062	σ_8	0.807 ± 0.011	$D_{\mathrm{M}}(0.15)$	652 ± 15
τ	$0.0546^{+0.0049}_{-0.0079}$	S_8	0.834 ± 0.016	$H(0.38)$	82.0 ± 1.6
N_{eff}	2.92 ± 0.23	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4568 ± 0.0087	$D_{\mathrm{M}}(0.38)$	1553 ± 33
Y_{P}	0.2437 ± 0.0040	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6072 ± 0.0088	$H(0.51)$	88.7 ± 1.6
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.015}_{-0.018}$	$\sigma_8/h^{0.5}$	0.990 ± 0.011	$D_{\mathrm{M}}(0.51)$	2011 ± 42
n_{s}	0.9600 ± 0.0084	$r_{\mathrm{drag}}h$	98.5 ± 1.3	$H(0.61)$	94.4 ± 1.6
y_{cal}	1.0006 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.457 ± 0.029	$D_{\mathrm{M}}(0.61)$	2338 ± 47
A_{217}^{CIB}	46 ± 7	z_{re}	$7.69^{+0.53}_{-0.80}$	$H(2.33)$	235.0 ± 3.2
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.381	$10^9 A_{\mathrm{s}}$	$2.092^{+0.030}_{-0.038}$	$D_{\mathrm{M}}(2.33)$	5820 ± 97
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.019	$f\sigma_8(0.15)$	0.4607 ± 0.0081
A_{100}^{PS}	256 ± 27	D_{40}	1238 ± 15	$\sigma_8(0.15)$	0.745 ± 0.011
A_{143}^{PS}	45 ± 8	D_{220}	5732 ± 38	$f\sigma_8(0.38)$	0.4769 ± 0.0070
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{810}	2538 ± 14	$\sigma_8(0.38)$	0.6595 ± 0.0098
A_{217}^{PS}	115 ± 10	D_{1420}	817.7 ± 4.8	$f\sigma_8(0.51)$	0.4745 ± 0.0066
A^{kSZ}	< 3.89	D_{2000}	231.5 ± 1.8	$\sigma_8(0.51)$	0.6168 ± 0.0093
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$n_{\mathrm{s},0.002}$	0.9600 ± 0.0084	$f\sigma_8(0.61)$	0.4689 ± 0.0064
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	Y_{P}	0.2437 ± 0.0040	$\sigma_8(0.61)$	0.5867 ± 0.0090
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.2	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0040	$f\sigma_8(2.33)$	0.2955 ± 0.0047
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	Age/Gyr	13.93 ± 0.23	$\sigma_8(2.33)$	0.3043 ± 0.0051
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	z_*	1089.81 ± 0.33	f_{2000}^{143}	28.7 ± 2.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	r_*	145.6 ± 2.2	$f_{2000}^{143 \times 217}$	31.5 ± 2.0
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.480 ± 0.086	$100\theta_*$	1.04138 ± 0.00066	f_{2000}^{217}	106.5 ± 1.9
$A_{143}^{\mathrm{dust}TE}$	0.226 ± 0.054	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.98 ± 0.20	χ_{simall}^2	396.9 ± 1.8
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.668 ± 0.081	z_{drag}	1059.46 ± 0.73	χ_{lowl}^2	24.3 ± 1.5
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	r_{drag}	148.3 ± 2.2	χ_{plik}^2	2359.2 ± 6.0
c_{100}	0.99967 ± 0.00061	k_{D}	0.1400 ± 0.0017	χ_{Aver15}^2	0.99 ± 1.4
c_{217}	0.99818 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16052 ± 0.00038	χ_{prior}^2	11.5 ± 4.5
H_0	66.4 ± 1.6	z_{eq}	3419 ± 38	χ_{CMB}^2	2780.5 ± 5.9
Ω_{Λ}	0.680 ± 0.011	k_{eq}	0.01035 ± 0.00013		
Ω_{m}	0.320 ± 0.011	$100\theta_{\mathrm{eq}}$	0.8102 ± 0.0071		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2792.93; R - 1 = 0.01332$$

11.38 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02239 ± 0.00018	$\Omega_{\mathrm{m}}h^3$	$0.0958^{+0.0039}_{-0.0044}$	$D_{\mathrm{M}}(0.15)$	642 ± 12
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0036	σ_8	0.808 ± 0.012	$H(0.38)$	82.9 ± 1.4
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00062	S_8	0.824 ± 0.013	$D_{\mathrm{M}}(0.38)$	1532 ± 27
τ	$0.0561^{+0.0056}_{-0.0082}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512 ± 0.0073	$H(0.51)$	89.6 ± 1.4
N_{eff}	3.02 ± 0.22	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6039 ± 0.0086	$D_{\mathrm{M}}(0.51)$	1985 ± 35
Y_{P}	0.2437 ± 0.0040	$\sigma_8/h^{0.5}$	0.984 ± 0.010	$H(0.61)$	95.2 ± 1.5
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.015}_{-0.018}$	$r_{\mathrm{drag}}h$	99.57 ± 0.85	$D_{\mathrm{M}}(0.61)$	2310 ± 40
n_{s}	0.9655 ± 0.0070	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.024	$H(2.33)$	235.7 ± 3.2
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.82^{+0.59}_{-0.83}$	$D_{\mathrm{M}}(2.33)$	5772 ± 88
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}$	$2.100^{+0.031}_{-0.039}$	$f\sigma_8(0.15)$	0.4557 ± 0.0071
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.019	$\sigma_8(0.15)$	0.747 ± 0.011
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	D_{40}	1230 ± 13	$f\sigma_8(0.38)$	0.4740 ± 0.0068
A_{100}^{PS}	258 ± 27	D_{220}	5737 ± 38	$\sigma_8(0.38)$	0.6622 ± 0.0098
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 14	$f\sigma_8(0.51)$	0.4726 ± 0.0066
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.0 ± 4.8	$\sigma_8(0.51)$	0.6197 ± 0.0093
A_{217}^{PS}	115 ± 10	D_{2000}	231.4 ± 1.8	$f\sigma_8(0.61)$	0.4677 ± 0.0065
A^{kSZ}	< 4.13	$n_{\mathrm{s},0.002}$	0.9655 ± 0.0070	$\sigma_8(0.61)$	0.5897 ± 0.0089
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2437 ± 0.0040	$f\sigma_8(2.33)$	0.2973 ± 0.0046
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0040	$\sigma_8(2.33)$	0.3065 ± 0.0049
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.2	Age/Gyr	13.82 ± 0.21	f_{2000}^{143}	29.0 ± 2.9
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	z_*	1089.72 ± 0.33	$f_{2000}^{143 \times 217}$	31.7 ± 2.0
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.037	r_*	144.9 ± 2.1	f_{2000}^{217}	106.6 ± 1.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	$100\theta_*$	1.04125 ± 0.00065	χ_{simall}^2	397.2 ± 2.0
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.476 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.91 ± 0.19	χ_{lowl}^2	23.4 ± 1.1
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.054	z_{drag}	1059.82 ± 0.66	χ_{plik}^2	2360.4 ± 6.2
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.081	r_{drag}	147.5 ± 2.2	χ_{Aver15}^2	0.98 ± 1.4
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	k_{D}	0.1406 ± 0.0017	$\chi_{6\mathrm{DF}}^2$	0.066 ± 0.079
c_{100}	0.99965 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16063 ± 0.00038	χ_{MGS}^2	1.23 ± 0.46
c_{217}	0.99819 ± 0.00064	z_{eq}	3387 ± 26	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.6
H_0	67.5 ± 1.3	k_{eq}	0.01032 ± 0.00013	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.6885 ± 0.0070	$100\theta_{\mathrm{eq}}$	0.8161 ± 0.0049	χ_{BAO}^2	6.3 ± 1.4
Ω_{m}	0.3115 ± 0.0070	$100\theta_{\mathrm{s,eq}}$	0.4508 ± 0.0025	χ_{CMB}^2	2781.0 ± 6.1
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0037	$H(0.15)$	72.8 ± 1.3		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.83; R - 1 = 0.03359$$

11.39 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02225 ± 0.00021	$\Omega_m h^2$	0.1407 ± 0.0035	$100\theta_{s,eq}$	0.4479 ± 0.0033
$\Omega_c h^2$	0.1178 ± 0.0034	$\Omega_m h^3$	$0.0933^{+0.0039}_{-0.0046}$	$H(0.15)$	$71.6^{+1.4}_{-1.6}$
$100\theta_{MC}$	1.04120 ± 0.00062	σ_8	0.805 ± 0.010	$D_M(0.15)$	653 ± 15
τ	$0.0544^{+0.0048}_{-0.0077}$	S_8	0.831 ± 0.013	$H(0.38)$	$81.8^{+1.5}_{-1.6}$
N_{eff}	$2.89^{+0.21}_{-0.24}$	$\sigma_8 \Omega_m^{0.5}$	0.4553 ± 0.0070	$D_M(0.38)$	1556 ± 33
Y_P	0.2438 ± 0.0040	$\sigma_8 \Omega_m^{0.25}$	0.6054 ± 0.0072	$H(0.51)$	$88.5^{+1.5}_{-1.7}$
$\ln(10^{10} A_s)$	$3.038^{+0.014}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9886 ± 0.0088	$D_M(0.51)$	2015 ± 41
n_s	0.9593 ± 0.0082	$r_{drag} h$	98.6 ± 1.2	$H(0.61)$	$94.1^{+1.5}_{-1.7}$
y_{cal}	1.0005 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.455 ± 0.024	$D_M(0.61)$	2343 ± 47
A_{217}^{CIB}	46 ± 7	z_{re}	$7.65^{+0.52}_{-0.78}$	$H(2.33)$	234.5 ± 3.1
$\xi^{tSZ \times CIB}$	> 0.383	$10^9 A_s$	$2.087^{+0.029}_{-0.035}$	$D_M(2.33)$	5833 ± 96
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_s e^{-2\tau}$	1.872 ± 0.018	$f\sigma_8(0.15)$	0.4592 ± 0.0065
A_{100}^{PS}	257 ± 27	D_{40}	1239 ± 14	$\sigma_8(0.15)$	0.7430 ± 0.0099
A_{143}^{PS}	44 ± 8	D_{220}	5733 ± 38	$f\sigma_8(0.38)$	0.4755 ± 0.0057
$A_{143 \times 217}^{PS}$	42 ± 9	D_{810}	2537 ± 13	$\sigma_8(0.38)$	0.6577 ± 0.0093
A_{217}^{PS}	115 ± 10	D_{1420}	817.7 ± 4.9	$f\sigma_8(0.51)$	0.4731 ± 0.0055
A^{kSZ}	< 3.94	D_{2000}	231.6 ± 1.8	$\sigma_8(0.51)$	0.6151 ± 0.0089
A_{100}^{dustTT}	8.8 ± 1.8	$n_{s,0.002}$	0.9593 ± 0.0082	$f\sigma_8(0.61)$	0.4675 ± 0.0054
A_{143}^{dustTT}	10.8 ± 1.8	Y_P	0.2438 ± 0.0040	$\sigma_8(0.61)$	0.5851 ± 0.0086
$A_{143 \times 217}^{dustTT}$	18.4 ± 3.2	Y_P^{BBN}	0.2451 ± 0.0040	$f\sigma_8(2.33)$	0.2947 ± 0.0046
A_{217}^{dustTT}	93.6 ± 7.3	Age/Gyr	13.96 ± 0.23	$\sigma_8(2.33)$	0.3035 ± 0.0050
A_{100}^{dustTE}	0.114 ± 0.038	z_*	1089.75 ± 0.31	f_{2000}^{143}	28.5 ± 2.9
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.030	r_*	145.9 ± 2.1	$f_{2000}^{143 \times 217}$	31.4 ± 2.0
$A_{100 \times 217}^{dustTE}$	0.479 ± 0.086	$100\theta_*$	1.04148 ± 0.00065	f_{2000}^{217}	106.4 ± 1.9
A_{143}^{dustTE}	0.226 ± 0.054	$D_M(z_*)/\text{Gpc}$	14.01 ± 0.20	$\chi_{lensing}^2$	9.00 ± 0.70
$A_{143 \times 217}^{dustTE}$	0.666 ± 0.081	z_{drag}	1059.38 ± 0.72	χ_{simall}^2	396.8 ± 1.7
A_{217}^{dustTE}	2.08 ± 0.27	r_{drag}	148.7 ± 2.2	χ_{lowl}^2	24.4 ± 1.4
c_{100}	0.99967 ± 0.00061	k_D	0.1397 ± 0.0017	χ_{plik}^2	2358.9 ± 5.9
c_{217}	0.99817 ± 0.00064	$100\theta_D$	0.16047 ± 0.00038	χ_{Aver15}^2	1.0 ± 1.4
H_0	$66.3^{+1.5}_{-1.6}$	z_{eq}	3418 ± 35	χ_{prior}^2	11.5 ± 4.4
Ω_Λ	0.6799 ± 0.0098	k_{eq}	0.01032 ± 0.00012	χ_{CMB}^2	2789.1 ± 6.0
Ω_m	0.3201 ± 0.0098	$100\theta_{eq}$	0.8104 ± 0.0065		

$\bar{\chi}_{eff}^2 = 2801.62$; $R - 1 = 0.01633$

11.40 base_nnu_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02237 ± 0.00018	$\Omega_{\mathrm{m}}h^3$	0.0953 ± 0.0041	$D_{\mathrm{M}}(0.15)$	644 ± 12
$\Omega_{\mathrm{c}}h^2$	0.1185 ± 0.0035	σ_8	0.808 ± 0.010	$H(0.38)$	82.7 ± 1.4
$100\theta_{\mathrm{MC}}$	1.04108 ± 0.00061	S_8	0.824 ± 0.011	$D_{\mathrm{M}}(0.38)$	1536 ± 27
τ	$0.0566^{+0.0057}_{-0.0079}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4513 ± 0.0061	$H(0.51)$	89.4 ± 1.4
N_{eff}	2.99 ± 0.21	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6037 ± 0.0072	$D_{\mathrm{M}}(0.51)$	1989 ± 34
Y_{P}	0.2437 ± 0.0039	$\sigma_8/h^{0.5}$	0.9844 ± 0.0082	$H(0.61)$	95.0 ± 1.4
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.014}_{-0.016}$	$r_{\mathrm{drag}}h$	99.50 ± 0.82	$D_{\mathrm{M}}(0.61)$	2315 ± 39
n_{s}	0.9645 ± 0.0069	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.021	$H(2.33)$	235.4 ± 3.0
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.86^{+0.60}_{-0.78}$	$D_{\mathrm{M}}(2.33)$	5783 ± 86
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	$2.101^{+0.029}_{-0.035}$	$f\sigma_8(0.15)$	0.4558 ± 0.0059
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.379	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.018	$\sigma_8(0.15)$	0.7464 ± 0.0098
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	D_{40}	1231 ± 13	$f\sigma_8(0.38)$	0.4739 ± 0.0057
A_{100}^{PS}	257 ± 27	D_{220}	5739 ± 38	$\sigma_8(0.38)$	0.6615 ± 0.0090
A_{143}^{PS}	45 ± 8	D_{810}	2538 ± 13	$f\sigma_8(0.51)$	0.4724 ± 0.0056
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.2 ± 4.8	$\sigma_8(0.51)$	0.6191 ± 0.0086
A_{217}^{PS}	115 ± 10	D_{2000}	231.5 ± 1.8	$f\sigma_8(0.61)$	0.4674 ± 0.0056
A^{kSZ}	< 4.07	$n_{\mathrm{s},0.002}$	0.9645 ± 0.0069	$\sigma_8(0.61)$	0.5890 ± 0.0082
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2437 ± 0.0039	$f\sigma_8(2.33)$	0.2970 ± 0.0043
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2451 ± 0.0040	$\sigma_8(2.33)$	0.3061 ± 0.0046
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.2	Age/Gyr	13.85 ± 0.20	f_{2000}^{143}	28.8 ± 2.9
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	z_*	1089.69 ± 0.32	$f_{2000}^{143 \times 217}$	31.6 ± 2.0
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	r_*	145.1 ± 2.0	f_{2000}^{217}	106.5 ± 1.9
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	$100\theta_*$	1.04132 ± 0.00064	$\chi_{\mathrm{lensing}}^2$	9.02 ± 0.62
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.475 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.94 ± 0.19	χ_{simall}^2	397.3 ± 2.0
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	z_{drag}	1059.75 ± 0.65	χ_{lowl}^2	23.5 ± 1.1
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.081	r_{drag}	147.8 ± 2.1	χ_{plik}^2	2359.8 ± 6.0
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	k_{D}	0.1404 ± 0.0016	χ_{Aver15}^2	0.98 ± 1.4
c_{100}	0.99966 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16058 ± 0.00037	$\chi_{6\mathrm{DF}}^2$	0.069 ± 0.080
c_{217}	$0.99818^{+0.00061}_{-0.00067}$	z_{eq}	3390 ± 25	χ_{MGS}^2	1.19 ± 0.43
H_0	67.3 ± 1.3	k_{eq}	0.01031 ± 0.00012	$\chi_{\mathrm{DR12BAO}}^2$	5.1 ± 1.6
Ω_{Λ}	0.6878 ± 0.0068	$100\theta_{\mathrm{eq}}$	0.8157 ± 0.0047	χ_{prior}^2	11.5 ± 4.4
Ω_{m}	0.3122 ± 0.0068	$100\theta_{\mathrm{s,eq}}$	0.4506 ± 0.0024	χ_{CMB}^2	2789.7 ± 6.1
$\Omega_{\mathrm{m}}h^2$	0.1415 ± 0.0036	$H(0.15)$	72.6 ± 1.3	χ_{BAO}^2	6.4 ± 1.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 2808.47; R - 1 = 0.03303$$

11.41 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022361	0.02219 ± 0.00022	σ_8	0.8214	0.801 ± 0.012	$H(0.15)$	73.26	71.7 ± 1.7
$\Omega_{\mathrm{c}}h^2$	0.12075	0.1174 ± 0.0038	S_8	0.8367	0.826 ± 0.016	$D_{\mathrm{M}}(0.15)$	638.0	653 ± 17
$100\theta_{\mathrm{MC}}$	1.04069	1.04117 ± 0.00066	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4583	0.4523 ± 0.0087	$H(0.38)$	83.43	81.8 ± 1.8
τ	0.0637	0.0520 ± 0.0078	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6135	0.6020 ± 0.0090	$D_{\mathrm{M}}(0.38)$	1521.5	1556 ± 37
N_{eff}	3.128	2.89 ± 0.25	$\sigma_8/h^{0.5}$	0.9964	0.984 ± 0.012	$H(0.51)$	90.18	88.5 ± 1.8
Y_{P}	0.24385	0.2440 ± 0.0039	$r_{\mathrm{drag}}h$	99.56	98.7 ± 1.3	$D_{\mathrm{M}}(0.51)$	1971.1	2014 ± 47
$\ln(10^{10}A_{\mathrm{s}})$	3.0665	3.031 ± 0.019	$\langle d^2 \rangle^{1/2}$	2.4587	2.441 ± 0.030	$H(0.61)$	95.83	94.1 ± 1.8
n_{s}	0.9690	0.9604 ± 0.0090	z_{re}	8.63	7.41 ± 0.80	$D_{\mathrm{M}}(0.61)$	2294	2343 ± 53
y_{cal}	1.00188	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.1467	2.072 ± 0.039	$H(2.33)$	237.30	234.1 ± 3.4
A_{100}^{PS}	233.7	237 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8897	1.867 ± 0.020	$D_{\mathrm{M}}(2.33)$	5732	5835 ± 110
A_{143}^{PS}	47.2	38 ± 9	D_{40}	1229.3	1232 ± 16	$f\sigma_8(0.15)$	0.4629	0.4562 ± 0.0082
A_{217}^{PS}	105.6	103 ± 10	D_{220}	5736.0	5717 ± 40	$\sigma_8(0.15)$	0.7590	0.740 ± 0.012
A_{217}^{CIB}	40.8	39 ± 7	D_{810}	2544.7	2532 ± 14	$f\sigma_8(0.38)$	0.4816	0.4728 ± 0.0071
A_{143}^{tSZ}	5.40	$3.9_{-2.5}^{+2.0}$	D_{1420}	818.8	816.4 ± 5.0	$\sigma_8(0.38)$	0.6728	0.655 ± 0.011
$r_{143 \times 217}^{\mathrm{PS}}$	0.732	0.66 ± 0.13	D_{2000}	231.31	231.0 ± 2.0	$f\sigma_8(0.51)$	0.4802	0.4706 ± 0.0068
$r_{143 \times 217}^{\mathrm{CIB}}$	0.735	$0.54_{-0.21}^{+0.39}$	$n_{\mathrm{s},0.002}$	0.9690	0.9604 ± 0.0090	$\sigma_8(0.51)$	0.6297	0.613 ± 0.010
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.76	—	Y_{P}	0.24385	0.2440 ± 0.0039	$f\sigma_8(0.61)$	0.4752	0.4651 ± 0.0067
A^{kSZ}	1.72	< 5.97	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24517	0.2454 ± 0.0039	$\sigma_8(0.61)$	0.5991	0.583 ± 0.010
A_{100}^{dust}	1.008	1.01 ± 0.20	Age/Gyr	13.724	13.97 ± 0.26	$f\sigma_8(2.33)$	0.3021	0.2937 ± 0.0053
A_{143}^{dust}	0.955	0.96 ± 0.18	z_*	1089.970	1089.80 ± 0.37	$\sigma_8(2.33)$	0.3115	0.3025 ± 0.0057
A_{217}^{dust}	0.978	0.98 ± 0.10	r_*	143.85	146.1 ± 2.4	f_{2000}^{143}	29.42	29 ± 3
$A_{143 \times 217}^{\mathrm{dust}}$	1.021	1.02 ± 0.16	$100\theta_*$	1.04089	1.04146 ± 0.00071	f_{2000}^{217}	106.61	106.2 ± 2.2
c_{100}	0.99783	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.820	14.03 ± 0.22	$f_{2000}^{143 \times 217}$	31.92	31.3 ± 2.4
c_{217}	1.00118	1.0011 ± 0.0016	z_{drag}	1059.93	1059.22 ± 0.78	χ_{small}^2	399.05	396.8 ± 1.5
c_{TE}	0.9961	0.9958 ± 0.0051	r_{drag}	146.50	148.8 ± 2.5	χ_{lowl}^2	23.05	23.9 ± 1.4
c_{EE}	0.9923	0.9904 ± 0.0056	k_{D}	0.14128	0.1395 ± 0.0019	$\chi_{\mathrm{CamSpec}}^2$	11499.5	11514.4 ± 5.8
H_0	67.96	66.4 ± 1.8	$100\theta_{\mathrm{D}}$	0.160909	0.16057 ± 0.00047	χ_{Aver15}^2	0.005	0.96 ± 1.4
Ω_{Λ}	0.6887	0.681 ± 0.011	z_{eq}	3382.8	3408 ± 42	χ_{prior}^2	2.43	7.9 ± 3.5
Ω_{m}	0.3113	0.319 ± 0.011	k_{eq}	0.010381	0.01029 ± 0.00013	χ_{CMB}^2	11921.6	11935.1 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.14376	0.1402 ± 0.0039	$100\theta_{\mathrm{eq}}$	0.8166	0.8119 ± 0.0077			
$\Omega_{\mathrm{m}}h^3$	0.09770	$0.0931_{-0.0050}^{+0.0044}$	$100\theta_{\mathrm{s,eq}}$	0.45113	0.4488 ± 0.0039			

Best-fit $\chi_{\mathrm{eff}}^2 = 11924.04$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.94$; $R - 1 = 0.01231$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.01 CMB - small_100x143_offlike5_EE_Aplanck_B: 399.05 commander_dx12_v3.2_29: 23.05 CamSpec like_10.7HM_1400_unified: 11499.50

11.42 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02230 ± 0.00018	S_8	0.817 ± 0.014	$H(0.38)$	82.7 ± 1.5
$\Omega_{\mathrm{c}}h^2$	0.1181 ± 0.0038	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4477 ± 0.0074	$D_{\mathrm{M}}(0.38)$	1535 ± 30
$100\theta_{\mathrm{MC}}$	1.04105 ± 0.00063	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5997 ± 0.0088	$H(0.51)$	89.4 ± 1.5
τ	0.0531 ± 0.0077	$\sigma_8/h^{0.5}$	0.979 ± 0.011	$D_{\mathrm{M}}(0.51)$	1988 ± 38
N_{eff}	3.00 ± 0.23	$r_{\mathrm{drag}}h$	99.71 ± 0.88	$H(0.61)$	95.0 ± 1.6
Y_{P}	0.2441 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.025	$D_{\mathrm{M}}(0.61)$	2314 ± 43
$\ln(10^{10}A_{\mathrm{s}})$	3.035 ± 0.018	z_{re}	$7.52^{+0.81}_{-0.72}$	$H(2.33)$	235.1 ± 3.3
n_{s}	0.9655 ± 0.0072	$10^9 A_{\mathrm{s}}$	2.081 ± 0.038	$D_{\mathrm{M}}(2.33)$	5785 ± 94
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.020	$f\sigma_8(0.15)$	0.4523 ± 0.0072
A_{100}^{PS}	238 ± 25	D_{40}	1225 ± 13	$\sigma_8(0.15)$	0.742 ± 0.011
A_{143}^{PS}	38 ± 9	D_{220}	5722 ± 39	$f\sigma_8(0.38)$	0.4707 ± 0.0069
A_{217}^{PS}	102 ± 10	D_{810}	2534 ± 14	$\sigma_8(0.38)$	0.658 ± 0.010
A_{217}^{CIB}	39 ± 7	D_{1420}	816.4 ± 4.9	$f\sigma_8(0.51)$	0.4694 ± 0.0068
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.4}$	D_{2000}	230.7 ± 2.0	$\sigma_8(0.51)$	$0.6160^{+0.0091}_{-0.010}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9655 ± 0.0072	$f\sigma_8(0.61)$	0.4646 ± 0.0067
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.43}_{-0.16}$	Y_{P}	0.2441 ± 0.0039	$\sigma_8(0.61)$	$0.5862^{+0.0087}_{-0.0098}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2455 ± 0.0039	$f\sigma_8(2.33)$	$0.2956^{+0.0045}_{-0.0050}$
A^{kSZ}	$4.6^{+2.0}_{-4.1}$	Age/Gyr	13.85 ± 0.22	$\sigma_8(2.33)$	$0.3048^{+0.0048}_{-0.0054}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.77 ± 0.37	f_{2000}^{143}	29.2 ± 3.2
A_{143}^{dust}	0.95 ± 0.17	r_*	145.3 ± 2.2	f_{2000}^{217}	106.5 ± 2.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04129 ± 0.00067	$f_{2000}^{143 \times 217}$	31.7 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.20	χ_{simall}^2	396.9 ± 1.6
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.58 ± 0.69	χ_{lowl}^2	23.1 ± 1.0
c_{217}	1.0011 ± 0.0015	r_{drag}	148.0 ± 2.3	$\chi_{\mathrm{CamSpec}}^2$	11515.0 ± 5.7
c_{TE}	0.9964 ± 0.0049	k_{D}	0.1401 ± 0.0018	χ_{Aver15}^2	0.97 ± 1.4
c_{EE}	0.9917 ± 0.0054	$100\theta_{\mathrm{D}}$	0.16072 ± 0.00044	$\chi_{6\mathrm{DF}}^2$	0.058 ± 0.073
H_0	67.4 ± 1.4	z_{eq}	3379 ± 28	χ_{MGS}^2	1.31 ± 0.48
Ω_{Λ}	0.6894 ± 0.0072	k_{eq}	0.01028 ± 0.00013	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
Ω_{m}	0.3106 ± 0.0072	$100\theta_{\mathrm{eq}}$	0.8174 ± 0.0051	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0039	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0026	χ_{BAO}^2	6.2 ± 1.2
$\Omega_{\mathrm{m}}h^3$	$0.0951^{+0.0041}_{-0.0046}$	$H(0.15)$	72.7 ± 1.4	χ_{CMB}^2	11934.9 ± 5.6
σ_8	0.803 ± 0.012	$D_{\mathrm{M}}(0.15)$	643 ± 13		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.86; R - 1 = 0.01509$$

11.43 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02216 ± 0.00022	σ_8	0.801 ± 0.011	$H(0.15)$	71.4 ± 1.7
$\Omega_{\mathrm{c}}h^2$	0.1170 ± 0.0037	S_8	0.828 ± 0.013	$D_{\mathrm{M}}(0.15)$	656 ± 16
$100\theta_{\mathrm{MC}}$	1.04125 ± 0.00065	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4534 ± 0.0069	$H(0.38)$	81.5 ± 1.7
τ	0.0526 ± 0.0074	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6026 ± 0.0072	$D_{\mathrm{M}}(0.38)$	1562 ± 37
N_{eff}	2.85 ± 0.25	$\sigma_8/h^{0.5}$	0.9856 ± 0.0089	$H(0.51)$	88.2 ± 1.7
Y_{P}	0.2441 ± 0.0038	$r_{\mathrm{drag}}h$	98.5 ± 1.2	$D_{\mathrm{M}}(0.51)$	2022 ± 46
$\ln(10^{10}A_{\mathrm{s}})$	3.031 ± 0.018	$\langle d^2 \rangle^{1/2}$	2.448 ± 0.024	$H(0.61)$	93.8 ± 1.8
n_{s}	0.9588 ± 0.0087	z_{re}	$7.47^{+0.78}_{-0.68}$	$D_{\mathrm{M}}(0.61)$	2352 ± 52
y_{cal}	1.0006 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.073 ± 0.036	$H(2.33)$	233.7 ± 3.3
A_{100}^{PS}	236 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.866 ± 0.020	$D_{\mathrm{M}}(2.33)$	5852 ± 110
A_{143}^{PS}	37 ± 9	D_{40}	1235 ± 14	$f\sigma_8(0.15)$	0.4572 ± 0.0064
A_{217}^{PS}	103 ± 10	D_{220}	5719 ± 38	$\sigma_8(0.15)$	0.739 ± 0.011
A_{217}^{CIB}	39 ± 7	D_{810}	2533 ± 14	$f\sigma_8(0.38)$	0.4733 ± 0.0057
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{1420}	816.8 ± 4.9	$\sigma_8(0.38)$	0.655 ± 0.010
$r_{143 \times 217}^{\mathrm{PS}}$	0.67 ± 0.13	D_{2000}	231.3 ± 2.0	$f\sigma_8(0.51)$	0.4709 ± 0.0056
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.53^{+0.39}_{-0.21}$	$n_{\mathrm{s},0.002}$	0.9588 ± 0.0087	$\sigma_8(0.51)$	0.6121 ± 0.0099
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.2441 ± 0.0038	$f\sigma_8(0.61)$	0.4653 ± 0.0056
A^{kSZ}	< 5.82	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0038	$\sigma_8(0.61)$	0.5822 ± 0.0096
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	14.01 ± 0.25	$f\sigma_8(2.33)$	0.2933 ± 0.0051
A_{143}^{dust}	0.95 ± 0.18	z_*	1089.78 ± 0.35	$\sigma_8(2.33)$	0.3020 ± 0.0056
A_{217}^{dust}	0.98 ± 0.10	r_*	146.4 ± 2.3	f_{2000}^{143}	28 ± 3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04155 ± 0.00070	f_{2000}^{217}	106.0 ± 2.2
c_{100}	0.9976 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.06 ± 0.22	$f_{2000}^{143 \times 217}$	31.1 ± 2.3
c_{217}	1.0010 ± 0.0016	z_{drag}	1059.11 ± 0.77	$\chi_{\mathrm{lensing}}^2$	9.03 ± 0.75
c_{TE}	0.9955 ± 0.0049	r_{drag}	149.2 ± 2.4	χ_{simall}^2	396.8 ± 1.5
c_{EE}	0.9900 ± 0.0055	k_{D}	0.1393 ± 0.0018	χ_{lowl}^2	24.1 ± 1.4
H_0	66.1 ± 1.7	$100\theta_{\mathrm{D}}$	0.16050 ± 0.00046	$\chi_{\mathrm{CamSpec}}^2$	11513.6 ± 5.5
Ω_{Λ}	0.680 ± 0.011	z_{eq}	3415 ± 39	χ_{Aver15}^2	0.9 ± 1.4
Ω_{m}	0.320 ± 0.011	k_{eq}	0.01028 ± 0.00012	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1398 ± 0.0038	$100\theta_{\mathrm{eq}}$	0.8106 ± 0.0072	χ_{CMB}^2	11943.6 ± 5.8
$\Omega_{\mathrm{m}}h^3$	$0.0924^{+0.0043}_{-0.0048}$	$100\theta_{\mathrm{s,eq}}$	0.4481 ± 0.0036		

$\bar{\chi}_{\mathrm{eff}}^2 = 11952.31$; $R - 1 = 0.01285$

11.44 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02229 ± 0.00018	S_8	0.821 ± 0.011	$H(0.38)$	$82.6^{+1.4}_{-1.5}$
$\Omega_{\mathrm{c}}h^2$	0.1180 ± 0.0036	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4496 ± 0.0061	$D_{\mathrm{M}}(0.38)$	1538 ± 29
$100\theta_{\mathrm{MC}}$	1.04107 ± 0.00062	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6015 ± 0.0073	$H(0.51)$	89.2 ± 1.5
τ	0.0549 ± 0.0071	$\sigma_8/h^{0.5}$	0.9818 ± 0.0084	$D_{\mathrm{M}}(0.51)$	1993 ± 37
N_{eff}	$2.98^{+0.21}_{-0.23}$	$r_{\mathrm{drag}}h$	99.53 ± 0.86	$H(0.61)$	94.8 ± 1.5
Y_{P}	0.2441 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.021	$D_{\mathrm{M}}(0.61)$	2319 ± 42
$\ln(10^{10}A_{\mathrm{s}})$	3.039 ± 0.016	z_{re}	7.70 ± 0.71	$H(2.33)$	234.9 ± 3.2
n_{s}	0.9644 ± 0.0071	$10^9 A_{\mathrm{s}}$	2.089 ± 0.033	$D_{\mathrm{M}}(2.33)$	5793 ± 92
y_{cal}	1.0007 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.872 ± 0.019	$f\sigma_8(0.15)$	0.4541 ± 0.0059
A_{100}^{PS}	237 ± 25	D_{40}	1228 ± 13	$\sigma_8(0.15)$	0.744 ± 0.010
A_{143}^{PS}	38 ± 9	D_{220}	5726 ± 38	$f\sigma_8(0.38)$	0.4722 ± 0.0057
A_{217}^{PS}	103 ± 10	D_{810}	2535 ± 13	$\sigma_8(0.38)$	$0.6592^{+0.0087}_{-0.0097}$
A_{217}^{CIB}	39 ± 7	D_{1420}	816.9 ± 4.9	$f\sigma_8(0.51)$	0.4707 ± 0.0057
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	230.9 ± 1.9	$\sigma_8(0.51)$	$0.6169^{+0.0083}_{-0.0093}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9644 ± 0.0071	$f\sigma_8(0.61)$	0.4658 ± 0.0057
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.42}_{-0.17}$	Y_{P}	0.2441 ± 0.0039	$\sigma_8(0.61)$	$0.5870^{+0.0079}_{-0.0090}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0039	$f\sigma_8(2.33)$	$0.2960^{+0.0041}_{-0.0047}$
A^{kSZ}	$4.5^{+1.5}_{-4.5}$	Age/Gyr	13.87 ± 0.22	$\sigma_8(2.33)$	$0.3051^{+0.0044}_{-0.0050}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.77 ± 0.35	f_{2000}^{143}	29.0 ± 3.2
A_{143}^{dust}	0.95 ± 0.17	r_*	145.4 ± 2.1	f_{2000}^{217}	106.4 ± 2.1
A_{217}^{dust}	0.98 ± 0.10	$100\theta_*$	1.04132 ± 0.00066	$f_{2000}^{143 \times 217}$	31.6 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.96 ± 0.20	$\chi_{\mathrm{lensing}}^2$	9.26 ± 0.83
c_{100}	0.9976 ± 0.0011	z_{drag}	1059.53 ± 0.67	χ_{simall}^2	397.0 ± 1.6
c_{217}	1.0011 ± 0.0016	r_{drag}	148.1 ± 2.2	χ_{lowl}^2	23.3 ± 1.1
c_{TE}	0.9962 ± 0.0049	k_{D}	0.1401 ± 0.0017	$\chi_{\mathrm{CamSpec}}^2$	11514.1 ± 5.5
c_{EE}	0.9915 ± 0.0054	$100\theta_{\mathrm{D}}$	0.16068 ± 0.00043	χ_{Aver15}^2	0.96 ± 1.4
H_0	67.2 ± 1.4	z_{eq}	3385 ± 27	$\chi_{6\mathrm{DF}}^2$	0.068 ± 0.080
Ω_{Λ}	0.6880 ± 0.0071	k_{eq}	0.01028 ± 0.00012	χ_{MGS}^2	1.22 ± 0.46
Ω_{m}	0.3120 ± 0.0071	$100\theta_{\mathrm{eq}}$	0.8163 ± 0.0050	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.6
$\Omega_{\mathrm{m}}h^2$	0.1410 ± 0.0037	$100\theta_{\mathrm{s,eq}}$	0.4510 ± 0.0025	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	$0.0948^{+0.0039}_{-0.0045}$	$H(0.15)$	$72.5^{+1.3}_{-1.5}$	χ_{CMB}^2	11943.7 ± 5.6
σ_8	0.805 ± 0.011	$D_{\mathrm{M}}(0.15)$	645 ± 13	χ_{BAO}^2	6.3 ± 1.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.76; R - 1 = 0.01459$$

11.45 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00022	σ_8	0.803 ± 0.012	$H(0.15)$	71.7 ± 1.7
$\Omega_{\mathrm{c}}h^2$	0.1175 ± 0.0038	S_8	0.826 ± 0.016	$D_{\mathrm{M}}(0.15)$	652 ± 16
$100\theta_{\mathrm{MC}}$	1.04116 ± 0.00066	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4527 ± 0.0087	$H(0.38)$	81.9 ± 1.7
τ	$0.0538^{+0.0044}_{-0.0078}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6028 ± 0.0088	$D_{\mathrm{M}}(0.38)$	1554 ± 37
N_{eff}	2.90 ± 0.25	$\sigma_8/h^{0.5}$	0.985 ± 0.011	$H(0.51)$	88.6 ± 1.8
Y_{P}	0.2441 ± 0.0039	$r_{\mathrm{drag}}h$	98.8 ± 1.3	$D_{\mathrm{M}}(0.51)$	2012 ± 46
$\ln(10^{10}A_{\mathrm{s}})$	$3.035^{+0.015}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.444 ± 0.029	$H(0.61)$	94.2 ± 1.8
n_{s}	0.9609 ± 0.0089	z_{re}	$7.60^{+0.48}_{-0.79}$	$D_{\mathrm{M}}(0.61)$	2341 ± 52
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.079^{+0.030}_{-0.037}$	$H(2.33)$	234.2 ± 3.4
A_{100}^{PS}	237 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.867 ± 0.020	$D_{\mathrm{M}}(2.33)$	5831 ± 110
A_{143}^{PS}	38 ± 9	D_{40}	1232 ± 16	$f\sigma_8(0.15)$	0.4567 ± 0.0081
A_{217}^{PS}	103 ± 10	D_{220}	5716 ± 40	$\sigma_8(0.15)$	0.741 ± 0.011
A_{217}^{CIB}	39 ± 7	D_{810}	2532 ± 14	$f\sigma_8(0.38)$	0.4734 ± 0.0070
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5}$	D_{1420}	816.4 ± 5.0	$\sigma_8(0.38)$	$0.6564^{+0.0095}_{-0.011}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	231.0 ± 2.0	$f\sigma_8(0.51)$	0.4713 ± 0.0066
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.39}_{-0.20}$	$n_{\mathrm{s},0.002}$	0.9609 ± 0.0089	$\sigma_8(0.51)$	$0.6140^{+0.0091}_{-0.010}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.2441 ± 0.0039	$f\sigma_8(0.61)$	0.4658 ± 0.0064
A^{kSZ}	< 5.95	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0039	$\sigma_8(0.61)$	$0.5841^{+0.0088}_{-0.0098}$
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	13.96 ± 0.26	$f\sigma_8(2.33)$	0.2943 ± 0.0050
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.80 ± 0.37	$\sigma_8(2.33)$	0.3031 ± 0.0055
A_{217}^{dust}	0.98 ± 0.10	r_*	146.0 ± 2.4	f_{2000}^{143}	29 ± 3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04144 ± 0.00071	f_{2000}^{217}	106.1 ± 2.2
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	14.02 ± 0.22	$f_{2000}^{143 \times 217}$	31.3 ± 2.4
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.25 ± 0.77	χ_{small}^2	396.7 ± 1.5
c_{TE}	0.9957 ± 0.0051	r_{drag}	148.8 ± 2.5	χ_{lowl}^2	23.9 ± 1.4
c_{EE}	0.9904 ± 0.0056	k_{D}	0.1396 ± 0.0019	$\chi_{\mathrm{CamSpec}}^2$	11514.2 ± 5.9
H_0	66.5 ± 1.7	$100\theta_{\mathrm{D}}$	0.16057 ± 0.00047	χ_{Aver15}^2	0.96 ± 1.4
Ω_{Λ}	0.682 ± 0.011	z_{eq}	3406 ± 41	χ_{prior}^2	7.9 ± 3.5
Ω_{m}	0.318 ± 0.011	k_{eq}	0.01029 ± 0.00013	χ_{CMB}^2	11934.8 ± 5.8
$\Omega_{\mathrm{m}}h^2$	0.1403 ± 0.0039	$100\theta_{\mathrm{eq}}$	0.8124 ± 0.0076		
$\Omega_{\mathrm{m}}h^3$	$0.0933^{+0.0044}_{-0.0050}$	$100\theta_{\mathrm{s,eq}}$	0.4490 ± 0.0039		

$\bar{\chi}_{\mathrm{eff}}^2 = 11943.65$; $R - 1 = 0.01349$

11.46 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02230 ± 0.00018	S_8	0.818 ± 0.013	$H(0.38)$	82.7 ± 1.5
$\Omega_{\mathrm{c}}h^2$	0.1182 ± 0.0038	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4482 ± 0.0072	$D_{\mathrm{M}}(0.38)$	1534 ± 30
$100\theta_{\mathrm{MC}}$	1.04104 ± 0.00064	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6005 ± 0.0085	$H(0.51)$	89.4 ± 1.5
τ	$0.0546^{+0.0052}_{-0.0076}$	$\sigma_8/h^{0.5}$	0.9798 ± 0.0098	$D_{\mathrm{M}}(0.51)$	1988 ± 37
N_{eff}	3.00 ± 0.23	$r_{\mathrm{drag}}h$	99.73 ± 0.88	$H(0.61)$	95.0 ± 1.6
Y_{P}	0.2441 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.024	$D_{\mathrm{M}}(0.61)$	2313 ± 43
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.015}_{-0.018}$	z_{re}	$7.67^{+0.56}_{-0.78}$	$H(2.33)$	235.1 ± 3.3
n_{s}	0.9657 ± 0.0072	$10^9 A_{\mathrm{s}}$	$2.087^{+0.030}_{-0.037}$	$D_{\mathrm{M}}(2.33)$	5784 ± 94
y_{cal}	1.0005 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.020	$f\sigma_8(0.15)$	0.4528 ± 0.0070
A_{100}^{PS}	238 ± 25	D_{40}	1225 ± 13	$\sigma_8(0.15)$	$0.744^{+0.010}_{-0.012}$
A_{143}^{PS}	38 ± 9	D_{220}	5721 ± 38	$f\sigma_8(0.38)$	0.4713 ± 0.0067
A_{217}^{PS}	102 ± 10	D_{810}	2533 ± 14	$\sigma_8(0.38)$	$0.6592^{+0.0091}_{-0.011}$
A_{217}^{CIB}	39 ± 7	D_{1420}	816.4 ± 4.9	$f\sigma_8(0.51)$	0.4700 ± 0.0066
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.4}$	D_{2000}	230.7 ± 1.9	$\sigma_8(0.51)$	$0.6170^{+0.0086}_{-0.010}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9657 ± 0.0072	$f\sigma_8(0.61)$	0.4652 ± 0.0065
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.44}_{-0.16}$	Y_{P}	0.2441 ± 0.0039	$\sigma_8(0.61)$	$0.5871^{+0.0083}_{-0.0096}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0039	$f\sigma_8(2.33)$	$0.2961^{+0.0042}_{-0.0050}$
A^{kSZ}	$4.6^{+1.9}_{-4.2}$	Age/Gyr	13.85 ± 0.22	$\sigma_8(2.33)$	$0.3053^{+0.0045}_{-0.0053}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.77 ± 0.37	f_{2000}^{143}	29.1 ± 3.2
A_{143}^{dust}	0.96 ± 0.17	r_*	145.3 ± 2.2	f_{2000}^{217}	106.4 ± 2.2
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04128 ± 0.00068	$f_{2000}^{143 \times 217}$	31.7 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.95 ± 0.20	χ_{simall}^2	396.8 ± 1.6
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.58 ± 0.68	χ_{lowl}^2	23.1 ± 1.1
c_{217}	1.0011 ± 0.0016	r_{drag}	147.9 ± 2.3	$\chi_{\mathrm{CamSpec}}^2$	11514.8 ± 5.7
c_{TE}	0.9964 ± 0.0049	k_{D}	0.1402 ± 0.0017	χ_{Aver15}^2	0.96 ± 1.4
c_{EE}	0.9916 ± 0.0054	$100\theta_{\mathrm{D}}$	0.16072 ± 0.00044	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.071
H_0	67.4 ± 1.4	z_{eq}	3378 ± 28	χ_{MGS}^2	1.33 ± 0.49
Ω_{Λ}	0.6896 ± 0.0072	k_{eq}	0.01028 ± 0.00013	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
Ω_{m}	0.3104 ± 0.0072	$100\theta_{\mathrm{eq}}$	0.8175 ± 0.0052	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1411 ± 0.0039	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0026	χ_{BAO}^2	6.1 ± 1.2
$\Omega_{\mathrm{m}}h^3$	$0.0952^{+0.0040}_{-0.0046}$	$H(0.15)$	72.7 ± 1.4	χ_{CMB}^2	11934.7 ± 5.6
σ_8	$0.805^{+0.011}_{-0.012}$	$D_{\mathrm{M}}(0.15)$	643 ± 13		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.59; R - 1 = 0.01728$$

11.47 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02217 ± 0.00021	σ_8	0.802 ± 0.011	$H(0.15)$	71.5 ± 1.7
$\Omega_c h^2$	0.1170 ± 0.0037	S_8	0.828 ± 0.013	$D_M(0.15)$	655 ± 16
$100\theta_{MC}$	1.04124 ± 0.00065	$\sigma_8 \Omega_m^{0.5}$	0.4534 ± 0.0068	$H(0.38)$	81.6 ± 1.7
τ	$0.0541^{+0.0049}_{-0.0072}$	$\sigma_8 \Omega_m^{0.25}$	0.6030 ± 0.0071	$D_M(0.38)$	1560 ± 36
N_{eff}	2.86 ± 0.25	$\sigma_8/h^{0.5}$	0.9862 ± 0.0087	$H(0.51)$	88.3 ± 1.7
Y_P	0.2441 ± 0.0038	$r_{\text{drag}} h$	98.6 ± 1.2	$D_M(0.51)$	2020 ± 45
$\ln(10^{10} A_s)$	$3.034^{+0.014}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	2.449 ± 0.024	$H(0.61)$	93.9 ± 1.8
n_s	0.9594 ± 0.0086	z_{re}	$7.62^{+0.52}_{-0.73}$	$D_M(0.61)$	2349 ± 52
y_{cal}	1.0005 ± 0.0025	$10^9 A_s$	$2.079^{+0.029}_{-0.035}$	$H(2.33)$	233.8 ± 3.3
A_{100}^{PS}	236 ± 25	$10^9 A_s e^{-2\tau}$	1.866 ± 0.019	$D_M(2.33)$	5848 ± 110
A_{143}^{PS}	37 ± 8	D_{40}	1235 ± 14	$f\sigma_8(0.15)$	0.4573 ± 0.0064
A_{217}^{PS}	103 ± 10	D_{220}	5719 ± 38	$\sigma_8(0.15)$	0.740 ± 0.010
A_{217}^{CIB}	39 ± 7	D_{810}	2533 ± 13	$f\sigma_8(0.38)$	0.4736 ± 0.0056
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.4}$	D_{1420}	816.7 ± 4.9	$\sigma_8(0.38)$	0.6556 ± 0.0098
$r_{143 \times 217}^{\text{PS}}$	0.67 ± 0.13	D_{2000}	231.2 ± 2.0	$f\sigma_8(0.51)$	0.4713 ± 0.0055
$r_{143 \times 217}^{\text{CIB}}$	$0.53^{+0.39}_{-0.21}$	$n_{s,0.002}$	0.9594 ± 0.0086	$\sigma_8(0.51)$	0.6132 ± 0.0095
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	0.2441 ± 0.0038	$f\sigma_8(0.61)$	0.4658 ± 0.0055
A^{kSZ}	< 5.79	Y_P^{BBN}	0.2454 ± 0.0038	$\sigma_8(0.61)$	0.5832 ± 0.0092
A_{100}^{dust}	1.01 ± 0.20	Age/Gyr	14.00 ± 0.25	$f\sigma_8(2.33)$	0.2938 ± 0.0049
A_{143}^{dust}	0.95 ± 0.18	z_*	1089.77 ± 0.35	$\sigma_8(2.33)$	0.3025 ± 0.0053
A_{217}^{dust}	0.98 ± 0.10	r_*	146.4 ± 2.3	f_{2000}^{143}	28 ± 3
$A_{143 \times 217}^{\text{dust}}$	1.02 ± 0.16	$100\theta_*$	1.04153 ± 0.00070	f_{2000}^{217}	106.0 ± 2.2
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	14.05 ± 0.22	$f_{2000}^{143 \times 217}$	31.1 ± 2.3
c_{217}	1.0010 ± 0.0016	z_{drag}	1059.15 ± 0.76	χ_{lensing}^2	8.99 ± 0.71
c_{TE}	0.9955 ± 0.0050	r_{drag}	149.1 ± 2.4	χ_{simall}^2	396.7 ± 1.5
c_{EE}	0.9900 ± 0.0055	k_D	0.1393 ± 0.0018	χ_{lowl}^2	24.1 ± 1.4
H_0	$66.2^{+1.5}_{-1.7}$	$100\theta_D$	0.16051 ± 0.00045	χ_{CamSpec}^2	11513.5 ± 5.6
Ω_Λ	0.680 ± 0.010	z_{eq}	3412 ± 38	χ_{Aver15}^2	0.9 ± 1.4
Ω_m	0.320 ± 0.010	k_{eq}	0.01028 ± 0.00012	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^2$	0.1398 ± 0.0038	$100\theta_{\text{eq}}$	0.8112 ± 0.0070	χ_{CMB}^2	11943.3 ± 5.7
$\Omega_m h^3$	$0.0926^{+0.0043}_{-0.0048}$	$100\theta_{s,\text{eq}}$	0.4484 ± 0.0035		

$\bar{\chi}_{\text{eff}}^2 = 11952.02$; $R - 1 = 0.01312$

11.48 base_nnu_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02229 ± 0.00018	S_8	0.821 ± 0.011	$H(0.38)$	$82.6^{+1.4}_{-1.5}$
$\Omega_{\mathrm{c}}h^2$	0.1180 ± 0.0036	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4497 ± 0.0060	$D_{\mathrm{M}}(0.38)$	1538 ± 29
$100\theta_{\mathrm{MC}}$	1.04108 ± 0.00062	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6018 ± 0.0072	$H(0.51)$	89.2 ± 1.5
τ	$0.0557^{+0.0057}_{-0.0071}$	$\sigma_8/h^{0.5}$	0.9822 ± 0.0082	$D_{\mathrm{M}}(0.51)$	1993 ± 37
N_{eff}	$2.98^{+0.21}_{-0.23}$	$r_{\mathrm{drag}}h$	99.55 ± 0.85	$H(0.61)$	94.8 ± 1.5
Y_{P}	0.2441 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.435 ± 0.021	$D_{\mathrm{M}}(0.61)$	2319 ± 42
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.014}_{-0.016}$	z_{re}	$7.78^{+0.60}_{-0.70}$	$H(2.33)$	234.9 ± 3.2
n_{s}	0.9645 ± 0.0071	$10^9 A_{\mathrm{s}}$	$2.092^{+0.029}_{-0.033}$	$D_{\mathrm{M}}(2.33)$	5793 ± 92
y_{cal}	1.0007 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.871 ± 0.019	$f\sigma_8(0.15)$	0.4542 ± 0.0058
A_{100}^{PS}	237 ± 25	D_{40}	1228 ± 13	$\sigma_8(0.15)$	$0.7442^{+0.0093}_{-0.010}$
A_{143}^{PS}	38 ± 9	D_{220}	5726 ± 38	$f\sigma_8(0.38)$	0.4724 ± 0.0057
A_{217}^{PS}	103 ± 10	D_{810}	2535 ± 13	$\sigma_8(0.38)$	$0.6596^{+0.0085}_{-0.0096}$
A_{217}^{CIB}	39 ± 7	D_{1420}	816.8 ± 4.9	$f\sigma_8(0.51)$	0.4709 ± 0.0056
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5}$	D_{2000}	231.0 ± 1.9	$\sigma_8(0.51)$	$0.6173^{+0.0081}_{-0.0092}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9645 ± 0.0071	$f\sigma_8(0.61)$	0.4660 ± 0.0056
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.42}_{-0.17}$	Y_{P}	0.2441 ± 0.0039	$\sigma_8(0.61)$	$0.5874^{+0.0078}_{-0.0089}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0039	$f\sigma_8(2.33)$	$0.2962^{+0.0040}_{-0.0046}$
A^{kSZ}	< 5.99	Age/Gyr	13.87 ± 0.22	$\sigma_8(2.33)$	$0.3053^{+0.0043}_{-0.0050}$
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.76 ± 0.35	f_{2000}^{143}	28.9 ± 3.2
A_{143}^{dust}	0.95 ± 0.17	r_*	145.4 ± 2.1	f_{2000}^{217}	106.4 ± 2.1
A_{217}^{dust}	0.98 ± 0.10	$100\theta_*$	1.04132 ± 0.00066	$f_{2000}^{143 \times 217}$	31.5 ± 2.3
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.96 ± 0.20	$\chi_{\mathrm{lensing}}^2$	9.21 ± 0.77
c_{100}	0.9976 ± 0.0011	z_{drag}	1059.53 ± 0.67	χ_{simall}^2	397.0 ± 1.7
c_{217}	1.0011 ± 0.0016	r_{drag}	148.1 ± 2.2	χ_{lowl}^2	23.3 ± 1.1
c_{TE}	0.9962 ± 0.0049	k_{D}	0.1401 ± 0.0017	$\chi_{\mathrm{CamSpec}}^2$	11514.1 ± 5.5
c_{EE}	0.9914 ± 0.0054	$100\theta_{\mathrm{D}}$	0.16067 ± 0.00043	χ_{Aver15}^2	0.96 ± 1.3
H_0	$67.2^{+1.3}_{-1.4}$	z_{eq}	3384 ± 27	$\chi_{6\mathrm{DF}}^2$	0.066 ± 0.078
Ω_{Λ}	0.6881 ± 0.0071	k_{eq}	0.01028 ± 0.00012	χ_{MGS}^2	1.23 ± 0.46
Ω_{m}	0.3119 ± 0.0071	$100\theta_{\mathrm{eq}}$	0.8164 ± 0.0050	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.6
$\Omega_{\mathrm{m}}h^2$	0.1409 ± 0.0037	$100\theta_{\mathrm{s,eq}}$	0.4511 ± 0.0025	χ_{prior}^2	7.7 ± 3.4
$\Omega_{\mathrm{m}}h^3$	$0.0948^{+0.0039}_{-0.0045}$	$H(0.15)$	$72.5^{+1.3}_{-1.5}$	χ_{CMB}^2	11943.6 ± 5.6
σ_8	0.805 ± 0.011	$D_{\mathrm{M}}(0.15)$	645 ± 13	χ_{BAO}^2	6.3 ± 1.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.57; R - 1 = 0.01608$$

12 nrun

12.1 base_nrun_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022178	0.02216 ± 0.00023 (+0.2 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4595	0.460 ± 0.013 (+0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.44832	0.4480 ± 0.0046 (−0.1 σ)
$\Omega_{\mathrm{c}} h^2$	0.12059	0.1208 ± 0.0021 (+0.1 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6110	0.612 ± 0.012 (+0.1 σ)	$H(0.15)$	72.32	72.26 ± 0.79 (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.040803	1.04078 ± 0.00047 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9928	0.994 ± 0.016 (+0.1 σ)	$D_{\mathrm{M}}(0.15)$	646.9	647.7 ± 8.0 (−0.0 σ)
τ	0.0531	0.0534 ± 0.0083 (+0.2 σ)	$r_{\mathrm{drag}} h$	98.52	98.4 ± 1.6 (−0.0 σ)	$H(0.38)$	82.57	82.53 ± 0.56 (+0.0 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0432	3.044 ± 0.018 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4475	2.451 ± 0.038 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1540.8	1542 ± 16 (−0.0 σ)
n_{s}	0.9635	0.9619 ± 0.0060 (−0.1 σ)	z_{re}	7.60	$7.62^{+0.87}_{-0.76}$ (+0.1 σ)	$H(0.51)$	89.374	89.34 ± 0.44 (+0.0 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	−0.0029	$−0.0043 \pm 0.0075$	$10^9 A_{\mathrm{s}}$	2.0971	2.100 ± 0.037 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1994.7	1996 ± 19 (−0.0 σ)
y_{cal}	1.00044	1.0004 ± 0.0025 (+0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8860	1.887 ± 0.014 (+0.2 σ)	$H(0.61)$	95.056	95.03 ± 0.35 (+0.1 σ)
A_{217}^{CIB}	49.4	48 ± 7 (+0.1 σ)	D_{40}	1224.5	1225 ± 21 (−0.6 σ)	$D_{\mathrm{M}}(0.61)$	2320.0	2322 ± 20 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.24	—	D_{220}	5711.5	5713 ± 42 (+0.0 σ)	$H(2.33)$	236.75	236.8 ± 1.3 (+0.1 σ)
A_{143}^{tSZ}	7.04	4.9 ± 2.0 (−0.1 σ)	D_{810}	2539.2	2538 ± 14 (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5774.7	5776 ± 17 (−0.1 σ)
A_{100}^{PS}	256.3	266 ± 29 (+0.1 σ)	D_{1420}	815.3	813.9 ± 5.3 (−0.1 σ)	$f\sigma_8(0.15)$	0.4634	0.464 ± 0.012 (+0.0 σ)
A_{143}^{PS}	49.3	50 ± 8 (+0.2 σ)	D_{2000}	229.77	229.1 ± 2.0 (−0.2 σ)	$\sigma_8(0.15)$	0.7498	0.7498 ± 0.0076 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	45.4	44 ± 9 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9728	0.976 ± 0.023 (+2.3 σ)	$f\sigma_8(0.38)$	0.4799	0.4804 ± 0.0096 (+0.1 σ)
A_{217}^{PS}	118.7	115 ± 10 (−0.0 σ)	Y_{P}	0.245317	$0.24530^{+0.00011}_{-0.000090}$ (+0.2 σ)	$\sigma_8(0.38)$	0.6637	0.6636 ± 0.0061 (+0.1 σ)
A^{kSZ}	0.02	< 5.30 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246643	$0.24663^{+0.00011}_{-0.000090}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.4775	0.4778 ± 0.0082 (+0.1 σ)
$A_{100}^{\mathrm{dust}TT}$	8.89	9.0 ± 1.8 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6221	2.626 ± 0.044 (−0.2 σ)	$\sigma_8(0.51)$	0.6208	0.6206 ± 0.0055 (+0.1 σ)
$A_{143}^{\mathrm{dust}TT}$	10.86	10.8 ± 1.8 (+0.0 σ)	Age/Gyr	13.8228	13.826 ± 0.037 (−0.1 σ)	$f\sigma_8(0.61)$	0.4718	0.4721 ± 0.0073 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{dust}TT}$	19.37	18.3 ± 3.3 (+0.0 σ)	z_*	1090.215	1090.26 ± 0.41 (−0.1 σ)	$\sigma_8(0.61)$	0.5904	0.5902 ± 0.0052 (+0.1 σ)
$A_{217}^{\mathrm{dust}TT}$	94.4	93.3 ± 7.3 (−0.0 σ)	r_*	144.426	144.40 ± 0.50 (−0.1 σ)	$f\sigma_8(2.33)$	0.29738	0.2972 ± 0.0026 (+0.1 σ)
c_{100}	0.99963	0.99961 ± 0.00062 (−0.0 σ)	$100\theta_*$	1.041004	1.04098 ± 0.00046 (+0.0 σ)	$\sigma_8(2.33)$	0.30622	0.3060 ± 0.0027 (+0.1 σ)
c_{217}	0.99825	0.99827 ± 0.00062 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8737	13.872 ± 0.046 (−0.1 σ)	f_{2000}^{143}	30.89	32.0 ± 3.2 (+0.3 σ)
H_0	66.95	66.88 ± 0.92 (−0.0 σ)	z_{drag}	1059.55	1059.50 ± 0.50 (+0.2 σ)	$f_{2000}^{143 \times 217}$	33.62	34.2 ± 2.2 (+0.3 σ)
Ω_{Λ}	0.6801	0.679 ± 0.013 (−0.0 σ)	r_{drag}	147.15	147.13 ± 0.51 (−0.2 σ)	f_{2000}^{217}	108.00	108.6 ± 2.1 (+0.3 σ)
Ω_{m}	0.3199	0.321 ± 0.013 (+0.0 σ)	k_{D}	0.14066	0.14066 ± 0.00057 (+0.2 σ)	χ_{small}^2	395.91	397.1 ± 1.7 (+0.1 σ)
$\Omega_{\mathrm{m}} h^2$	0.14341	0.1436 ± 0.0020 (+0.1 σ)	$100\theta_{\mathrm{D}}$	0.160990	0.16101 ± 0.00029 (−0.2 σ)	χ_{lowl}^2	22.74	23.1 ± 2.1 (−0.6 σ)
$\Omega_{\mathrm{m}} h^3$	0.096015	0.09599 ± 0.00049 (+0.2 σ)	z_{eq}	3411.7	3415 ± 49 (+0.1 σ)	χ_{plik}^2	759.4	772.7 ± 5.7 (+0.2 σ)
σ_8	0.8123	0.8124 ± 0.0090 (+0.1 σ)	k_{eq}	0.010413	0.01042 ± 0.00015 (+0.1 σ)	χ_{prior}^2	1.43	7.3 ± 3.7 (+0.0 σ)
S_8	0.8389	0.841 ± 0.024 (+0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8110	0.8104 ± 0.0090 (−0.1 σ)	χ_{CMB}^2	1178.0	1192.9 ± 5.6 (+0.1 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 1179.45$; $\Delta\chi_{\mathrm{eff}}^2 = -0.13$; $\bar{\chi}_{\mathrm{eff}}^2 = 1200.22$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.64$; $R - 1 = 0.00668$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.91 (Δ 0.03) commander_dx12_v3.2.29: 22.74 (Δ -0.86) plik_rd12_HM_v22_TT: 759.37 (Δ 0.62)

12.2 base_nrun_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022255	0.02225 ± 0.00022 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9819	0.982 ± 0.012 (+0.0 σ)	$D_M(0.38)$	1529.2	1529.1 ± 9.3 (−0.1 σ)
$\Omega_c h^2$	0.11900	0.1190 ± 0.0012 (+0.0 σ)	$r_{\text{drag}} h$	99.76	99.78 ± 0.94 (+0.0 σ)	$H(0.51)$	89.685	89.69 ± 0.29 (+0.1 σ)
$100\theta_{\text{MC}}$	1.041013	1.04100 ± 0.00043 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4235	2.424 ± 0.029 (−0.2 σ)	$D_M(0.51)$	1981.1	1981 ± 11 (−0.1 σ)
τ	0.0549	0.0550 ± 0.0082 (+0.1 σ)	z_{re}	7.75	$7.74^{+0.84}_{-0.76}$ (+0.1 σ)	$H(0.61)$	95.291	95.29 ± 0.25 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0428	3.043 ± 0.018 (+0.2 σ)	$10^9 A_s$	2.0964	2.098 ± 0.037 (+0.2 σ)	$D_M(0.61)$	2305.4	2305 ± 12 (−0.1 σ)
n_s	0.96634	0.9660 ± 0.0045 (−0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8784	1.879 ± 0.012 (+0.1 σ)	$H(2.33)$	235.79	235.78 ± 0.81 (+0.1 σ)
$dn_s/d \ln k$	−0.0034	$−0.0035 \pm 0.0075$	D_{40}	1216.8	1218 ± 20 (−0.6 σ)	$D_M(2.33)$	5765.1	5765 ± 13 (−0.2 σ)
y_{cal}	1.00027	1.0006 ± 0.0025 (+0.0 σ)	D_{220}	5717.1	5721 ± 41 (+0.0 σ)	$f\sigma_8(0.15)$	0.4544	0.4544 ± 0.0077 (+0.0 σ)
A_{217}^{CIB}	51.1	48 ± 7 (+0.0 σ)	D_{810}	2536.4	2537 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7463	0.7463 ± 0.0070 (+0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.06	—	D_{1420}	815.0	815.0 ± 5.1 (−0.1 σ)	$f\sigma_8(0.38)$	0.4730	0.4729 ± 0.0065 (+0.0 σ)
A_{143}^{tSZ}	7.16	5.0 ± 2.1 (−0.0 σ)	D_{2000}	229.65	229.6 ± 1.9 (−0.2 σ)	$\sigma_8(0.38)$	0.6617	0.6617 ± 0.0060 (+0.0 σ)
A_{100}^{PS}	257.6	264 ± 29 (+0.0 σ)	$n_{s,0.002}$	0.9773	0.977 ± 0.023 (+2.6 σ)	$f\sigma_8(0.51)$	0.4718	0.4717 ± 0.0059 (+0.0 σ)
A_{143}^{PS}	46.5	49 ± 8 (+0.1 σ)	Y_{P}	0.245348	$0.245345^{+0.000095}_{-0.000080}$ (+0.2 σ)	$\sigma_8(0.51)$	0.6193	0.6193 ± 0.0055 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	40.2	43 ± 9 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246675	$0.246671^{+0.000095}_{-0.000080}$ (+0.2 σ)	$f\sigma_8(0.61)$	0.4669	0.4669 ± 0.0054 (+0.0 σ)
A_{217}^{PS}	115.5	114 ± 10 (−0.0 σ)	$10^5 \text{D}/\text{H}$	2.6075	2.608 ± 0.041 (−0.2 σ)	$\sigma_8(0.61)$	0.5893	0.5894 ± 0.0052 (+0.0 σ)
A^{kSZ}	0.08	< 5.17 (+0.1 σ)	Age/Gyr	13.8023	13.802 ± 0.029 (−0.2 σ)	$f\sigma_8(2.33)$	0.29720	0.2972 ± 0.0026 (+0.1 σ)
A_{100}^{dustTT}	8.98	9.0 ± 1.8 (+0.1 σ)	z_*	1089.978	1089.98 ± 0.31 (−0.2 σ)	$\sigma_8(2.33)$	0.30646	0.3065 ± 0.0027 (+0.1 σ)
A_{143}^{dustTT}	10.79	10.8 ± 1.8 (+0.0 σ)	r_*	144.778	144.79 ± 0.34 (−0.1 σ)	f_{2000}^{143}	31.12	31.5 ± 3.2 (+0.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.00	18.4 ± 3.3 (+0.0 σ)	$100\theta_*$	1.041204	1.04120 ± 0.00042 (+0.0 σ)	$f_{2000}^{143 \times 217}$	33.66	33.8 ± 2.2 (+0.2 σ)
A_{217}^{dustTT}	93.6	93.4 ± 7.3 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9049	13.906 ± 0.033 (−0.1 σ)	f_{2000}^{217}	108.00	108.3 ± 2.1 (+0.2 σ)
c_{100}	0.99963	0.99961 ± 0.00061 (+0.0 σ)	z_{drag}	1059.589	1059.59 ± 0.49 (+0.2 σ)	χ_{small}^2	396.07	397.2 ± 1.9 (+0.0 σ)
c_{217}	0.99828	0.99827 ± 0.00063 (−0.0 σ)	r_{drag}	147.486	147.49 ± 0.37 (−0.1 σ)	χ_{lowl}^2	22.13	22.6 ± 1.8 (−0.5 σ)
H_0	67.64	67.65 ± 0.54 (+0.1 σ)	k_{D}	0.140363	0.14035 ± 0.00050 (+0.2 σ)	χ_{plik}^2	760.4	773.1 ± 5.7 (+0.2 σ)
Ω_Λ	0.6898	0.6899 ± 0.0073 (+0.0 σ)	$100\theta_{\text{D}}$	0.160964	0.16097 ± 0.00029 (−0.2 σ)	$\chi_{6\text{DF}}^2$	0.0220	0.058 ± 0.076 (−0.0 σ)
Ω_{m}	0.3102	0.3101 ± 0.0073 (−0.0 σ)	z_{eq}	3375.5	3375 ± 29 (+0.0 σ)	χ_{MGS}^2	1.28	1.36 ± 0.52 (+0.0 σ)
$\Omega_{\text{m}} h^2$	0.14190	0.1419 ± 0.0012 (+0.0 σ)	k_{eq}	0.010303	0.010301 ± 0.000089 (+0.0 σ)	χ_{DR12BAO}^2	4.20	4.8 ± 1.6 (−0.0 σ)
$\Omega_{\text{m}} h^3$	0.095980	0.09597 ± 0.00050 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8178	0.8180 ± 0.0053 (−0.0 σ)	χ_{prior}^2	1.60	7.4 ± 3.7 (−0.0 σ)
σ_8	0.8075	0.8075 ± 0.0078 (+0.0 σ)	$100\theta_{\text{s,eq}}$	0.45184	0.4519 ± 0.0028 (−0.0 σ)	χ_{BAO}^2	5.50	6.2 ± 1.3 (−0.0 σ)
S_8	0.8211	0.821 ± 0.015 (+0.0 σ)	$H(0.15)$	72.903	72.91 ± 0.47 (+0.1 σ)	χ_{CMB}^2	1178.6	1192.9 ± 5.6 (+0.1 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4497	0.4497 ± 0.0081 (+0.0 σ)	$D_M(0.15)$	641.04	641.0 ± 4.6 (−0.1 σ)			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6026	0.6026 ± 0.0080 (+0.0 σ)	$H(0.38)$	82.986	82.99 ± 0.35 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1185.71$; $\Delta\chi_{\text{eff}}^2 = -0.04$; $\bar{\chi}_{\text{eff}}^2 = 1206.47$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.44$; $R - 1 = 0.01307$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.20 (Δ 0.02) CMB - simall_100x143.offlike5_EE_Aplanck_B: 396.07 (Δ 0.19) commander_dx12.v3.2.29: 22.13 (Δ -0.70) plik_rd12_HM.v22_TT: 760.40 (Δ 0.30)

12.3 base_nrun_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022169	0.02218 ± 0.00023 (+0.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6087	0.6085 ± 0.0078 (−0.0 σ)	$D_M(0.15)$	646.0	645.7 ± 6.3 (−0.1 σ)
$\Omega_c h^2$	0.12026	0.1202 ± 0.0016 (−0.0 σ)	$\sigma_8/h^{0.5}$	0.9898	0.990 ± 0.011 (−0.0 σ)	$H(0.38)$	82.631	82.66 ± 0.46 (+0.1 σ)
$100\theta_{MC}$	1.040808	1.04082 ± 0.00045 (+0.0 σ)	$r_{drag}h$	98.75	98.8 ± 1.2 (+0.0 σ)	$D_M(0.38)$	1539.0	1538 ± 13 (−0.1 σ)
τ	0.0527	0.0533 ± 0.0081 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4447	2.443 ± 0.027 (−0.2 σ)	$H(0.51)$	89.411	89.44 ± 0.37 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0407	3.043 ± 0.016 (+0.2 σ)	z_{re}	7.56	$7.60^{+0.85}_{-0.73}$ (+0.1 σ)	$D_M(0.51)$	1992.6	1992 ± 15 (−0.1 σ)
n_s	0.9634	0.9631 ± 0.0051 (−0.1 σ)	$10^9 A_s$	2.0919	2.096 ± 0.033 (+0.2 σ)	$H(0.61)$	95.078	95.10 ± 0.31 (+0.1 σ)
$dn_s/d \ln k$	$-155 \cdot 10^{-5}$	-0.0030 ± 0.0074	$10^9 A_s e^{-2\tau}$	1.8827	1.884 ± 0.012 (+0.1 σ)	$D_M(0.61)$	2317.8	2317 ± 16 (−0.1 σ)
y_{cal}	1.00017	1.0005 ± 0.0025 (−0.0 σ)	D_{40}	1227.4	1225 ± 20 (−0.5 σ)	$H(2.33)$	236.52	236.48 ± 0.98 (+0.0 σ)
A_{217}^{CIB}	51.0	48 ± 7 (+0.0 σ)	D_{220}	5712.9	5716 ± 41 (+0.0 σ)	$D_M(2.33)$	5774.2	5773 ± 15 (−0.1 σ)
$\xi^{tSZ \times CIB}$	0.01	—	D_{810}	2535.9	2537 ± 14 (+0.1 σ)	$f\sigma_8(0.15)$	0.4612	0.4609 ± 0.0083 (−0.0 σ)
A_{143}^{tSZ}	7.22	5.0 ± 2.1 (−0.0 σ)	D_{1420}	814.3	814.2 ± 5.2 (−0.1 σ)	$\sigma_8(0.15)$	0.7483	0.7484 ± 0.0056 (+0.0 σ)
A_{100}^{PS}	258.2	265 ± 29 (+0.0 σ)	D_{2000}	229.47	229.3 ± 1.9 (−0.1 σ)	$f\sigma_8(0.38)$	0.4781	0.4778 ± 0.0064 (−0.0 σ)
A_{143}^{PS}	45.8	50 ± 8 (+0.1 σ)	$n_{s,0.002}$	0.9684	0.973 ± 0.023 (+2.0 σ)	$\sigma_8(0.38)$	0.66261	0.6627 ± 0.0049 (+0.0 σ)
$A_{143 \times 217}^{PS}$	39.3	43 ± 9 (+0.0 σ)	Y_P	0.245313	$0.24531^{+0.00011}_{-0.000085}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.4759	0.4757 ± 0.0054 (−0.0 σ)
A_{217}^{PS}	115.9	115 ± 10 (−0.0 σ)	Y_P^{BBN}	0.246639	$0.24664^{+0.00011}_{-0.000086}$ (+0.2 σ)	$\sigma_8(0.51)$	0.61979	0.6199 ± 0.0046 (+0.0 σ)
A^{kSZ}	0.00	< 5.20 (+0.0 σ)	$10^5 D/H$	2.6239	2.623 ± 0.043 (−0.2 σ)	$f\sigma_8(0.61)$	0.47037	0.4702 ± 0.0048 (−0.0 σ)
A_{100}^{dustTT}	8.95	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.8221	13.820 ± 0.034 (−0.1 σ)	$\sigma_8(0.61)$	0.58956	0.5897 ± 0.0044 (+0.0 σ)
A_{143}^{dustTT}	10.82	10.7 ± 1.8 (+0.0 σ)	z_*	1090.197	1090.18 ± 0.37 (−0.2 σ)	$f\sigma_8(2.33)$	0.29700	0.2971 ± 0.0023 (+0.0 σ)
$A_{143 \times 217}^{dustTT}$	18.98	18.4 ± 3.3 (+0.0 σ)	r_*	144.518	144.53 ± 0.38 (−0.1 σ)	$\sigma_8(2.33)$	0.30591	0.3060 ± 0.0026 (+0.0 σ)
A_{217}^{dustTT}	93.8	93.3 ± 7.3 (+0.0 σ)	$100\theta_*$	1.041017	1.04103 ± 0.00045 (+0.0 σ)	f_{2000}^{143}	31.16	31.8 ± 3.2 (+0.2 σ)
c_{100}	0.99962	0.99961 ± 0.00062 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8824	13.884 ± 0.036 (−0.1 σ)	$f_{2000}^{143 \times 217}$	33.71	34.0 ± 2.2 (+0.2 σ)
c_{217}	0.99827	0.99827 ± 0.00062 (+0.0 σ)	z_{drag}	1059.47	1059.50 ± 0.50 (+0.2 σ)	f_{2000}^{217}	108.15	108.5 ± 2.1 (+0.2 σ)
H_0	67.06	67.10 ± 0.73 (+0.1 σ)	r_{drag}	147.248	147.26 ± 0.40 (−0.1 σ)	$\chi_{lensing}^2$	8.93	9.59 ± 0.97 (+0.2 σ)
Ω_Λ	0.6819	0.682 ± 0.010 (+0.0 σ)	k_D	0.140546	0.14054 ± 0.00050 (+0.2 σ)	χ_{simall}^2	395.89	397.0 ± 1.6 (+0.0 σ)
Ω_m	0.3181	0.318 ± 0.010 (−0.0 σ)	$100\theta_D$	0.161015	0.16101 ± 0.00029 (−0.2 σ)	χ_{lowl}^2	23.13	23.2 ± 2.1 (−0.4 σ)
$\Omega_m h^2$	0.14307	0.1430 ± 0.0015 (+0.0 σ)	z_{eq}	3403.6	3402 ± 36 (+0.0 σ)	χ_{plik}^2	758.9	772.1 ± 5.5 (+0.2 σ)
$\Omega_m h^3$	0.095947	0.09595 ± 0.00049 (+0.2 σ)	k_{eq}	0.010388	0.01038 ± 0.00011 (+0.0 σ)	χ_{prior}^2	1.60	7.3 ± 3.7 (+0.0 σ)
σ_8	0.8105	0.8105 ± 0.0063 (+0.0 σ)	$100\theta_{eq}$	0.8124	0.8128 ± 0.0068 (+0.0 σ)	χ_{CMB}^2	1186.9	1201.9 ± 5.6 (+0.2 σ)
S_8	0.8347	0.834 ± 0.016 (−0.0 σ)	$100\theta_{s,eq}$	0.44907	0.4493 ± 0.0035 (−0.0 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4572	0.4569 ± 0.0090 (−0.0 σ)	$H(0.15)$	72.41	72.45 ± 0.62 (+0.1 σ)			

Best-fit $\chi_{eff}^2 = 1188.47$; $\Delta\chi_{eff}^2 = -0.10$; $\bar{\chi}_{eff}^2 = 1209.27$; $\Delta\bar{\chi}_{eff}^2 = 0.86$; $R - 1 = 0.01153$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.93 (Δ 0.03) simall_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.02) commander_dx12_v3_2_29: 23.13 (Δ -0.10) plik_rd12_HM_v22_TT: 758.91 (Δ -0.41)

12.4 base_nrun_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022258	0.02225 ± 0.00021 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9836	0.9841 ± 0.0089 (−0.0 σ)	$D_{\mathrm{M}}(0.38)$	1529.3	1529.8 ± 8.7 (−0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.11902	0.1191 ± 0.0011 (−0.0 σ)	$r_{\mathrm{drag}}h$	99.74	99.69 ± 0.84 (+0.1 σ)	$H(0.51)$	89.684	89.67 ± 0.28 (+0.2 σ)
$100\theta_{\mathrm{MC}}$	1.041006	1.04099 ± 0.00042 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4298	2.431 ± 0.023 (−0.2 σ)	$D_{\mathrm{M}}(0.51)$	1981.2	1982 ± 10 (−0.1 σ)
τ	0.0553	0.0561 ± 0.0075 (+0.1 σ)	z_{re}	7.79	7.86 ± 0.75 (+0.1 σ)	$H(0.61)$	95.291	95.28 ± 0.24 (+0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0442	3.046 ± 0.015 (+0.2 σ)	10^9A_{s}	2.0992	2.104 ± 0.032 (+0.2 σ)	$D_{\mathrm{M}}(0.61)$	2305.6	2306 ± 11 (−0.1 σ)
n_{s}	0.96720	0.9657 ± 0.0043 (−0.1 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8795	1.880 ± 0.011 (+0.1 σ)	$H(2.33)$	235.81	235.85 ± 0.72 (+0.0 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0008	$−0.0029 \pm 0.0074$	D_{40}	1223.0	1221 ± 19 (−0.6 σ)	$D_{\mathrm{M}}(2.33)$	5765.1	5766 ± 13 (−0.2 σ)
y_{cal}	1.00066	1.0007 ± 0.0025 (−0.0 σ)	D_{220}	5722.7	5725 ± 40 (+0.0 σ)	$f\sigma_8(0.15)$	0.4553	0.4556 ± 0.0061 (−0.1 σ)
A_{217}^{CIB}	48.8	48 ± 7 (+0.0 σ)	D_{810}	2538.8	2538 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7476	0.7477 ± 0.0056 (+0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.32	—	D_{1420}	816.8	815.3 ± 5.1 (−0.1 σ)	$f\sigma_8(0.38)$	0.4739	0.4741 ± 0.0051 (−0.0 σ)
A_{143}^{tSZ}	7.02	5.0 ± 2.1 (−0.0 σ)	D_{2000}	230.43	229.8 ± 1.9 (−0.1 σ)	$\sigma_8(0.38)$	0.66284	0.6629 ± 0.0049 (+0.0 σ)
A_{100}^{PS}	254.5	264 ± 28 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9699	0.975 ± 0.023 (+2.3 σ)	$f\sigma_8(0.51)$	0.47261	0.4728 ± 0.0045 (−0.0 σ)
A_{143}^{PS}	49.0	49 ± 8 (+0.1 σ)	Y_{P}	0.245350	$0.245344_{-0.000080}^{+0.000094}$ (+0.2 σ)	$\sigma_8(0.51)$	0.62036	0.6204 ± 0.0046 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	46.7	43 ± 9 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246676	$0.246670_{-0.000080}^{+0.000094}$ (+0.2 σ)	$f\sigma_8(0.61)$	0.46774	0.4679 ± 0.0042 (−0.0 σ)
A_{217}^{PS}	119.1	114 ± 10 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6067	2.609 ± 0.040 (−0.2 σ)	$\sigma_8(0.61)$	0.59032	0.5903 ± 0.0044 (+0.0 σ)
A^{kSZ}	0.01	< 5.08 (+0.1 σ)	Age/Gyr	13.8022	13.803 ± 0.029 (−0.2 σ)	$f\sigma_8(2.33)$	0.29769	0.2977 ± 0.0023 (+0.0 σ)
$A_{100}^{\mathrm{dustTT}}$	8.86	9.0 ± 1.8 (+0.0 σ)	z_*	1089.976	1089.99 ± 0.30 (−0.2 σ)	$\sigma_8(2.33)$	0.30696	0.3069 ± 0.0024 (+0.0 σ)
$A_{143}^{\mathrm{dustTT}}$	10.79	10.7 ± 1.8 (+0.0 σ)	r_*	144.769	144.76 ± 0.30 (−0.1 σ)	f_{2000}^{143}	30.14	31.4 ± 3.2 (+0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.35	18.4 ± 3.3 (+0.0 σ)	$100\theta_*$	1.041200	1.04119 ± 0.00041 (+0.0 σ)	$f_{2000}^{143 \times 217}$	33.07	33.7 ± 2.2 (+0.2 σ)
$A_{217}^{\mathrm{dustTT}}$	94.5	93.4 ± 7.3 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9041	13.903 ± 0.030 (−0.1 σ)	f_{2000}^{217}	107.56	108.2 ± 2.1 (+0.2 σ)
c_{100}	0.99965	0.99962 ± 0.00061 (−0.0 σ)	z_{drag}	1059.589	1059.59 ± 0.49 (+0.2 σ)	$\chi_{\mathrm{lensing}}^2$	8.883	9.35 ± 0.75 (+0.1 σ)
c_{217}	0.99825	0.99826 ± 0.00063 (−0.0 σ)	r_{drag}	147.476	147.47 ± 0.34 (−0.1 σ)	χ_{simall}^2	396.19	397.2 ± 1.8 (+0.0 σ)
H_0	67.632	67.60 ± 0.50 (+0.1 σ)	k_{D}	0.140377	0.14038 ± 0.00047 (+0.2 σ)	χ_{lowl}^2	22.70	22.8 ± 1.9 (−0.5 σ)
Ω_{Λ}	0.6897	0.6892 ± 0.0066 (+0.1 σ)	$100\theta_{\mathrm{D}}$	0.160958	0.16097 ± 0.00028 (−0.2 σ)	χ_{plik}^2	759.9	772.4 ± 5.5 (+0.2 σ)
Ω_{m}	0.3103	0.3108 ± 0.0066 (−0.1 σ)	z_{eq}	3376.2	3378 ± 26 (−0.0 σ)	$\chi_{6\mathrm{DF}}^2$	0.0230	0.056 ± 0.069 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14193	0.1420 ± 0.0011 (−0.0 σ)	k_{eq}	0.010305	0.010309 ± 0.000079 (−0.0 σ)	χ_{MGS}^2	1.279	1.30 ± 0.46 (+0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.095989	0.09598 ± 0.00049 (+0.2 σ)	$100\theta_{\mathrm{eq}}$	0.81772	0.8175 ± 0.0047 (+0.0 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.23	4.8 ± 1.5 (−0.1 σ)
σ_8	0.8089	0.8091 ± 0.0062 (−0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.45178	0.4517 ± 0.0025 (+0.0 σ)	χ_{prior}^2	1.39	7.4 ± 3.7 (+0.0 σ)
S_8	0.8227	0.823 ± 0.012 (−0.1 σ)	$H(0.15)$	72.898	72.87 ± 0.43 (+0.1 σ)	χ_{CMB}^2	1187.7	1201.8 ± 5.6 (+0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4506	0.4510 ± 0.0065 (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	641.09	641.4 ± 4.3 (−0.1 σ)	χ_{BAO}^2	5.53	6.1 ± 1.2 (−0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6037	0.6041 ± 0.0062 (−0.0 σ)	$H(0.38)$	82.983	82.96 ± 0.33 (+0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.63$; $\Delta\chi_{\mathrm{eff}}^2 = -0.05$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.61$; $R - 1 = 0.01612$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.28 (Δ 0.06) DR12BAO: 4.23 (Δ -0.15) CMB - smicadx12.Dec5.ftl.mv2.ndclpp-p.teb.consext8: 8.88 (Δ 0.01) simall_100x143_offlike5.EE.Aplanck
396.19 (Δ 0.09) commander_dx12.v3.2.29: 22.70 (Δ -0.26) plik_rd12_HM.v22.TT: 759.95 (Δ 0.14)

12.5 base_nrun_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022390	0.02240 ± 0.00023 (+0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5941	0.595 ± 0.010 (+0.2 σ)	$D_M(0.15)$	634.5	634.7 ± 6.4 (+0.1 σ)
$\Omega_c h^2$	0.11735	0.1175 ± 0.0017 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9706	0.972 ± 0.014 (+0.2 σ)	$H(0.38)$	83.47	83.47 ± 0.49 (-0.1 σ)
$100\theta_{MC}$	1.041223	1.04125 ± 0.00045 (-0.0 σ)	$r_{drag}h$	101.10	101.0 ± 1.3 (-0.2 σ)	$D_M(0.38)$	1516.0	1516 ± 13 (+0.1 σ)
τ	0.0562	0.0570 ± 0.0085 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.3994	2.400 ± 0.034 (+0.0 σ)	$H(0.51)$	90.067	90.07 ± 0.40 (-0.1 σ)
$\ln(10^{10} A_s)$	3.0418	3.044 ± 0.018 (+0.2 σ)	z_{re}	7.83	$7.89^{+0.86}_{-0.78}$ (+0.1 σ)	$D_M(0.51)$	1965.7	1966 ± 15 (+0.1 σ)
n_s	0.9709	0.9699 ± 0.0054 (-0.2 σ)	$10^9 A_s$	2.0942	2.100 ± 0.037 (+0.2 σ)	$H(0.61)$	95.592	95.60 ± 0.33 (-0.0 σ)
$dn_s/d \ln k$	-0.0017	-0.0041 ± 0.0076	$10^9 A_s e^{-2\tau}$	1.8716	1.873 ± 0.013 (+0.3 σ)	$D_M(0.61)$	2288.8	2289 ± 16 (+0.1 σ)
y_{cal}	1.00047	1.0007 ± 0.0026 (+0.1 σ)	D_{40}	1212.2	1209 ± 21 (-0.5 σ)	$H(2.33)$	234.86	235.0 ± 1.1 (+0.2 σ)
A_{217}^{CIB}	49.2	48 ± 7 (+0.0 σ)	D_{220}	5728.4	5731 ± 39 (-0.0 σ)	$D_M(2.33)$	5752.4	5752 ± 15 (-0.0 σ)
$\xi^{tSZ \times CIB}$	0.26	—	D_{810}	2536.5	2537 ± 14 (+0.2 σ)	$f\sigma_8(0.15)$	0.4451	0.446 ± 0.010 (+0.2 σ)
A_{143}^{tSZ}	7.10	$5.2^{+2.3}_{-2.1}$ (+0.0 σ)	D_{1420}	817.2	816.6 ± 5.3 (-0.1 σ)	$\sigma_8(0.15)$	0.7430	0.7435 ± 0.0075 (+0.1 σ)
A_{100}^{PS}	255.2	262 ± 28 (+0.0 σ)	D_{2000}	230.61	230.3 ± 2.0 (-0.2 σ)	$f\sigma_8(0.38)$	0.4659	0.4664 ± 0.0083 (+0.2 σ)
A_{143}^{PS}	47.4	48 ± 8 (+0.1 σ)	$n_{s,0.002}$	0.9764	0.983 ± 0.024 (+2.3 σ)	$\sigma_8(0.38)$	0.6599	0.6603 ± 0.0062 (+0.1 σ)
$A_{143 \times 217}^{PS}$	44.4	43 ± 9 (+0.0 σ)	Y_P	0.245403	0.245405 ± 0.000092 (+0.1 σ)	$f\sigma_8(0.51)$	0.4658	0.4663 ± 0.0073 (+0.2 σ)
A_{217}^{PS}	117.6	114 ± 11 (+0.0 σ)	Y_P^{BBN}	0.246730	0.246731 ± 0.000092 (+0.1 σ)	$\sigma_8(0.51)$	0.6181	0.6184 ± 0.0057 (+0.1 σ)
A^{kSZ}	0.00	< 4.81 (+0.0 σ)	$10^5 D/H$	2.5817	2.580 ± 0.042 (-0.1 σ)	$f\sigma_8(0.61)$	0.4618	0.4623 ± 0.0066 (+0.2 σ)
A_{100}^{dustTT}	8.91	9.1 ± 1.8 (-0.0 σ)	Age/Gyr	13.7747	13.773 ± 0.035 (-0.0 σ)	$\sigma_8(0.61)$	0.5884	0.5888 ± 0.0054 (+0.1 σ)
A_{143}^{dustTT}	10.84	10.8 ± 1.8 (+0.1 σ)	z_*	1089.661	1089.66 ± 0.36 (-0.0 σ)	$f\sigma_8(2.33)$	0.29717	0.2973 ± 0.0027 (+0.1 σ)
$A_{143 \times 217}^{dustTT}$	19.33	18.5 ± 3.3 (+0.1 σ)	r_*	145.106	145.07 ± 0.43 (-0.3 σ)	$\sigma_8(2.33)$	0.30689	0.3070 ± 0.0028 (+0.1 σ)
A_{217}^{dustTT}	94.4	93.6 ± 7.2 (+0.1 σ)	$100\theta_*$	1.041414	1.04144 ± 0.00045 (-0.0 σ)	f_{2000}^{143}	29.95	31.0 ± 3.1 (+0.3 σ)
c_{100}	0.99965	0.99962 ± 0.00059 (-0.0 σ)	$D_M(z_*)/Gpc$	13.9336	13.929 ± 0.040 (-0.3 σ)	$f_{2000}^{143 \times 217}$	32.85	33.3 ± 2.2 (+0.3 σ)
c_{217}	0.99827	0.99823 ± 0.00064 (-0.1 σ)	z_{drag}	1059.780	1059.83 ± 0.51 (+0.2 σ)	f_{2000}^{217}	107.31	107.9 ± 2.1 (+0.3 σ)
H_0	68.42	68.40 ± 0.77 (-0.1 σ)	r_{drag}	147.776	147.73 ± 0.45 (-0.3 σ)	χ_{small}^2	396.20	397.4 ± 2.0 (+0.0 σ)
Ω_Λ	0.7001	$0.699^{+0.011}_{-0.0093}$ (-0.2 σ)	k_D	0.14016	0.14022 ± 0.00055 (+0.3 σ)	χ_{lowl}^2	21.84	22.0 ± 1.6 (-0.4 σ)
Ω_m	0.2999	$0.3006^{+0.0093}_{-0.011}$ (+0.2 σ)	$100\theta_D$	0.160864	0.16085 ± 0.00029 (-0.2 σ)	χ_{plik}^2	762.8	775.9 ± 6.3 (-0.0 σ)
$\Omega_m h^2$	0.14038	0.1405 ± 0.0017 (+0.2 σ)	z_{eq}	3339.2	3343 ± 40 (+0.2 σ)	$\chi_{H073p45}^2$	9.20	9.5 ± 2.9 (+0.1 σ)
$\Omega_m h^3$	0.096042	0.09610 ± 0.00052 (+0.2 σ)	k_{eq}	0.010192	0.01020 ± 0.00012 (+0.2 σ)	χ_{prior}^2	1.43	7.5 ± 3.7 (+0.0 σ)
σ_8	0.8028	0.8034 ± 0.0087 (+0.2 σ)	$100\theta_{eq}$	0.8250	0.8246 ± 0.0075 (-0.2 σ)	χ_{CMB}^2	1180.9	1195.2 ± 6.1 (-0.1 σ)
S_8	0.8027	0.804 ± 0.020 (+0.2 σ)	$100\theta_{s,eq}$	0.45549	0.4552 ± 0.0039 (-0.2 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4397	0.440 ± 0.011 (+0.2 σ)	$H(0.15)$	73.57	73.56 ± 0.66 (-0.1 σ)			

Best-fit $\chi_{eff}^2 = 1191.49$; $\Delta\chi_{eff}^2 = -0.08$; $\bar{\chi}_{eff}^2 = 1212.16$; $\Delta\bar{\chi}_{eff}^2 = 0.08$; $R - 1 = 0.05554$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.20 (Δ 0.13) commander_dx12_v3.2.29: 21.84 (Δ -0.25) plik_rd12_HM_v22_TT: 762.82 (Δ -0.20) Hubble - H073p45: 9.20 (Δ 0.21)

12.6 base_nrun_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02217 \pm 0.00023 \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.461 \pm 0.013 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4482 \pm 0.0046 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1207 \pm 0.0021 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.612 \pm 0.012 \quad (+0.1\sigma)$	$H(0.15)$	$72.29 \pm 0.78 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04079 \pm 0.00047 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$647.3 \pm 7.9 \quad (-0.0\sigma)$
τ	$0.0549^{+0.0055}_{-0.0083} \quad (+0.2\sigma)$	$r_{\mathrm{drag}} h$	$98.5 \pm 1.6 \quad (-0.0\sigma)$	$H(0.38)$	$82.56 \pm 0.56 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.014}_{-0.017} \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.452 \pm 0.038 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1542 \pm 16 \quad (-0.0\sigma)$
n_{s}	$0.9621 \pm 0.0059 \quad (-0.1\sigma)$	z_{re}	$7.78^{+0.61}_{-0.81} \quad (+0.2\sigma)$	$H(0.51)$	$89.36 \pm 0.44 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0046 ± 0.0075	$10^9 A_{\mathrm{s}}$	$2.106^{+0.028}_{-0.035} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1996 \pm 18 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.887 \pm 0.014 \quad (+0.2\sigma)$	$H(0.61)$	$95.05 \pm 0.35 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{40}	$1224 \pm 21 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2321 \pm 20 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5713 \pm 41 \quad (+0.0\sigma)$	$H(2.33)$	$236.8 \pm 1.3 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5775 \pm 16 \quad (-0.1\sigma)$
A_{100}^{PS}	$266 \pm 29 \quad (+0.1\sigma)$	D_{1420}	$813.9 \pm 5.3 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.464 \pm 0.012 \quad (+0.0\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.2\sigma)$	D_{2000}	$229.2 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7507 \pm 0.0071 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.977 \pm 0.023 \quad (+2.5\sigma)$	$f\sigma_8(0.38)$	$0.4807 \pm 0.0096 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.24531^{+0.00011}_{-0.000089} \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6645 \pm 0.0055 \quad (+0.1\sigma)$
A^{kSZ}	$< 5.29 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00011}_{-0.000089} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4782 \pm 0.0081 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.624 \pm 0.044 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6214^{+0.0046}_{-0.0052} \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.824 \pm 0.037 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4725 \pm 0.0072 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1090.24 \pm 0.41 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5911^{+0.0042}_{-0.0049} \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.3 \pm 7.3 \quad (-0.0\sigma)$	r_*	$144.41 \pm 0.50 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2977^{+0.0020}_{-0.0025} \quad (+0.1\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04099 \pm 0.00046 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0020}_{-0.0026} \quad (+0.1\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.872 \pm 0.046 \quad (-0.1\sigma)$	f_{2000}^{143}	$32.0 \pm 3.2 \quad (+0.3\sigma)$
H_0	$66.91 \pm 0.91 \quad (+0.0\sigma)$	z_{drag}	$1059.52 \pm 0.50 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$34.1 \pm 2.2 \quad (+0.3\sigma)$
Ω_{Λ}	$0.679 \pm 0.013 \quad (-0.0\sigma)$	r_{drag}	$147.14 \pm 0.51 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.6 \pm 2.1 \quad (+0.3\sigma)$
Ω_{m}	$0.321 \pm 0.013 \quad (+0.0\sigma)$	k_{D}	$0.14066 \pm 0.00057 \quad (+0.2\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1435 \pm 0.0020 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00029 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.0 \pm 2.0 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09601 \pm 0.00049 \quad (+0.2\sigma)$	z_{eq}	$3414 \pm 48 \quad (+0.1\sigma)$	χ_{plik}^2	$772.6 \pm 5.7 \quad (+0.3\sigma)$
σ_8	$0.8134 \pm 0.0086 \quad (+0.1\sigma)$	k_{eq}	$0.01042 \pm 0.00015 \quad (+0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.841 \pm 0.024 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8107 \pm 0.0089 \quad (-0.1\sigma)$	χ_{CMB}^2	$1192.6 \pm 5.5 \quad (+0.1\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1199.98$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.66$; $R - 1 = 0.00614$

12.7 base_nrun_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02226 \pm 0.00021 \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.983 \pm 0.011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.9 \pm 9.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1190 \pm 0.0012 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.79 \pm 0.93 \quad (+0.0\sigma)$	$H(0.51)$	$89.70 \pm 0.29 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04101 \pm 0.00042 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.028 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 11 \quad (-0.1\sigma)$
τ	$0.0562^{+0.0060}_{-0.0082} \quad (+0.1\sigma)$	z_{re}	$7.86^{+0.64}_{-0.80} \quad (+0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.25 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.014}_{-0.017} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.029}_{-0.036} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 12 \quad (-0.1\sigma)$
n_{s}	$0.9661 \pm 0.0045 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.2\sigma)$	$H(2.33)$	$235.78 \pm 0.81 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0038 ± 0.0074	D_{40}	$1218 \pm 20 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 13 \quad (-0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 41 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4548 \pm 0.0075 \quad (+0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7472^{+0.0060}_{-0.0068} \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.0 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4734 \pm 0.0063 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.1 \quad (-0.0\sigma)$	D_{2000}	$229.6 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6625^{+0.0050}_{-0.0058} \quad (+0.0\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.978 \pm 0.023 \quad (+2.7\sigma)$	$f\sigma_8(0.51)$	$0.4722 \pm 0.0056 \quad (+0.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.245347^{+0.000094}_{-0.000080} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6200^{+0.0046}_{-0.0054} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246674^{+0.000095}_{-0.000080} \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4673 \pm 0.0052 \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.607 \pm 0.040 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5900^{+0.0043}_{-0.0051} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.18 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.801 \pm 0.029 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2976^{+0.0021}_{-0.0025} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1089.97 \pm 0.31 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3068^{+0.0022}_{-0.0027} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.78 \pm 0.34 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.5 \pm 3.2 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04120 \pm 0.00042 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.8 \pm 2.2 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.033 \quad (-0.1\sigma)$	f_{2000}^{217}	$108.3 \pm 2.1 \quad (+0.2\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.61 \pm 0.49 \quad (+0.2\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (+0.0\sigma)$
c_{217}	$0.99827 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.49 \pm 0.37 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.6 \pm 1.8 \quad (-0.6\sigma)$
H_0	$67.66 \pm 0.54 \quad (+0.1\sigma)$	k_{D}	$0.14036 \pm 0.00050 \quad (+0.2\sigma)$	χ_{plik}^2	$773.0 \pm 5.7 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6900 \pm 0.0073 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16096 \pm 0.00028 \quad (-0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.075 \quad (-0.0\sigma)$
Ω_{m}	$0.3100 \pm 0.0073 \quad (-0.0\sigma)$	z_{eq}	$3375 \pm 29 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.36 \pm 0.52 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	k_{eq}	$0.010301 \pm 0.000089 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09598 \pm 0.00050 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8180 \pm 0.0053 \quad (-0.0\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.8084^{+0.0069}_{-0.0077} \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0028 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (-0.0\sigma)$
S_8	$0.822 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$72.92 \pm 0.47 \quad (+0.1\sigma)$	χ_{CMB}^2	$1192.6 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4501 \pm 0.0080 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.9 \pm 4.6 \quad (-0.1\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6032 \pm 0.0077 \quad (+0.0\sigma)$	$H(0.38)$	$83.00 \pm 0.35 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.22$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.46$; $R - 1 = 0.01231$

12.8 base_nrun_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02219 \pm 0.00023 \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6086 \pm 0.0078 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.1 \pm 6.1 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1200 \pm 0.0015 \quad (-0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$82.70 \pm 0.45 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00045 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$98.9 \pm 1.2 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 12 \quad (-0.1\sigma)$
τ	$0.0548^{+0.0055}_{-0.0081} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.444 \pm 0.027 \quad (-0.2\sigma)$	$H(0.51)$	$89.47 \pm 0.36 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.012}_{-0.015} \quad (+0.2\sigma)$	z_{re}	$7.76^{+0.60}_{-0.78} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 14 \quad (-0.1\sigma)$
n_{s}	$0.9635 \pm 0.0050 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.026}_{-0.032} \quad (+0.2\sigma)$	$H(0.61)$	$95.12 \pm 0.30 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0033 ± 0.0074	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316 \pm 15 \quad (-0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1224 \pm 20 \quad (-0.6\sigma)$	$H(2.33)$	$236.41 \pm 0.96 \quad (+0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{220}	$5717 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5772 \pm 15 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4607 \pm 0.0082 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.1 \quad (-0.0\sigma)$	D_{1420}	$814.2 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7491 \pm 0.0052 \quad (+0.0\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.0\sigma)$	D_{2000}	$229.3 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4779 \pm 0.0064 \quad (-0.0\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.974 \pm 0.023 \quad (+2.2\sigma)$	$\sigma_8(0.38)$	$0.6634^{+0.0042}_{-0.0047} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	Y_{P}	$0.24532^{+0.00011}_{-0.000085} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4758 \pm 0.0054 \quad (-0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00011}_{-0.000085} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6206^{+0.0038}_{-0.0044} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.19 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.620 \pm 0.043 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0048 \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.818 \pm 0.033 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5904^{+0.0036}_{-0.0042} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.15 \pm 0.36 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0019}_{-0.0023} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.56 \pm 0.38 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0021}_{-0.0025} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.3 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00044 \quad (+0.0\sigma)$	f_{2000}^{143}	$31.7 \pm 3.2 \quad (+0.2\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886 \pm 0.035 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.9 \pm 2.2 \quad (+0.2\sigma)$
c_{217}	$0.99827 \pm 0.00063 \quad (+0.0\sigma)$	z_{drag}	$1059.52 \pm 0.50 \quad (+0.2\sigma)$	f_{2000}^{217}	$108.4 \pm 2.1 \quad (+0.2\sigma)$
H_0	$67.17 \pm 0.70 \quad (+0.1\sigma)$	r_{drag}	$147.28 \pm 0.40 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.58 \pm 0.97 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6831 \pm 0.0097 \quad (+0.0\sigma)$	k_{D}	$0.14053 \pm 0.00050 \quad (+0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (+0.0\sigma)$
Ω_{m}	$0.3169 \pm 0.0097 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00029 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.1 \pm 2.0 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1429 \pm 0.0015 \quad (+0.0\sigma)$	z_{eq}	$3399 \pm 35 \quad (+0.0\sigma)$	χ_{plik}^2	$772.1 \pm 5.5 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09596 \pm 0.00049 \quad (+0.2\sigma)$	k_{eq}	$0.01037 \pm 0.00011 \quad (+0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.8112 \pm 0.0060 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8134 \pm 0.0066 \quad (+0.0\sigma)$	χ_{CMB}^2	$1201.7 \pm 5.5 \quad (+0.2\sigma)$
S_8	$0.834 \pm 0.016 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0034 \quad (-0.0\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4566 \pm 0.0090 \quad (-0.0\sigma)$	$H(0.15)$	$72.50 \pm 0.60 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1209.03$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.87$; $R - 1 = 0.01103$

12.9 base_nrun_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00021 \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9844 \pm 0.0088 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.5 \pm 8.6 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0011 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.72 \pm 0.83 \quad (+0.1\sigma)$	$H(0.51)$	$89.68 \pm 0.28 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04099 \pm 0.00042 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.023 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1982 \pm 10 \quad (-0.1\sigma)$
τ	$0.0568^{+0.0062}_{-0.0075} \quad (+0.1\sigma)$	z_{re}	$7.93 \pm 0.68 \quad (+0.1\sigma)$	$H(0.61)$	$95.29 \pm 0.24 \quad (+0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.015} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.028}_{-0.032} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2306 \pm 11 \quad (-0.1\sigma)$
n_{s}	$0.9658 \pm 0.0043 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$235.83 \pm 0.71 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0031 ± 0.0073	D_{40}	$1221 \pm 19 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 12 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5725 \pm 40 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0061 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7481 \pm 0.0053 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.3 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4743 \pm 0.0050 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.1 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 1.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6632^{+0.0044}_{-0.0049} \quad (+0.0\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.976 \pm 0.023 \quad (+2.4\sigma)$	$f\sigma_8(0.51)$	$0.4730 \pm 0.0045 \quad (-0.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.245345^{+0.000093}_{-0.000080} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6207^{+0.0041}_{-0.0046} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246672^{+0.000094}_{-0.000080} \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4681 \pm 0.0041 \quad (-0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.608 \pm 0.040 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5906^{+0.0039}_{-0.0044} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.08 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.029 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0020}_{-0.0023} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.98 \pm 0.30 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0021}_{-0.0024} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.76 \pm 0.30 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.4 \pm 3.2 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00041 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.2 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.904 \pm 0.030 \quad (-0.1\sigma)$	f_{2000}^{217}	$108.2 \pm 2.1 \quad (+0.2\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.60 \pm 0.49 \quad (+0.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.32 \pm 0.71 \quad (+0.1\sigma)$
c_{217}	$0.99826 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.47 \pm 0.34 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.8 \quad (+0.0\sigma)$
H_0	$67.62 \pm 0.49 \quad (+0.1\sigma)$	k_{D}	$0.14038 \pm 0.00047 \quad (+0.2\sigma)$	χ_{lowl}^2	$22.8 \pm 1.9 \quad (-0.5\sigma)$
Ω_{Λ}	$0.6894 \pm 0.0065 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16096 \pm 0.00028 \quad (-0.2\sigma)$	χ_{plik}^2	$772.4 \pm 5.5 \quad (+0.2\sigma)$
Ω_{m}	$0.3106 \pm 0.0065 \quad (-0.1\sigma)$	z_{eq}	$3377 \pm 26 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.066 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (+0.0\sigma)$	k_{eq}	$0.010307 \pm 0.000078 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.31 \pm 0.46 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09599 \pm 0.00049 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8176 \pm 0.0047 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.1\sigma)$
σ_8	$0.8095 \pm 0.0059 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0024 \quad (+0.0\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.1\sigma)$	$H(0.15)$	$72.89 \pm 0.43 \quad (+0.1\sigma)$	χ_{CMB}^2	$1201.7 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4511 \pm 0.0065 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.2 \pm 4.2 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6043 \pm 0.0061 \quad (-0.1\sigma)$	$H(0.38)$	$82.97 \pm 0.33 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.17$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60$; $R - 1 = 0.01603$

12.10 base_nrun_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02241 \pm 0.00023 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5954^{+0.0092}_{-0.010} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.6 \pm 6.4 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1175^{+0.0016}_{-0.0018} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.972 \pm 0.014 \quad (+0.2\sigma)$	$H(0.38)$	$83.48 \pm 0.49 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04126 \pm 0.00045 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$101.1 \pm 1.3 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 13 \quad (+0.1\sigma)$
τ	$0.0580^{+0.0068}_{-0.0084} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.402 \pm 0.033 \quad (-0.0\sigma)$	$H(0.51)$	$90.08 \pm 0.39 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.015}_{-0.017} \quad (+0.2\sigma)$	z_{re}	$7.99 \pm 0.73 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 15 \quad (+0.1\sigma)$
n_{s}	$0.9700 \pm 0.0054 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.032}_{-0.036} \quad (+0.2\sigma)$	$H(0.61)$	$95.61 \pm 0.33 \quad (-0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0043 ± 0.0076	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.874 \pm 0.013 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289 \pm 16 \quad (+0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0026 \quad (+0.1\sigma)$	D_{40}	$1209 \pm 21 \quad (-0.5\sigma)$	$H(2.33)$	$234.96^{+0.99}_{-1.1} \quad (+0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5731 \pm 39 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5751 \pm 15 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2537 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4462^{+0.0093}_{-0.011} \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.2^{+2.3}_{-2.1} \quad (+0.0\sigma)$	D_{1420}	$816.5^{+5.6}_{-5.1} \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7442 \pm 0.0069 \quad (+0.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.0\sigma)$	D_{2000}	$230.3^{+2.1}_{-1.9} \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4668^{+0.0076}_{-0.0085} \quad (+0.2\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.984 \pm 0.024 \quad (+2.4\sigma)$	$\sigma_8(0.38)$	$0.6609 \pm 0.0057 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	Y_{P}	$0.245406 \pm 0.000092 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4668 \pm 0.0070 \quad (+0.2\sigma)$
A_{217}^{PS}	$114 \pm 11 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246733 \pm 0.000092 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6190 \pm 0.0052 \quad (+0.1\sigma)$
A^{kSZ}	$< 4.82 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.580 \pm 0.042 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4627 \pm 0.0063 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.8 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.772 \pm 0.035 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5893 \pm 0.0049 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1089.65 \pm 0.36 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2976 \pm 0.0024 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.1\sigma)$	r_*	$145.06 \pm 0.43 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3073^{+0.0024}_{-0.0027} \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.2 \quad (+0.1\sigma)$	$100\theta_*$	$1.04145 \pm 0.00045 \quad (-0.0\sigma)$	f_{2000}^{143}	$31.0 \pm 3.1 \quad (+0.3\sigma)$
c_{100}	$0.99962 \pm 0.00060 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.929 \pm 0.040 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$0.99824 \pm 0.00064 \quad (-0.1\sigma)$	z_{drag}	$1059.84 \pm 0.51 \quad (+0.2\sigma)$	f_{2000}^{217}	$107.9 \pm 2.1 \quad (+0.3\sigma)$
H_0	$68.40 \pm 0.76 \quad (-0.1\sigma)$	r_{drag}	$147.73 \pm 0.45 \quad (-0.3\sigma)$	χ_{small}^2	$397.4 \pm 2.1 \quad (+0.0\sigma)$
Ω_{Λ}	$0.699^{+0.011}_{-0.0093} \quad (-0.1\sigma)$	k_{D}	$0.14023 \pm 0.00055 \quad (+0.3\sigma)$	χ_{lowl}^2	$21.9 \pm 1.6 \quad (-0.4\sigma)$
Ω_{m}	$0.3005^{+0.0093}_{-0.011} \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16085^{+0.00027}_{-0.00030} \quad (-0.2\sigma)$	χ_{plik}^2	$775.7 \pm 6.3 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1405^{+0.0015}_{-0.0017} \quad (+0.2\sigma)$	z_{eq}	$3343^{+37}_{-41} \quad (+0.2\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$9.5 \pm 2.8 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09611 \pm 0.00052 \quad (+0.3\sigma)$	k_{eq}	$0.01020^{+0.00011}_{-0.00013} \quad (+0.2\sigma)$	χ_{prior}^2	$7.5 \pm 3.8 \quad (+0.0\sigma)$
σ_8	$0.8042 \pm 0.0081 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8246 \pm 0.0075 \quad (-0.2\sigma)$	χ_{CMB}^2	$1195.0 \pm 6.1 \quad (-0.0\sigma)$
S_8	$0.805^{+0.018}_{-0.021} \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4552 \pm 0.0039 \quad (-0.2\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4408^{+0.0099}_{-0.011} \quad (+0.2\sigma)$	$H(0.15)$	$73.56 \pm 0.66 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1211.96$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.15$; $R - 1 = 0.05098$

12.11 base_nrun_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022392	0.02239 ± 0.00015 (+0.2 σ)	$\Omega_{\text{m}}h^2$	0.14339	0.1434 ± 0.0013 (+0.1 σ)	k_{eq}	0.010411	0.010410 ± 0.000094 (+0.1 σ)
$\Omega_{\text{c}}h^2$	0.12035	0.1203 ± 0.0014 (+0.1 σ)	$\Omega_{\text{m}}h^3$	0.096415	0.09640 ± 0.00031 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8117	0.8119 ± 0.0058 (−0.1 σ)
$100\theta_{\text{MC}}$	1.040892	1.04090 ± 0.00032 (−0.0 σ)	σ_8	0.8122	0.8127 ± 0.0078 (+0.1 σ)	$100\theta_{\text{s,eq}}$	0.44855	0.4486 ± 0.0030 (−0.1 σ)
τ	0.0548	0.0558 ± 0.0080 (+0.2 σ)	S_8	0.8351	0.836 ± 0.016 (+0.1 σ)	$H(0.15)$	72.58	72.59 ± 0.51 (−0.0 σ)
$\ln(10^{10}A_{\text{s}})$	3.0469	3.049 ± 0.017 (+0.3 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4574	0.4577 ± 0.0090 (+0.1 σ)	$D_{\text{M}}(0.15)$	644.4	644.3 ± 5.2 (+0.0 σ)
n_{s}	0.96434	0.9635 ± 0.0046 (−0.3 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6095	0.6099 ± 0.0086 (+0.1 σ)	$H(0.38)$	82.806	82.81 ± 0.37 (−0.0 σ)
$\text{d}n_{\text{s}}/\text{d}\ln k$	−0.0047	$−0.0055 \pm 0.0067$	$\sigma_8/h^{0.5}$	0.9905	0.991 ± 0.012 (+0.1 σ)	$D_{\text{M}}(0.38)$	1535.4	1535 ± 10 (+0.0 σ)
y_{cal}	1.00040	1.0007 ± 0.0025 (+0.1 σ)	$r_{\text{drag}}h$	98.82	98.8 ± 1.0 (−0.1 σ)	$H(0.51)$	89.588	89.59 ± 0.29 (+0.0 σ)
A_{217}^{CIB}	48.9	48 ± 7 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4421	2.445 ± 0.029 (−0.1 σ)	$D_{\text{M}}(0.51)$	1988.0	1988 ± 12 (+0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.24	—	z_{re}	7.73	7.81 ± 0.80 (+0.2 σ)	$H(0.61)$	95.256	95.26 ± 0.24 (+0.0 σ)
A_{143}^{tSZ}	7.28	5.2 ± 2.0 (−0.2 σ)	$10^9 A_{\text{s}}$	2.1050	2.111 ± 0.036 (+0.3 σ)	$D_{\text{M}}(0.61)$	2312.6	2313 ± 13 (+0.0 σ)
A_{100}^{PS}	253.9	263 ± 28 (+0.2 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8867	1.887 ± 0.012 (+0.3 σ)	$H(2.33)$	236.81	236.80 ± 0.82 (+0.1 σ)
A_{143}^{PS}	46.8	48 ± 8 (+0.3 σ)	D_{40}	1220.4	1221 ± 19 (−0.8 σ)	$D_{\text{M}}(2.33)$	5763.9	5764 ± 11 (−0.1 σ)
$A_{143 \times 217}^{\text{PS}}$	43.9	42 ± 9 (+0.0 σ)	D_{220}	5728.0	5733 ± 39 (+0.1 σ)	$f\sigma_8(0.15)$	0.4615	0.4618 ± 0.0084 (+0.1 σ)
A_{217}^{PS}	118.2	115 ± 10 (−0.1 σ)	D_{810}	2541.5	2542 ± 14 (+0.2 σ)	$\sigma_8(0.15)$	0.7499	0.7504 ± 0.0068 (+0.1 σ)
A^{kSZ}	0.00	< 4.86 (+0.2 σ)	D_{1420}	816.82	816.3 ± 4.9 (−0.2 σ)	$f\sigma_8(0.38)$	0.4786	0.4789 ± 0.0069 (+0.1 σ)
A_{100}^{dustTT}	8.93	8.9 ± 1.8 (+0.0 σ)	D_{2000}	230.48	230.2 ± 1.8 (−0.4 σ)	$\sigma_8(0.38)$	0.6642	0.6646 ± 0.0057 (+0.1 σ)
A_{143}^{dustTT}	11.07	11.0 ± 1.8 (+0.0 σ)	$n_{\text{s},0.002}$	0.9794	0.981 ± 0.021 (+3.8 σ)	$f\sigma_8(0.51)$	0.4766	0.4768 ± 0.0061 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.67	18.6 ± 3.3 (+0.0 σ)	Y_{P}	0.245404	$0.245400^{+0.000062}_{-0.000055}$ (+0.2 σ)	$\sigma_8(0.51)$	0.6213	0.6217 ± 0.0053 (+0.1 σ)
A_{217}^{dustTT}	94.5	93.4 ± 7.3 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246731	$0.246726^{+0.000062}_{-0.000055}$ (+0.2 σ)	$f\sigma_8(0.61)$	0.4711	0.4714 ± 0.0056 (+0.1 σ)
A_{100}^{dustTE}	0.1137	0.115 ± 0.038 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.5814	2.583 ± 0.028 (−0.2 σ)	$\sigma_8(0.61)$	0.59101	0.5914 ± 0.0050 (+0.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1350	0.134 ± 0.029 (−0.0 σ)	Age/Gyr	13.7975	13.798 ± 0.024 (−0.1 σ)	$f\sigma_8(2.33)$	0.29777	0.2980 ± 0.0025 (+0.1 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.085 (+0.0 σ)	z_*	1089.924	1089.93 ± 0.27 (−0.1 σ)	$\sigma_8(2.33)$	0.30674	0.3070 ± 0.0026 (+0.1 σ)
A_{143}^{dustTE}	0.226	0.224 ± 0.054 (−0.0 σ)	r_*	144.323	144.33 ± 0.31 (−0.2 σ)	f_{2000}^{143}	29.94	30.7 ± 3.1 (+0.5 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.667	0.665 ± 0.080 (−0.0 σ)	$100\theta_*$	1.041072	1.04108 ± 0.00031 (−0.0 σ)	$f_{2000}^{143 \times 217}$	32.80	33.1 ± 2.2 (+0.5 σ)
A_{217}^{dustTE}	2.085	2.09 ± 0.27 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8629	13.864 ± 0.028 (−0.2 σ)	f_{2000}^{217}	107.41	107.8 ± 2.0 (+0.5 σ)
c_{100}	0.99972	0.99969 ± 0.00061 (+0.0 σ)	z_{drag}	1060.009	1060.00 ± 0.31 (+0.2 σ)	χ_{small}^2	396.07	397.3 ± 2.0 (+0.1 σ)
c_{217}	0.99820	0.99822 ± 0.00062 (+0.1 σ)	r_{drag}	146.974	146.99 ± 0.30 (−0.2 σ)	χ_{lowl}^2	22.25	22.6 ± 1.6 (−1.0 σ)
H_0	67.24	67.25 ± 0.60 (−0.0 σ)	k_{D}	0.141009	0.14099 ± 0.00034 (+0.3 σ)	χ_{plik}^2	2345.3	2360.9 ± 6.0 (+0.2 σ)
Ω_{Λ}	0.6828	0.6828 ± 0.0084 (−0.1 σ)	$100\theta_{\text{D}}$	0.160712	0.16072 ± 0.00018 (−0.2 σ)	χ_{prior}^2	1.81	11.5 ± 4.6 (−0.0 σ)
Ω_{m}	0.3172	0.3172 ± 0.0084 (+0.1 σ)	z_{eq}	3411.2	3411 ± 31 (+0.1 σ)	χ_{CMB}^2	2763.6	2780.7 ± 5.9 (+0.1 σ)

Best-fit $\chi_{\text{eff}}^2 = 2765.41$; $\Delta\chi_{\text{eff}}^2 = -0.36$; $\bar{\chi}_{\text{eff}}^2 = 2792.22$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.45$; $R - 1 = 0.01212$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.07 (Δ 0.02) commander_dx12_v3.2.29: 22.25 (Δ -1.00) plik_rd12_HM_v22b_TTTEEE: 2345.28 (Δ 0.63)

12.12 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022465	0.02245 ± 0.00014 (+0.2 σ)	σ_8	0.8102	0.8101 ± 0.0075 (+0.0 σ)	$D_M(0.15)$	640.32	640.8 ± 3.8 (+0.0 σ)
$\Omega_c h^2$	0.11929	0.1194 ± 0.0010 (+0.1 σ)	S_8	0.8243	0.825 ± 0.013 (+0.0 σ)	$H(0.38)$	83.094	83.06 ± 0.29 (+0.0 σ)
$100\theta_{MC}$	1.041005	1.04101 ± 0.00030 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4515	0.4520 ± 0.0071 (+0.0 σ)	$D_M(0.38)$	1527.3	1528.2 ± 7.7 (−0.0 σ)
τ	0.0566	$0.0568^{+0.0075}_{-0.0084}$ (+0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6048	0.6051 ± 0.0073 (+0.0 σ)	$H(0.51)$	89.808	89.78 ± 0.23 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0483	3.049 ± 0.017 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9846	0.985 ± 0.011 (+0.0 σ)	$D_M(0.51)$	1978.7	1979.7 ± 9.1 (−0.0 σ)
n_s	0.96736	0.9658 ± 0.0041 (−0.3 σ)	$r_{drag} h$	99.66	99.58 ± 0.78 (−0.0 σ)	$H(0.61)$	95.425	95.41 ± 0.19 (+0.1 σ)
$dn_s/d \ln k$	−0.0034	$−0.0049 \pm 0.0068$	$\langle d^2 \rangle^{1/2}$	2.4295	2.431 ± 0.026 (−0.2 σ)	$D_M(0.61)$	2302.6	2303.7 ± 9.8 (−0.0 σ)
y_{cal}	1.00057	1.0007 ± 0.0025 (+0.0 σ)	z_{re}	7.88	7.88 ± 0.81 (+0.1 σ)	$H(2.33)$	236.19	236.25 ± 0.62 (+0.1 σ)
A_{217}^{CIB}	47.4	48 ± 7 (+0.1 σ)	$10^9 A_s$	2.1080	2.110 ± 0.037 (+0.2 σ)	$D_M(2.33)$	5756.8	5757.7 ± 9.2 (−0.1 σ)
$\xi^{tSZ \times CIB}$	0.48	—	$10^9 A_s e^{-2\tau}$	1.8824	1.883 ± 0.012 (+0.3 σ)	$f\sigma_8(0.15)$	0.4562	0.4566 ± 0.0068 (+0.0 σ)
A_{143}^{tSZ}	7.17	$5.2^{+2.2}_{-1.9}$ (−0.1 σ)	D_{40}	1218.0	1218 ± 18 (−0.8 σ)	$\sigma_8(0.15)$	0.7487	0.7486 ± 0.0067 (+0.0 σ)
A_{100}^{PS}	251.3	262 ± 28 (+0.2 σ)	D_{220}	5734.6	5737 ± 38 (+0.0 σ)	$f\sigma_8(0.38)$	0.4747	0.4750 ± 0.0059 (+0.0 σ)
A_{143}^{PS}	49.3	47 ± 8 (+0.2 σ)	D_{810}	2541.7	2541 ± 13 (+0.2 σ)	$\sigma_8(0.38)$	0.6638	0.6636 ± 0.0058 (+0.0 σ)
$A_{143 \times 217}^{PS}$	49.4	42 ± 9 (+0.0 σ)	D_{1420}	818.25	816.9 ± 4.8 (−0.2 σ)	$f\sigma_8(0.51)$	0.4734	0.4736 ± 0.0054 (+0.0 σ)
A_{217}^{PS}	120.2	114 ± 10 (−0.1 σ)	D_{2000}	231.12	230.5 ± 1.7 (−0.4 σ)	$\sigma_8(0.51)$	0.6212	0.6210 ± 0.0054 (+0.0 σ)
A^{kSZ}	0.00	< 4.74 (+0.2 σ)	$n_{s,0.002}$	0.9784	0.982 ± 0.021 (+3.9 σ)	$f\sigma_8(0.61)$	0.46851	0.4686 ± 0.0050 (+0.0 σ)
A_{100}^{dustTT}	8.86	8.9 ± 1.8 (+0.0 σ)	Y_P	0.245432	$0.245423^{+0.000055}_{-0.000050}$ (+0.2 σ)	$\sigma_8(0.61)$	0.5912	0.5909 ± 0.0051 (+0.0 σ)
A_{143}^{dustTT}	11.05	11.0 ± 1.8 (+0.0 σ)	Y_P^{BBN}	0.246758	$0.246750^{+0.000055}_{-0.000050}$ (+0.2 σ)	$f\sigma_8(2.33)$	0.29810	0.2980 ± 0.0026 (+0.0 σ)
$A_{143 \times 217}^{dustTT}$	19.96	18.6 ± 3.3 (+0.0 σ)	$10^5 D/H$	2.5682	2.572 ± 0.026 (−0.2 σ)	$\sigma_8(2.33)$	0.30737	0.3072 ± 0.0026 (+0.0 σ)
A_{217}^{dustTT}	95.0	93.4 ± 7.1 (−0.0 σ)	Age/Gyr	13.7823	13.784 ± 0.021 (−0.1 σ)	f_{2000}^{143}	29.26	30.4 ± 3.2 (+0.4 σ)
A_{100}^{dustTE}	0.1138	0.115 ± 0.038 (+0.0 σ)	z_*	1089.739	1089.77 ± 0.23 (−0.1 σ)	$f_{2000}^{143 \times 217}$	32.34	32.8 ± 2.1 (+0.5 σ)
$A_{100 \times 143}^{dustTE}$	0.1340	0.134 ± 0.030 (−0.0 σ)	r_*	144.543	144.53 ± 0.24 (−0.2 σ)	f_{2000}^{217}	106.86	107.6 ± 2.0 (+0.4 σ)
$A_{100 \times 217}^{dustTE}$	0.484	0.480 ± 0.086 (+0.0 σ)	$100\theta_*$	1.041184	1.04119 ± 0.00029 (+0.0 σ)	χ_{small}^2	396.37	397.4 ± 2.2 (+0.0 σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8826	13.881 ± 0.023 (−0.2 σ)	χ_{lowl}^2	22.10	22.3 ± 1.5 (−1.0 σ)
$A_{143 \times 217}^{dustTE}$	0.662	0.661 ± 0.080 (−0.0 σ)	z_{drag}	1060.085	1060.07 ± 0.30 (+0.2 σ)	χ_{plik}^2	2345.8	2360.9 ± 5.9 (+0.2 σ)
A_{217}^{dustTE}	2.081	2.08 ± 0.26 (−0.0 σ)	r_{drag}	147.177	147.17 ± 0.25 (−0.2 σ)	χ_{6DF}^2	0.0289	0.060 ± 0.069 (+0.0 σ)
c_{100}	0.99973	0.99969 ± 0.00061 (+0.0 σ)	k_D	0.140851	0.14085 ± 0.00030 (+0.3 σ)	χ_{MGS}^2	1.217	1.23 ± 0.42 (−0.0 σ)
c_{217}	0.99819	0.99822 ± 0.00061 (+0.1 σ)	$100\theta_D$	0.160664	0.16069 ± 0.00018 (−0.2 σ)	$\chi_{DR12BAO}^2$	4.42	5.0 ± 1.5 (+0.1 σ)
H_0	67.712	67.66 ± 0.45 (−0.0 σ)	z_{eq}	3387.4	3390 ± 23 (+0.1 σ)	χ_{prior}^2	1.70	11.6 ± 4.6 (−0.0 σ)
Ω_Λ	0.6894	0.6887 ± 0.0061 (−0.0 σ)	k_{eq}	0.010339	0.010345 ± 0.000070 (+0.1 σ)	χ_{BAO}^2	5.67	6.3 ± 1.2 (+0.0 σ)
Ω_m	0.3106	0.3113 ± 0.0061 (+0.0 σ)	$100\theta_{eq}$	0.81628	0.8159 ± 0.0043 (−0.1 σ)	χ_{CMB}^2	2764.3	2780.6 ± 5.8 (+0.1 σ)
$\Omega_m h^2$	0.14240	0.14249 ± 0.00096 (+0.1 σ)	$100\theta_{s,eq}$	0.45087	0.4507 ± 0.0022 (−0.1 σ)			
$\Omega_m h^3$	0.096420	0.09641 ± 0.00031 (+0.2 σ)	$H(0.15)$	72.988	72.95 ± 0.39 (+0.0 σ)			

Best-fit $\chi_{eff}^2 = 2771.68$; $\Delta\chi_{eff}^2 = -0.24$; $\bar{\chi}_{eff}^2 = 2798.48$; $\Delta\bar{\chi}_{eff}^2 = 0.57$; $R - 1 = 0.02043$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.01) CMB - small_100x143.offlike5_EE_Aplanck_B: 396.37 (Δ 0.16) commander_dx12.v3.2.29: 22.11 (Δ -0.77) plik_rd12_HM.v22b.TTTEEE: 2345.83 (Δ 0.33)

12.13 base_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022396	0.02240 ± 0.00015 (+0.2 σ)	$\Omega_{\mathrm{m}}h^3$	0.096378	0.09639 ± 0.00030 (+0.2 σ)	$100\theta_{\mathrm{s,eq}}$	0.44926	0.4492 ± 0.0026 (−0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.12003	0.1200 ± 0.0012 (+0.0 σ)	σ_8	0.8113	0.8113 ± 0.0061 (+0.0 σ)	$H(0.15)$	72.687	72.69 ± 0.45 (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.040911	1.04092 ± 0.00031 (+0.0 σ)	S_8	0.8317	0.832 ± 0.013 (+0.0 σ)	$D_{\mathrm{M}}(0.15)$	643.31	643.3 ± 4.5 (−0.0 σ)
τ	0.0546	0.0553 ± 0.0075 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4555	0.4557 ± 0.0070 (+0.0 σ)	$H(0.38)$	82.875	82.88 ± 0.33 (+0.0 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0457	3.047 ± 0.015 (+0.2 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6079	0.6080 ± 0.0064 (+0.0 σ)	$D_{\mathrm{M}}(0.38)$	1533.3	1533.3 ± 9.1 (−0.0 σ)
n_{s}	0.96500	0.9641 ± 0.0044 (−0.2 σ)	$\sigma_8/h^{0.5}$	0.9885	0.9886 ± 0.0092 (+0.0 σ)	$H(0.51)$	89.637	89.64 ± 0.27 (+0.1 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0025	$−0.0045 \pm 0.0067$	$r_{\mathrm{drag}}h$	99.06	99.06 ± 0.91 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1985.7	1986 ± 11 (−0.0 σ)
y_{cal}	1.00056	1.0007 ± 0.0025 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4413	2.441 ± 0.023 (−0.2 σ)	$H(0.61)$	95.290	95.30 ± 0.22 (+0.1 σ)
A_{217}^{CIB}	48.9	48 ± 7 (+0.1 σ)	z_{re}	7.71	7.76 ± 0.74 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2310.1	2310 ± 11 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.23	—	$10^9 A_{\mathrm{s}}$	2.1024	2.106 ± 0.031 (+0.2 σ)	$H(2.33)$	236.61	236.62 ± 0.71 (+0.1 σ)
A_{143}^{tSZ}	7.27	$5.2^{+2.2}_{-2.0}$ (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8848	1.886 ± 0.011 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5762.7	5762 ± 10 (−0.1 σ)
A_{100}^{PS}	253.5	263 ± 28 (+0.1 σ)	D_{40}	1225.1	1222 ± 18 (−0.8 σ)	$f\sigma_8(0.15)$	0.4598	0.4599 ± 0.0065 (+0.0 σ)
A_{143}^{PS}	45.9	47 ± 8 (+0.2 σ)	D_{220}	5733.4	5735 ± 39 (−0.0 σ)	$\sigma_8(0.15)$	0.7493	0.7493 ± 0.0054 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	42.9	42 ± 9 (−0.0 σ)	D_{810}	2541.0	2541 ± 13 (+0.1 σ)	$f\sigma_8(0.38)$	0.4773	0.4774 ± 0.0053 (+0.0 σ)
A_{217}^{PS}	117.7	115 ± 10 (−0.0 σ)	D_{1420}	817.32	816.4 ± 4.9 (−0.2 σ)	$\sigma_8(0.38)$	0.66376	0.6638 ± 0.0048 (+0.0 σ)
A^{kSZ}	0.00	< 4.86 (+0.1 σ)	D_{2000}	230.77	230.3 ± 1.8 (−0.3 σ)	$f\sigma_8(0.51)$	0.47547	0.4755 ± 0.0046 (+0.0 σ)
$A_{100}^{\mathrm{dustTT}}$	8.90	8.9 ± 1.8 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9729	0.979 ± 0.021 (+3.3 σ)	$\sigma_8(0.51)$	0.62100	0.6210 ± 0.0045 (+0.0 σ)
$A_{143}^{\mathrm{dustTT}}$	11.01	11.0 ± 1.8 (+0.0 σ)	Y_{P}	0.245406	$0.245405^{+0.000060}_{-0.000053}$ (+0.2 σ)	$f\sigma_8(0.61)$	0.47019	0.4702 ± 0.0042 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.55	18.6 ± 3.3 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246732	$0.246731^{+0.000060}_{-0.000053}$ (+0.2 σ)	$\sigma_8(0.61)$	0.59079	0.5908 ± 0.0043 (+0.0 σ)
$A_{217}^{\mathrm{dustTT}}$	94.5	93.5 ± 7.3 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5806	2.581 ± 0.027 (−0.2 σ)	$f\sigma_8(2.33)$	0.29773	0.2977 ± 0.0022 (+0.0 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1156	0.115 ± 0.038 (+0.0 σ)	Age/Gyr	13.7951	13.795 ± 0.023 (−0.1 σ)	$\sigma_8(2.33)$	0.30678	0.3068 ± 0.0024 (+0.0 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1344	0.134 ± 0.029 (−0.0 σ)	z_*	1089.890	1089.89 ± 0.25 (−0.1 σ)	f_{2000}^{143}	29.67	30.6 ± 3.2 (+0.3 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.481	0.481 ± 0.085 (+0.0 σ)	r_*	144.402	144.40 ± 0.26 (−0.1 σ)	$f_{2000}^{143 \times 217}$	32.55	33.0 ± 2.2 (+0.4 σ)
$A_{143}^{\mathrm{dustTE}}$	0.225	0.224 ± 0.054 (−0.0 σ)	$100\theta_*$	1.041095	1.04110 ± 0.00031 (+0.0 σ)	f_{2000}^{217}	107.20	107.7 ± 2.0 (+0.4 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.665	0.663 ± 0.080 (−0.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8702	13.870 ± 0.025 (−0.1 σ)	$\chi_{\mathrm{lensing}}^2$	8.89	9.43 ± 0.79 (+0.3 σ)
$A_{217}^{\mathrm{dustTE}}$	2.083	2.08 ± 0.27 (−0.0 σ)	z_{drag}	1060.009	1060.00 ± 0.31 (+0.2 σ)	χ_{simall}^2	396.06	397.1 ± 1.7 (+0.0 σ)
c_{100}	0.99971	0.99968 ± 0.00061 (+0.0 σ)	r_{drag}	147.052	147.05 ± 0.27 (−0.2 σ)	χ_{lowl}^2	22.71	22.7 ± 1.7 (−0.9 σ)
c_{217}	0.99821	0.99823 ± 0.00061 (+0.1 σ)	k_{D}	0.140928	0.14093 ± 0.00031 (+0.2 σ)	χ_{plik}^2	2345.0	2360.5 ± 5.8 (+0.2 σ)
H_0	67.36	67.36 ± 0.53 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.160720	0.16072 ± 0.00018 (−0.2 σ)	χ_{prior}^2	1.79	11.6 ± 4.6 (+0.0 σ)
Ω_{Λ}	0.6847	0.6846 ± 0.0073 (−0.0 σ)	z_{eq}	3403.7	3404 ± 27 (+0.1 σ)	χ_{CMB}^2	2772.6	2789.7 ± 5.9 (+0.1 σ)
Ω_{m}	0.3153	0.3154 ± 0.0073 (+0.0 σ)	k_{eq}	0.010388	0.010390 ± 0.000081 (+0.1 σ)			
$\Omega_{\mathrm{m}}h^2$	0.14308	0.1431 ± 0.0011 (+0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8131	0.8131 ± 0.0050 (−0.1 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2774.42$; $\Delta\chi_{\mathrm{eff}}^2 = -0.22$; $\bar{\chi}_{\mathrm{eff}}^2 = 2801.27$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.58$; $R - 1 = 0.02010$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.89 (Δ 0.02) simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2_29: 22.71 (Δ -0.54) plik_rd12_HM_v22b_TTTEEE: 2344.96 (Δ 0.03)

12.14 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022447	0.02245 ± 0.00014 (+0.2 σ)	σ_8	0.8101	0.8104 ± 0.0060 (+0.0 σ)	$D_{\text{M}}(0.15)$	640.44	640.7 ± 3.6 (−0.0 σ)
$\Omega_{\text{c}}h^2$	0.11930	0.11937 ± 0.00092 (+0.0 σ)	S_8	0.8245	0.825 ± 0.011 (+0.0 σ)	$H(0.38)$	83.082	83.07 ± 0.27 (+0.0 σ)
$100\theta_{\text{MC}}$	1.041029	1.04101 ± 0.00030 (−0.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4516	0.4520 ± 0.0058 (+0.0 σ)	$D_{\text{M}}(0.38)$	1527.6	1528.1 ± 7.2 (−0.0 σ)
τ	0.0565	$0.0570^{+0.0068}_{-0.0076}$ (+0.1 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6048	0.6052 ± 0.0058 (+0.0 σ)	$H(0.51)$	89.798	89.79 ± 0.22 (+0.1 σ)
$\ln(10^{10}A_{\text{s}})$	3.0482	3.049 ± 0.015 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9846	0.9851 ± 0.0085 (+0.0 σ)	$D_{\text{M}}(0.51)$	1979.0	1979.6 ± 8.5 (−0.0 σ)
n_{s}	0.96692	0.9659 ± 0.0040 (−0.2 σ)	$r_{\text{drag}}h$	99.65	99.59 ± 0.71 (−0.0 σ)	$H(0.61)$	95.415	95.41 ± 0.18 (+0.1 σ)
$\text{d}n_{\text{s}}/\text{d}\ln k$	−0.0033	$−0.0041 \pm 0.0067$	$\langle d^2 \rangle^{1/2}$	2.4307	2.433 ± 0.022 (−0.2 σ)	$D_{\text{M}}(0.61)$	2302.9	2303.6 ± 9.1 (−0.0 σ)
y_{cal}	1.00058	1.0008 ± 0.0025 (+0.0 σ)	z_{re}	7.88	7.91 ± 0.72 (+0.1 σ)	$H(2.33)$	236.19	236.23 ± 0.56 (+0.1 σ)
A_{217}^{CIB}	48.6	47 ± 7 (+0.1 σ)	$10^9 A_{\text{s}}$	2.1077	2.111 ± 0.032 (+0.2 σ)	$D_{\text{M}}(2.33)$	5757.3	5757.7 ± 8.9 (−0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.31	—	$10^9 A_{\text{s}} e^{-2\tau}$	1.8823	1.883 ± 0.011 (+0.2 σ)	$f\sigma_8(0.15)$	0.4562	0.4566 ± 0.0055 (+0.0 σ)
A_{143}^{tSZ}	7.22	$5.3^{+2.3}_{-1.9}$ (−0.1 σ)	D_{40}	1219.2	1220 ± 18 (−0.8 σ)	$\sigma_8(0.15)$	0.7487	0.7489 ± 0.0055 (+0.0 σ)
A_{100}^{PS}	252.7	262 ± 29 (+0.1 σ)	D_{220}	5735.2	5739 ± 38 (−0.0 σ)	$f\sigma_8(0.38)$	0.47474	0.4751 ± 0.0047 (+0.0 σ)
A_{143}^{PS}	46.9	47 ± 8 (+0.1 σ)	D_{810}	2541.3	2541 ± 13 (+0.1 σ)	$\sigma_8(0.38)$	0.66374	0.6639 ± 0.0048 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	44.8	42 ± 9 (−0.0 σ)	D_{1420}	817.87	817.1 ± 4.8 (−0.2 σ)	$f\sigma_8(0.51)$	0.47343	0.4737 ± 0.0042 (+0.0 σ)
A_{217}^{PS}	118.2	114 ± 10 (−0.0 σ)	D_{2000}	230.96	230.6 ± 1.7 (−0.3 σ)	$\sigma_8(0.51)$	0.62119	0.6213 ± 0.0045 (+0.0 σ)
A^{kSZ}	0.01	< 4.69 (+0.1 σ)	$n_{\text{s},0.002}$	0.9776	0.979 ± 0.021 (+3.4 σ)	$f\sigma_8(0.61)$	0.46852	0.4687 ± 0.0040 (+0.0 σ)
A_{100}^{dustTT}	8.93	8.9 ± 1.8 (+0.0 σ)	Y_{P}	0.245425	$0.245423^{+0.000055}_{-0.000049}$ (+0.2 σ)	$\sigma_8(0.61)$	0.59110	0.5912 ± 0.0043 (+0.0 σ)
A_{143}^{dustTT}	11.07	11.0 ± 1.8 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246752	$0.246750^{+0.000055}_{-0.000049}$ (+0.2 σ)	$f\sigma_8(2.33)$	0.29807	0.2981 ± 0.0022 (+0.0 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.70	18.6 ± 3.3 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.5712	2.572 ± 0.025 (−0.2 σ)	$\sigma_8(2.33)$	0.30733	0.3073 ± 0.0023 (+0.0 σ)
A_{217}^{dustTT}	94.6	93.5 ± 7.2 (−0.0 σ)	Age/Gyr	13.7835	13.784 ± 0.020 (−0.1 σ)	f_{2000}^{143}	29.48	30.3 ± 3.2 (+0.3 σ)
A_{100}^{dustTE}	0.1152	0.115 ± 0.039 (+0.0 σ)	z_*	1089.762	1089.77 ± 0.22 (−0.1 σ)	$f_{2000}^{143 \times 217}$	32.45	32.7 ± 2.1 (+0.3 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1352	0.134 ± 0.030 (−0.0 σ)	r_*	144.552	144.54 ± 0.22 (−0.1 σ)	f_{2000}^{217}	107.07	107.5 ± 2.0 (+0.3 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.483	0.481 ± 0.085 (−0.0 σ)	$100\theta_*$	1.041204	1.04118 ± 0.00029 (−0.0 σ)	χ_{lensing}^2	8.839	9.25 ± 0.63 (+0.3 σ)
A_{143}^{dustTE}	0.224	0.223 ± 0.054 (−0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8832	13.882 ± 0.021 (−0.1 σ)	χ_{simall}^2	396.36	397.3 ± 1.9 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.663	0.661 ± 0.080 (−0.1 σ)	z_{drag}	1060.047	1060.07 ± 0.30 (+0.2 σ)	χ_{lowl}^2	22.20	22.5 ± 1.6 (−0.9 σ)
A_{217}^{dustTE}	2.076	2.08 ± 0.26 (−0.0 σ)	r_{drag}	147.191	147.17 ± 0.23 (−0.2 σ)	χ_{plik}^2	2345.6	2360.5 ± 5.7 (+0.2 σ)
c_{100}	0.99970	0.99968 ± 0.00061 (+0.0 σ)	k_{D}	0.140822	0.14084 ± 0.00029 (+0.2 σ)	$\chi_{6\text{DF}}^2$	0.0296	0.055 ± 0.061 (+0.0 σ)
c_{217}	0.99821	0.99822 ± 0.00061 (+0.1 σ)	$100\theta_{\text{D}}$	0.160691	0.16069 ± 0.00017 (−0.2 σ)	χ_{MGS}^2	1.217	1.24 ± 0.39 (−0.0 σ)
H_0	67.698	67.67 ± 0.42 (+0.0 σ)	z_{eq}	3387.4	3389 ± 21 (+0.1 σ)	χ_{DR12BAO}^2	4.44	4.9 ± 1.3 (+0.0 σ)
Ω_{Λ}	0.6893	0.6888 ± 0.0056 (−0.0 σ)	k_{eq}	0.010339	0.010343 ± 0.000064 (+0.1 σ)	χ_{prior}^2	1.81	11.6 ± 4.6 (+0.0 σ)
Ω_{m}	0.3107	0.3112 ± 0.0056 (+0.0 σ)	$100\theta_{\text{eq}}$	0.81625	0.8160 ± 0.0039 (−0.1 σ)	χ_{CMB}^2	2773.0	2789.6 ± 5.8 (+0.1 σ)
$\Omega_{\text{m}}h^2$	0.14240	0.14246 ± 0.00087 (+0.1 σ)	$100\theta_{\text{s,eq}}$	0.45087	0.4507 ± 0.0020 (−0.1 σ)	χ_{BAO}^2	5.68	6.2 ± 1.1 (+0.0 σ)
$\Omega_{\text{m}}h^3$	0.096400	0.09640 ± 0.00030 (+0.2 σ)	$H(0.15)$	72.975	72.95 ± 0.36 (+0.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2780.51$; $\Delta\chi_{\text{eff}}^2 = -0.19$; $\bar{\chi}_{\text{eff}}^2 = 2807.32$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.48$; $R - 1 = 0.02542$

χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.43 (Δ 0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.84 (Δ 0.11) simall_100x143_offlike5_EE_Aplanck.L 396.36 (Δ -0.16) commander_dx12_v3.2_29: 22.20 (Δ -0.70) plik_rd12_HM_v22b_TTTEEE: 2345.61 (Δ 0.30)

12.15 base_nrun_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022521	0.02252 ± 0.00015 (+0.2 σ)	$\Omega_{\mathrm{m}}h^3$	0.096457	0.09647 ± 0.00031 (+0.3 σ)	$100\theta_{\mathrm{s,eq}}$	0.45223	0.4522 ± 0.0029 (−0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.11866	0.1187 ± 0.0013 (+0.1 σ)	σ_8	0.8083	0.8082 ± 0.0080 (−0.0 σ)	$H(0.15)$	73.24	$73.24^{+0.48}_{-0.54}$ (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.041104	1.04112 ± 0.00032 (+0.1 σ)	S_8	0.8172	0.817 ± 0.016 (+0.0 σ)	$D_{\mathrm{M}}(0.15)$	637.79	637.9 ± 5.1 (−0.0 σ)
τ	0.0574	$0.0577^{+0.0072}_{-0.0086}$ (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4476	0.4477 ± 0.0089 (+0.0 σ)	$H(0.38)$	83.281	$83.28^{+0.35}_{-0.40}$ (+0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0487	$3.049^{+0.016}_{-0.018}$ (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6015	0.6015 ± 0.0086 (−0.0 σ)	$D_{\mathrm{M}}(0.38)$	1522.3	$1522^{+11}_{-9.6}$ (−0.0 σ)
n_{s}	0.96853	0.9675 ± 0.0046 (−0.3 σ)	$\sigma_8/h^{0.5}$	0.9802	0.980 ± 0.012 (−0.0 σ)	$H(0.51)$	89.956	$89.96^{+0.27}_{-0.33}$ (+0.1 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0037	$−0.0050 \pm 0.0068$	$r_{\mathrm{drag}}h$	100.16	100.2 ± 1.0 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1972.7	1973^{+12}_{-11} (−0.0 σ)
y_{cal}	1.00065	1.0007 ± 0.0024 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4201	2.420 ± 0.029 (−0.2 σ)	$H(0.61)$	95.543	$95.55^{+0.22}_{-0.27}$ (+0.1 σ)
A_{217}^{CIB}	48.0	47 ± 7 (+0.1 σ)	z_{re}	7.94	$7.95^{+0.74}_{-0.82}$ (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2296.2	2296^{+14}_{-12} (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.34	—	$10^9 A_{\mathrm{s}}$	2.1089	$2.111^{+0.033}_{-0.039}$ (+0.1 σ)	$H(2.33)$	235.85	235.88 ± 0.79 (+0.1 σ)
A_{143}^{tSZ}	7.24	5.3 ± 2.0 (−0.1 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8800	1.880 ± 0.012 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5751.7	5752^{+12}_{-10} (−0.2 σ)
A_{100}^{PS}	251.4	261 ± 28 (+0.2 σ)	D_{40}	1215.3	1215 ± 19 (−0.8 σ)	$f\sigma_8(0.15)$	0.4526	0.4526 ± 0.0084 (−0.0 σ)
A_{143}^{PS}	46.8	46 ± 8 (+0.2 σ)	D_{220}	5740.6	5742 ± 38 (+0.0 σ)	$\sigma_8(0.15)$	0.7474	0.7473 ± 0.0071 (−0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	45.2	41 ± 9 (−0.0 σ)	D_{810}	2541.6	2541 ± 13 (+0.1 σ)	$f\sigma_8(0.38)$	0.4720	0.4719 ± 0.0070 (−0.0 σ)
A_{217}^{PS}	118.4	114 ± 10 (−0.1 σ)	D_{1420}	818.56	817.5 ± 4.7 (−0.2 σ)	$\sigma_8(0.38)$	0.6631	$0.6629^{+0.0056}_{-0.0063}$ (−0.0 σ)
A^{kSZ}	0.00	< 4.80 (+0.2 σ)	D_{2000}	231.23	230.8 ± 1.7 (−0.4 σ)	$f\sigma_8(0.51)$	0.4711	0.4711 ± 0.0063 (−0.0 σ)
$A_{100}^{\mathrm{dustTT}}$	8.90	9.0 ± 1.8 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9805	0.984 ± 0.021 (+3.5 σ)	$\sigma_8(0.51)$	0.6208	0.6206 ± 0.0055 (−0.0 σ)
$A_{143}^{\mathrm{dustTT}}$	11.09	11.0 ± 1.8 (+0.1 σ)	Y_{P}	0.245452	0.245451 ± 0.000057 (+0.2 σ)	$f\sigma_8(0.61)$	0.4666	0.4665 ± 0.0057 (−0.0 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.84	18.6 ± 3.3 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246779	0.246778 ± 0.000057 (+0.2 σ)	$\sigma_8(0.61)$	0.5908	$0.5906^{+0.0048}_{-0.0055}$ (−0.0 σ)
$A_{217}^{\mathrm{dustTT}}$	95.0	93.6 ± 7.2 (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5582	2.559 ± 0.027 (−0.2 σ)	$f\sigma_8(2.33)$	0.29808	$0.2980^{+0.0023}_{-0.0027}$ (−0.0 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1135	0.115 ± 0.039 (+0.0 σ)	Age/Gyr	13.7712	$13.771^{+0.027}_{-0.023}$ (−0.2 σ)	$\sigma_8(2.33)$	0.30752	$0.3074^{+0.0024}_{-0.0028}$ (−0.0 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1355	0.134 ± 0.030 (−0.0 σ)	z_*	1089.614	1089.62 ± 0.27 (−0.1 σ)	f_{2000}^{143}	29.21	30.0 ± 3.1 (+0.4 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.480	0.480 ± 0.086 (+0.0 σ)	r_*	144.662	144.65 ± 0.30 (−0.2 σ)	$f_{2000}^{143 \times 217}$	32.18	32.5 ± 2.1 (+0.4 σ)
$A_{143}^{\mathrm{dustTE}}$	0.224	0.223 ± 0.054 (−0.0 σ)	$100\theta_*$	1.041268	1.04129 ± 0.00031 (+0.1 σ)	f_{2000}^{217}	106.82	107.4 ± 2.0 (+0.5 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.663	0.656 ± 0.081 (−0.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8929	13.892 ± 0.028 (−0.2 σ)	χ_{simall}^2	396.48	397.5 ± 2.4 (−0.0 σ)
$A_{217}^{\mathrm{dustTE}}$	2.065	2.07 ± 0.26 (−0.0 σ)	z_{drag}	1060.200	1060.19 ± 0.31 (+0.3 σ)	χ_{lowl}^2	21.87	22.1 ± 1.5 (−0.9 σ)
c_{100}	0.99972	0.99971 ± 0.00061 (+0.1 σ)	r_{drag}	147.277	147.27 ± 0.30 (−0.2 σ)	χ_{plik}^2	2346.8	2362.4 ± 6.5 (+0.2 σ)
c_{217}	0.99821	0.99824 ± 0.00062 (+0.1 σ)	k_{D}	0.140785	0.14079 ± 0.00033 (+0.3 σ)	$\chi_{\mathrm{H073p45}}^2$	10.74	10.9 ± 2.4 (−0.0 σ)
H_0	68.01	68.00 ± 0.60 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.160621	0.16063 ± 0.00018 (−0.3 σ)	χ_{prior}^2	1.81	11.7 ± 4.5 (−0.0 σ)
Ω_{Λ}	0.6934	0.6931 ± 0.0080 (−0.0 σ)	z_{eq}	3373.8	3375 ± 30 (+0.1 σ)	χ_{CMB}^2	2765.2	2782.1 ± 6.4 (+0.1 σ)
Ω_{m}	0.3066	0.3069 ± 0.0080 (+0.0 σ)	k_{eq}	0.010297	0.010300 ± 0.000091 (+0.1 σ)			
$\Omega_{\mathrm{m}}h^2$	0.14183	0.1419 ± 0.0012 (+0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8190	0.8188 ± 0.0057 (−0.1 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2777.71$; $\Delta\chi_{\mathrm{eff}}^2 = -0.23$; $\bar{\chi}_{\mathrm{eff}}^2 = 2804.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.47$; $R - 1 = 0.04323$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck.B: 396.48 (Δ 0.01) commander_dx12_v3.2.29: 21.87 (Δ -0.67) plik_rd12_HM_v22b_TTTEEE: 2346.81 (Δ 0.05) Hubble - H073p45: 10.74 (Δ 0.15)

12.16 base_nrun_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02239 \pm 0.00015 \quad (+0.2\sigma)$	$\Omega_{\text{m}}h^2$	$0.1434 \pm 0.0013 \quad (+0.1\sigma)$	k_{eq}	$0.010408 \pm 0.000094 \quad (+0.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1203 \pm 0.0014 \quad (+0.1\sigma)$	$\Omega_{\text{m}}h^3$	$0.09641 \pm 0.00031 \quad (+0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8120 \pm 0.0057 \quad (-0.1\sigma)$
$100\theta_{\text{MC}}$	$1.04090 \pm 0.00032 \quad (-0.0\sigma)$	σ_8	$0.8133 \pm 0.0074 \quad (+0.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4487 \pm 0.0029 \quad (-0.1\sigma)$
τ	$0.0567^{+0.0058}_{-0.0084} \quad (+0.2\sigma)$	S_8	$0.836 \pm 0.016 \quad (+0.1\sigma)$	$H(0.15)$	$72.60 \pm 0.51 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.051^{+0.014}_{-0.017} \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4579 \pm 0.0090 \quad (+0.1\sigma)$	$D_{\text{M}}(0.15)$	$644.2 \pm 5.2 \quad (+0.1\sigma)$
n_{s}	$0.9636 \pm 0.0046 \quad (-0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6103 \pm 0.0084 \quad (+0.1\sigma)$	$H(0.38)$	$82.82 \pm 0.37 \quad (-0.0\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0056 ± 0.0067	$\sigma_8/h^{0.5}$	$0.992 \pm 0.012 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1535 \pm 10 \quad (+0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	$r_{\text{drag}}h$	$98.9 \pm 1.0 \quad (-0.1\sigma)$	$H(0.51)$	$89.60 \pm 0.29 \quad (-0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.029 \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1988 \pm 12 \quad (+0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.91^{+0.63}_{-0.82} \quad (+0.2\sigma)$	$H(0.61)$	$95.26 \pm 0.24 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.2\sigma)$	$10^9 A_{\text{s}}$	$2.114^{+0.028}_{-0.036} \quad (+0.3\sigma)$	$D_{\text{M}}(0.61)$	$2312 \pm 13 \quad (+0.0\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.887 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$236.79 \pm 0.82 \quad (+0.2\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.3\sigma)$	D_{40}	$1221 \pm 19 \quad (-0.8\sigma)$	$D_{\text{M}}(2.33)$	$5764 \pm 11 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5733 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4621 \pm 0.0084 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2542 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7510 \pm 0.0064 \quad (+0.1\sigma)$
A^{kSZ}	$< 4.84 \quad (+0.2\sigma)$	D_{1420}	$816.2 \pm 4.9 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4792 \pm 0.0068 \quad (+0.1\sigma)$
$A_{100}^{\text{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$230.2 \pm 1.8 \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.6651^{+0.0050}_{-0.0056} \quad (+0.1\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.982 \pm 0.021 \quad (+3.8\sigma)$	$f\sigma_8(0.51)$	$0.4772 \pm 0.0060 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Y_{P}	$0.245401^{+0.000062}_{-0.000055} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6222^{+0.0045}_{-0.0052} \quad (+0.1\sigma)$
$A_{217}^{\text{dust}TT}$	$93.5 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246727^{+0.000062}_{-0.000055} \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4717 \pm 0.0054 \quad (+0.1\sigma)$
$A_{100}^{\text{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	10^5D/H	$2.583 \pm 0.028 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5919^{+0.0042}_{-0.0049} \quad (+0.1\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	Age/Gyr	$13.797 \pm 0.024 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0020}_{-0.0025} \quad (+0.1\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	z_*	$1089.93 \pm 0.27 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3072^{+0.0020}_{-0.0026} \quad (+0.0\sigma)$
$A_{143}^{\text{dust}TE}$	$0.224 \pm 0.053 \quad (-0.0\sigma)$	r_*	$144.34 \pm 0.30 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.7 \pm 3.1 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.665 \pm 0.080 \quad (-0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00031 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.2 \quad (+0.5\sigma)$
$A_{217}^{\text{dust}TE}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.864 \pm 0.028 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.8 \pm 2.0 \quad (+0.5\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1060.00 \pm 0.31 \quad (+0.2\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (+0.1\sigma)$
c_{217}	$0.99822 \pm 0.00062 \quad (+0.1\sigma)$	r_{drag}	$146.99 \pm 0.30 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.6 \pm 1.6 \quad (-1.0\sigma)$
H_0	$67.26 \pm 0.60 \quad (-0.1\sigma)$	k_{D}	$0.14099 \pm 0.00033 \quad (+0.3\sigma)$	χ_{plik}^2	$2360.7 \pm 5.9 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6830 \pm 0.0084 \quad (-0.1\sigma)$	$100\theta_{\text{D}}$	$0.16072 \pm 0.00018 \quad (-0.2\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3170 \pm 0.0084 \quad (+0.1\sigma)$	z_{eq}	$3410 \pm 31 \quad (+0.1\sigma)$	χ_{CMB}^2	$2780.5 \pm 5.9 \quad (+0.1\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2792.02$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.49$; $R - 1 = 0.01357$

12.17 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02245 \pm 0.00014 \quad (+0.2\sigma)$	σ_8	$0.8107 \pm 0.0071 \quad (+0.0\sigma)$	$D_M(0.15)$	$640.7 \pm 3.8 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1194 \pm 0.0010 \quad (+0.1\sigma)$	S_8	$0.826 \pm 0.013 \quad (+0.0\sigma)$	$H(0.38)$	$83.07 \pm 0.29 \quad (+0.0\sigma)$
$100\theta_{MC}$	$1.04101 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4522 \pm 0.0071 \quad (+0.0\sigma)$	$D_M(0.38)$	$1528.1 \pm 7.7 \quad (-0.0\sigma)$
τ	$0.0575^{+0.0060}_{-0.0086} \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6055 \pm 0.0071 \quad (+0.0\sigma)$	$H(0.51)$	$89.79 \pm 0.23 \quad (+0.1\sigma)$
$\ln(10^{10} A_s)$	$3.050^{+0.014}_{-0.018} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.986 \pm 0.010 \quad (+0.0\sigma)$	$D_M(0.51)$	$1979.6 \pm 9.1 \quad (-0.0\sigma)$
n_s	$0.9659 \pm 0.0041 \quad (-0.3\sigma)$	$r_{drag} h$	$99.59 \pm 0.78 \quad (-0.1\sigma)$	$H(0.61)$	$95.41 \pm 0.19 \quad (+0.1\sigma)$
$dn_s/d \ln k$	-0.0050 ± 0.0068	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.026 \quad (-0.2\sigma)$	$D_M(0.61)$	$2303.6 \pm 9.8 \quad (-0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.96^{+0.65}_{-0.84} \quad (+0.1\sigma)$	$H(2.33)$	$236.24 \pm 0.62 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	$10^9 A_s$	$2.113^{+0.029}_{-0.038} \quad (+0.2\sigma)$	$D_M(2.33)$	$5757.6 \pm 9.2 \quad (-0.1\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.883 \pm 0.011 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4568 \pm 0.0067 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.2^{+2.2}_{-1.9} \quad (-0.2\sigma)$	D_{40}	$1218 \pm 18 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.7491 \pm 0.0064 \quad (+0.0\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.2\sigma)$	D_{220}	$5737 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0057 \quad (+0.0\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6641^{+0.0050}_{-0.0058} \quad (+0.0\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$816.9 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4739 \pm 0.0052 \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{2000}	$230.5 \pm 1.7 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6215^{+0.0046}_{-0.0054} \quad (+0.0\sigma)$
A^{kSZ}	$< 4.72 \quad (+0.2\sigma)$	$n_{s,0.002}$	$0.982 \pm 0.021 \quad (+4.0\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0048 \quad (+0.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245424^{+0.000055}_{-0.000049} \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0043}_{-0.0051} \quad (+0.0\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.1\sigma)$	Y_P^{BBN}	$0.246751^{+0.000056}_{-0.000050} \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0021}_{-0.0026} \quad (+0.0\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 D/H$	$2.571 \pm 0.026 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3074^{+0.0022}_{-0.0027} \quad (+0.0\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.1 \quad (-0.0\sigma)$	Age/Gyr	$13.784 \pm 0.021 \quad (-0.1\sigma)$	f_{2000}^{143}	$30.4 \pm 3.2 \quad (+0.4\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.77 \pm 0.23 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.5\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$144.53 \pm 0.24 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.6 \pm 2.0 \quad (+0.5\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.480 \pm 0.086 \quad (+0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00029 \quad (+0.0\sigma)$	χ_{small}^2	$397.4 \pm 2.2 \quad (+0.0\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.881 \pm 0.023 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.3 \pm 1.5 \quad (-1.0\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.662 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1060.07 \pm 0.30 \quad (+0.2\sigma)$	χ_{plik}^2	$2360.8 \pm 5.9 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.26 \quad (-0.0\sigma)$	r_{drag}	$147.17 \pm 0.25 \quad (-0.2\sigma)$	χ_{6DF}^2	$0.059 \pm 0.068 \quad (+0.1\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14085 \pm 0.00030 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.24 \pm 0.42 \quad (-0.1\sigma)$
c_{217}	$0.99823 \pm 0.00061 \quad (+0.1\sigma)$	$100\theta_D$	$0.16068 \pm 0.00018 \quad (-0.2\sigma)$	$\chi_{DR12BAO}^2$	$4.9 \pm 1.5 \quad (+0.1\sigma)$
H_0	$67.67 \pm 0.45 \quad (-0.0\sigma)$	z_{eq}	$3389 \pm 23 \quad (+0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (-0.0\sigma)$
Ω_Λ	$0.6888 \pm 0.0061 \quad (-0.0\sigma)$	k_{eq}	$0.010345 \pm 0.000070 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.2 \quad (+0.1\sigma)$
Ω_m	$0.3112 \pm 0.0061 \quad (+0.0\sigma)$	$100\theta_{eq}$	$0.8159 \pm 0.0043 \quad (-0.1\sigma)$	χ_{CMB}^2	$2780.5 \pm 5.7 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.14248 \pm 0.00096 \quad (+0.1\sigma)$	$100\theta_{s,eq}$	$0.4507 \pm 0.0022 \quad (-0.1\sigma)$		
$\Omega_m h^3$	$0.09641 \pm 0.00031 \quad (+0.2\sigma)$	$H(0.15)$	$72.95 \pm 0.39 \quad (-0.0\sigma)$		

$$\bar{\chi}_{eff}^2 = 2798.32; \Delta \bar{\chi}_{eff}^2 = 0.61; R - 1 = 0.02163$$

12.18 base_nrun_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240 \pm 0.00015 \quad (+0.2\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09639 \pm 0.00030 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4493 \pm 0.0025 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0012 \quad (+0.1\sigma)$	σ_8	$0.8118 \pm 0.0058 \quad (+0.0\sigma)$	$H(0.15)$	$72.71 \pm 0.45 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00031 \quad (+0.0\sigma)$	S_8	$0.832 \pm 0.013 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.2 \pm 4.5 \quad (-0.0\sigma)$
τ	$0.0561^{+0.0055}_{-0.0078} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4557 \pm 0.0070 \quad (+0.0\sigma)$	$H(0.38)$	$82.89 \pm 0.33 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.049^{+0.012}_{-0.015} \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6082 \pm 0.0064 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533.0 \pm 9.0 \quad (-0.0\sigma)$
n_{s}	$0.9643 \pm 0.0043 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9890 \pm 0.0090 \quad (+0.0\sigma)$	$H(0.51)$	$89.65 \pm 0.26 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0045 ± 0.0067	$r_{\mathrm{drag}}h$	$99.09 \pm 0.90 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1985 \pm 11 \quad (-0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.023 \quad (-0.2\sigma)$	$H(0.61)$	$95.30 \pm 0.22 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	z_{re}	$7.84^{+0.59}_{-0.76} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2310 \pm 11 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.109^{+0.025}_{-0.032} \quad (+0.2\sigma)$	$H(2.33)$	$236.60 \pm 0.70 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.2^{+2.2}_{-2.0} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.885 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 10 \quad (-0.1\sigma)$
A_{100}^{PS}	$263 \pm 29 \quad (+0.1\sigma)$	D_{40}	$1222 \pm 18 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4600 \pm 0.0065 \quad (+0.0\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5734 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7498 \pm 0.0051 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4775 \pm 0.0052 \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.4 \pm 4.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6642 \pm 0.0045 \quad (+0.0\sigma)$
A^{kSZ}	$< 4.84 \quad (+0.1\sigma)$	D_{2000}	$230.3 \pm 1.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4757 \pm 0.0046 \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.979 \pm 0.021 \quad (+3.4\sigma)$	$\sigma_8(0.51)$	$0.6214^{+0.0039}_{-0.0044} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245406^{+0.000060}_{-0.000053} \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0041 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246732^{+0.000060}_{-0.000053} \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5912^{+0.0037}_{-0.0042} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.580 \pm 0.027 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0018}_{-0.0022} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.794 \pm 0.023 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0024} \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.88 \pm 0.25 \quad (-0.1\sigma)$	f_{2000}^{143}	$30.6 \pm 3.2 \quad (+0.4\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	r_*	$144.41 \pm 0.26 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 2.2 \quad (+0.4\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00031 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.7 \pm 2.0 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.663 \pm 0.080 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.871 \pm 0.025 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.42 \pm 0.79 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1060.01 \pm 0.31 \quad (+0.2\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.06 \pm 0.27 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.7 \pm 1.7 \quad (-0.9\sigma)$
c_{217}	$0.99823 \pm 0.00061 \quad (+0.1\sigma)$	k_{D}	$0.14093 \pm 0.00031 \quad (+0.2\sigma)$	χ_{plik}^2	$2360.4 \pm 5.8 \quad (+0.2\sigma)$
H_0	$67.38 \pm 0.52 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16072 \pm 0.00018 \quad (-0.2\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6849 \pm 0.0072 \quad (-0.0\sigma)$	z_{eq}	$3403 \pm 26 \quad (+0.1\sigma)$	χ_{CMB}^2	$2789.5 \pm 5.9 \quad (+0.1\sigma)$
Ω_{m}	$0.3151 \pm 0.0072 \quad (+0.0\sigma)$	k_{eq}	$0.010386 \pm 0.000080 \quad (+0.1\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1431 \pm 0.0011 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8133 \pm 0.0049 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2801.11$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60$; $R - 1 = 0.02119$

12.19 base_nrun_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02245 \pm 0.00014 \quad (+0.2\sigma)$	σ_8	$0.8107 \pm 0.0058 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11935 \pm 0.00092 \quad (+0.0\sigma)$	S_8	$0.825 \pm 0.011 \quad (+0.0\sigma)$	$H(0.38)$	$83.07 \pm 0.27 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04101 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4521 \pm 0.0058 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.0 \pm 7.1 \quad (-0.0\sigma)$
τ	$0.0575^{+0.0059}_{-0.0078} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6054 \pm 0.0057 \quad (+0.0\sigma)$	$H(0.51)$	$89.79 \pm 0.22 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.013}_{-0.015} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9854 \pm 0.0083 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979.4 \pm 8.4 \quad (-0.0\sigma)$
n_{s}	$0.9659 \pm 0.0040 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.61 \pm 0.71 \quad (-0.0\sigma)$	$H(0.61)$	$95.41 \pm 0.18 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0042 ± 0.0067	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.022 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303.4 \pm 9.1 \quad (-0.0\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.0\sigma)$	z_{re}	$7.96^{+0.62}_{-0.75} \quad (+0.1\sigma)$	$H(2.33)$	$236.22 \pm 0.56 \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.112^{+0.027}_{-0.033} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757.6 \pm 8.9 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.883 \pm 0.011 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0054 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.3^{+2.3}_{-1.9} \quad (-0.1\sigma)$	D_{40}	$1220 \pm 18 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.7491 \pm 0.0053 \quad (+0.0\sigma)$
A_{100}^{PS}	$262 \pm 29 \quad (+0.1\sigma)$	D_{220}	$5739 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0046 \quad (+0.0\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.2\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6641 \pm 0.0046 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.1 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4738 \pm 0.0042 \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.6 \pm 1.7 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6215^{+0.0041}_{-0.0045} \quad (+0.0\sigma)$
A^{kSZ}	$< 4.68 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.979 \pm 0.021 \quad (+3.4\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0039 \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245424^{+0.000055}_{-0.000049} \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0039}_{-0.0043} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246750^{+0.000055}_{-0.000049} \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0020}_{-0.0022} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.572 \pm 0.025 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0024} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.1 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.784 \pm 0.020 \quad (-0.1\sigma)$	f_{2000}^{143}	$30.2 \pm 3.2 \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.039 \quad (+0.0\sigma)$	z_*	$1089.77 \pm 0.22 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (+0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$144.54 \pm 0.22 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.3\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00029 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.23 \pm 0.61 \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.882 \pm 0.021 \quad (-0.1\sigma)$	χ_{simall}^2	$397.3 \pm 1.9 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.662 \pm 0.080 \quad (-0.1\sigma)$	z_{drag}	$1060.07 \pm 0.30 \quad (+0.2\sigma)$	χ_{lowl}^2	$22.5 \pm 1.6 \quad (-0.9\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.26 \quad (-0.0\sigma)$	r_{drag}	$147.18 \pm 0.23 \quad (-0.2\sigma)$	χ_{plik}^2	$2360.4 \pm 5.7 \quad (+0.2\sigma)$
c_{100}	$0.99968 \pm 0.00060 \quad (+0.0\sigma)$	k_{D}	$0.14084 \pm 0.00029 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.060 \quad (+0.0\sigma)$
c_{217}	$0.99823 \pm 0.00061 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16069 \pm 0.00017 \quad (-0.2\sigma)$	χ_{MGS}^2	$1.24 \pm 0.38 \quad (-0.0\sigma)$
H_0	$67.68 \pm 0.42 \quad (+0.0\sigma)$	z_{eq}	$3389 \pm 21 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.3 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6889 \pm 0.0056 \quad (-0.0\sigma)$	k_{eq}	$0.010342 \pm 0.000063 \quad (+0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
Ω_{m}	$0.3111 \pm 0.0056 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8160 \pm 0.0039 \quad (-0.1\sigma)$	χ_{CMB}^2	$2789.5 \pm 5.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14245 \pm 0.00087 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4508 \pm 0.0020 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09640 \pm 0.00030 \quad (+0.2\sigma)$	$H(0.15)$	$72.96 \pm 0.36 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2807.20$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.48$; $R - 1 = 0.02657$

12.20 base_nrun_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02252 \pm 0.00015 \quad (+0.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09647 \pm 0.00031 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522 \pm 0.0029 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1187 \pm 0.0013 \quad (+0.1\sigma)$	σ_8	$0.8086 \pm 0.0078 \quad (-0.0\sigma)$	$H(0.15)$	$73.25^{+0.48}_{-0.54} \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04112 \pm 0.00032 \quad (+0.1\sigma)$	S_8	$0.818 \pm 0.016 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.8 \pm 5.1 \quad (-0.0\sigma)$
τ	$0.0583^{+0.0061}_{-0.0086} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4478 \pm 0.0089 \quad (-0.0\sigma)$	$H(0.38)$	$83.29^{+0.35}_{-0.40} \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.051^{+0.014}_{-0.018} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6017 \pm 0.0086 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522 \pm 10 \quad (-0.0\sigma)$
n_{s}	$0.9676 \pm 0.0046 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.012 \quad (-0.0\sigma)$	$H(0.51)$	$89.96^{+0.27}_{-0.33} \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0050 ± 0.0068	$r_{\mathrm{drag}}h$	$100.2 \pm 1.0 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1973^{+12}_{-11} \quad (-0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.421 \pm 0.029 \quad (-0.3\sigma)$	$H(0.61)$	$95.55^{+0.22}_{-0.27} \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	z_{re}	$8.01^{+0.63}_{-0.86} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2296^{+14}_{-12} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.113^{+0.029}_{-0.039} \quad (+0.1\sigma)$	$H(2.33)$	$235.87 \pm 0.79 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5751^{+12}_{-10} \quad (-0.2\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (+0.2\sigma)$	D_{40}	$1214 \pm 19 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.4528 \pm 0.0084 \quad (-0.0\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5742 \pm 38 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7476^{+0.0064}_{-0.0073} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4721 \pm 0.0070 \quad (-0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$817.5 \pm 4.7 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6633^{+0.0052}_{-0.0062} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.79 \quad (+0.2\sigma)$	D_{2000}	$230.8 \pm 1.7 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4713 \pm 0.0062 \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.984 \pm 0.021 \quad (+3.6\sigma)$	$\sigma_8(0.51)$	$0.6209^{+0.0047}_{-0.0057} \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$11.0 \pm 1.8 \quad (+0.1\sigma)$	Y_{P}	$0.245452 \pm 0.000057 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4667 \pm 0.0057 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246778 \pm 0.000057 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5909^{+0.0043}_{-0.0054} \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.2 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.558 \pm 0.027 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0021}_{-0.0027} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.039 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.770^{+0.026}_{-0.023} \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3076^{+0.0021}_{-0.0028} \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (+0.0\sigma)$	z_*	$1089.62 \pm 0.27 \quad (-0.1\sigma)$	f_{2000}^{143}	$30.0 \pm 3.1 \quad (+0.4\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.480 \pm 0.087 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.30 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.1 \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.223 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04129 \pm 0.00031 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.657 \pm 0.081 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.028 \quad (-0.2\sigma)$	χ_{small}^2	$397.5 \pm 2.5 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.07 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1060.19 \pm 0.31 \quad (+0.3\sigma)$	χ_{lowl}^2	$22.1 \pm 1.5 \quad (-0.9\sigma)$
c_{100}	$0.99971 \pm 0.00061 \quad (+0.1\sigma)$	r_{drag}	$147.27 \pm 0.30 \quad (-0.2\sigma)$	χ_{plik}^2	$2362.4 \pm 6.5 \quad (+0.2\sigma)$
c_{217}	$0.99824 \pm 0.00062 \quad (+0.1\sigma)$	k_{D}	$0.14079 \pm 0.00033 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$10.9 \pm 2.4 \quad (-0.0\sigma)$
H_0	$68.01 \pm 0.60 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16062 \pm 0.00018 \quad (-0.3\sigma)$	χ_{prior}^2	$11.7 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6932 \pm 0.0080 \quad (-0.0\sigma)$	z_{eq}	$3374 \pm 30 \quad (+0.1\sigma)$	χ_{CMB}^2	$2782.0 \pm 6.4 \quad (+0.1\sigma)$
Ω_{m}	$0.3068 \pm 0.0080 \quad (+0.0\sigma)$	k_{eq}	$0.010299 \pm 0.000091 \quad (+0.1\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8189 \pm 0.0057 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2804.52; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.63; R - 1 = 0.04836$$

12.21 base_nrun_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022152	0.02216 ± 0.00023 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4596	0.459 ± 0.013 (+0.0 σ)	$H(0.15)$	72.28	72.34 ± 0.79 (−0.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.12068	0.1206 ± 0.0021 (+0.0 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6108	0.610 ± 0.012 (+0.0 σ)	$D_{\mathrm{M}}(0.15)$	647.3	646.8 ± 8.0 (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.040822	1.04084 ± 0.00048 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9925	0.991 ± 0.016 (+0.0 σ)	$H(0.38)$	82.55	82.59 ± 0.57 (+0.0 σ)
τ	0.0529	0.0530 ± 0.0085 (+0.1 σ)	$r_{\mathrm{drag}}h$	98.46	98.6 ± 1.6 (−0.0 σ)	$D_{\mathrm{M}}(0.38)$	1541.6	1541 ± 16 (+0.0 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0419	3.041 ± 0.018 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4481	2.445 ± 0.038 (−0.1 σ)	$H(0.51)$	89.350	89.39 ± 0.45 (+0.0 σ)
n_{s}	0.9624	0.9630 ± 0.0061 (−0.1 σ)	z_{re}	7.59	7.57 ± 0.86 (+0.1 σ)	$D_{\mathrm{M}}(0.51)$	1995.6	1994 ± 19 (+0.0 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0033	$−0.0033 \pm 0.0076$	10^9A_{s}	2.0944	2.094 ± 0.037 (+0.2 σ)	$H(0.61)$	95.036	95.07 ± 0.36 (+0.0 σ)
y_{cal}	1.00058	1.0004 ± 0.0025 (−0.0 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8842	1.883 ± 0.015 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2321.0	2320 ± 20 (−0.0 σ)
A_{100}^{PS}	245.0	244 ± 25 (+0.1 σ)	D_{40}	1224.5	1223 ± 21 (−0.4 σ)	$H(2.33)$	236.78	236.7 ± 1.3 (+0.1 σ)
A_{143}^{PS}	39.9	42 ± 9 (+0.1 σ)	D_{220}	5706.5	5704 ± 41 (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5775.7	5775 ± 17 (−0.1 σ)
A_{217}^{PS}	98.4	100 ± 10 (−0.1 σ)	D_{810}	2535.5	2535 ± 14 (+0.0 σ)	$f\sigma_8(0.15)$	0.4634	0.463 ± 0.012 (+0.0 σ)
A_{217}^{CIB}	45.4	42 ± 8 (+0.1 σ)	D_{1420}	813.5	813.5 ± 5.4 (−0.2 σ)	$\sigma_8(0.15)$	0.7493	0.7488 ± 0.0077 (+0.0 σ)
A_{143}^{tSZ}	5.16	$3.7_{-2.6}^{+1.7}$ (−0.0 σ)	D_{2000}	229.09	229.1 ± 2.0 (−0.2 σ)	$f\sigma_8(0.38)$	0.4798	0.4791 ± 0.0097 (+0.0 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.549	0.64 ± 0.13 (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9730	0.974 ± 0.023 (+1.7 σ)	$\sigma_8(0.38)$	0.6632	0.6629 ± 0.0062 (+0.0 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.736	> 0.475 (+0.0 σ)	Y_{P}	0.245306	$0.24530_{-0.000087}^{+0.00011}$ (+0.1 σ)	$f\sigma_8(0.51)$	0.4773	0.4767 ± 0.0083 (+0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.00	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246632	$0.24663_{-0.000087}^{+0.00011}$ (+0.1 σ)	$\sigma_8(0.51)$	0.6202	0.6200 ± 0.0056 (+0.0 σ)
A^{kSZ}	2.6	—	$10^5\mathrm{D}/\mathrm{H}$	2.6271	2.626 ± 0.045 (−0.1 σ)	$f\sigma_8(0.61)$	0.4716	0.4711 ± 0.0073 (+0.0 σ)
A_{100}^{dust}	1.017	1.02 ± 0.20 (+0.0 σ)	Age/Gyr	13.8250	13.823 ± 0.038 (−0.1 σ)	$\sigma_8(0.61)$	0.5899	0.5897 ± 0.0053 (+0.0 σ)
A_{143}^{dust}	0.986	0.98 ± 0.17 (+0.0 σ)	z_*	1090.257	1090.24 ± 0.42 (−0.1 σ)	$f\sigma_8(2.33)$	0.29709	0.2970 ± 0.0026 (+0.0 σ)
A_{217}^{dust}	0.961	0.97 ± 0.10 (−0.0 σ)	r_*	144.423	144.45 ± 0.49 (−0.1 σ)	$\sigma_8(2.33)$	0.30591	0.3059 ± 0.0027 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.002	1.03 ± 0.16 (+0.0 σ)	$100\theta_*$	1.041032	1.04105 ± 0.00047 (−0.0 σ)	f_{2000}^{143}	32.02	31.5 ± 3.4 (+0.2 σ)
c_{100}	0.99751	0.9975 ± 0.0010 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8730	13.876 ± 0.045 (−0.1 σ)	f_{2000}^{217}	108.26	108.0 ± 2.2 (+0.2 σ)
c_{217}	1.00149	1.0013 ± 0.0016 (+0.1 σ)	z_{drag}	1059.475	1059.49 ± 0.50 (+0.1 σ)	$f_{2000}^{143 \times 217}$	33.66	33.5 ± 2.4 (+0.3 σ)
H_0	66.91	66.97 ± 0.93 (−0.0 σ)	r_{drag}	147.16	147.18 ± 0.50 (−0.1 σ)	χ_{small}^2	395.90	397.0 ± 1.8 (+0.1 σ)
Ω_{Λ}	0.6795	$0.680_{-0.012}^{+0.014}$ (−0.0 σ)	k_{D}	0.14063	0.14061 ± 0.00056 (+0.1 σ)	χ_{lowl}^2	22.73	23.1 ± 2.1 (−0.3 σ)
Ω_{m}	0.3205	$0.320_{-0.014}^{+0.012}$ (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.161027	0.16103 ± 0.00029 (−0.1 σ)	$\chi_{\mathrm{CamSpec}}^2$	7050.5	7064.2 ± 5.7 (+0.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.14347	0.1434 ± 0.0020 (+0.1 σ)	z_{eq}	3413.2	3410 ± 48 (+0.1 σ)	χ_{prior}^2	2.39	7.7 ± 3.5 (+0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.095994	0.09599 ± 0.00049 (+0.1 σ)	k_{eq}	0.010417	0.01041 ± 0.00015 (+0.1 σ)	χ_{CMB}^2	7469.1	7484.4 ± 5.6 (+0.1 σ)
σ_8	0.8118	0.8113 ± 0.0091 (+0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8107	0.8113 ± 0.0090 (−0.0 σ)			
S_8	0.8391	0.838 ± 0.024 (+0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.44817	0.4485 ± 0.0046 (−0.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7471.52$; $\Delta\chi_{\mathrm{eff}}^2 = -0.22$; $\bar{\chi}_{\mathrm{eff}}^2 = 7492.14$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60$; $R - 1 = 0.00818$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.07) commander_dx12_v3.2.29: 22.73 (Δ -0.67) CamSpec like_10.7HM: 7050.50 (Δ 0.16)

12.22 base_nrun_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02225 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6020 \pm 0.0080 \quad (+0.0\sigma)$	$H(0.38)$	$83.01 \pm 0.36 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.981 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.5 \pm 9.4 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04106 \pm 0.00042 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.84 \pm 0.94 \quad (-0.0\sigma)$	$H(0.51)$	$89.71 \pm 0.30 \quad (+0.1\sigma)$
τ	$0.0547^{+0.0077}_{-0.0086} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.028 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 11 \quad (-0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.017}_{-0.019} \quad (+0.1\sigma)$	z_{re}	$7.71 \pm 0.84 \quad (+0.1\sigma)$	$H(0.61)$	$95.31 \pm 0.25 \quad (+0.1\sigma)$
n_{s}	$0.9668 \pm 0.0046 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.034}_{-0.040} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 12 \quad (-0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0027 ± 0.0076	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.876 \pm 0.012 \quad (+0.1\sigma)$	$H(2.33)$	$235.75 \pm 0.78 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1217 \pm 20 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 13 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5710 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0077 \quad (+0.0\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7458 \pm 0.0070 \quad (+0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4724 \pm 0.0065 \quad (+0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{2000}	$229.5 \pm 2.0 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6613^{+0.0056}_{-0.0062} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.975 \pm 0.023 \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.4712 \pm 0.0059 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245344^{+0.000094}_{-0.000078} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6190^{+0.0051}_{-0.0058} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.473 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246671^{+0.000094}_{-0.000079} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4664 \pm 0.0054 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.608 \pm 0.040 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5890^{+0.0048}_{-0.0055} \quad (+0.0\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.801 \pm 0.029 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0024}_{-0.0028} \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.98 \pm 0.31 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0025}_{-0.0029} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.80 \pm 0.32 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.0 \pm 3.4 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04126 \pm 0.00042 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.7 \pm 2.2 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.906 \pm 0.031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.4 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.58 \pm 0.48 \quad (+0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (+0.1\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	r_{drag}	$147.51 \pm 0.36 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.6 \pm 1.8 \quad (-0.2\sigma)$
H_0	$67.68 \pm 0.55 \quad (+0.0\sigma)$	k_{D}	$0.14034 \pm 0.00047 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.6 \pm 5.5 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6903 \pm 0.0073 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00028 \quad (-0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.073 \quad (-0.0\sigma)$
Ω_{m}	$0.3097 \pm 0.0073 \quad (-0.0\sigma)$	z_{eq}	$3374 \pm 28 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.39 \pm 0.52 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	k_{eq}	$0.010297 \pm 0.000087 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.6 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09599 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8182 \pm 0.0052 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8069 \pm 0.0079 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4520 \pm 0.0027 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.0\sigma)$
S_8	$0.820 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$72.94 \pm 0.47 \quad (+0.0\sigma)$	χ_{CMB}^2	$7484.3 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0082 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.7 \pm 4.7 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7498.15$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.60$; $R - 1 = 0.01937$

12.23 base_nrun_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00022 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4570 \pm 0.0090 \quad (-0.0\sigma)$	$H(0.15)$	$72.44 \pm 0.63 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1202 \pm 0.0016 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6086 \pm 0.0078 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.8 \pm 6.3 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00045 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$82.65 \pm 0.46 \quad (+0.1\sigma)$
τ	$0.0532 \pm 0.0083 \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.8 \pm 1.2 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1539 \pm 13 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.016 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.443 \pm 0.027 \quad (-0.1\sigma)$	$H(0.51)$	$89.43 \pm 0.37 \quad (+0.1\sigma)$
n_{s}	$0.9636 \pm 0.0052 \quad (-0.1\sigma)$	z_{re}	$7.59 \pm 0.84 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1992 \pm 15 \quad (-0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0024 ± 0.0074	$10^9 A_{\mathrm{s}}$	$2.093 \pm 0.034 \quad (+0.1\sigma)$	$H(0.61)$	$95.10 \pm 0.31 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.881 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2317 \pm 16 \quad (-0.0\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1224 \pm 20 \quad (-0.4\sigma)$	$H(2.33)$	$236.52 \pm 0.98 \quad (+0.0\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5707 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5773 \pm 15 \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4611 \pm 0.0082 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$813.7 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7483 \pm 0.0057 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.7_{-2.7}^{+1.7} \quad (-0.0\sigma)$	D_{2000}	$229.2 \pm 2.0 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4779 \pm 0.0064 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.971 \pm 0.023 \quad (+1.5\sigma)$	$\sigma_8(0.38)$	$0.6626 \pm 0.0050 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.475 \quad (+0.0\sigma)$	Y_{P}	$0.24531_{-0.000085}^{+0.00011} \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4758 \pm 0.0054 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663_{-0.000085}^{+0.00011} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6198 \pm 0.0047 \quad (+0.0\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.624 \pm 0.043 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4703 \pm 0.0048 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.820 \pm 0.034 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5896 \pm 0.0045 \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.20 \pm 0.37 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2970 \pm 0.0024 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.52 \pm 0.38 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3060 \pm 0.0027 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00044 \quad (+0.0\sigma)$	f_{2000}^{143}	$31.3 \pm 3.3 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.882 \pm 0.036 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.9 \pm 2.2 \quad (+0.1\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.48 \pm 0.49 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.4 \quad (+0.2\sigma)$
H_0	$67.09 \pm 0.73 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.40 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.61 \pm 0.91 \quad (+0.1\sigma)$
Ω_{Λ}	$0.682 \pm 0.010 \quad (+0.0\sigma)$	k_{D}	$0.14054 \pm 0.00048 \quad (+0.1\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (+0.1\sigma)$
Ω_{m}	$0.318 \pm 0.010 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00028 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.2 \pm 2.1 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1431 \pm 0.0015 \quad (+0.0\sigma)$	z_{eq}	$3403 \pm 36 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.5 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09597 \pm 0.00048 \quad (+0.1\sigma)$	k_{eq}	$0.01039 \pm 0.00011 \quad (+0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8105 \pm 0.0064 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8126 \pm 0.0068 \quad (+0.0\sigma)$	χ_{CMB}^2	$7493.4 \pm 5.6 \quad (+0.1\sigma)$
S_8	$0.834 \pm 0.016 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4492 \pm 0.0035 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7501.08; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.83; R - 1 = 0.01225$$

12.24 base_nrun_CamSpecHM_TT_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02225 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6041 \pm 0.0063 \quad (-0.0\sigma)$	$H(0.38)$	$82.97 \pm 0.34 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1191 \pm 0.0011 \quad (-0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.9841 \pm 0.0091 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.8 \pm 8.8 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04104 \pm 0.00042 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.69 \pm 0.85 \quad (+0.0\sigma)$	$H(0.51)$	$89.67 \pm 0.28 \quad (+0.1\sigma)$
τ	$0.0562^{+0.0072}_{-0.0081} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.023 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1982 \pm 10 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045 \pm 0.016 \quad (+0.1\sigma)$	z_{re}	$7.87 \pm 0.77 \quad (+0.1\sigma)$	$H(0.61)$	$95.28 \pm 0.25 \quad (+0.1\sigma)$
n_{s}	$0.9663 \pm 0.0045 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.031}_{-0.035} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2306 \pm 11 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0023 ± 0.0075	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$235.87 \pm 0.70 \quad (+0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	D_{40}	$1220 \pm 19 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 13 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5714 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4557 \pm 0.0061 \quad (-0.0\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7477 \pm 0.0057 \quad (+0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$814.8 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4742 \pm 0.0051 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6629 \pm 0.0050 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.974 \pm 0.023 \quad (+1.7\sigma)$	$f\sigma_8(0.51)$	$0.4729 \pm 0.0046 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.245341^{+0.000094}_{-0.000078} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6204 \pm 0.0047 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.467 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246668^{+0.000094}_{-0.000078} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4679 \pm 0.0042 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.610 \pm 0.039 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5903 \pm 0.0045 \quad (+0.0\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.029 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2977^{+0.0022}_{-0.0024} \quad (+0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1090.00 \pm 0.30 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3069^{+0.0023}_{-0.0026} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.75 \pm 0.29 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.9 \pm 3.3 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04123 \pm 0.00041 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.6 \pm 2.2 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.902 \pm 0.029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.4 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	z_{drag}	$1059.58 \pm 0.48 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.47 \pm 0.82 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0015 \quad (+0.1\sigma)$	r_{drag}	$147.46 \pm 0.33 \quad (-0.1\sigma)$	χ_{small}^2	$397.3 \pm 2.0 \quad (+0.1\sigma)$
H_0	$67.60 \pm 0.50 \quad (+0.1\sigma)$	k_{D}	$0.14038 \pm 0.00045 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.8 \pm 1.9 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6891 \pm 0.0066 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00028 \quad (-0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.8 \pm 5.3 \quad (+0.1\sigma)$
Ω_{m}	$0.3109 \pm 0.0066 \quad (-0.0\sigma)$	z_{eq}	$3378 \pm 25 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.070 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1420 \pm 0.0011 \quad (+0.0\sigma)$	k_{eq}	$0.010311 \pm 0.000077 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.30 \pm 0.46 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09600 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8174 \pm 0.0047 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.5 \quad (-0.0\sigma)$
σ_8	$0.8091 \pm 0.0063 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0024 \quad (+0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.87 \pm 0.44 \quad (+0.1\sigma)$	χ_{CMB}^2	$7493.4 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4511 \pm 0.0065 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.4 \pm 4.3 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 7507.23; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.75; R - 1 = 0.02103$$

12.25 base_nrun_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00023 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.459 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$72.37 \pm 0.79 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1205 \pm 0.0021 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.611 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.5 \pm 8.0 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04086 \pm 0.00048 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.016 \quad (+0.0\sigma)$	$H(0.38)$	$82.62 \pm 0.57 \quad (+0.0\sigma)$
τ	$0.0546^{+0.0049}_{-0.0088} \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.6 \pm 1.6 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1540 \pm 16 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.018} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.038 \quad (-0.1\sigma)$	$H(0.51)$	$89.41 \pm 0.45 \quad (+0.0\sigma)$
n_{s}	$0.9632 \pm 0.0061 \quad (-0.2\sigma)$	z_{re}	$7.75^{+0.55}_{-0.87} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1994 \pm 19 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0036 ± 0.0076	$10^9 A_{\mathrm{s}}$	$2.100^{+0.026}_{-0.037} \quad (+0.2\sigma)$	$H(0.61)$	$95.08 \pm 0.36 \quad (+0.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.883 \pm 0.014 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2319 \pm 20 \quad (-0.0\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	D_{40}	$1222 \pm 21 \quad (-0.5\sigma)$	$H(2.33)$	$236.7 \pm 1.3 \quad (+0.1\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5704 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5774 \pm 17 \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.463 \pm 0.012 \quad (+0.0\sigma)$
A_{217}^{CIB}	$42 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$813.5 \pm 5.4 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7498 \pm 0.0071 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$229.2 \pm 2.0 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4795 \pm 0.0096 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.975 \pm 0.023 \quad (+1.8\sigma)$	$\sigma_8(0.38)$	$0.6638^{+0.0052}_{-0.0059} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.473 \quad (+0.0\sigma)$	Y_{P}	$0.24531^{+0.00011}_{-0.000087} \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4772 \pm 0.0082 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00011}_{-0.000087} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6209^{+0.0045}_{-0.0054} \quad (+0.0\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.624 \pm 0.044 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4716 \pm 0.0072 \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.821 \pm 0.037 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5906^{+0.0041}_{-0.0050} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.22 \pm 0.41 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0019}_{-0.0026} \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.46 \pm 0.49 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0027} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00047 \quad (-0.0\sigma)$	f_{2000}^{143}	$31.5 \pm 3.4 \quad (+0.3\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.876 \pm 0.045 \quad (-0.1\sigma)$	f_{2000}^{217}	$108.0 \pm 2.2 \quad (+0.2\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	z_{drag}	$1059.51 \pm 0.49 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.4 \quad (+0.3\sigma)$
H_0	$67.01 \pm 0.92 \quad (-0.0\sigma)$	r_{drag}	$147.19 \pm 0.50 \quad (-0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (+0.1\sigma)$
Ω_{Λ}	$0.681^{+0.014}_{-0.012} \quad (-0.0\sigma)$	k_{D}	$0.14061 \pm 0.00056 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.0 \pm 2.0 \quad (-0.4\sigma)$
Ω_{m}	$0.319^{+0.012}_{-0.014} \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00029 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.2 \pm 5.6 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1433 \pm 0.0020 \quad (+0.1\sigma)$	z_{eq}	$3409 \pm 48 \quad (+0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09601 \pm 0.00049 \quad (+0.2\sigma)$	k_{eq}	$0.01040 \pm 0.00015 \quad (+0.1\sigma)$	χ_{CMB}^2	$7484.1 \pm 5.6 \quad (+0.1\sigma)$
σ_8	$0.8123 \pm 0.0086 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8116 \pm 0.0089 \quad (-0.0\sigma)$		
S_8	$0.838 \pm 0.024 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4487 \pm 0.0046 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7491.87; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.61; R - 1 = 0.00915$$

12.26 base_nrun_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6026 \pm 0.0078 \quad (+0.0\sigma)$	$H(0.38)$	$83.02 \pm 0.36 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.982 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.3 \pm 9.4 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04107 \pm 0.00042 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.85 \pm 0.93 \quad (+0.0\sigma)$	$H(0.51)$	$89.72 \pm 0.30 \quad (+0.1\sigma)$
τ	$0.0559^{+0.0056}_{-0.0088} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.028 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 11 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.013}_{-0.019} \quad (+0.1\sigma)$	z_{re}	$7.84^{+0.60}_{-0.88} \quad (+0.1\sigma)$	$H(0.61)$	$95.32 \pm 0.25 \quad (+0.1\sigma)$
n_{s}	$0.9669 \pm 0.0046 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.027}_{-0.039} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 12 \quad (-0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0030 ± 0.0075	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.012 \quad (+0.1\sigma)$	$H(2.33)$	$235.75 \pm 0.78 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1216 \pm 20 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 13 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5710 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4542 \pm 0.0076 \quad (+0.0\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7467^{+0.0057}_{-0.0070} \quad (+0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4729 \pm 0.0063 \quad (+0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{2000}	$229.5 \pm 1.9 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6621^{+0.0047}_{-0.0061} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.976 \pm 0.023 \quad (+2.1\sigma)$	$f\sigma_8(0.51)$	$0.4717 \pm 0.0057 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245346^{+0.000094}_{-0.000079} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6197^{+0.0042}_{-0.0057} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.469 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246672^{+0.000094}_{-0.000079} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4669 \pm 0.0052 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.607 \pm 0.040 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5897^{+0.0040}_{-0.0054} \quad (+0.0\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.800 \pm 0.029 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0019}_{-0.0027} \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.97 \pm 0.31 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0028} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.80 \pm 0.32 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.1 \pm 3.3 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04126 \pm 0.00041 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.7 \pm 2.2 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.906 \pm 0.031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.4 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.59 \pm 0.48 \quad (+0.1\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (+0.1\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	r_{drag}	$147.51 \pm 0.36 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.5 \pm 1.8 \quad (-0.3\sigma)$
H_0	$67.69 \pm 0.54 \quad (+0.0\sigma)$	k_{D}	$0.14034 \pm 0.00047 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.5 \pm 5.5 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0072 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16097 \pm 0.00028 \quad (-0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.072 \quad (-0.0\sigma)$
Ω_{m}	$0.3096 \pm 0.0072 \quad (-0.0\sigma)$	z_{eq}	$3374 \pm 28 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.40 \pm 0.52 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	k_{eq}	$0.010297 \pm 0.000086 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09600 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8183 \pm 0.0052 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8078^{+0.0066}_{-0.0079} \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4521 \pm 0.0027 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.0\sigma)$
S_8	$0.821 \pm 0.015 \quad (-0.0\sigma)$	$H(0.15)$	$72.95 \pm 0.47 \quad (+0.0\sigma)$	χ_{CMB}^2	$7484.1 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4495 \pm 0.0080 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6 \pm 4.6 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7497.95$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.64$; $R - 1 = 0.02138$

12.27 base_nrun_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02218 \pm 0.00022 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4568 \pm 0.0089 \quad (-0.0\sigma)$	$H(0.15)$	$72.49 \pm 0.61 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1201 \pm 0.0015 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6087 \pm 0.0077 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.2 \pm 6.1 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00045 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$82.69 \pm 0.45 \quad (+0.1\sigma)$
τ	$0.0547^{+0.0052}_{-0.0086} \quad (+0.1\sigma)$	$r_{\mathrm{drag}} h$	$98.9 \pm 1.2 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.011}_{-0.016} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.443 \pm 0.027 \quad (-0.2\sigma)$	$H(0.51)$	$89.46 \pm 0.36 \quad (+0.1\sigma)$
n_{s}	$0.9639 \pm 0.0051 \quad (-0.1\sigma)$	z_{re}	$7.75^{+0.58}_{-0.84} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 14 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0026 ± 0.0074	$10^9 A_{\mathrm{s}}$	$2.099^{+0.023}_{-0.034} \quad (+0.1\sigma)$	$H(0.61)$	$95.12 \pm 0.30 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316 \pm 15 \quad (-0.1\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.1\sigma)$	D_{40}	$1223 \pm 20 \quad (-0.5\sigma)$	$H(2.33)$	$236.44 \pm 0.95 \quad (+0.0\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5707 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5772 \pm 15 \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4609 \pm 0.0082 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$813.7 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7490^{+0.0050}_{-0.0055} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	D_{2000}	$229.3 \pm 2.0 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4780 \pm 0.0064 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.972 \pm 0.023 \quad (+1.7\sigma)$	$\sigma_8(0.38)$	$0.6634^{+0.0040}_{-0.0049} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.472 \quad (+0.0\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000085} \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4759 \pm 0.0054 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000085} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6206^{+0.0037}_{-0.0047} \quad (+0.0\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.622 \pm 0.042 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4705 \pm 0.0048 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.818 \pm 0.033 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5903^{+0.0034}_{-0.0045} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.17 \pm 0.36 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0024} \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.11 \quad (-0.0\sigma)$	r_*	$144.55 \pm 0.37 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0027} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00044 \quad (+0.0\sigma)$	f_{2000}^{143}	$31.3 \pm 3.3 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.884 \pm 0.035 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.9 \pm 2.2 \quad (+0.1\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	z_{drag}	$1059.50 \pm 0.49 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.4 \quad (+0.2\sigma)$
H_0	$67.15 \pm 0.70 \quad (+0.1\sigma)$	r_{drag}	$147.28 \pm 0.39 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.59 \pm 0.91 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6829 \pm 0.0097 \quad (+0.0\sigma)$	k_{D}	$0.14053 \pm 0.00048 \quad (+0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.1\sigma)$
Ω_{m}	$0.3171 \pm 0.0097 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00028 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.1 \pm 2.0 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1429 \pm 0.0015 \quad (-0.0\sigma)$	z_{eq}	$3400 \pm 35 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.5 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09598 \pm 0.00048 \quad (+0.1\sigma)$	k_{eq}	$0.01038 \pm 0.00011 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8112 \pm 0.0061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8132 \pm 0.0066 \quad (+0.0\sigma)$	χ_{CMB}^2	$7493.1 \pm 5.6 \quad (+0.1\sigma)$
S_8	$0.834 \pm 0.016 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0034 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7500.82$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.81$; $R - 1 = 0.01490$

12.28 **base_nrun_CamSpecHM_TT_lowl_lowE_post_BAO_lensing_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02225 \pm 0.00021 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6043 \pm 0.0062 \quad (-0.0\sigma)$	$H(0.38)$	$82.98 \pm 0.33 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1191 \pm 0.0011 \quad (-0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.9845 \pm 0.0089 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.6 \pm 8.7 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04104 \pm 0.00041 \quad (+0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.71 \pm 0.84 \quad (+0.0\sigma)$	$H(0.51)$	$89.68 \pm 0.28 \quad (+0.1\sigma)$
τ	$0.0569^{+0.0060}_{-0.0083} \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.023 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1982 \pm 10 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.017} \quad (+0.1\sigma)$	z_{re}	$7.94^{+0.65}_{-0.79} \quad (+0.1\sigma)$	$H(0.61)$	$95.29 \pm 0.25 \quad (+0.1\sigma)$
n_{s}	$0.9664 \pm 0.0044 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.026}_{-0.035} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2306 \pm 11 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0025 ± 0.0075	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$235.86 \pm 0.70 \quad (+0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	D_{40}	$1220 \pm 19 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 13 \quad (-0.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5714 \pm 40 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0061 \quad (-0.0\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7481^{+0.0050}_{-0.0059} \quad (+0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$814.7 \pm 5.2 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4743 \pm 0.0050 \quad (-0.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6632^{+0.0043}_{-0.0052} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.974 \pm 0.023 \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.4730 \pm 0.0045 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245343^{+0.000094}_{-0.000078} \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6207^{+0.0040}_{-0.0049} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.466 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246669^{+0.000094}_{-0.000078} \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4681 \pm 0.0041 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.609 \pm 0.039 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5906^{+0.0038}_{-0.0047} \quad (+0.0\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.802 \pm 0.029 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2978^{+0.0019}_{-0.0025} \quad (+0.0\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1090.00 \pm 0.30 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0020}_{-0.0026} \quad (+0.0\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.76 \pm 0.29 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.9 \pm 3.3 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.11 \quad (+0.0\sigma)$	$100\theta_*$	$1.04124 \pm 0.00041 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.7 \pm 2.2 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.17 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.902 \pm 0.029 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.1 \pm 2.4 \quad (+0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.59 \pm 0.48 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.43 \pm 0.77 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0015 \quad (+0.1\sigma)$	r_{drag}	$147.47 \pm 0.33 \quad (-0.1\sigma)$	χ_{simall}^2	$397.3 \pm 2.0 \quad (+0.1\sigma)$
H_0	$67.61 \pm 0.50 \quad (+0.1\sigma)$	k_{D}	$0.14038 \pm 0.00045 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.8 \pm 1.9 \quad (-0.3\sigma)$
Ω_{Λ}	$0.6893 \pm 0.0065 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00028 \quad (-0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.8 \pm 5.4 \quad (+0.1\sigma)$
Ω_{m}	$0.3107 \pm 0.0065 \quad (-0.0\sigma)$	z_{eq}	$3378 \pm 25 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.068 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1420 \pm 0.0011 \quad (+0.0\sigma)$	k_{eq}	$0.010309 \pm 0.000077 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.31 \pm 0.46 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09600 \pm 0.00048 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8175 \pm 0.0046 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.0\sigma)$
σ_8	$0.8095^{+0.0056}_{-0.0064} \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0024 \quad (+0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$H(0.15)$	$72.88 \pm 0.43 \quad (+0.1\sigma)$	χ_{CMB}^2	$7493.3 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4512 \pm 0.0065 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.3 \pm 4.3 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7507.10$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.78$; $R - 1 = 0.02288$

12.29 base_nrun_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022296	0.02229 ± 0.00016 (+0.0 σ)	σ_8	0.8086	0.8080 ± 0.0076 (−0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8148	0.8150 ± 0.0059 (+0.0 σ)
$\Omega_{\mathrm{c}} h^2$	0.11967	0.1196 ± 0.0014 (−0.0 σ)	S_8	0.8272	0.826 ± 0.016 (−0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.45022	0.4503 ± 0.0030 (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.040874	1.04087 ± 0.00031 (−0.0 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4531	0.4526 ± 0.0089 (−0.0 σ)	$H(0.15)$	72.70	72.71 ± 0.52 (+0.0 σ)
τ	0.0532	0.0528 ± 0.0082 (−0.0 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6053	0.6047 ± 0.0084 (−0.0 σ)	$D_{\mathrm{M}}(0.15)$	643.1	643.0 ± 5.2 (−0.0 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0394	3.039 ± 0.017 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9849	0.984 ± 0.012 (−0.0 σ)	$H(0.38)$	82.856	82.86 ± 0.37 (+0.0 σ)
n_{s}	0.96599	0.9657 ± 0.0048 (−0.0 σ)	$r_{\mathrm{drag}} h$	99.25	99.3 ± 1.1 (+0.0 σ)	$D_{\mathrm{M}}(0.38)$	1533.1	1533 ± 10 (−0.0 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0007	$−0.0011 \pm 0.0068$	$\langle d^2 \rangle^{1/2}$	2.4333	2.432 ± 0.028 (−0.1 σ)	$H(0.51)$	89.598	89.60 ± 0.30 (+0.0 σ)
y_{cal}	1.00030	1.0004 ± 0.0025 (−0.0 σ)	z_{re}	7.57	7.52 ± 0.84 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1985.6	1985 ± 12 (−0.0 σ)
A_{100}^{PS}	236.5	241 ± 25 (+0.0 σ)	$10^9 A_{\mathrm{s}}$	2.0894	2.088 ± 0.036 (+0.0 σ)	$H(0.61)$	95.236	95.24 ± 0.24 (−0.0 σ)
A_{143}^{PS}	42.4	40 ± 9 (+0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8786	1.879 ± 0.012 (+0.0 σ)	$D_{\mathrm{M}}(0.61)$	2310.2	2310 ± 13 (−0.0 σ)
A_{217}^{PS}	102.5	102 ± 10 (−0.0 σ)	D_{40}	1223.7	1224 ± 18 (−0.2 σ)	$H(2.33)$	236.26	236.23 ± 0.84 (−0.0 σ)
A_{217}^{CIB}	42.9	40 ± 7 (+0.0 σ)	D_{220}	5714.7	5716 ± 38 (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5766.6	5767 ± 11 (+0.0 σ)
A_{143}^{tSZ}	5.59	$3.8_{-2.6}^{+1.9}$ (−0.0 σ)	D_{810}	2534.9	2535 ± 14 (−0.0 σ)	$f\sigma_8(0.15)$	0.4574	0.4570 ± 0.0083 (−0.0 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.627	0.65 ± 0.13 (−0.0 σ)	D_{1420}	815.6	815.3 ± 5.0 (−0.1 σ)	$\sigma_8(0.15)$	0.7469	0.7464 ± 0.0067 (−0.0 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.775	$0.57_{-0.16}^{+0.40}$ (+0.0 σ)	D_{2000}	230.18	230.0 ± 1.9 (−0.1 σ)	$f\sigma_8(0.38)$	0.4752	0.4747 ± 0.0068 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.33	—	$n_{\mathrm{s},0.002}$	0.9681	0.969 ± 0.021 (+0.8 σ)	$\sigma_8(0.38)$	0.6618	0.6614 ± 0.0057 (−0.0 σ)
A^{kSZ}	1.54	$4.8_{-3.8}^{+2.5}$ (+0.0 σ)	Y_{P}	0.245366	$0.245362_{-0.000063}^{+0.000069}$ (+0.0 σ)	$f\sigma_8(0.51)$	0.4735	0.4731 ± 0.0060 (−0.0 σ)
A_{100}^{dust}	1.015	1.01 ± 0.20 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246692	$0.246689_{-0.000063}^{+0.000069}$ (+0.0 σ)	$\sigma_8(0.51)$	0.6192	0.6188 ± 0.0053 (−0.0 σ)
A_{143}^{dust}	0.978	0.97 ± 0.18 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5994	2.601 ± 0.031 (−0.0 σ)	$f\sigma_8(0.61)$	0.4683	0.4679 ± 0.0055 (−0.0 σ)
A_{217}^{dust}	0.971	0.97 ± 0.10 (−0.0 σ)	Age/Gyr	13.8048	13.805 ± 0.025 (+0.0 σ)	$\sigma_8(0.61)$	0.58915	0.5888 ± 0.0050 (−0.0 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	0.992	1.03 ± 0.16 (+0.0 σ)	z_*	1089.986	1089.99 ± 0.28 (−0.0 σ)	$f\sigma_8(2.33)$	0.29695	0.2968 ± 0.0025 (−0.0 σ)
c_{100}	0.99763	0.9975 ± 0.0011 (+0.0 σ)	r_*	144.573	144.59 ± 0.32 (+0.0 σ)	$\sigma_8(2.33)$	0.30604	0.3059 ± 0.0026 (−0.0 σ)
c_{217}	1.00129	1.0011 ± 0.0016 (+0.0 σ)	$100\theta_*$	1.041067	1.04106 ± 0.00031 (−0.0 σ)	f_{2000}^{143}	30.18	30.1 ± 3.2 (+0.1 σ)
c_{TE}	0.99655	0.9967 ± 0.0050 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8870	13.889 ± 0.030 (+0.0 σ)	f_{2000}^{217}	106.90	107.1 ± 2.2 (+0.1 σ)
c_{EE}	0.99209	0.9922 ± 0.0050 (+0.0 σ)	z_{drag}	1059.742	1059.73 ± 0.35 (+0.0 σ)	$f_{2000}^{143 \times 217}$	32.19	32.4 ± 2.3 (+0.1 σ)
H_0	67.40	67.41 ± 0.60 (+0.0 σ)	r_{drag}	147.261	147.28 ± 0.33 (+0.0 σ)	χ_{simall}^2	395.88	396.9 ± 1.7 (−0.0 σ)
Ω_{Λ}	0.6860	0.6861 ± 0.0084 (+0.0 σ)	k_{D}	0.140632	0.14061 ± 0.00038 (−0.0 σ)	χ_{lowl}^2	22.85	23.1 ± 1.9 (−0.0 σ)
Ω_{m}	0.3140	0.3139 ± 0.0084 (−0.0 σ)	$100\theta_{\mathrm{D}}$	0.160863	0.16087 ± 0.00020 (−0.0 σ)	$\chi_{\mathrm{CamSpec}}^2$	11499.9	11515.5 ± 5.9 (+0.2 σ)
$\Omega_{\mathrm{m}} h^2$	0.14261	0.1426 ± 0.0013 (−0.0 σ)	z_{eq}	3392.5	3391 ± 31 (−0.0 σ)	χ_{prior}^2	2.17	7.8 ± 3.5 (+0.0 σ)
$\Omega_{\mathrm{m}} h^3$	0.096111	0.09609 ± 0.00034 (−0.0 σ)	k_{eq}	0.010354	0.010351 ± 0.000096 (−0.0 σ)	χ_{CMB}^2	11918.6	11935.6 ± 5.9 (+0.2 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.76$; $\Delta\chi_{\mathrm{eff}}^2 = -0.00$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.38$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.92$; $R - 1 = 0.00835$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.02) commander_dx12_v3_2_29: 22.85 (Δ -0.15) CamSpec like_10.7HM_1400_unified: 11499.86 (Δ 0.21)

12.30 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02233 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4486 \pm 0.0070 \quad (-0.0\sigma)$	$H(0.38)$	$83.04 \pm 0.29 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0010 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6014 \pm 0.0071 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.9 \pm 7.7 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.010 \quad (-0.0\sigma)$	$H(0.51)$	$89.74 \pm 0.23 \quad (-0.0\sigma)$
τ	$0.0536 \pm 0.0081 \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.81 \pm 0.78 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979.5 \pm 9.1 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.039 \pm 0.017 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.423 \pm 0.026 \quad (-0.1\sigma)$	$H(0.61)$	$95.34 \pm 0.20 \quad (-0.0\sigma)$
n_{s}	$0.9674 \pm 0.0042 \quad (-0.0\sigma)$	z_{re}	$7.58 \pm 0.82 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303.7 \pm 9.8 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0005 ± 0.0067	$10^9 A_{\mathrm{s}}$	$2.088^{+0.033}_{-0.036} \quad (-0.0\sigma)$	$H(2.33)$	$235.83 \pm 0.64 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.876 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762.3 \pm 9.5 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1222 \pm 18 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4533 \pm 0.0066 \quad (-0.0\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5720 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7452 \pm 0.0065 \quad (-0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4720 \pm 0.0057 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{1420}	$815.9 \pm 5.0 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6608 \pm 0.0056 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4708 \pm 0.0052 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.969 \pm 0.020 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6185 \pm 0.0052 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.41}_{-0.16} \quad (+0.0\sigma)$	Y_{P}	$0.245379^{+0.000065}_{-0.000058} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4660 \pm 0.0049 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246705^{+0.000065}_{-0.000059} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5885 \pm 0.0049 \quad (-0.1\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.0} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.593 \pm 0.029 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0025 \quad (-0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.796 \pm 0.022 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3061 \pm 0.0026 \quad (-0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1089.88 \pm 0.24 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.7 \pm 3.2 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.73 \pm 0.26 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.9 \pm 2.2 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.3 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.024 \quad (+0.0\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.77 \pm 0.34 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.0 \pm 1.8 \quad (+0.2\sigma)$
c_{TE}	$0.9969 \pm 0.0050 \quad (+0.0\sigma)$	r_{drag}	$147.41 \pm 0.27 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.4 \pm 6.0 \quad (+0.1\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	k_{D}	$0.14050 \pm 0.00035 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.045 \pm 0.056 \quad (-0.0\sigma)$
H_0	$67.71 \pm 0.45 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16085 \pm 0.00020 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.36 \pm 0.44 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0061 \quad (+0.0\sigma)$	z_{eq}	$3376 \pm 24 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.3 \quad (-0.0\sigma)$
Ω_{m}	$0.3096 \pm 0.0061 \quad (-0.0\sigma)$	k_{eq}	$0.010304 \pm 0.000072 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.14192 \pm 0.00098 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0044 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.97 \pm 0.97 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09609 \pm 0.00034 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4518 \pm 0.0023 \quad (+0.0\sigma)$	χ_{CMB}^2	$11935.4 \pm 5.9 \quad (+0.2\sigma)$
σ_8	$0.8062 \pm 0.0073 \quad (-0.1\sigma)$	$H(0.15)$	$72.97 \pm 0.39 \quad (-0.0\sigma)$		
S_8	$0.819 \pm 0.013 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.4 \pm 3.8 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.15; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.86; R - 1 = 0.01377$$

12.31 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02229 \pm 0.00016 \quad (-0.0\sigma)$	S_8	$0.828 \pm 0.013 \quad (-0.0\sigma)$	$H(0.15)$	$72.69 \pm 0.46 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4535 \pm 0.0069 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.2 \pm 4.6 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04086 \pm 0.00031 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6057 \pm 0.0063 \quad (-0.0\sigma)$	$H(0.38)$	$82.85 \pm 0.34 \quad (-0.0\sigma)$
τ	$0.0537 \pm 0.0077 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9857 \pm 0.0090 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533.4 \pm 9.2 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.015 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.23 \pm 0.93 \quad (-0.0\sigma)$	$H(0.51)$	$89.59 \pm 0.27 \quad (-0.0\sigma)$
n_{s}	$0.9655 \pm 0.0045 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.437 \pm 0.023 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986 \pm 11 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0006 ± 0.0066	z_{re}	$7.61 \pm 0.77 \quad (+0.0\sigma)$	$H(0.61)$	$95.23 \pm 0.22 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093 \pm 0.032 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311 \pm 12 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.0\sigma)$	$H(2.33)$	$236.27 \pm 0.73 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 18 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5767 \pm 11 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5719 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4579 \pm 0.0064 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40_{-8}^{+7} \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7473 \pm 0.0054 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.9_{-2.5}^{+1.9} \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 5.0 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4755 \pm 0.0052 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6622 \pm 0.0048 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56_{-0.17}^{+0.40} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.967 \pm 0.020 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4738 \pm 0.0045 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245361_{-0.000062}^{+0.000069} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6196 \pm 0.0045 \quad (-0.0\sigma)$
A^{kSZ}	$4.7_{-4.1}^{+2.1} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246688_{-0.000062}^{+0.000069} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0041 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.601 \pm 0.030 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5895 \pm 0.0043 \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.806 \pm 0.024 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2971 \pm 0.0022 \quad (-0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1089.99 \pm 0.26 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3062 \pm 0.0024 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.57 \pm 0.28 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.9 \pm 3.2 \quad (+0.1\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00030 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.0 \pm 2.2 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.026 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.3 \quad (+0.0\sigma)$
c_{TE}	$0.9967 \pm 0.0050 \quad (+0.0\sigma)$	z_{drag}	$1059.73 \pm 0.35 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.33 \pm 0.73 \quad (+0.0\sigma)$
c_{EE}	$0.9922 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.26 \pm 0.29 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (+0.0\sigma)$
H_0	$67.38 \pm 0.53 \quad (-0.0\sigma)$	k_{D}	$0.14062 \pm 0.00035 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.4 \pm 1.9 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6858 \pm 0.0073 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00020 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.9 \pm 5.8 \quad (+0.1\sigma)$
Ω_{m}	$0.3142 \pm 0.0073 \quad (+0.0\sigma)$	z_{eq}	$3393 \pm 27 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0011 \quad (-0.0\sigma)$	k_{eq}	$0.010355 \pm 0.000083 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.5 \pm 6.0 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00033 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8147 \pm 0.0051 \quad (-0.0\sigma)$		
σ_8	$0.8091 \pm 0.0060 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4502 \pm 0.0026 \quad (-0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11952.22; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.78; R - 1 = 0.01144$$

12.32 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4504 \pm 0.0058 \quad (+0.0\sigma)$	$H(0.38)$	$83.01 \pm 0.27 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11910 \pm 0.00094 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6034 \pm 0.0057 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.9 \pm 7.3 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00029 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9828 \pm 0.0083 \quad (+0.0\sigma)$	$H(0.51)$	$89.71 \pm 0.22 \quad (-0.0\sigma)$
τ	$0.0552^{+0.0068}_{-0.0076} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.70 \pm 0.72 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980.7 \pm 8.5 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.014}_{-0.015} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.021 \quad (+0.0\sigma)$	$H(0.61)$	$95.33 \pm 0.19 \quad (-0.0\sigma)$
n_{s}	$0.9669 \pm 0.0040 \quad (-0.0\sigma)$	z_{re}	$7.75 \pm 0.74 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304.9 \pm 9.2 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0002 ± 0.0066	10^9A_{s}	$2.097^{+0.029}_{-0.033} \quad (-0.0\sigma)$	$H(2.33)$	$235.93 \pm 0.59 \quad (+0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763.0 \pm 9.3 \quad (+0.1\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 18 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4551 \pm 0.0054 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7470^{+0.0050}_{-0.0056} \quad (-0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4736 \pm 0.0046 \quad (+0.0\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{1420}	$816.1 \pm 4.9 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6623^{+0.0044}_{-0.0049} \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.4} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4723 \pm 0.0042 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.020 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6198^{+0.0041}_{-0.0046} \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	Y_{P}	$0.245377^{+0.000065}_{-0.000057} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4674 \pm 0.0039 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246704^{+0.000066}_{-0.000058} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5898^{+0.0039}_{-0.0044} \quad (-0.0\sigma)$
A^{kSZ}	$4.6^{+2.0}_{-4.2} \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.594 \pm 0.029 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0020}_{-0.0022} \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.797 \pm 0.021 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3067^{+0.0021}_{-0.0024} \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.89 \pm 0.23 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.6 \pm 3.2 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.70^{+0.22}_{-0.25} \quad (-0.0\sigma)$	f_{2000}^{217}	$106.9 \pm 2.1 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.3 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898^{+0.021}_{-0.024} \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.32 \pm 0.77 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.78 \pm 0.34 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9968 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.38^{+0.24}_{-0.27} \quad (-0.0\sigma)$	χ_{lowl}^2	$23.2 \pm 1.9 \quad (+0.3\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	k_{D}	$0.14053 \pm 0.00033 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.8 \pm 5.8 \quad (+0.1\sigma)$
H_0	$67.65 \pm 0.42 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16085 \pm 0.00020 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.048 \pm 0.056 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6895 \pm 0.0056 \quad (-0.0\sigma)$	z_{eq}	$3380 \pm 22 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.29 \pm 0.40 \quad (-0.0\sigma)$
Ω_{m}	$0.3105 \pm 0.0056 \quad (+0.0\sigma)$	k_{eq}	$0.010315 \pm 0.000066 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.2 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14207 \pm 0.00090 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8173 \pm 0.0040 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610^{+0.00035}_{-0.00032} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4515 \pm 0.0021 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.4 \pm 5.9 \quad (+0.1\sigma)$
σ_8	$0.8083 \pm 0.0059 \quad (+0.0\sigma)$	$H(0.15)$	$72.92 \pm 0.36 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.02 \pm 0.97 \quad (+0.0\sigma)$
S_8	$0.822 \pm 0.011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.0 \pm 3.6 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.12; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.72; R - 1 = 0.01586$$

12.33 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02242 \pm 0.00016 \quad (-0.0\sigma)$	S_8	$0.810 \pm 0.015 \quad (-0.0\sigma)$	$H(0.15)$	$73.33 \pm 0.49 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0013 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4435 \pm 0.0083 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.9 \pm 4.8 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04107 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5971 \pm 0.0081 \quad (-0.0\sigma)$	$H(0.38)$	$83.31 \pm 0.36 \quad (-0.0\sigma)$
τ	$0.0550^{+0.0074}_{-0.0087} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.974 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1520.8 \pm 9.6 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.016}_{-0.018} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.0 \quad (-0.0\sigma)$	$H(0.51)$	$89.95 \pm 0.29 \quad (-0.0\sigma)$
n_{s}	$0.9696 \pm 0.0046 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.410 \pm 0.028 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1971 \pm 11 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0004 ± 0.0068	z_{re}	$7.69 \pm 0.84 \quad (-0.0\sigma)$	$H(0.61)$	$95.51 \pm 0.23 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.090^{+0.033}_{-0.038} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 12 \quad (+0.0\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.012 \quad (-0.1\sigma)$	$H(2.33)$	$235.35 \pm 0.79 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1218 \pm 18 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 11 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5725 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4486 \pm 0.0078 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7437 \pm 0.0068 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$816.6 \pm 4.9 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4684 \pm 0.0066 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66^{+0.14}_{-0.12} \quad (-0.1\sigma)$	D_{2000}	$230.6 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6600 \pm 0.0058 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.971 \pm 0.021 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4678 \pm 0.0059 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245411^{+0.000066}_{-0.000056} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6180 \pm 0.0054 \quad (-0.1\sigma)$
A^{kSZ}	$< 6.11 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246738^{+0.000066}_{-0.000057} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4635 \pm 0.0054 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.578^{+0.028}_{-0.031} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5883 \pm 0.0051 \quad (-0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.780 \pm 0.024 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2969 \pm 0.0026 \quad (-0.1\sigma)$
A_{217}^{dust}	$0.98 \pm 0.11 \quad (-0.0\sigma)$	z_*	$1089.69 \pm 0.27 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3064 \pm 0.0027 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.90 \pm 0.31 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.3 \pm 3.2 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00030 \quad (-0.0\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.916 \pm 0.029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.3 \quad (+0.0\sigma)$
c_{TE}	$0.9969 \pm 0.0050 \quad (-0.0\sigma)$	z_{drag}	$1059.90 \pm 0.35 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (+0.0\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.55 \pm 0.32 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.7 \pm 1.7 \quad (+0.2\sigma)$
H_0	$68.13 \pm 0.57 \quad (-0.0\sigma)$	k_{D}	$0.14042 \pm 0.00037 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11517.0 \pm 6.4 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6958 \pm 0.0076 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16078 \pm 0.00020 \quad (+0.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$10.4 \pm 2.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3042 \pm 0.0076 \quad (+0.0\sigma)$	z_{eq}	$3357 \pm 29 \quad (+0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0012 \quad (+0.0\sigma)$	k_{eq}	$0.010247 \pm 0.000089 \quad (+0.0\sigma)$	χ_{CMB}^2	$11936.8 \pm 6.3 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09614 \pm 0.00034 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8217 \pm 0.0056 \quad (-0.0\sigma)$		
σ_8	$0.8040 \pm 0.0077 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4537 \pm 0.0029 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11955.07$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.80$; $R - 1 = 0.04651$

12.34 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02230 \pm 0.00016 \quad (+0.0\sigma)$	σ_8	$0.8091^{+0.0064}_{-0.0074} \quad (-0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8152 \pm 0.0059 \quad (+0.0\sigma)$
$\Omega_c h^2$	$0.1196 \pm 0.0014 \quad (-0.0\sigma)$	S_8	$0.827 \pm 0.016 \quad (-0.0\sigma)$	$100\theta_{\text{s,eq}}$	$0.4504 \pm 0.0030 \quad (+0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04088 \pm 0.00031 \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4530 \pm 0.0088 \quad (-0.0\sigma)$	$H(0.15)$	$72.73 \pm 0.51 \quad (+0.0\sigma)$
τ	$0.0544^{+0.0047}_{-0.0084} \quad (-0.0\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6054 \pm 0.0082 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$642.8 \pm 5.1 \quad (-0.0\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.042^{+0.012}_{-0.017} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.985 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$82.88 \pm 0.37 \quad (+0.0\sigma)$
n_{s}	$0.9658 \pm 0.0048 \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$99.3 \pm 1.1 \quad (+0.0\sigma)$	$D_{\text{M}}(0.38)$	$1533 \pm 10 \quad (-0.0\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0013 ± 0.0068	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.028 \quad (-0.1\sigma)$	$H(0.51)$	$89.62 \pm 0.29 \quad (+0.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.69^{+0.52}_{-0.84} \quad (-0.0\sigma)$	$D_{\text{M}}(0.51)$	$1985 \pm 12 \quad (-0.0\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.095^{+0.024}_{-0.036} \quad (+0.0\sigma)$	$H(0.61)$	$95.25 \pm 0.24 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2310 \pm 13 \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1223 \pm 18 \quad (-0.2\sigma)$	$H(2.33)$	$236.21 \pm 0.84 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{220}	$5716 \pm 38 \quad (-0.0\sigma)$	$D_{\text{M}}(2.33)$	$5766 \pm 11 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.6} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4574 \pm 0.0082 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$815.2 \pm 5.0 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7474^{+0.0054}_{-0.0065} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.40}_{-0.16} \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4753 \pm 0.0067 \quad (-0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s},0.002}$	$0.970 \pm 0.020 \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.6623^{+0.0043}_{-0.0055} \quad (-0.1\sigma)$
A^{kSZ}	$4.8^{+2.4}_{-3.8} \quad (+0.0\sigma)$	Y_{P}	$0.245365^{+0.000069}_{-0.000062} \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0058 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246692^{+0.000069}_{-0.000062} \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6197^{+0.0039}_{-0.0051} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.599 \pm 0.030 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0053 \quad (-0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	Age/Gyr	$13.804 \pm 0.025 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5896^{+0.0036}_{-0.0048} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1089.97 \pm 0.28 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0024} \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.32 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0018}_{-0.0025} \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00030 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.0 \pm 3.2 \quad (+0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0050 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.889 \pm 0.030 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.0 \pm 2.2 \quad (+0.1\sigma)$
c_{EE}	$0.9921 \pm 0.0050 \quad (+0.0\sigma)$	z_{drag}	$1059.74 \pm 0.35 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.3 \quad (+0.1\sigma)$
H_0	$67.43 \pm 0.60 \quad (+0.0\sigma)$	r_{drag}	$147.28 \pm 0.33 \quad (+0.0\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6864 \pm 0.0083 \quad (+0.0\sigma)$	k_{D}	$0.14061 \pm 0.00038 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.1 \pm 1.9 \quad (-0.1\sigma)$
Ω_{m}	$0.3136 \pm 0.0083 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16086 \pm 0.00020 \quad (-0.0\sigma)$	χ_{CamSpec}^2	$11515.3 \pm 5.9 \quad (+0.2\sigma)$
$\Omega_{\text{m}} h^2$	$0.1425 \pm 0.0013 \quad (-0.0\sigma)$	z_{eq}	$3391 \pm 31 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.09610 \pm 0.00033 \quad (-0.0\sigma)$	k_{eq}	$0.010348 \pm 0.000095 \quad (-0.0\sigma)$	χ_{CMB}^2	$11935.2 \pm 5.8 \quad (+0.2\sigma)$
$\bar{\chi}_{\text{eff}}^2 = 11943.05; \Delta\bar{\chi}_{\text{eff}}^2 = 0.86; R - 1 = 0.00888$					

12.35 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0068 \quad (-0.0\sigma)$	$H(0.38)$	$83.05 \pm 0.29 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0010 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6021 \pm 0.0067 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.7 \pm 7.7 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00029 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9810 \pm 0.0097 \quad (-0.0\sigma)$	$H(0.51)$	$89.75 \pm 0.23 \quad (-0.0\sigma)$
τ	$0.0550^{+0.0049}_{-0.0083} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.82 \pm 0.78 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979.3 \pm 9.0 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.017} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.024 \quad (-0.1\sigma)$	$H(0.61)$	$95.35 \pm 0.19 \quad (-0.0\sigma)$
n_{s}	$0.9674 \pm 0.0042 \quad (-0.0\sigma)$	z_{re}	$7.73^{+0.54}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303.4 \pm 9.8 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0007 ± 0.0067	$10^9 A_{\mathrm{s}}$	$2.094^{+0.024}_{-0.036} \quad (-0.0\sigma)$	$H(2.33)$	$235.83 \pm 0.64 \quad (-0.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762.0 \pm 9.4 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1221 \pm 18 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0064 \quad (-0.0\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7462^{+0.0050}_{-0.0064} \quad (-0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4725 \pm 0.0055 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{1420}	$815.8 \pm 4.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6616^{+0.0042}_{-0.0055} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4714 \pm 0.0049 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.970 \pm 0.020 \quad (+0.5\sigma)$	$\sigma_8(0.51)$	$0.6193^{+0.0039}_{-0.0051} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.40}_{-0.17} \quad (+0.0\sigma)$	Y_{P}	$0.245381^{+0.000065}_{-0.000058} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4666 \pm 0.0046 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707^{+0.000065}_{-0.000058} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5893^{+0.0036}_{-0.0049} \quad (-0.1\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.0} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.592 \pm 0.029 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0025} \quad (-0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.795 \pm 0.021 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0018}_{-0.0025} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1089.87 \pm 0.24 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.7 \pm 3.2 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.73 \pm 0.25 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.9 \pm 2.1 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00029 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.3 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.024 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.78 \pm 0.34 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.0 \pm 1.8 \quad (+0.1\sigma)$
c_{TE}	$0.9968 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.41 \pm 0.27 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.3 \pm 6.0 \quad (+0.2\sigma)$
c_{EE}	$0.9924 \pm 0.0049 \quad (+0.0\sigma)$	k_{D}	$0.14050 \pm 0.00034 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.044 \pm 0.055 \quad (-0.0\sigma)$
H_0	$67.72 \pm 0.45 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00020 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.37 \pm 0.44 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6905 \pm 0.0061 \quad (-0.0\sigma)$	z_{eq}	$3376 \pm 23 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3095 \pm 0.0061 \quad (+0.0\sigma)$	k_{eq}	$0.010303 \pm 0.000071 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14191 \pm 0.00098 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8180 \pm 0.0044 \quad (-0.0\sigma)$	χ_{BAO}^2	$5.96 \pm 0.95 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00033 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0023 \quad (+0.0\sigma)$	χ_{CMB}^2	$11935.1 \pm 5.9 \quad (+0.2\sigma)$
σ_8	$0.8073^{+0.0058}_{-0.0071} \quad (-0.1\sigma)$	$H(0.15)$	$72.98 \pm 0.39 \quad (-0.0\sigma)$		
S_8	$0.820 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.4 \pm 3.8 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11948.86; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.87; R - 1 = 0.01438$$

12.36 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00016 \quad (-0.0\sigma)$	S_8	$0.828 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$72.72 \pm 0.45 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4535 \pm 0.0069 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.0 \pm 4.5 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00030 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6060 \pm 0.0063 \quad (-0.0\sigma)$	$H(0.38)$	$82.87 \pm 0.33 \quad (-0.0\sigma)$
τ	$0.0548^{+0.0050}_{-0.0079} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9862 \pm 0.0088 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1532.9 \pm 9.0 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.28 \pm 0.90 \quad (-0.0\sigma)$	$H(0.51)$	$89.61 \pm 0.26 \quad (-0.0\sigma)$
n_{s}	$0.9656 \pm 0.0044 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.022 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1985 \pm 11 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0007 ± 0.0066	z_{re}	$7.73^{+0.54}_{-0.79} \quad (+0.0\sigma)$	$H(0.61)$	$95.24 \pm 0.22 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.032} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2310 \pm 11 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.0\sigma)$	$H(2.33)$	$236.23 \pm 0.71 \quad (-0.0\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 18 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 10 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4579 \pm 0.0064 \quad (+0.0\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7480^{+0.0045}_{-0.0054} \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{1420}	$815.4 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4757 \pm 0.0051 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6628^{+0.0038}_{-0.0047} \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.17} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.020 \quad (+0.5\sigma)$	$f\sigma_8(0.51)$	$0.4741 \pm 0.0045 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245364^{+0.000068}_{-0.000061} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6201^{+0.0035}_{-0.0044} \quad (-0.0\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.0} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246691^{+0.000068}_{-0.000061} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0040 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.600 \pm 0.030 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5900^{+0.0033}_{-0.0043} \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.805 \pm 0.023 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0022} \quad (-0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1089.98 \pm 0.26 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0018}_{-0.0024} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.28 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.9 \pm 3.2 \quad (+0.1\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00030 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.0 \pm 2.2 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.026 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.3 \quad (+0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0050 \quad (+0.0\sigma)$	z_{drag}	$1059.74 \pm 0.34 \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.28 \pm 0.68 \quad (+0.0\sigma)$
c_{EE}	$0.9922 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.27 \pm 0.29 \quad (+0.0\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
H_0	$67.41 \pm 0.52 \quad (-0.0\sigma)$	k_{D}	$0.14062 \pm 0.00035 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.3 \pm 1.9 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6862 \pm 0.0071 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00020 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.7 \pm 5.8 \quad (+0.1\sigma)$
Ω_{m}	$0.3138 \pm 0.0071 \quad (+0.0\sigma)$	z_{eq}	$3391 \pm 27 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0011 \quad (-0.0\sigma)$	k_{eq}	$0.010351 \pm 0.000081 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.2 \pm 5.9 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00033 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8150 \pm 0.0050 \quad (-0.0\sigma)$		
σ_8	$0.8097^{+0.0052}_{-0.0059} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4503 \pm 0.0026 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11951.93$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68$; $R - 1 = 0.01119$

12.37 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0058 \quad (+0.0\sigma)$	$H(0.38)$	$83.02 \pm 0.27 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11907 \pm 0.00093 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6036 \pm 0.0056 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.7 \pm 7.2 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00029 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9832 \pm 0.0081 \quad (+0.0\sigma)$	$H(0.51)$	$89.72 \pm 0.22 \quad (-0.0\sigma)$
τ	$0.0559^{+0.0055}_{-0.0078} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.71 \pm 0.72 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980.5 \pm 8.5 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.021 \quad (+0.0\sigma)$	$H(0.61)$	$95.33 \pm 0.19 \quad (-0.0\sigma)$
n_{s}	$0.9670 \pm 0.0040 \quad (-0.0\sigma)$	z_{re}	$7.83^{+0.58}_{-0.76} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304.7 \pm 9.2 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0003 ± 0.0066	$10^9 A_{\mathrm{s}}$	$2.099^{+0.024}_{-0.033} \quad (+0.0\sigma)$	$H(2.33)$	$235.91^{+0.61}_{-0.55} \quad (+0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762.7 \pm 9.2 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 18 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4552 \pm 0.0054 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5723 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7474^{+0.0045}_{-0.0056} \quad (+0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4738 \pm 0.0045 \quad (+0.0\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{1420}	$816.0 \pm 4.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0039}_{-0.0049} \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0041 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.968 \pm 0.020 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6202^{+0.0036}_{-0.0046} \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	Y_{P}	$0.245379^{+0.000065}_{-0.000057} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4676 \pm 0.0038 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246705^{+0.000065}_{-0.000057} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5902^{+0.0034}_{-0.0044} \quad (-0.0\sigma)$
A^{kSZ}	$4.6^{+2.0}_{-4.2} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.593 \pm 0.028 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2976^{+0.0017}_{-0.0022} \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.797 \pm 0.021 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3069^{+0.0018}_{-0.0024} \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.89 \pm 0.23 \quad (+0.0\sigma)$	f_{2000}^{143}	$29.6 \pm 3.2 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.70^{+0.22}_{-0.25} \quad (-0.0\sigma)$	f_{2000}^{217}	$106.9 \pm 2.1 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.2 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898^{+0.021}_{-0.024} \quad (-0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.27 \pm 0.70 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.78 \pm 0.34 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (-0.0\sigma)$
c_{TE}	$0.9967 \pm 0.0049 \quad (+0.0\sigma)$	r_{drag}	$147.38^{+0.24}_{-0.27} \quad (-0.0\sigma)$	χ_{lowl}^2	$23.2 \pm 1.9 \quad (+0.3\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	k_{D}	$0.14053 \pm 0.00033 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.7 \pm 5.8 \quad (+0.1\sigma)$
H_0	$67.66 \pm 0.42 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00020 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.046 \pm 0.054 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6896 \pm 0.0056 \quad (-0.0\sigma)$	z_{eq}	$3379 \pm 21 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.30 \pm 0.40 \quad (-0.0\sigma)$
Ω_{m}	$0.3104 \pm 0.0056 \quad (+0.0\sigma)$	k_{eq}	$0.010314 \pm 0.000065 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.2 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14205 \pm 0.00090 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8174 \pm 0.0040 \quad (-0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09611 \pm 0.00033 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4515^{+0.0019}_{-0.0022} \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.2 \pm 5.9 \quad (+0.1\sigma)$
σ_8	$0.8087^{+0.0051}_{-0.0061} \quad (+0.0\sigma)$	$H(0.15)$	$72.93 \pm 0.36 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.00 \pm 0.93 \quad (+0.0\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.9 \pm 3.6 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.93; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.67; R - 1 = 0.01735$$

12.38 base_nrun_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02242 \pm 0.00016 \quad (-0.0\sigma)$	S_8	$0.810 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$73.34 \pm 0.49 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0013 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4438 \pm 0.0082 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.8 \pm 4.8 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04107 \pm 0.00030 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5977 \pm 0.0078 \quad (-0.0\sigma)$	$H(0.38)$	$83.32 \pm 0.36 \quad (-0.0\sigma)$
τ	$0.0562^{+0.0053}_{-0.0088} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.975 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1520.6 \pm 9.6 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.013}_{-0.018} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.0 \quad (-0.0\sigma)$	$H(0.51)$	$89.96 \pm 0.28 \quad (-0.0\sigma)$
n_{s}	$0.9697 \pm 0.0046 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.412 \pm 0.027 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1971 \pm 11 \quad (+0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0005 ± 0.0068	z_{re}	$7.81^{+0.56}_{-0.89} \quad (-0.0\sigma)$	$H(0.61)$	$95.52 \pm 0.23 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.026}_{-0.038} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2294 \pm 12 \quad (+0.0\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.012 \quad (-0.0\sigma)$	$H(2.33)$	$235.34 \pm 0.79 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{40}	$1217 \pm 18 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 11 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5725 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4490 \pm 0.0077 \quad (+0.0\sigma)$
A_{217}^{CIB}	$39^{+7}_{-8} \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7445^{+0.0056}_{-0.0068} \quad (-0.0\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$816.6 \pm 4.9 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4688 \pm 0.0064 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65^{+0.14}_{-0.12} \quad (-0.1\sigma)$	D_{2000}	$230.7 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6608^{+0.0045}_{-0.0058} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.43}_{-0.15} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.971 \pm 0.021 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.4683 \pm 0.0057 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245413^{+0.000065}_{-0.000056} \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6187^{+0.0041}_{-0.0054} \quad (-0.1\sigma)$
A^{kSZ}	$< 6.11 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246740^{+0.000066}_{-0.000056} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4640 \pm 0.0052 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.577^{+0.028}_{-0.031} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5889^{+0.0038}_{-0.0051} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.779 \pm 0.024 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0026} \quad (-0.1\sigma)$
A_{217}^{dust}	$0.98 \pm 0.11 \quad (+0.0\sigma)$	z_*	$1089.69 \pm 0.27 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3068^{+0.0019}_{-0.0027} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.90 \pm 0.31 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.3 \pm 3.2 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00030 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.916 \pm 0.029 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.2 \quad (+0.0\sigma)$
c_{TE}	$0.9968 \pm 0.0050 \quad (-0.0\sigma)$	z_{drag}	$1059.91 \pm 0.34 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (+0.0\sigma)$
c_{EE}	$0.9922 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.55 \pm 0.32 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.7 \pm 1.7 \quad (+0.2\sigma)$
H_0	$68.14 \pm 0.57 \quad (-0.0\sigma)$	k_{D}	$0.14042 \pm 0.00037 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11516.9 \pm 6.4 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6959 \pm 0.0076 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00020 \quad (-0.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$10.4 \pm 2.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3041 \pm 0.0076 \quad (+0.0\sigma)$	z_{eq}	$3357 \pm 29 \quad (+0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0012 \quad (+0.0\sigma)$	k_{eq}	$0.010246 \pm 0.000089 \quad (+0.0\sigma)$	χ_{CMB}^2	$11936.7 \pm 6.3 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09615 \pm 0.00033 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8218 \pm 0.0056 \quad (-0.0\sigma)$		
σ_8	$0.8049^{+0.0066}_{-0.0077} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4538 \pm 0.0029 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11954.85$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.84$; $R - 1 = 0.05101$

12.39 base_nrun_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022504	0.02253 ± 0.00026 (+0.2 σ)	$r_{\mathrm{drag}}h$	101.34	101.5 ± 1.7 (+0.3 σ)	$100\theta_{\mathrm{s,eq}}$	0.45565	0.4561 ± 0.0049 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11724	0.1170 ± 0.0022 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.3973	2.395 ± 0.048 (+0.3 σ)	$H(0.15)$	73.76	73.85 ± 0.85 (+0.3 σ)
$100\theta_{\mathrm{MC}}$	1.04145	1.04142 ± 0.00051 (+0.1 σ)	z_{re}	7.07	$6.87^{+0.95}_{-0.78}$ (−0.3 σ)	$D_{\mathrm{M}}(0.15)$	632.7	632.0 ± 8.2 (−0.3 σ)
τ	0.0491	0.0475 ± 0.0086 (−0.2 σ)	$10^9 A_{\mathrm{s}}$	2.0347	2.027 ± 0.045 (−0.4 σ)	$H(0.38)$	83.64	83.70 ± 0.63 (+0.3 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0129	3.009 ± 0.022 (−0.4 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8444	1.843 ± 0.021 (−0.4 σ)	$D_{\mathrm{M}}(0.38)$	1512.2	1511 ± 16 (−0.3 σ)
n_{s}	0.9733	0.975 ± 0.016 (+0.7 σ)	D_{40}	1236.3	1240 ± 50 (+1.1 σ)	$H(0.51)$	90.22	$90.28^{+0.47}_{-0.53}$ (+0.3 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.0145	0.017 ± 0.025	D_{220}	5690	5691 ± 57 (−0.0 σ)	$D_{\mathrm{M}}(0.51)$	1961.0	1959 ± 19 (−0.3 σ)
$A_{100}^{\mathrm{dustTE}}$	0.1141	0.114 ± 0.038 (+0.0 σ)	D_{810}	2505.6	2507 ± 25 (+0.0 σ)	$H(0.61)$	95.740	$95.78^{+0.38}_{-0.43}$ (+0.3 σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1358	0.136 ± 0.030 (−0.0 σ)	D_{1420}	812.7	815 ± 16 (+0.6 σ)	$D_{\mathrm{M}}(0.61)$	2283.6	2282 ± 21 (−0.3 σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.477	0.479 ± 0.085 (+0.0 σ)	D_{2000}	230.7	231.6 ± 7.2 (+0.9 σ)	$H(2.33)$	234.92	234.8 ± 1.3 (−0.3 σ)
$A_{143}^{\mathrm{dustTE}}$	0.221	0.222 ± 0.054 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.927	0.920 ± 0.070 (−4.2 σ)	$D_{\mathrm{M}}(2.33)$	5744.5	5743^{+19}_{-17} (−0.2 σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.657	0.659 ± 0.080 (+0.0 σ)	Y_{P}	0.245446	0.24545 ± 0.00010 (+0.2 σ)	$f\sigma_{\mathrm{s}}(0.15)$	0.4394	0.438 ± 0.013 (−0.2 σ)
$A_{217}^{\mathrm{dustTE}}$	2.039	2.04 ± 0.27 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246773	0.24678 ± 0.00010 (+0.2 σ)	$\sigma_{\mathrm{s}}(0.15)$	0.7356	0.7345 ± 0.0099 (+0.1 σ)
c_{100}	1.00016	1.00018 ± 0.00070 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5612	2.558 ± 0.047 (−0.2 σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4603	0.459 ± 0.010 (−0.1 σ)
c_{217}	0.99800	0.99798 ± 0.00065 (−0.0 σ)	Age/Gyr	13.7564	13.754 ± 0.040 (−0.2 σ)	$\sigma_{\mathrm{s}}(0.38)$	0.6535	0.6527 ± 0.0084 (+0.1 σ)
y_{cal}	0.99985	1.0000 ± 0.0025 (+0.0 σ)	z_{*}	1089.513	1089.47 ± 0.44 (−0.2 σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.4605	0.4594 ± 0.0092 (−0.1 σ)
H_0	68.62	68.72 ± 0.99 (+0.3 σ)	r_{*}	145.05	145.09 ± 0.51 (+0.3 σ)	$\sigma_{\mathrm{s}}(0.51)$	0.6122	0.6115 ± 0.0077 (+0.1 σ)
Ω_{Λ}	0.7019	0.703 ± 0.013 (+0.3 σ)	$100\theta_{*}$	1.04161	1.04159 ± 0.00050 (+0.1 σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.4567	0.4557 ± 0.0084 (−0.1 σ)
Ω_{m}	0.2981	0.297 ± 0.013 (−0.3 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9251	13.929 ± 0.048 (+0.3 σ)	$\sigma_{\mathrm{s}}(0.61)$	0.5829	0.5822 ± 0.0073 (+0.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.14039	0.1402 ± 0.0021 (−0.3 σ)	z_{drag}	1060.05	1060.08 ± 0.54 (+0.1 σ)	$f\sigma_{\mathrm{s}}(2.33)$	0.29442	0.2942 ± 0.0037 (+0.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.09633	0.09632 ± 0.00052 (−0.0 σ)	r_{drag}	147.68	147.71 ± 0.52 (+0.3 σ)	$\sigma_{\mathrm{s}}(2.33)$	0.30414	0.3039 ± 0.0039 (+0.3 σ)
σ_{s}	0.7946	0.793 ± 0.011 (+0.0 σ)	k_{D}	0.14035	0.14033 ± 0.00058 (−0.2 σ)	χ_{small}^2	395.53	396.7 ± 1.6 (−0.0 σ)
S_{s}	0.7921	0.790 ± 0.024 (−0.2 σ)	$100\theta_{\mathrm{D}}$	0.160743	0.16072 ± 0.00031 (−0.1 σ)	χ_{plikTE}^2	852.47	860.4 ± 4.0 (+0.2 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4339	0.432 ± 0.013 (−0.2 σ)	z_{eq}	3339.4	3335 ± 50 (−0.3 σ)	χ_{prior}^2	0.43	7.4 ± 3.7 (−0.0 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.5872	0.586 ± 0.013 (−0.1 σ)	k_{eq}	0.010192	0.01018 ± 0.00015 (−0.3 σ)	χ_{CMB}^2	1248.00	1257.2 ± 4.3 (+0.2 σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9592	0.957 ± 0.018 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8255	0.8265 ± 0.0096 (+0.3 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1248.43$; $\Delta\chi_{\mathrm{eff}}^2 = -0.56$; $\bar{\chi}_{\mathrm{eff}}^2 = 1264.57$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.57$; $R - 1 = 0.00548$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.53 (Δ -0.16) plik_r12_HM_v22_TE: 852.47 (Δ -0.38)

12.40 base_nrun_plikHM_TE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022477	0.02246 ± 0.00023 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4102	2.406 ± 0.042 (+0.4 σ)	$D_M(0.15)$	635.23	635.5 ± 4.7 (-0.1 σ)
$\Omega_c h^2$	0.11793	0.1180 ± 0.0013 (-0.1 σ)	z_{re}	6.83	$6.89^{+0.96}_{-0.79}$ (-0.2 σ)	$H(0.38)$	83.457	83.44 ± 0.37 (+0.1 σ)
$100\theta_{\text{MC}}$	1.041347	1.04131 ± 0.00046 (-0.0 σ)	$10^9 A_s$	2.0289	2.033 ± 0.044 (-0.3 σ)	$D_M(0.38)$	1517.2	1517.8 ± 9.6 (-0.1 σ)
τ	0.0466	$0.0474^{+0.0087}_{-0.0079}$ (-0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8482	1.849 ± 0.019 (-0.3 σ)	$H(0.51)$	90.084	90.06 ± 0.31 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0101	3.012 ± 0.022 (-0.3 σ)	D_{40}	1247.0	1239 ± 49 (+0.9 σ)	$D_M(0.51)$	1966.9	1968 ± 11 (-0.1 σ)
n_s	0.9727	0.971 ± 0.014 (+0.6 σ)	D_{220}	5695	5690 ± 58 (-0.1 σ)	$H(0.61)$	95.634	95.62 ± 0.27 (+0.1 σ)
$dn_s/d \ln k$	0.0177	0.013 ± 0.024	D_{810}	2508.6	2507 ± 25 (+0.0 σ)	$D_M(0.61)$	2289.9	2291 ± 12 (-0.1 σ)
y_{cal}	1.00007	0.99999 ± 0.0025 (-0.0 σ)	D_{1420}	814.5	812 ± 16 (+0.5 σ)	$H(2.33)$	235.35	235.34 ± 0.81 (-0.1 σ)
A_{100}^{dustTE}	0.1139	0.115 ± 0.039 (+0.0 σ)	D_{2000}	231.5	230.4 ± 6.8 (+0.7 σ)	$D_M(2.33)$	5748.6	5750 ± 13 (-0.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1363	0.137 ± 0.030 (+0.0 σ)	$n_{s,0.002}$	0.916	0.929 ± 0.068 (-3.5 σ)	$f\sigma_8(0.15)$	0.4430	0.4429 ± 0.0084 (+0.0 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.478	0.480 ± 0.084 (+0.0 σ)	Y_P	0.245436	0.245429 ± 0.000092 (+0.0 σ)	$\sigma_8(0.15)$	0.7368	0.7363 ± 0.0094 (+0.2 σ)
A_{143}^{dustTE}	0.223	0.222 ± 0.054 (+0.0 σ)	Y_P^{BBN}	0.246763	0.246755 ± 0.000093 (+0.0 σ)	$f\sigma_8(0.38)$	0.4631	0.4629 ± 0.0075 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.663 ± 0.080 (+0.0 σ)	10^5D/H	2.5660	2.569 ± 0.043 (-0.0 σ)	$\sigma_8(0.38)$	0.6541	0.6536 ± 0.0082 (+0.2 σ)
A_{217}^{dustTE}	2.049	2.05 ± 0.27 (+0.0 σ)	Age/Gyr	13.7650	13.767 ± 0.031 (-0.0 σ)	$f\sigma_8(0.51)$	0.4628	0.4626 ± 0.0070 (+0.1 σ)
c_{100}	1.00017	1.00018 ± 0.00070 (+0.0 σ)	z_*	1089.605	1089.63 ± 0.33 (-0.1 σ)	$\sigma_8(0.51)$	0.6126	0.6121 ± 0.0077 (+0.2 σ)
c_{217}	0.99799	0.99798 ± 0.00065 (-0.0 σ)	r_*	144.886	144.89 ± 0.34 (+0.1 σ)	$f\sigma_8(0.61)$	0.4586	0.4584 ± 0.0066 (+0.1 σ)
H_0	68.32	68.29 ± 0.56 (+0.1 σ)	$100\theta_*$	1.041528	1.04149 ± 0.00045 (-0.0 σ)	$\sigma_8(0.61)$	0.5831	0.5826 ± 0.0073 (+0.2 σ)
Ω_Λ	0.6978	0.6974 ± 0.0073 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9109	13.912 ± 0.033 (+0.1 σ)	$f\sigma_8(2.33)$	0.29438	0.2941 ± 0.0037 (+0.2 σ)
Ω_m	0.3022	0.3026 ± 0.0073 (-0.1 σ)	z_{drag}	1060.05	1060.00 ± 0.53 (+0.0 σ)	$\sigma_8(2.33)$	0.30391	0.3036 ± 0.0038 (+0.2 σ)
$\Omega_m h^2$	0.14105	0.1411 ± 0.0012 (-0.1 σ)	r_{drag}	147.520	147.53 ± 0.38 (+0.1 σ)	χ_{simall}^2	395.58	396.8 ± 1.5 (-0.0 σ)
$\Omega_m h^3$	0.09637	0.09633 ± 0.00052 (-0.0 σ)	k_D	0.14049	0.14047 ± 0.00051 (-0.1 σ)	χ_{plikTE}^2	852.58	859.9 ± 3.7 (+0.2 σ)
σ_8	0.7963	0.796 ± 0.010 (+0.2 σ)	$100\theta_D$	0.160745	0.16076 ± 0.00031 (-0.0 σ)	$\chi_{6\text{DF}}^2$	0.0037	0.042 ± 0.060 (+0.1 σ)
S_8	0.7993	0.799 ± 0.016 (+0.0 σ)	z_{eq}	3355.3	3356 ± 29 (-0.1 σ)	χ_{MGS}^2	1.89	1.93 ± 0.61 (+0.1 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4378	0.4378 ± 0.0088 (+0.0 σ)	k_{eq}	0.010241	0.010242 ± 0.000090 (-0.1 σ)	χ_{DR12BAO}^2	3.374	3.99 ± 0.87 (+0.0 σ)
$\sigma_8 \Omega_m^{0.25}$	0.5904	0.5902 ± 0.0093 (+0.1 σ)	$100\theta_{\text{eq}}$	0.8224	0.8223 ± 0.0055 (+0.1 σ)	χ_{prior}^2	0.42	7.4 ± 3.7 (-0.0 σ)
$\sigma_8/h^{0.5}$	0.9635	0.963 ± 0.014 (+0.1 σ)	$100\theta_{s,\text{eq}}$	0.45406	0.4540 ± 0.0028 (+0.1 σ)	χ_{BAO}^2	5.27	6.0 ± 1.1 (+0.1 σ)
$r_{\text{drag}} h$	100.78	100.75 ± 0.96 (+0.1 σ)	$H(0.15)$	73.503	73.48 ± 0.49 (+0.1 σ)	χ_{CMB}^2	1248.15	1256.6 ± 4.0 (+0.1 σ)

Best-fit $\chi_{\text{eff}}^2 = 1253.85$; $\Delta\chi_{\text{eff}}^2 = -0.39$; $\bar{\chi}_{\text{eff}}^2 = 1270.03$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.61$; $R - 1 = 0.00960$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.89 (Δ 0.14) DR12BAO: 3.37 (Δ -0.07) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.58 (Δ -0.08) plik_rd12_HM.v22_TE: 852.58 (Δ -0.36)

12.41 base_nrun_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02253 \pm 0.00026 \quad (+0.1\sigma)$	$r_{\mathrm{drag}} h$	$101.5 \pm 1.7 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4560 \pm 0.0050 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1171 \pm 0.0022 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.399 \pm 0.046 \quad (+0.2\sigma)$	$H(0.15)$	$73.83 \pm 0.85 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04142 \pm 0.00051 \quad (+0.1\sigma)$	z_{re}	$< 7.57 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$632.1 \pm 8.2 \quad (-0.2\sigma)$
τ	$0.0519^{+0.0031}_{-0.0074} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.048^{+0.030}_{-0.039} \quad (-0.3\sigma)$	$H(0.38)$	$83.70 \pm 0.63 \quad (+0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.019^{+0.015}_{-0.019} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.846 \pm 0.021 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511 \pm 17 \quad (-0.2\sigma)$
n_{s}	$0.975 \pm 0.016 \quad (+0.6\sigma)$	D_{40}	$1233 \pm 48 \quad (+0.8\sigma)$	$H(0.51)$	$90.27 \pm 0.50 \quad (+0.2\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	0.013 ± 0.024	D_{220}	$5690 \pm 57 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1959 \pm 19 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	D_{810}	$2508 \pm 25 \quad (+0.0\sigma)$	$H(0.61)$	$95.78^{+0.38}_{-0.43} \quad (+0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	D_{1420}	$814 \pm 16 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2282 \pm 21 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.478 \pm 0.085 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 7.1 \quad (+0.8\sigma)$	$H(2.33)$	$234.9 \pm 1.3 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.222 \pm 0.054 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.932 \pm 0.068 \quad (-3.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5743 \pm 18 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.660 \pm 0.080 \quad (+0.0\sigma)$	Y_{P}	$0.24546 \pm 0.00010 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.440 \pm 0.012 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24678 \pm 0.00010 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7375 \pm 0.0089 \quad (+0.1\sigma)$
c_{100}	$1.00019 \pm 0.00070 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.557 \pm 0.047 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.461 \pm 0.010 \quad (-0.1\sigma)$
c_{217}	$0.99798 \pm 0.00065 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.753 \pm 0.040 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6553 \pm 0.0074 \quad (+0.2\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	z_*	$1089.47 \pm 0.44 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4613 \pm 0.0088 \quad (-0.0\sigma)$
H_0	$68.70 \pm 0.99 \quad (+0.2\sigma)$	r_*	$145.07 \pm 0.51 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6139 \pm 0.0068 \quad (+0.2\sigma)$
Ω_{Λ}	$0.703 \pm 0.013 \quad (+0.2\sigma)$	$100\theta_*$	$1.04159 \pm 0.00050 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4576 \pm 0.0079 \quad (-0.0\sigma)$
Ω_{m}	$0.297 \pm 0.013 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.927 \pm 0.048 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5846 \pm 0.0064 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1403 \pm 0.0021 \quad (-0.2\sigma)$	z_{drag}	$1060.10 \pm 0.54 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2953 \pm 0.0032 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09635 \pm 0.00051 \quad (-0.0\sigma)$	r_{drag}	$147.69 \pm 0.52 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3051 \pm 0.0034 \quad (+0.4\sigma)$
σ_8	$0.797 \pm 0.010 \quad (+0.1\sigma)$	k_{D}	$0.14036 \pm 0.00058 \quad (-0.1\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.0\sigma)$
S_8	$0.793 \pm 0.024 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16071 \pm 0.00031 \quad (-0.1\sigma)$	χ_{plikTE}^2	$860.5 \pm 4.0 \quad (+0.2\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.434 \pm 0.013 \quad (-0.1\sigma)$	z_{eq}	$3336 \pm 50 \quad (-0.2\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.588 \pm 0.012 \quad (-0.1\sigma)$	k_{eq}	$0.01018 \pm 0.00015 \quad (-0.2\sigma)$	χ_{CMB}^2	$1256.8 \pm 4.2 \quad (+0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.961 \pm 0.017 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8262 \pm 0.0097 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1264.22$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.57$; $R - 1 = 0.00681$

12.42 base_nrun_plikHM_TE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02247 \pm 0.00023 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.410 \pm 0.040 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.5 \pm 4.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1180 \pm 0.0013 \quad (-0.1\sigma)$	z_{re}	$< 7.60 \quad (-0.1\sigma)$	$H(0.38)$	$83.44 \pm 0.37 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04132 \pm 0.00046 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.053^{+0.029}_{-0.038} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517.8 \pm 9.6 \quad (-0.1\sigma)$
τ	$0.0518^{+0.0033}_{-0.0073} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.851 \pm 0.019 \quad (-0.2\sigma)$	$H(0.51)$	$90.07 \pm 0.31 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.022^{+0.014}_{-0.018} \quad (-0.2\sigma)$	D_{40}	$1231 \pm 47 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1968 \pm 11 \quad (-0.1\sigma)$
n_{s}	$0.971 \pm 0.014 \quad (+0.5\sigma)$	D_{220}	$5689 \pm 58 \quad (-0.1\sigma)$	$H(0.61)$	$95.62 \pm 0.27 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	0.009 ± 0.023	D_{810}	$2509 \pm 25 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2291 \pm 12 \quad (-0.1\sigma)$
y_{cal}	$0.99996 \pm 0.0025 \quad (-0.0\sigma)$	D_{1420}	$812 \pm 15 \quad (+0.4\sigma)$	$H(2.33)$	$235.37 \pm 0.80 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.039 \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 6.8 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 13 \quad (-0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.136 \pm 0.030 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.940 \pm 0.066 \quad (-2.6\sigma)$	$f\sigma_8(0.15)$	$0.4448 \pm 0.0079 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.479 \pm 0.084 \quad (+0.0\sigma)$	Y_{P}	$0.245432 \pm 0.000092 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7392 \pm 0.0082 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.054 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246759 \pm 0.000092 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4648 \pm 0.0069 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.663 \pm 0.080 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.568 \pm 0.042 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6562 \pm 0.0072 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.766 \pm 0.030 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4644 \pm 0.0064 \quad (+0.1\sigma)$
c_{100}	$1.00019 \pm 0.00068 \quad (+0.0\sigma)$	z_*	$1089.62 \pm 0.33 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6145 \pm 0.0067 \quad (+0.2\sigma)$
c_{217}	$0.99798 \pm 0.00065 \quad (-0.0\sigma)$	r_*	$144.88 \pm 0.33 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4602 \pm 0.0060 \quad (+0.1\sigma)$
H_0	$68.29 \pm 0.56 \quad (+0.1\sigma)$	$100\theta_*$	$1.04150 \pm 0.00045 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5849 \pm 0.0063 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6973 \pm 0.0073 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.910 \pm 0.033 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2953 \pm 0.0032 \quad (+0.3\sigma)$
Ω_{m}	$0.3027 \pm 0.0073 \quad (-0.1\sigma)$	z_{drag}	$1060.02 \pm 0.52 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3048 \pm 0.0033 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1411 \pm 0.0012 \quad (-0.1\sigma)$	r_{drag}	$147.51 \pm 0.37 \quad (+0.0\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09635 \pm 0.00051 \quad (-0.0\sigma)$	k_{D}	$0.14050 \pm 0.00050 \quad (-0.0\sigma)$	χ_{plikTE}^2	$860.0 \pm 3.7 \quad (+0.2\sigma)$
σ_8	$0.7990 \pm 0.0091 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00031 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.041 \pm 0.060 \quad (+0.1\sigma)$
S_8	$0.803 \pm 0.015 \quad (+0.1\sigma)$	z_{eq}	$3357 \pm 29 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.92 \pm 0.61 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4396 \pm 0.0083 \quad (+0.1\sigma)$	k_{eq}	$0.010245 \pm 0.000089 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.99 \pm 0.88 \quad (+0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.5926 \pm 0.0085 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8222 \pm 0.0054 \quad (+0.1\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.967 \pm 0.013 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4540 \pm 0.0028 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.1\sigma)$
$r_{\mathrm{drag}} h$	$100.73 \pm 0.96 \quad (+0.1\sigma)$	$H(0.15)$	$73.48 \pm 0.49 \quad (+0.1\sigma)$	χ_{CMB}^2	$1256.3 \pm 3.9 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1269.67$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.68$; $R - 1 = 0.01461$

12.43 base_nrun_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02363	0.0235 ± 0.0014 (-0.4σ)	D_{40}	1268	1266 ± 55 $(+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	620.5	624 ± 23 $(+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11455	0.1152 ± 0.0049 (-0.1σ)	D_{220}	5901	5867 ± 220 (-0.5σ)	$H(0.38)$	84.70	$84.5^{+1.9}_{-2.1}$ (-0.1σ)
$100\theta_{\mathrm{MC}}$	1.04011	1.04009 ± 0.00088 $(+0.1\sigma)$	D_{810}	2579.7	2574 ± 43 (-0.4σ)	$D_{\mathrm{M}}(0.38)$	1486.8	1494 ± 48 $(+0.1\sigma)$
τ	0.0493	0.0491 ± 0.0096 (-0.4σ)	D_{1420}	851.8	849 ± 21 $(+0.3\sigma)$	$H(0.51)$	91.14	$91.0^{+1.6}_{-1.9}$ (-0.2σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0331	3.032 ± 0.032 (-0.9σ)	D_{2000}	245.9	245.1 ± 9.3 $(+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	1931	1939 ± 57 $(+0.1\sigma)$
n_{s}	0.9929	0.993 ± 0.022 $(+0.9\sigma)$	$n_{\mathrm{s},0.002}$	0.902	0.900 ± 0.099 (-5.5σ)	$H(0.61)$	96.54	$96.4^{+1.4}_{-1.6}$ (-0.2σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.0283	0.029 ± 0.036	Y_{P}	0.24592	0.24582 ± 0.00055 (-0.4σ)	$D_{\mathrm{M}}(0.61)$	2250	2259 ± 63 $(+0.1\sigma)$
y_{cal}	1.00007	1.0001 ± 0.0025 $(+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.24725	0.24714 ± 0.00055 (-0.4σ)	$H(2.33)$	234.16	234.4 ± 2.4 (-0.4σ)
H_0	70.09	69.8 ± 2.8 (-0.1σ)	$10^5\mathrm{D}/\mathrm{H}$	2.366	$2.41^{+0.20}_{-0.25}$ $(+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	5706	5715 ± 72 $(+0.3\sigma)$
Ω_{Λ}	0.7174	$0.712^{+0.034}_{-0.027}$ $(+0.0\sigma)$	Age/Gyr	13.670	13.69 ± 0.16 $(+0.3\sigma)$	$f\sigma_8(0.15)$	0.4297	0.434 ± 0.030 $(+0.0\sigma)$
Ω_{m}	0.2826	$0.288^{+0.027}_{-0.034}$ (-0.0σ)	z_{*}	1087.95	$1088.3^{+1.7}_{-2.0}$ $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7383	$0.740^{+0.016}_{-0.014}$ $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.13883	0.1393 ± 0.0041 (-0.3σ)	r_{*}	144.88	144.85 ± 0.94 $(+0.9\sigma)$	$f\sigma_8(0.38)$	0.4540	0.457 ± 0.024 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09730	0.0971 ± 0.0021 (-0.6σ)	$100\theta_{*}$	1.04016	1.04017 ± 0.00087 $(+0.2\sigma)$	$\sigma_8(0.38)$	0.6577	$0.658^{+0.011}_{-0.0099}$ $(+0.2\sigma)$
σ_8	0.7958	0.798 ± 0.019 $(+0.1\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.929	13.926 ± 0.088 $(+0.9\sigma)$	$f\sigma_8(0.51)$	0.4561	0.459 ± 0.020 $(+0.1\sigma)$
S_8	0.772	$0.782^{+0.054}_{-0.062}$ $(+0.0\sigma)$	z_{drag}	1062.41	1062.0 ± 2.8 (-0.5σ)	$\sigma_8(0.51)$	0.6168	$0.6173^{+0.0095}_{-0.0085}$ $(+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4231	$0.428^{+0.030}_{-0.034}$ $(+0.0\sigma)$	r_{drag}	147.15	147.2 ± 1.1 $(+1.1\sigma)$	$f\sigma_8(0.61)$	0.4535	0.456 ± 0.018 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5803	0.584 ± 0.028 $(+0.1\sigma)$	k_{D}	0.14170	0.1415 ± 0.0018 (-0.9σ)	$\sigma_8(0.61)$	0.5878	$0.5881^{+0.0085}_{-0.0077}$ $(+0.3\sigma)$
$\sigma_8/h^{0.5}$	0.9506	0.956 ± 0.040 $(+0.1\sigma)$	$100\theta_{\mathrm{D}}$	0.15918	$0.1595^{+0.0014}_{-0.0017}$ $(+0.6\sigma)$	$f\sigma_8(2.33)$	0.29757	0.2975 ± 0.0037 $(+0.3\sigma)$
$r_{\mathrm{drag}}h$	103.13	102.7 ± 4.2 $(+0.1\sigma)$	z_{eq}	3302	3314 ± 97 (-0.3σ)	$\sigma_8(2.33)$	0.30817	0.3080 ± 0.0039 $(+0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	2.387	2.397 ± 0.081 $(+0.3\sigma)$	k_{eq}	0.010078	0.01011 ± 0.00030 (-0.3σ)	χ_{small}^2	395.42	396.7 ± 1.6 (-0.0σ)
z_{re}	6.83	$6.82^{+0.91}_{-0.81}$ (-0.3σ)	$100\theta_{\mathrm{eq}}$	0.8346	0.832 ± 0.021 $(+0.2\sigma)$	χ_{plikEE}^2	738.36	744.2 ± 3.4 $(+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	2.076	$2.075^{+0.061}_{-0.070}$ (-0.9σ)	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4595	0.458 ± 0.010 $(+0.2\sigma)$	χ_{prior}^2	0.001	0.98 ± 1.4 (-0.0σ)
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8814	1.880 ± 0.037 (-1.0σ)	$H(0.15)$	75.08	74.8 ± 2.5 (-0.1σ)	χ_{CMB}^2	1133.78	1140.9 ± 3.8 $(+0.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 1133.78$; $\Delta\chi_{\mathrm{eff}}^2 = -0.78$; $\bar{\chi}_{\mathrm{eff}}^2 = 1141.92$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.31$; $R - 1 = 0.00923$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.42 (Δ -0.17) plik_rd12_HM_v22_EE: 738.36 (Δ -0.60)

12.44 base_nrun_plikHM_EE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02278	0.02290 ± 0.00095 (-0.9σ)	D_{810}	2562.5	2564 ± 39 (-0.5σ)	$D_M(0.51)$	1968.4	1966 ± 22 $(+0.5\sigma)$
$\Omega_c h^2$	0.11736	0.1174 ± 0.0015 (-0.1σ)	D_{1420}	843.7	843 ± 16 $(+0.3\sigma)$	$H(0.61)$	95.55	95.66 ± 0.73 (-0.7σ)
$100\theta_{MC}$	1.03984	1.03991 ± 0.00080 $(+0.1\sigma)$	D_{2000}	242.8	242.3 ± 7.1 $(+0.6\sigma)$	$D_M(0.61)$	2291.7	2289 ± 24 $(+0.6\sigma)$
τ	0.0476	0.0479 ± 0.0094 (-0.5σ)	$n_{s,0.002}$	0.883	0.896 ± 0.099 (-8.1σ)	$H(2.33)$	235.12	235.3 ± 1.3 (-0.7σ)
$\ln(10^{10} A_s)$	3.0274	3.029 ± 0.032 (-0.9σ)	Y_P	0.245548	$0.24560^{+0.00042}_{-0.00035}$ (-0.9σ)	$D_M(2.33)$	5753.5	5748 ± 40 $(+0.8\sigma)$
n_s	0.9889	0.988 ± 0.018 $(+1.3\sigma)$	Y_P^{BBN}	0.246875	$0.24693^{+0.00042}_{-0.00035}$ (-0.9σ)	$f\sigma_8(0.15)$	0.4487	0.448 ± 0.010 $(+0.3\sigma)$
$dn_s/d \ln k$	0.0329	0.029 ± 0.035	$10^5 D/H$	2.512	$2.50^{+0.15}_{-0.18}$ $(+0.9\sigma)$	$\sigma_8(0.15)$	0.7464	0.7458 ± 0.0096 $(+0.3\sigma)$
y_{cal}	1.00034	1.0001 ± 0.0024 $(+0.0\sigma)$	Age/Gyr	13.777	13.763 ± 0.095 $(+0.8\sigma)$	$f\sigma_8(0.38)$	0.4691	0.4684 ± 0.0088 $(+0.3\sigma)$
H_0	68.27	68.38 ± 0.96 (-0.4σ)	z_*	1089.18	$1089.1^{+1.1}_{-1.2}$ $(+0.8\sigma)$	$\sigma_8(0.38)$	0.6627	0.6622 ± 0.0082 $(+0.3\sigma)$
Ω_Λ	0.6979	0.6983 ± 0.0094 (-0.2σ)	r_*	144.80	144.70 ± 0.80 $(+0.9\sigma)$	$f\sigma_8(0.51)$	0.4688	0.4682 ± 0.0080 $(+0.3\sigma)$
Ω_m	0.3021	0.3017 ± 0.0094 $(+0.2\sigma)$	$100\theta_*$	1.04000	1.04005 ± 0.00083 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6206	0.6202 ± 0.0076 $(+0.3\sigma)$
$\Omega_m h^2$	0.14078	0.1410 ± 0.0017 (-0.6σ)	$D_M(z_*)/\text{Gpc}$	13.923	13.913 ± 0.076 $(+0.9\sigma)$	$f\sigma_8(0.61)$	0.4646	0.4641 ± 0.0074 $(+0.4\sigma)$
$\Omega_m h^3$	0.09611	0.0964 ± 0.0017 (-0.9σ)	z_{drag}	1060.70	1060.9 ± 2.2 (-0.9σ)	$\sigma_8(0.61)$	0.5908	0.5904 ± 0.0072 $(+0.3\sigma)$
σ_8	0.8067	0.806 ± 0.011 $(+0.3\sigma)$	r_{drag}	147.34	147.2 ± 1.1 $(+1.0\sigma)$	$f\sigma_8(2.33)$	0.29825	0.2981 ± 0.0036 $(+0.3\sigma)$
S_8	0.8095	0.808 ± 0.020 $(+0.3\sigma)$	k_D	0.14091	0.1411 ± 0.0018 (-1.0σ)	$\sigma_8(2.33)$	0.30791	0.3078 ± 0.0037 $(+0.3\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4434	0.443 ± 0.011 $(+0.3\sigma)$	$100\theta_D$	0.16012	$0.1600^{+0.0012}_{-0.0013}$ $(+0.9\sigma)$	χ_{small}^2	395.50	396.8 ± 1.6 $(+0.0\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5981	0.597 ± 0.011 $(+0.3\sigma)$	z_{eq}	3348.9	3353 ± 41 (-0.6σ)	χ_{plikEE}^2	738.55	743.5 ± 3.1 $(+0.1\sigma)$
$\sigma_8/h^{0.5}$	0.9764	0.975 ± 0.017 $(+0.5\sigma)$	k_{eq}	0.010221	0.01023 ± 0.00013 (-0.6σ)	χ_{6DF}^2	0.0003	0.057 ± 0.079 $(+0.0\sigma)$
$r_{drag} h$	100.59	100.6 ± 1.2 (-0.1σ)	$100\theta_{eq}$	0.8233	0.8229 ± 0.0066 $(+0.3\sigma)$	χ_{MGS}^2	1.75	1.86 ± 0.72 (-0.1σ)
$\langle d^2 \rangle^{1/2}$	2.4336	2.429 ± 0.048 $(+0.8\sigma)$	$100\theta_{s,eq}$	0.45424	0.4540 ± 0.0036 $(+0.5\sigma)$	$\chi_{DR12BAO}^2$	3.59	4.4 ± 1.2 (-0.0σ)
z_{re}	6.86	$6.83^{+0.96}_{-0.84}$ (-0.4σ)	$H(0.15)$	73.45	73.56 ± 0.89 (-0.5σ)	χ_{prior}^2	0.018	0.9 ± 1.3 (-0.1σ)
$10^9 A_s$	2.064	$2.069^{+0.062}_{-0.071}$ (-0.9σ)	$D_M(0.15)$	635.7	634.8 ± 8.3 $(+0.5\sigma)$	χ_{BAO}^2	5.33	6.3 ± 1.3 (-0.1σ)
$10^9 A_s e^{-2\tau}$	1.8767	1.879 ± 0.037 (-0.9σ)	$H(0.38)$	83.39	83.50 ± 0.80 (-0.6σ)	χ_{CMB}^2	1134.04	1140.3 ± 3.5 $(+0.1\sigma)$
D_{40}	1273	1267 ± 55 $(+1.2\sigma)$	$D_M(0.38)$	1518.4	1516 ± 18 $(+0.5\sigma)$			
D_{220}	5778	5789 ± 180 (-0.8σ)	$H(0.51)$	90.01	90.12 ± 0.75 (-0.7σ)			

Best-fit $\chi_{eff}^2 = 1139.39$; $\Delta\chi_{eff}^2 = -0.77$; $\bar{\chi}_{eff}^2 = 1147.51$; $\Delta\bar{\chi}_{eff}^2 = 0.15$; $R - 1 = 0.01371$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.75 (Δ -0.14) DR12BAO: 3.59 (Δ -0.01) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.50 (Δ -0.12) plik_rd12_HM_v22_EE: 738.54 (Δ -0.50)

12.45 base_nrun_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.0235 \pm 0.0014 \quad (-0.4\sigma)$	D_{40}	$1255 \pm 53 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.15)$	$625^{+22}_{-24} \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1155 \pm 0.0048 \quad (-0.1\sigma)$	D_{220}	$5877 \pm 220 \quad (-0.4\sigma)$	$H(0.38)$	$84.5 \pm 2.0 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04007 \pm 0.00088 \quad (+0.1\sigma)$	D_{810}	$2576 \pm 43 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1495 \pm 48 \quad (+0.1\sigma)$
τ	$0.0540^{+0.0046}_{-0.0083} \quad (-0.3\sigma)$	D_{1420}	$847 \pm 21 \quad (+0.2\sigma)$	$H(0.51)$	$91.0^{+1.6}_{-1.8} \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.026}_{-0.030} \quad (-0.7\sigma)$	D_{2000}	$243.8 \pm 8.9 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1939 \pm 57 \quad (+0.1\sigma)$
n_{s}	$0.990 \pm 0.021 \quad (+0.6\sigma)$	$n_{\mathrm{s},0.002}$	$0.922 \pm 0.095 \quad (-4.1\sigma)$	$H(0.61)$	$96.4^{+1.4}_{-1.6} \quad (-0.2\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.021 ± 0.034	Y_{P}	$0.24584 \pm 0.00055 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2260 \pm 62 \quad (+0.1\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24717 \pm 0.00055 \quad (-0.4\sigma)$	$H(2.33)$	$234.7 \pm 2.4 \quad (-0.3\sigma)$
H_0	$69.7 \pm 2.8 \quad (-0.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.40^{+0.20}_{-0.25} \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5713 \pm 71 \quad (+0.3\sigma)$
Ω_{Λ}	$0.711^{+0.034}_{-0.026} \quad (-0.0\sigma)$	Age/Gyr	$13.69 \pm 0.16 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.437^{+0.028}_{-0.031} \quad (+0.1\sigma)$
Ω_{m}	$0.289^{+0.026}_{-0.034} \quad (+0.0\sigma)$	z_*	$1088.3^{+1.7}_{-2.0} \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.742 \pm 0.014 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1397 \pm 0.0040 \quad (-0.2\sigma)$	r_*	$144.73 \pm 0.92 \quad (+0.6\sigma)$	$f\sigma_8(0.38)$	$0.460 \pm 0.024 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0972 \pm 0.0021 \quad (-0.5\sigma)$	$100\theta_*$	$1.04014 \pm 0.00086 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.661 \pm 0.010 \quad (+0.2\sigma)$
σ_8	$0.801 \pm 0.018 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.914 \pm 0.087 \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.461 \pm 0.020 \quad (+0.1\sigma)$
S_8	$0.787^{+0.053}_{-0.062} \quad (+0.1\sigma)$	z_{drag}	$1062.2 \pm 2.8 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6194 \pm 0.0084 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.431^{+0.029}_{-0.034} \quad (+0.1\sigma)$	r_{drag}	$147.0 \pm 1.1 \quad (+0.8\sigma)$	$f\sigma_8(0.61)$	$0.458 \pm 0.018 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.587 \pm 0.028 \quad (+0.1\sigma)$	k_{D}	$0.1417 \pm 0.0018 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.5900 \pm 0.0075 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.960 \pm 0.040 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.1594^{+0.0013}_{-0.0017} \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	$0.2985 \pm 0.0034 \quad (+0.3\sigma)$
$r_{\mathrm{drag}}h$	$102.5 \pm 4.1 \quad (+0.0\sigma)$	z_{eq}	$3322 \pm 96 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3089 \pm 0.0035 \quad (+0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.401 \pm 0.080 \quad (+0.3\sigma)$	k_{eq}	$0.01014 \pm 0.00029 \quad (-0.2\sigma)$	χ_{small}^2	$396.5 \pm 1.5 \quad (+0.1\sigma)$
z_{re}	$< 7.52 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.831 \pm 0.020 \quad (+0.1\sigma)$	χ_{plikEE}^2	$744.1 \pm 3.4 \quad (+0.1\sigma)$
$10^9 A_{\mathrm{s}}$	$2.100^{+0.052}_{-0.064} \quad (-0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.458 \pm 0.010 \quad (+0.1\sigma)$	χ_{prior}^2	$0.98 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.885 \pm 0.037 \quad (-0.7\sigma)$	$H(0.15)$	$74.7 \pm 2.5 \quad (-0.1\sigma)$	χ_{CMB}^2	$1140.7 \pm 3.7 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1141.65; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.34; R - 1 = 0.00996$$

12.46 base_nrun_plikHM_EE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02302 \pm 0.00093 \quad (-0.6\sigma)$	D_{810}	$2567 \pm 39 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1964 \pm 21 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1175 \pm 0.0015 \quad (-0.1\sigma)$	D_{1420}	$841 \pm 16 \quad (+0.2\sigma)$	$H(0.61)$	$95.75 \pm 0.72 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03991 \pm 0.00081 \quad (+0.0\sigma)$	D_{2000}	$241.3 \pm 6.9 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2286 \pm 24 \quad (+0.4\sigma)$
τ	$0.0530^{+0.0043}_{-0.0080} \quad (-0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.919 \pm 0.095 \quad (-5.7\sigma)$	$H(2.33)$	$235.5 \pm 1.3 \quad (-0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.026}_{-0.029} \quad (-0.7\sigma)$	Y_{P}	$0.24565^{+0.00041}_{-0.00033} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5742 \pm 40 \quad (+0.6\sigma)$
n_{s}	$0.985 \pm 0.018 \quad (+0.9\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24698^{+0.00041}_{-0.00033} \quad (-0.7\sigma)$	$f\sigma_8(0.15)$	$0.449 \pm 0.010 \quad (+0.3\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.020 ± 0.034	$10^5\mathrm{D}/\mathrm{H}$	$2.48^{+0.15}_{-0.17} \quad (+0.7\sigma)$	$\sigma_8(0.15)$	$0.7480 \pm 0.0090 \quad (+0.4\sigma)$
y_{cal}	$1.0001 \pm 0.0024 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.751 \pm 0.093 \quad (+0.6\sigma)$	$f\sigma_8(0.38)$	$0.4696 \pm 0.0087 \quad (+0.3\sigma)$
H_0	$68.46 \pm 0.95 \quad (-0.3\sigma)$	z_*	$1088.9^{+1.0}_{-1.2} \quad (+0.6\sigma)$	$\sigma_8(0.38)$	$0.6642 \pm 0.0076 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6987 \pm 0.0094 \quad (-0.1\sigma)$	r_*	$144.59 \pm 0.79 \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4695 \pm 0.0078 \quad (+0.3\sigma)$
Ω_{m}	$0.3013 \pm 0.0094 \quad (+0.1\sigma)$	$100\theta_*$	$1.04003 \pm 0.00083 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6221 \pm 0.0070 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0017 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.902 \pm 0.075 \quad (+0.7\sigma)$	$f\sigma_8(0.61)$	$0.4653 \pm 0.0072 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0966 \pm 0.0017 \quad (-0.6\sigma)$	z_{drag}	$1061.2 \pm 2.1 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.5922 \pm 0.0066 \quad (+0.4\sigma)$
σ_8	$0.808 \pm 0.010 \quad (+0.4\sigma)$	r_{drag}	$147.0 \pm 1.1 \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.2990 \pm 0.0033 \quad (+0.4\sigma)$
S_8	$0.810 \pm 0.020 \quad (+0.3\sigma)$	k_{D}	$0.1414 \pm 0.0018 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3087 \pm 0.0034 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.444 \pm 0.011 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1599^{+0.0011}_{-0.0013} \quad (+0.7\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.599 \pm 0.011 \quad (+0.3\sigma)$	z_{eq}	$3357 \pm 41 \quad (-0.4\sigma)$	χ_{plikEE}^2	$743.5 \pm 3.2 \quad (+0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.977 \pm 0.016 \quad (+0.4\sigma)$	k_{eq}	$0.01025 \pm 0.00013 \quad (-0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.080 \quad (+0.0\sigma)$
$r_{\mathrm{drag}}h$	$100.7 \pm 1.2 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8225 \pm 0.0067 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.88 \pm 0.72 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.046 \quad (+0.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4537 \pm 0.0036 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.3 \quad (-0.0\sigma)$
z_{re}	$< 7.57 \quad (-0.2\sigma)$	$H(0.15)$	$73.64 \pm 0.88 \quad (-0.4\sigma)$	χ_{prior}^2	$0.9 \pm 1.4 \quad (-0.1\sigma)$
$10^9 A_{\mathrm{s}}$	$2.096^{+0.053}_{-0.063} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.1 \pm 8.2 \quad (+0.3\sigma)$	χ_{BAO}^2	$6.4 \pm 1.3 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.885 \pm 0.036 \quad (-0.7\sigma)$	$H(0.38)$	$83.59 \pm 0.79 \quad (-0.4\sigma)$	χ_{CMB}^2	$1140.0 \pm 3.5 \quad (+0.1\sigma)$
D_{40}	$1256 \pm 53 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1515 \pm 18 \quad (+0.4\sigma)$		
D_{220}	$5810 \pm 180 \quad (-0.6\sigma)$	$H(0.51)$	$90.21 \pm 0.74 \quad (-0.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1147.29$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.23$; $R - 1 = 0.01768$

12.47 base_nrun_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022136	0.02215 ± 0.00023 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9912	0.991 ± 0.016 (+0.0 σ)	$D_{\mathrm{M}}(0.15)$	647.6	647.0 ± 7.9 (−0.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.12068	0.1205 ± 0.0021 (+0.1 σ)	$r_{\mathrm{drag}}h$	98.42	98.6 ± 1.6 (−0.0 σ)	$H(0.38)$	82.52	82.57 ± 0.56 (+0.0 σ)
$100\theta_{\mathrm{MC}}$	1.040777	1.04079 ± 0.00047 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4450	2.445 ± 0.038 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1542.3	1541 ± 16 (−0.0 σ)
τ	0.0532	0.0532 ± 0.0082 (+0.2 σ)	z_{re}	7.63	7.60 ± 0.84 (+0.2 σ)	$H(0.51)$	89.323	89.37 ± 0.44 (+0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0419	3.041 ± 0.018 (+0.2 σ)	$10^9 A_{\mathrm{s}}$	2.0946	2.094 ± 0.037 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1996.4	1995 ± 18 (−0.0 σ)
n_{s}	0.9603	0.9614 ± 0.0061 (−0.2 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8831	1.883 ± 0.014 (+0.2 σ)	$H(0.61)$	95.010	95.05 ± 0.35 (+0.1 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0065	$−0.0047 \pm 0.0077$	D_{40}	1219.7	1222 ± 21 (−0.6 σ)	$D_{\mathrm{M}}(0.61)$	2321.9	2320 ± 20 (−0.0 σ)
y_{cal}	1.00018	1.0003 ± 0.0025 (−0.0 σ)	D_{220}	5704.2	5707 ± 41 (+0.0 σ)	$H(2.33)$	236.76	236.7 ± 1.3 (+0.1 σ)
A_{100}^{PS}	265.5	259 ± 27 (+0.2 σ)	D_{810}	2531.9	2533 ± 14 (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5777.1	5776 ± 16 (−0.1 σ)
A_{143}^{tSZ}	4.49	$3.6^{+1.6}_{-2.7}$ (−0.0 σ)	D_{1420}	810.6	811.7 ± 5.5 (−0.2 σ)	$f\sigma_8(0.15)$	0.4629	0.462 ± 0.012 (+0.0 σ)
A^{kSZ}	3.08	> 4.00 (+0.1 σ)	D_{2000}	227.85	228.4 ± 2.1 (−0.3 σ)	$\sigma_8(0.15)$	0.7481	0.7480 ± 0.0077 (+0.1 σ)
A_{100}^{dust}	1.004	1.01 ± 0.19 (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9812	0.977 ± 0.023 (+2.5 σ)	$f\sigma_8(0.38)$	0.4792	0.4787 ± 0.0097 (+0.0 σ)
A_{143}^{power}	12.99	$11.0^{+2.3}_{-2.8}$ (+0.3 σ)	Y_{P}	0.245299	$0.24530^{+0.00011}_{-0.000085}$ (+0.2 σ)	$\sigma_8(0.38)$	0.6622	0.6622 ± 0.0062 (+0.1 σ)
A_{217}^{power}	11.20	$8.7^{+1.8}_{-3.3}$ (+0.2 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246625	$0.24663^{+0.00011}_{-0.000086}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.4767	0.4763 ± 0.0083 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{power}}$	7.41	$4.8^{+1.8}_{-3.2}$ (+0.2 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6302	2.627 ± 0.044 (−0.2 σ)	$\sigma_8(0.51)$	0.6192	0.6193 ± 0.0056 (+0.1 σ)
$\gamma_{143}^{\mathrm{power}}$	1.201	$1.32^{+0.39}_{-0.52}$ (−0.0 σ)	Age/Gyr	13.8284	13.825 ± 0.036 (−0.1 σ)	$f\sigma_8(0.61)$	0.4710	0.4706 ± 0.0074 (+0.0 σ)
$\gamma_{217}^{\mathrm{power}}$	1.08	1.31 ± 0.61 (−0.1 σ)	z_*	1090.279	1090.24 ± 0.41 (−0.1 σ)	$\sigma_8(0.61)$	0.5890	0.5891 ± 0.0052 (+0.1 σ)
$\gamma_{143 \times 217}^{\mathrm{power}}$	1.03	$1.28^{+0.58}_{-0.70}$ (−0.1 σ)	r_*	144.434	144.46 ± 0.50 (−0.1 σ)	$f\sigma_8(2.33)$	0.29660	0.2967 ± 0.0026 (+0.0 σ)
c_{100}	0.99777	0.9978 ± 0.0011 (+0.0 σ)	$100\theta_*$	1.040975	1.04099 ± 0.00046 (−0.0 σ)	$\sigma_8(2.33)$	0.30539	0.3055 ± 0.0027 (+0.0 σ)
c_{217}	0.99938	$0.9995^{+0.0013}_{-0.0017}$ (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8748	13.877 ± 0.046 (−0.1 σ)	f_{2000}^{143}	25.14	24 ± 3 (+0.3 σ)
H_0	66.87	66.95 ± 0.91 (+0.0 σ)	z_{drag}	1059.437	1059.47 ± 0.49 (+0.3 σ)	f_{2000}^{217}	18.11	17.5 ± 2.2 (+0.3 σ)
Ω_{Λ}	0.6792	0.680 ± 0.013 (−0.0 σ)	r_{drag}	147.17	147.20 ± 0.50 (−0.2 σ)	$f_{2000}^{143 \times 217}$	12.82	$11.9^{+2.4}_{-2.6}$ (+0.3 σ)
Ω_{m}	0.3208	0.320 ± 0.013 (+0.0 σ)	k_{D}	0.14060	0.14059 ± 0.00057 (+0.3 σ)	χ_{small}^2	395.93	397.0 ± 1.7 (+0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14346	0.1433 ± 0.0020 (+0.1 σ)	$100\theta_{\mathrm{D}}$	0.161040	0.16103 ± 0.00029 (−0.3 σ)	χ_{lowl}^2	22.24	23.0 ± 2.0 (−0.6 σ)
$\Omega_{\mathrm{m}}h^3$	0.095938	0.09595 ± 0.00048 (+0.2 σ)	z_{eq}	3412.9	3410 ± 48 (+0.1 σ)	$\chi_{\mathrm{CamSpec}}^2$	6705.0	6717.4 ± 5.4 (+0.2 σ)
σ_8	0.8106	0.8104 ± 0.0092 (+0.1 σ)	k_{eq}	0.010417	0.01041 ± 0.00015 (+0.1 σ)	χ_{prior}^2	1.41	5.3 ± 2.9 (+0.0 σ)
S_8	0.8382	0.837 ± 0.024 (+0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8106	0.8114 ± 0.0090 (−0.1 σ)	χ_{CMB}^2	7123.1	7137.4 ± 5.4 (+0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4591	0.458 ± 0.013 (+0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.44816	0.4485 ± 0.0046 (−0.1 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6101	0.610 ± 0.012 (+0.0 σ)	$H(0.15)$	72.25	72.32 ± 0.78 (+0.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7124.55$; $\Delta\chi_{\mathrm{eff}}^2 = -0.57$; $\bar{\chi}_{\mathrm{eff}}^2 = 7142.72$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.51$; $R - 1 = 0.00730$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.93 (Δ 0.14) commander_dx12_v3.2.29: 22.24 (Δ -1.46) CamSpec like_10.7cleaned: 6704.97 (Δ 0.53)

13 nrun+nnu+w+mnu

13.1 base_nrun_nnu_w_mnu_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022447	0.02248 ± 0.00019 (-0.1σ)	$\Omega_\nu h^2$	0.000023	< 0.000816	$D_M(0.15)$	626.7	626.4 ± 9.1 (-3.3σ)
$\Omega_c h^2$	0.12002	0.1205 ± 0.0030 $(+2.3\sigma)$	$\Omega_m h^3$	0.09903	0.1000 ± 0.0034 $(+12.4\sigma)$	$H(0.38)$	83.78	83.7 ± 1.2 $(+1.8\sigma)$
$100\theta_{MC}$	1.040983	1.04088 ± 0.00044 (-0.8σ)	σ_8	0.8346	0.829 ± 0.012 $(+3.3\sigma)$	$D_M(0.38)$	1502.7	1503 ± 21 (-2.8σ)
τ	0.0537	0.0555 ± 0.0078 (-0.3σ)	S_8	0.8276	0.824 ± 0.012 $(+0.7\sigma)$	$H(0.51)$	90.24	90.2 ± 1.3 $(+1.2\sigma)$
Σm_ν [eV]	0.0022	< 0.0768	$\sigma_8 \Omega_m^{0.5}$	0.4533	0.4513 ± 0.0063 $(+0.7\sigma)$	$D_M(0.51)$	1951.2	1952 ± 28 (-2.6σ)
w_0	-1.0413	-1.053 ± 0.036	$\sigma_8 \Omega_m^{0.25}$	0.6151	0.6115 ± 0.0082 $(+1.7\sigma)$	$H(0.61)$	95.70	95.7 ± 1.4 $(+0.8\sigma)$
N_{eff}	3.071	3.11 ± 0.19	$\sigma_8/h^{0.5}$	1.0011	$0.993^{+0.013}_{-0.011}$ $(+1.5\sigma)$	$D_M(0.61)$	2273.8	2274 ± 32 (-2.5σ)
$\ln(10^{10} A_s)$	3.0431	3.049 ± 0.017 (-0.0σ)	$r_{\text{drag}} h$	102.09	102.0 ± 1.1 $(+2.6\sigma)$	$H(2.33)$	235.78	236.5 ± 2.9 $(+1.3\sigma)$
n_s	0.9667	0.9674 ± 0.0085 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4448	2.440 ± 0.024 $(+0.5\sigma)$	$D_M(2.33)$	5732	5728 ± 77 (-2.8σ)
$dn_s/d \ln k$	-0.0028	-0.0036 ± 0.0075	z_{re}	7.59	7.77 ± 0.78 (-0.3σ)	$f\sigma_8(0.15)$	0.4616	0.4612 ± 0.0067 $(+1.6\sigma)$
y_{cal}	1.00025	1.0006 ± 0.0024 (-0.1σ)	$10^9 A_s$	2.0971	2.109 ± 0.036 (-0.0σ)	$\sigma_8(0.15)$	0.7726	0.767 ± 0.012 $(+3.4\sigma)$
A_{217}^{CIB}	49.7	47 ± 7 $(+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8837	1.887 ± 0.016 $(+0.8\sigma)$	$f\sigma_8(0.38)$	0.4858	0.4854 ± 0.0078 $(+2.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.13	—	D_{40}	1220.1	1219 ± 18 (-0.6σ)	$\sigma_8(0.38)$	0.6857	0.681 ± 0.011 $(+3.5\sigma)$
A_{143}^{tSZ}	7.40	$5.3^{+2.2}_{-2.0}$ (-0.1σ)	D_{220}	5730.2	5737 ± 38 (-0.3σ)	$f\sigma_8(0.51)$	0.4863	0.4857 ± 0.0080 $(+3.4\sigma)$
A_{100}^{PS}	254.5	262 ± 28 $(+0.2\sigma)$	D_{810}	2538.5	2541 ± 13 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6419	0.637 ± 0.010 $(+3.5\sigma)$
A_{143}^{PS}	44.5	47 ± 8 $(+0.3\sigma)$	D_{1420}	816.30	816.4 ± 4.9 (-0.5σ)	$f\sigma_8(0.61)$	0.4823	0.4816 ± 0.0080 $(+3.8\sigma)$
$A_{143 \times 217}^{\text{PS}}$	40.3	42 ± 9 $(+0.0\sigma)$	D_{2000}	230.51	230.3 ± 1.9 (-0.8σ)	$\sigma_8(0.61)$	0.6109	0.6060 ± 0.0095 $(+3.4\sigma)$
A_{217}^{PS}	116.2	114 ± 10 (-0.0σ)	$n_{s,0.002}$	0.9757	0.979 ± 0.021 $(+2.8\sigma)$	$f\sigma_8(2.33)$	0.30740	0.3058 ± 0.0046 $(+3.4\sigma)$
A^{kSZ}	0.00	< 4.86 $(+0.2\sigma)$	Y_P	0.24576	0.2462 ± 0.0026 $(+15.5\sigma)$	$\sigma_8(2.33)$	0.31667	0.3141 ± 0.0049 $(+2.7\sigma)$
$A_{100}^{\text{dust}TT}$	8.93	9.0 ± 1.8 $(+0.1\sigma)$	Y_P^{BBN}	0.24709	0.2475 ± 0.0026 $(+15.5\sigma)$	f_{2000}^{143}	29.89	30.6 ± 3.2 $(+0.6\sigma)$
$A_{143}^{\text{dust}TT}$	11.05	11.0 ± 1.8 $(+0.1\sigma)$	10^5D/H	2.580	2.586 ± 0.050 $(+1.0\sigma)$	$f_{2000}^{143 \times 217}$	32.65	33.0 ± 2.2 $(+0.7\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	19.47	18.7 ± 3.3 $(+0.1\sigma)$	Age/Gyr	13.708	13.70 ± 0.18 (-4.0σ)	f_{2000}^{217}	107.26	107.7 ± 2.0 $(+0.6\sigma)$
$A_{217}^{\text{dust}TT}$	94.2	93.6 ± 7.3 $(+0.0\sigma)$	z_*	1089.844	1089.88 ± 0.36 $(+1.2\sigma)$	χ_{lensing}^2	9.11	9.47 ± 0.83 $(+0.4\sigma)$
$A_{100}^{\text{dust}TE}$	0.1141	0.114 ± 0.038 $(+0.0\sigma)$	r_*	144.25	143.9 ± 1.8 (-3.6σ)	χ_{small}^2	395.88	397.1 ± 1.8 (-0.2σ)
$A_{100 \times 143}^{\text{dust}TE}$	0.1351	0.135 ± 0.029 (-0.0σ)	$100\theta_*$	1.04111	1.04102 ± 0.00054 (-1.0σ)	χ_{lowl}^2	22.38	22.5 ± 1.6 (-0.6σ)
$A_{100 \times 217}^{\text{dust}TE}$	0.479	0.480 ± 0.085 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.856	13.83 ± 0.16 (-3.4σ)	χ_{plik}^2	2344.3	2361.5 ± 6.5 $(+0.1\sigma)$
$A_{143}^{\text{dust}TE}$	0.225	0.224 ± 0.054 (-0.0σ)	z_{drag}	1060.12	1060.28 ± 0.70 $(+0.5\sigma)$	χ_{H073p45}^2	5.65	5.8 ± 3.0 (-3.1σ)
$A_{143 \times 217}^{\text{dust}TE}$	0.664	0.663 ± 0.080 (-0.0σ)	r_{drag}	146.88	146.6 ± 1.8 (-3.4σ)	χ_{JLA}^2	1035.46	1036.3 ± 1.8 $(+8.1\sigma)$
$A_{217}^{\text{dust}TE}$	2.076	2.08 ± 0.27 $(+0.0\sigma)$	k_D	0.14104	0.1413 ± 0.0013 $(+2.1\sigma)$	$\chi_{6\text{DF}}^2$	0.075	0.09 ± 0.11 $(+2.4\sigma)$
c_{100}	0.99970	0.99967 ± 0.00061 (-0.0σ)	$100\theta_D$	0.160757	0.16081 ± 0.00045 $(+0.9\sigma)$	χ_{MGS}^2	2.51	2.42 ± 0.63 $(+2.0\sigma)$
c_{217}	0.99820	0.99821 ± 0.00062 $(+0.1\sigma)$	z_{eq}	3393.1	3390 ± 29 $(+1.0\sigma)$	χ_{DR12BAO}^2	3.95	4.56 ± 0.85 $(+0.8\sigma)$
H_0	69.50	69.6 ± 1.1 $(+3.9\sigma)$	k_{eq}	0.010373	0.01039 ± 0.00011 $(+1.6\sigma)$	χ_{prior}^2	1.92	11.6 ± 4.5 $(+0.0\sigma)$
Ω_Λ	0.7050	0.7033 ± 0.0068 $(+1.8\sigma)$	$100\theta_{\text{eq}}$	0.8151	0.8158 ± 0.0054 (-1.0σ)	χ_{CMB}^2	2771.7	2790.6 ± 6.7 $(+0.0\sigma)$
Ω_m	0.2950	0.2967 ± 0.0068 (-1.8σ)	$100\theta_{s,\text{eq}}$	0.45029	0.4506 ± 0.0027 (-1.0σ)	χ_{BAO}^2	6.54	7.1 ± 1.2 $(+2.7\sigma)$
$\Omega_m h^2$	0.14249	0.1437 ± 0.0032 $(+2.4\sigma)$	$H(0.15)$	74.26	74.3 ± 1.1 $(+2.9\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 3821.27$; $\Delta\chi_{\text{eff}}^2 = -5.56$; $\bar{\chi}_{\text{eff}}^2 = 3851.33$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.76$; $R - 1 = 0.00441$
 χ_{eff}^2 : BAO - 6DF: 0.07 (Δ 0.07) MGS: 2.51 (Δ 0.26) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.11 (Δ 0.37) small_100x143_offlike5_EE_Aplanck.L
395.88 (Δ -1.04) commander_dx12_v3_2.29: 22.38 (Δ -0.29) plik_rd12_HM_v22b_TTTEEE: 2344.32 (Δ -1.86) Hubble - H073p45: 5.65 (Δ -4.99) SN - JLA Pantheon18: 1035.46
(Δ 0.61)

13.2 base_nrun_nnu_w_mnu_plikHM_TTTEE_lowl_lowE_BAO_Riess18_Pantheon18_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02249 \pm 0.00019 \quad (-0.1\sigma)$	$\Omega_{\nu}h^2$	< 0.000826	$D_{\mathrm{M}}(0.15)$	$626.3 \pm 9.1 \quad (-3.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1205 \pm 0.0030 \quad (+2.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.1000 \pm 0.0034 \quad (+12.4\sigma)$	$H(0.38)$	$83.8 \pm 1.2 \quad (+1.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00044 \quad (-0.8\sigma)$	σ_8	$0.829 \pm 0.012 \quad (+3.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1503 \pm 21 \quad (-2.9\sigma)$
τ	$0.0563^{+0.0057}_{-0.0082} \quad (-0.3\sigma)$	S_8	$0.824 \pm 0.012 \quad (+0.7\sigma)$	$H(0.51)$	$90.2 \pm 1.3 \quad (+1.3\sigma)$
$\Sigma m_{\nu} [\mathrm{eV}]$	< 0.0778	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4514 \pm 0.0063 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1951 \pm 28 \quad (-2.6\sigma)$
w_0	-1.052 ± 0.036	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6117 \pm 0.0081 \quad (+1.8\sigma)$	$H(0.61)$	$95.7 \pm 1.4 \quad (+0.9\sigma)$
N_{eff}	3.11 ± 0.19	$\sigma_8/h^{0.5}$	$0.994^{+0.013}_{-0.011} \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2274 \pm 32 \quad (-2.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.014}_{-0.017} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+2.5\sigma)$	$H(2.33)$	$236.5 \pm 2.9 \quad (+1.4\sigma)$
n_{s}	$0.9676 \pm 0.0085 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.440 \pm 0.024 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5727 \pm 77 \quad (-2.9\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0036 ± 0.0075	z_{re}	$7.85^{+0.62}_{-0.80} \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4612 \pm 0.0067 \quad (+1.6\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.112^{+0.029}_{-0.037} \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.767 \pm 0.012 \quad (+3.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.887 \pm 0.016 \quad (+0.9\sigma)$	$f\sigma_8(0.38)$	$0.4854 \pm 0.0078 \quad (+2.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1219 \pm 18 \quad (-0.6\sigma)$	$\sigma_8(0.38)$	$0.681 \pm 0.011 \quad (+3.6\sigma)$
A_{143}^{tSZ}	$5.3^{+2.2}_{-2.0} \quad (-0.1\sigma)$	D_{220}	$5736 \pm 38 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4858 \pm 0.0080 \quad (+3.5\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.2\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.637 \pm 0.010 \quad (+3.6\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.3\sigma)$	D_{1420}	$816.4 \pm 4.9 \quad (-0.5\sigma)$	$f\sigma_8(0.61)$	$0.4816 \pm 0.0080 \quad (+3.8\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.9 \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.6062 \pm 0.0095 \quad (+3.5\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.979 \pm 0.021 \quad (+2.9\sigma)$	$f\sigma_8(2.33)$	$0.3059 \pm 0.0046 \quad (+3.5\sigma)$
A^{kSZ}	$< 4.86 \quad (+0.2\sigma)$	Y_{P}	$0.2463 \pm 0.0026 \quad (+16.2\sigma)$	$\sigma_8(2.33)$	$0.3143 \pm 0.0049 \quad (+2.8\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.2476 \pm 0.0026 \quad (+16.2\sigma)$	f_{2000}^{143}	$30.6 \pm 3.1 \quad (+0.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$11.0 \pm 1.8 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.050 \quad (+1.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 2.2 \quad (+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.7 \pm 3.3 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.69 \pm 0.18 \quad (-4.1\sigma)$	f_{2000}^{217}	$107.7 \pm 2.0 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.88 \pm 0.36 \quad (+1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.46 \pm 0.83 \quad (+0.5\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$143.9 \pm 1.8 \quad (-3.7\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$100\theta_*$	$1.04102 \pm 0.00054 \quad (-1.0\sigma)$	χ_{lowl}^2	$22.5 \pm 1.6 \quad (-0.6\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.83 \pm 0.16 \quad (-3.5\sigma)$	χ_{plik}^2	$2361.5 \pm 6.5 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1060.29 \pm 0.70 \quad (+0.5\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.8 \pm 3.0 \quad (-3.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	r_{drag}	$146.5 \pm 1.8 \quad (-3.5\sigma)$	χ_{JLA}^2	$1036.3 \pm 1.8 \quad (+8.0\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	k_{D}	$0.1413 \pm 0.0013 \quad (+2.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.09 \pm 0.11 \quad (+2.4\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16081 \pm 0.00045 \quad (+0.9\sigma)$	χ_{MGS}^2	$2.42 \pm 0.63 \quad (+2.0\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3389 \pm 28 \quad (+0.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.54 \pm 0.85 \quad (+0.8\sigma)$
H_0	$69.6 \pm 1.1 \quad (+3.9\sigma)$	k_{eq}	$0.01039 \pm 0.00011 \quad (+1.6\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.7033 \pm 0.0068 \quad (+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8160 \pm 0.0054 \quad (-0.9\sigma)$	χ_{CMB}^2	$2790.4 \pm 6.7 \quad (+0.0\sigma)$
Ω_{m}	$0.2967 \pm 0.0068 \quad (-1.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0027 \quad (-0.9\sigma)$	χ_{BAO}^2	$7.1 \pm 1.2 \quad (+2.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1437 \pm 0.0032 \quad (+2.4\sigma)$	$H(0.15)$	$74.3 \pm 1.1 \quad (+3.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 3851.17$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.84$; $R - 1 = 0.00442$

14 nrun+nrnunrun

14.1 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022332	0.02234 ± 0.00017 (-0.1σ)	$\Omega_m h^2$	0.14367	0.1436 ± 0.0014 $(+0.3\sigma)$	$100\theta_{\text{eq}}$	0.8103	0.8106 ± 0.0061 (-0.3σ)
$\Omega_c h^2$	0.12070	0.1206 ± 0.0015 $(+0.3\sigma)$	$\Omega_m h^3$	0.096331	0.09636 ± 0.00031 $(+0.1\sigma)$	$100\theta_{\text{s,eq}}$	0.44786	0.4480 ± 0.0031 (-0.3σ)
$100\theta_{\text{MC}}$	1.040823	1.04086 ± 0.00031 (-0.1σ)	σ_8	0.8178	0.8169 ± 0.0087 $(+0.7\sigma)$	$H(0.15)$	72.42	72.46 ± 0.56 (-0.3σ)
τ	0.0570	0.0577 ± 0.0086 $(+0.4\sigma)$	S_8	0.8441	0.843 ± 0.018 $(+0.5\sigma)$	$D_{\text{M}}(0.15)$	646.0	645.7 ± 5.6 $(+0.3\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0513	$3.053^{+0.016}_{-0.018}$ $(+0.5\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4623	0.4615 ± 0.0099 $(+0.5\sigma)$	$H(0.38)$	82.680	82.71 ± 0.40 (-0.3σ)
n_{s}	0.9624	0.9612 ± 0.0053 (-0.8σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6149	0.6140 ± 0.0094 $(+0.6\sigma)$	$D_{\text{M}}(0.38)$	1538.7	1538 ± 11 $(+0.3\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	0.0053	0.001 ± 0.010	$\sigma_8/h^{0.5}$	0.9987	0.997 ± 0.014 $(+0.6\sigma)$	$H(0.51)$	89.483	89.51 ± 0.32 (-0.3σ)
$\text{d}^2 n_{\text{s}}/\text{d} \ln k^2$	0.0139	0.012 ± 0.013	$r_{\text{drag}} h$	98.53	98.6 ± 1.1 (-0.3σ)	$D_{\text{M}}(0.51)$	1992.0	1991 ± 13 $(+0.3\sigma)$
y_{cal}	1.00047	1.0006 ± 0.0024 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4477	2.446 ± 0.029 (-0.1σ)	$H(0.61)$	95.169	95.20 ± 0.26 (-0.2σ)
A_{217}^{CIB}	45.2	47 ± 7 $(+0.0\sigma)$	z_{re}	7.98	8.02 ± 0.85 $(+0.4\sigma)$	$D_{\text{M}}(0.61)$	2316.9	2316 ± 14 $(+0.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.70	—	$10^9 A_{\text{s}}$	2.1142	$2.118^{+0.034}_{-0.039}$ $(+0.5\sigma)$	$H(2.33)$	236.97	236.95 ± 0.86 $(+0.3\sigma)$
A_{143}^{tSZ}	7.08	5.4 ± 2.0 (-0.0σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8864	1.887 ± 0.012 $(+0.3\sigma)$	$D_{\text{M}}(2.33)$	5768.0	5767 ± 12 $(+0.2\sigma)$
A_{100}^{PS}	246.6	259 ± 29 $(+0.0\sigma)$	D_{40}	1221.4	1218 ± 19 (-1.1σ)	$f\sigma_8(0.15)$	0.4663	0.4655 ± 0.0092 $(+0.6\sigma)$
A_{143}^{PS}	49.0	45 ± 9 (-0.1σ)	D_{220}	5738.6	5740 ± 39 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7549	0.7541 ± 0.0077 $(+0.7\sigma)$
$A_{143 \times 217}^{\text{PS}}$	52.6	41 ± 9 (-0.1σ)	D_{810}	2540.2	2539 ± 13 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4829	0.4822 ± 0.0076 $(+0.6\sigma)$
A_{217}^{PS}	121.3	114 ± 10 (-0.1σ)	D_{1420}	818.87	817.0 ± 4.9 (-0.0σ)	$\sigma_8(0.38)$	0.6683	0.6676 ± 0.0065 $(+0.6\sigma)$
A^{kSZ}	0.00	< 4.36 $(+0.0\sigma)$	D_{2000}	232.19	231.2 ± 2.1 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4806	0.4799 ± 0.0068 $(+0.6\sigma)$
A_{100}^{dustTT}	8.80	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\text{s},0.002}$	1.0171	1.019 ± 0.045 $(+12.4\sigma)$	$\sigma_8(0.51)$	0.6250	0.6244 ± 0.0060 $(+0.6\sigma)$
A_{143}^{dustTT}	11.05	10.9 ± 1.8 $(+0.0\sigma)$	Y_{P}	0.245380	0.245383 ± 0.000066 (-0.1σ)	$f\sigma_8(0.61)$	0.4749	0.4742 ± 0.0062 $(+0.6\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.09	18.5 ± 3.3 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246707	0.246709 ± 0.000066 (-0.1σ)	$\sigma_8(0.61)$	0.5945	$0.5940^{+0.0053}_{-0.0058}$ $(+0.6\sigma)$
A_{217}^{dustTT}	95.6	93.6 ± 7.4 (-0.0σ)	10^5D/H	2.5926	2.591 ± 0.031 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.29943	$0.2992^{+0.0026}_{-0.0029}$ $(+0.6\sigma)$
A_{100}^{dustTE}	0.1145	0.115 ± 0.038 $(+0.0\sigma)$	Age/Gyr	13.8069	13.804 ± 0.026 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.30835	$0.3081^{+0.0027}_{-0.0031}$ $(+0.5\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1341	0.135 ± 0.029 $(+0.0\sigma)$	z_*	1090.028	1090.01 ± 0.30 $(+0.2\sigma)$	f_{2000}^{143}	27.49	29 ± 3 (-0.1σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.483 ± 0.085 $(+0.0\sigma)$	r_*	144.281	144.29 ± 0.32 (-0.3σ)	$f_{2000}^{143 \times 217}$	30.98	31.9 ± 2.5 (-0.1σ)
A_{143}^{dustTE}	0.225	0.226 ± 0.054 (-0.0σ)	$100\theta_*$	1.041014	1.04104 ± 0.00031 (-0.1σ)	f_{2000}^{217}	105.57	106.7 ± 2.3 (-0.1σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.668	0.667 ± 0.079 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8597	13.860 ± 0.029 (-0.3σ)	χ_{simall}^2	396.42	397.5 ± 2.1 $(+0.2\sigma)$
A_{217}^{dustTE}	2.090	2.10 ± 0.27 $(+0.0\sigma)$	z_{drag}	1059.895	1059.92 ± 0.33 (-0.0σ)	χ_{lowl}^2	21.69	22.4 ± 1.5 (-1.2σ)
c_{100}	0.99975	0.99969 ± 0.00061 $(+0.0\sigma)$	r_{drag}	146.951	146.95 ± 0.31 (-0.3σ)	χ_{plik}^2	2344.6	2360.7 ± 5.9 $(+0.2\sigma)$
c_{217}	0.99815	0.99819 ± 0.00062 $(+0.0\sigma)$	k_{D}	0.140987	0.14099 ± 0.00034 $(+0.3\sigma)$	χ_{prior}^2	1.49	11.5 ± 4.6 (-0.0σ)
H_0	67.05	67.09 ± 0.65 (-0.3σ)	$100\theta_{\text{D}}$	0.160775	0.16077 ± 0.00019 $(+0.0\sigma)$	χ_{CMB}^2	2762.7	2780.6 ± 6.1 $(+0.1\sigma)$
Ω_{Λ}	0.6804	0.6808 ± 0.0091 (-0.3σ)	z_{eq}	3418.0	3417 ± 33 $(+0.3\sigma)$			
Ω_{m}	0.3196	0.3192 ± 0.0091 $(+0.3\sigma)$	k_{eq}	0.010432	0.01043 ± 0.00010 $(+0.3\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2764.20$; $\Delta\chi_{\text{eff}}^2 = -1.57$; $\bar{\chi}_{\text{eff}}^2 = 2792.05$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.29$; $R - 1 = 0.02103$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.42 (Δ 0.37) commander_dx12_v3.2.29: 21.69 (Δ -1.57) plik_rd12_HM_v22b_TTTEE: 2344.61 (Δ -0.04)

14.2 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022418	0.02243 ± 0.00015 (+0.1 σ)	$\Omega_m h^3$	0.096385	0.09638 ± 0.00031 (+0.2 σ)	$H(0.15)$	72.866	72.90 ± 0.40 (-0.1 σ)
$\Omega_c h^2$	0.11958	0.1195 ± 0.0010 (+0.2 σ)	σ_8	0.8146	$0.8137^{+0.0076}_{-0.0086}$ (+0.5 σ)	$D_M(0.15)$	641.53	641.2 ± 4.0 (+0.1 σ)
$100\theta_{MC}$	1.041014	1.04100 ± 0.00029 (-0.0 σ)	S_8	0.8313	0.830 ± 0.014 (+0.4 σ)	$H(0.38)$	83.003	83.03 ± 0.30 (-0.1 σ)
τ	0.0586	$0.0592^{+0.0076}_{-0.0090}$ (+0.4 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4553	0.4545 ± 0.0076 (+0.4 σ)	$D_M(0.38)$	1529.8	1529.1 ± 8.0 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0524	$3.053^{+0.016}_{-0.019}$ (+0.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6090	0.6081 ± 0.0078 (+0.5 σ)	$H(0.51)$	89.735	89.75 ± 0.24 (-0.1 σ)
n_s	0.96518	0.9644 ± 0.0045 (-0.7 σ)	$\sigma_8/h^{0.5}$	0.9910	0.990 ± 0.012 (+0.5 σ)	$D_M(0.51)$	1981.5	1980.8 ± 9.4 (+0.1 σ)
$dn_s/d \ln k$	0.0033	0.000 ± 0.010	$r_{drag} h$	99.43	99.50 ± 0.80 (-0.2 σ)	$H(0.61)$	95.366	95.38 ± 0.20 (-0.0 σ)
$d^2 n_s/d \ln k^2$	0.0112	0.009 ± 0.013	$\langle d^2 \rangle^{1/2}$	2.4325	2.432 ± 0.025 (-0.2 σ)	$D_M(0.61)$	2305.7	2305 ± 10 (+0.1 σ)
y_{cal}	1.00062	1.0007 ± 0.0025 (+0.0 σ)	z_{re}	8.09	8.13 ± 0.84 (+0.4 σ)	$H(2.33)$	236.34	236.29 ± 0.63 (+0.2 σ)
A_{217}^{CIB}	45.9	47 ± 7 (+0.1 σ)	$10^9 A_s$	2.1167	$2.119^{+0.032}_{-0.040}$ (+0.5 σ)	$D_M(2.33)$	5759.5	5758.9 ± 9.6 (+0.0 σ)
$\xi^{tSZ \times CIB}$	0.58	—	$10^9 A_s e^{-2\tau}$	1.8826	1.882 ± 0.011 (+0.2 σ)	$f\sigma_8(0.15)$	0.4599	0.4590 ± 0.0072 (+0.4 σ)
A_{143}^{tSZ}	7.19	$5.5^{+2.1}_{-1.9}$ (-0.0 σ)	D_{40}	1216.6	1215 ± 18 (-1.1 σ)	$\sigma_8(0.15)$	0.7527	$0.7519^{+0.0068}_{-0.0077}$ (+0.5 σ)
A_{100}^{PS}	247.6	259 ± 29 (+0.0 σ)	D_{220}	5743.7	5744 ± 39 (+0.2 σ)	$f\sigma_8(0.38)$	0.4781	0.4773 ± 0.0063 (+0.5 σ)
A_{143}^{PS}	47.3	45 ± 9 (-0.1 σ)	D_{810}	2540.6	2540 ± 14 (+0.1 σ)	$\sigma_8(0.38)$	0.6671	$0.6664^{+0.0058}_{-0.0067}$ (+0.5 σ)
$A_{143 \times 217}^{PS}$	49.7	41 ± 9 (-0.1 σ)	D_{1420}	819.29	817.8 ± 5.0 (-0.0 σ)	$f\sigma_8(0.51)$	0.4766	0.4759 ± 0.0058 (+0.5 σ)
A_{217}^{PS}	120.5	114 ± 10 (-0.1 σ)	D_{2000}	232.19	231.4 ± 2.1 (+0.2 σ)	$\sigma_8(0.51)$	0.6242	$0.6236^{+0.0054}_{-0.0063}$ (+0.5 σ)
A^{kSZ}	0.01	< 4.31 (+0.0 σ)	$n_{s,0.002}$	1.0127	1.012 ± 0.045 (+11.9 σ)	$f\sigma_8(0.61)$	0.4715	0.4708 ± 0.0055 (+0.5 σ)
A_{100}^{dustTT}	8.83	8.9 ± 1.8 (+0.0 σ)	Y_P	0.245414	$0.245416^{+0.000061}_{-0.000054}$ (+0.1 σ)	$\sigma_8(0.61)$	0.5939	$0.5934^{+0.0051}_{-0.0060}$ (+0.5 σ)
A_{143}^{dustTT}	11.06	10.9 ± 1.8 (-0.0 σ)	Y_P^{BBN}	0.246741	$0.246743^{+0.000061}_{-0.000054}$ (+0.1 σ)	$f\sigma_8(2.33)$	0.29943	$0.2992^{+0.0026}_{-0.0030}$ (+0.5 σ)
$A_{143 \times 217}^{dustTT}$	19.94	18.5 ± 3.3 (-0.0 σ)	$10^5 D/H$	2.5765	2.575 ± 0.027 (-0.1 σ)	$\sigma_8(2.33)$	0.30866	$0.3084^{+0.0026}_{-0.0031}$ (+0.5 σ)
A_{217}^{dustTT}	95.4	93.5 ± 7.3 (-0.0 σ)	Age/Gyr	13.7882	13.787 ± 0.022 (-0.0 σ)	f_{2000}^{143}	27.72	29 ± 4 (-0.1 σ)
A_{100}^{dustTE}	0.1138	0.114 ± 0.038 (+0.0 σ)	z_*	1089.821	1089.80 ± 0.24 (+0.0 σ)	$f_{2000}^{143 \times 217}$	31.16	31.8 ± 2.5 (-0.1 σ)
$A_{100 \times 143}^{dustTE}$	0.1340	0.135 ± 0.030 (+0.0 σ)	r_*	144.503	144.52 ± 0.24 (-0.2 σ)	f_{2000}^{217}	105.88	106.7 ± 2.3 (-0.1 σ)
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085 (+0.0 σ)	$100\theta_*$	1.041189	1.04118 ± 0.00028 (-0.0 σ)	χ_{small}^2	396.62	397.7 ± 2.3 (+0.2 σ)
A_{143}^{dustTE}	0.222	0.224 ± 0.055 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8787	13.880 ± 0.023 (-0.2 σ)	χ_{lowl}^2	21.44	22.2 ± 1.6 (-1.1 σ)
$A_{143 \times 217}^{dustTE}$	0.666	0.665 ± 0.080 (-0.0 σ)	z_{drag}	1060.009	1060.03 ± 0.32 (+0.1 σ)	χ_{plik}^2	2345.1	2360.9 ± 6.0 (+0.2 σ)
A_{217}^{dustTE}	2.081	2.08 ± 0.26 (-0.0 σ)	r_{drag}	147.150	147.16 ± 0.25 (-0.2 σ)	χ_{6DF}^2	0.0468	0.068 ± 0.076 (+0.2 σ)
c_{100}	0.99974	0.99969 ± 0.00061 (+0.0 σ)	k_D	0.140842	0.14084 ± 0.00031 (+0.2 σ)	χ_{MGS}^2	1.097	1.19 ± 0.43 (-0.1 σ)
c_{217}	0.99817	0.99818 ± 0.00061 (+0.0 σ)	$100\theta_D$	0.160720	0.16071 ± 0.00019 (-0.1 σ)	$\chi_{DR12BAO}^2$	4.82	5.1 ± 1.6 (+0.2 σ)
H_0	67.571	67.61 ± 0.47 (-0.1 σ)	z_{eq}	3393.3	3391 ± 23 (+0.2 σ)	χ_{prior}^2	1.64	11.5 ± 4.5 (-0.0 σ)
Ω_Λ	0.6876	0.6881 ± 0.0063 (-0.1 σ)	k_{eq}	0.010357	0.010351 ± 0.000071 (+0.2 σ)	χ_{BAO}^2	5.97	6.4 ± 1.3 (+0.2 σ)
Ω_m	0.3124	0.3119 ± 0.0063 (+0.1 σ)	$100\theta_{eq}$	0.81509	0.8155 ± 0.0044 (-0.2 σ)	χ_{CMB}^2	2763.2	2780.9 ± 6.1 (+0.1 σ)
$\Omega_m h^2$	0.14264	0.14256 ± 0.00098 (+0.2 σ)	$100\theta_{s,eq}$	0.45028	0.4505 ± 0.0023 (-0.2 σ)			

Best-fit $\chi_{eff}^2 = 2770.78$; $\Delta\chi_{eff}^2 = -1.14$; $\bar{\chi}_{eff}^2 = 2798.78$; $\Delta\bar{\chi}_{eff}^2 = 0.87$; $R - 1 = 0.02726$
 χ_{eff}^2 : BAO - 6DF: 0.05 (Δ 0.02) MGS: 1.10 (Δ -0.12) DR12BAO: 4.83 (Δ 0.41) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.62 (Δ 0.42) commander_dx12_v3_2_29: 21.44 (Δ -1.43) plik_rd12_HM_v22b_TTTEEE: 2345.10 (Δ -0.40)

14.3 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022365	0.02237 ± 0.00016 (-0.0σ)	$\Omega_m h^2$	0.14319	0.1432 ± 0.0012 $(+0.2\sigma)$	$100\theta_{\text{eq}}$	0.8125	0.8125 ± 0.0052 (-0.2σ)
$\Omega_c h^2$	0.12018	0.1202 ± 0.0012 $(+0.2\sigma)$	$\Omega_m h^3$	0.096342	0.09634 ± 0.00031 $(+0.0\sigma)$	$100\theta_{\text{s,eq}}$	0.44899	0.4490 ± 0.0027 (-0.2σ)
$100\theta_{\text{MC}}$	1.040911	1.04090 ± 0.00030 (-0.1σ)	σ_8	0.8152	0.8141 ± 0.0066 $(+0.5\sigma)$	$H(0.15)$	72.620	72.62 ± 0.48 (-0.1σ)
τ	0.0564	0.0565 ± 0.0079 $(+0.3\sigma)$	S_8	0.8371	0.836 ± 0.014 $(+0.4\sigma)$	$D_{\text{M}}(0.15)$	643.98	644.0 ± 4.8 $(+0.1\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0482	3.049 ± 0.015 $(+0.3\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4585	0.4579 ± 0.0075 $(+0.4\sigma)$	$H(0.38)$	82.823	82.83 ± 0.35 (-0.1σ)
n_{s}	0.96387	0.9625 ± 0.0048 (-0.6σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6114	0.6106 ± 0.0069 $(+0.4\sigma)$	$D_{\text{M}}(0.38)$	1534.7	1534.7 ± 9.7 $(+0.1\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	0.0057	0.002 ± 0.010	$\sigma_8/h^{0.5}$	0.9939	0.993 ± 0.010 $(+0.5\sigma)$	$H(0.51)$	89.594	89.60 ± 0.28 (-0.1σ)
$\text{d}^2 n_{\text{s}}/\text{d} \ln k^2$	0.0129	0.010 ± 0.013	$r_{\text{drag}} h$	98.94	98.94 ± 0.96 (-0.2σ)	$D_{\text{M}}(0.51)$	1987.3	1987 ± 11 $(+0.1\sigma)$
y_{cal}	1.00025	1.0005 ± 0.0025 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4386	2.439 ± 0.022 (-0.3σ)	$H(0.61)$	95.254	95.26 ± 0.23 (-0.1σ)
A_{217}^{CIB}	45.3	47 ± 7 (-0.0σ)	z_{re}	7.90	7.89 ± 0.78 $(+0.3\sigma)$	$D_{\text{M}}(0.61)$	2311.9	2312 ± 12 $(+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.70	—	$10^9 A_{\text{s}}$	2.1078	$2.110^{+0.030}_{-0.033}$ $(+0.3\sigma)$	$H(2.33)$	236.67	236.68 ± 0.73 $(+0.2\sigma)$
A_{143}^{tSZ}	7.09	$5.5^{+2.2}_{-1.9}$ $(+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	1.8830	1.884 ± 0.011 $(+0.1\sigma)$	$D_{\text{M}}(2.33)$	5764.4	5764 ± 11 $(+0.1\sigma)$
A_{100}^{PS}	246.3	259 ± 29 (-0.0σ)	D_{40}	1220.7	1219 ± 18 (-1.1σ)	$f\sigma_8(0.15)$	0.4627	0.4621 ± 0.0069 $(+0.4\sigma)$
A_{143}^{PS}	48.6	45 ± 9 (-0.2σ)	D_{220}	5738.0	5740 ± 39 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7528	0.7518 ± 0.0060 $(+0.5\sigma)$
$A_{143 \times 217}^{\text{PS}}$	52.4	41 ± 9 (-0.1σ)	D_{810}	2538.6	2538 ± 14 (-0.1σ)	$f\sigma_8(0.38)$	0.4801	0.4794 ± 0.0056 $(+0.4\sigma)$
A_{217}^{PS}	121.0	114 ± 10 (-0.1σ)	D_{1420}	818.92	817.2 ± 5.0 (-0.0σ)	$\sigma_8(0.38)$	0.6668	0.6659 ± 0.0053 $(+0.5\sigma)$
A^{kSZ}	0.00	< 4.41 $(+0.0\sigma)$	D_{2000}	232.23	231.2 ± 2.1 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.47808	0.4774 ± 0.0050 $(+0.5\sigma)$
A_{100}^{dustTT}	8.81	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\text{s},0.002}$	1.0122	1.011 ± 0.044 $(+11.2\sigma)$	$\sigma_8(0.51)$	0.62381	0.6230 ± 0.0049 $(+0.5\sigma)$
A_{143}^{dustTT}	10.97	10.9 ± 1.8 (-0.0σ)	Y_{P}	0.245394	$0.245392^{+0.000067}_{-0.000060}$ (-0.0σ)	$f\sigma_8(0.61)$	0.47270	0.4720 ± 0.0046 $(+0.5\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.00	18.5 ± 3.3 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246720	$0.246719^{+0.000067}_{-0.000060}$ (-0.0σ)	$\sigma_8(0.61)$	0.59344	0.5926 ± 0.0047 $(+0.5\sigma)$
A_{217}^{dustTT}	95.4	93.6 ± 7.3 $(+0.0\sigma)$	10^5D/H	2.5864	2.587 ± 0.030 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29902	0.2986 ± 0.0024 $(+0.4\sigma)$
A_{100}^{dustTE}	0.1146	0.114 ± 0.038 $(+0.0\sigma)$	Age/Gyr	13.7990	13.799 ± 0.024 $(+0.1\sigma)$	$\sigma_8(2.33)$	0.30807	0.3077 ± 0.0026 $(+0.4\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1352	0.135 ± 0.029 $(+0.0\sigma)$	z_*	1089.943	1089.94 ± 0.27 $(+0.1\sigma)$	f_{2000}^{143}	27.35	29 ± 3 (-0.2σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.484	0.483 ± 0.085 $(+0.0\sigma)$	r_*	144.389	144.39 ± 0.27 (-0.2σ)	$f_{2000}^{143 \times 217}$	30.88	31.8 ± 2.5 (-0.3σ)
A_{143}^{dustTE}	0.224	0.226 ± 0.054 $(+0.0\sigma)$	$100\theta_*$	1.041091	1.04108 ± 0.00029 (-0.1σ)	f_{2000}^{217}	105.45	106.6 ± 2.3 (-0.2σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.668	0.666 ± 0.079 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8691	13.869 ± 0.026 (-0.2σ)	χ_{lensing}^2	8.98	9.47 ± 0.89 $(+0.3\sigma)$
A_{217}^{dustTE}	2.092	2.09 ± 0.26 $(+0.0\sigma)$	z_{drag}	1059.933	1059.94 ± 0.33 $(+0.0\sigma)$	χ_{simall}^2	396.28	397.2 ± 1.7 $(+0.1\sigma)$
c_{100}	0.99975	0.99969 ± 0.00061 $(+0.0\sigma)$	r_{drag}	147.051	147.05 ± 0.27 (-0.2σ)	χ_{lowl}^2	21.70	22.5 ± 1.6 (-1.2σ)
c_{217}	0.99817	0.99819 ± 0.00062 (-0.0σ)	k_{D}	0.140907	0.14091 ± 0.00032 $(+0.1\sigma)$	χ_{plik}^2	2344.9	2360.5 ± 5.7 $(+0.2\sigma)$
H_0	67.28	67.28 ± 0.56 (-0.1σ)	$100\theta_{\text{D}}$	0.160757	0.16075 ± 0.00019 (-0.0σ)	χ_{prior}^2	1.51	11.5 ± 4.5 (-0.0σ)
Ω_{Λ}	0.6837	0.6836 ± 0.0077 (-0.2σ)	z_{eq}	3406.3	3407 ± 28 $(+0.2\sigma)$	χ_{CMB}^2	2771.8	2789.6 ± 6.1 $(+0.1\sigma)$
Ω_{m}	0.3163	0.3164 ± 0.0077 $(+0.2\sigma)$	k_{eq}	0.010396	0.010397 ± 0.000084 $(+0.2\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2773.34$; $\Delta\chi_{\text{eff}}^2 = -1.29$; $\bar{\chi}_{\text{eff}}^2 = 2801.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.43$; $R - 1 = 0.02893$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.98 (Δ 0.11) simall_100x143_offlike5_EE_Aplanck_B: 396.28 (Δ 0.23) commander_dx12_v3.2_29: 21.70 (Δ -1.55) plik_rd12_HM_v22b_TTTEE: 2344.88 (Δ -0.05)

14.4 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243 \pm 0.00015 \quad (+0.1\sigma)$	$\Omega_m h^3$	$0.09637 \pm 0.00031 \quad (+0.1\sigma)$	$H(0.15)$	$72.93 \pm 0.38 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.11939 \pm 0.00096 \quad (+0.1\sigma)$	σ_8	$0.8131 \pm 0.0066 \quad (+0.5\sigma)$	$D_M(0.15)$	$640.9 \pm 3.7 \quad (+0.0\sigma)$
$100\theta_{MC}$	$1.04100 \pm 0.00028 \quad (-0.0\sigma)$	S_8	$0.828 \pm 0.011 \quad (+0.3\sigma)$	$H(0.38)$	$83.05 \pm 0.28 \quad (-0.0\sigma)$
τ	$0.0587^{+0.0071}_{-0.0080} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4537 \pm 0.0061 \quad (+0.3\sigma)$	$D_M(0.38)$	$1528.6 \pm 7.5 \quad (+0.0\sigma)$
$\ln(10^{10} A_s)$	$3.052^{+0.014}_{-0.016} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6074 \pm 0.0062 \quad (+0.4\sigma)$	$H(0.51)$	$89.77 \pm 0.23 \quad (-0.0\sigma)$
n_s	$0.9647 \pm 0.0043 \quad (-0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.9886 \pm 0.0092 \quad (+0.4\sigma)$	$D_M(0.51)$	$1980.2 \pm 8.8 \quad (+0.0\sigma)$
$dn_s/d \ln k$	0.0011 ± 0.0099	$r_{drag} h$	$99.56 \pm 0.74 \quad (-0.1\sigma)$	$H(0.61)$	$95.39 \pm 0.19 \quad (-0.0\sigma)$
$d^2 n_s/d \ln k^2$	0.009 ± 0.012	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.021 \quad (-0.3\sigma)$	$D_M(0.61)$	$2304.2 \pm 9.5 \quad (+0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$8.09 \pm 0.76 \quad (+0.4\sigma)$	$H(2.33)$	$236.23 \pm 0.58 \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.117^{+0.029}_{-0.033} \quad (+0.4\sigma)$	$D_M(2.33)$	$5758.6 \pm 9.3 \quad (-0.0\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4583 \pm 0.0058 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1217 \pm 18 \quad (-1.1\sigma)$	$\sigma_8(0.15)$	$0.7513 \pm 0.0061 \quad (+0.5\sigma)$
A_{100}^{PS}	$258 \pm 29 \quad (-0.0\sigma)$	D_{220}	$5745 \pm 38 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4767 \pm 0.0050 \quad (+0.4\sigma)$
A_{143}^{PS}	$45 \pm 9 \quad (-0.2\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6660 \pm 0.0053 \quad (+0.5\sigma)$
$A_{143 \times 217}^{PS}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$817.9 \pm 5.0 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4753 \pm 0.0046 \quad (+0.4\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{2000}	$231.5 \pm 2.1 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6233 \pm 0.0050 \quad (+0.5\sigma)$
A^{kSZ}	$< 4.27 \quad (-0.0\sigma)$	$n_{s,0.002}$	$1.008 \pm 0.044 \quad (+11.1\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0043 \quad (+0.4\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245417^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5931 \pm 0.0048 \quad (+0.5\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246743^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2990^{+0.0023}_{-0.0026} \quad (+0.5\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.575 \pm 0.027 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3083^{+0.0024}_{-0.0027} \quad (+0.4\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.3 \quad (-0.0\sigma)$	Age/Gyr	$13.786 \pm 0.021 \quad (-0.0\sigma)$	f_{2000}^{143}	$29 \pm 4 \quad (-0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	z_*	$1089.79 \pm 0.23 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.5 \quad (-0.2\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.54 \pm 0.23 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.6 \pm 2.3 \quad (-0.2\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00028 \quad (-0.0\sigma)$	$\chi_{lensing}^2$	$9.21 \pm 0.63 \quad (+0.2\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.883 \pm 0.022 \quad (-0.1\sigma)$	χ_{small}^2	$397.5 \pm 2.0 \quad (+0.2\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.665 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1060.03 \pm 0.32 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.3 \pm 1.6 \quad (-1.1\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.26 \quad (+0.0\sigma)$	r_{drag}	$147.19 \pm 0.24 \quad (-0.1\sigma)$	χ_{plik}^2	$2360.7 \pm 5.8 \quad (+0.2\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14081 \pm 0.00030 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.059 \pm 0.066 \quad (+0.1\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_D$	$0.16071 \pm 0.00018 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.22 \pm 0.40 \quad (-0.1\sigma)$
H_0	$67.64 \pm 0.44 \quad (-0.0\sigma)$	z_{eq}	$3389 \pm 22 \quad (+0.1\sigma)$	$\chi_{DR12BAO}^2$	$5.0 \pm 1.4 \quad (+0.1\sigma)$
Ω_Λ	$0.6886 \pm 0.0058 \quad (-0.1\sigma)$	k_{eq}	$0.010344 \pm 0.000066 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_m	$0.3114 \pm 0.0058 \quad (+0.1\sigma)$	$100\theta_{eq}$	$0.8159 \pm 0.0041 \quad (-0.1\sigma)$	χ_{CMB}^2	$2789.8 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.14247 \pm 0.00091 \quad (+0.1\sigma)$	$100\theta_{s,eq}$	$0.4507 \pm 0.0021 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.2 \quad (+0.1\sigma)$

$\bar{\chi}_{eff}^2 = 2807.58$; $\Delta \bar{\chi}_{eff}^2 = 0.74$; $R - 1 = 0.02956$

14.5 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02235 \pm 0.00017 \quad (-0.1\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1436 \pm 0.0014 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8107 \pm 0.0061 \quad (-0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1206 \pm 0.0015 \quad (+0.3\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09636 \pm 0.00031 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4480 \pm 0.0031 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04086 \pm 0.00031 \quad (-0.1\sigma)$	σ_8	$0.8174^{+0.0079}_{-0.0088} \quad (+0.7\sigma)$	$H(0.15)$	$72.47 \pm 0.56 \quad (-0.3\sigma)$
τ	$0.0584^{+0.0065}_{-0.0089} \quad (+0.4\sigma)$	S_8	$0.843 \pm 0.018 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.6 \pm 5.6 \quad (+0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.054^{+0.014}_{-0.018} \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4617 \pm 0.0099 \quad (+0.5\sigma)$	$H(0.38)$	$82.72 \pm 0.40 \quad (-0.3\sigma)$
n_{s}	$0.9612 \pm 0.0053 \quad (-0.9\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6143 \pm 0.0093 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1538 \pm 11 \quad (+0.3\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.001 ± 0.010	$\sigma_8/h^{0.5}$	$0.998 \pm 0.013 \quad (+0.6\sigma)$	$H(0.51)$	$89.52 \pm 0.32 \quad (-0.3\sigma)$
$\mathrm{d}^2n_{\mathrm{s}}/\mathrm{d}\ln k^2$	0.012 ± 0.013	$r_{\mathrm{drag}}h$	$98.6 \pm 1.1 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 13 \quad (+0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.028 \quad (-0.1\sigma)$	$H(0.61)$	$95.20 \pm 0.26 \quad (-0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	z_{re}	$8.09^{+0.70}_{-0.86} \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316 \pm 14 \quad (+0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	10^9A_{s}	$2.121^{+0.029}_{-0.039} \quad (+0.5\sigma)$	$H(2.33)$	$236.94 \pm 0.86 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.4 \pm 2.0 \quad (-0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.887 \pm 0.012 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5767 \pm 12 \quad (+0.2\sigma)$
A_{100}^{PS}	$259 \pm 29 \quad (+0.0\sigma)$	D_{40}	$1218 \pm 18 \quad (-1.1\sigma)$	$f\sigma_8(0.15)$	$0.4657 \pm 0.0092 \quad (+0.6\sigma)$
A_{143}^{PS}	$45 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5740 \pm 39 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7546^{+0.0067}_{-0.0078} \quad (+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4825 \pm 0.0076 \quad (+0.6\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$817.0 \pm 4.9 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6681^{+0.0055}_{-0.0066} \quad (+0.7\sigma)$
A^{kSZ}	$< 4.33 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 2.1 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4801 \pm 0.0067 \quad (+0.6\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$1.020 \pm 0.044 \quad (+12.7\sigma)$	$\sigma_8(0.51)$	$0.6248^{+0.0050}_{-0.0062} \quad (+0.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245384 \pm 0.000066 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4745 \pm 0.0061 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246710 \pm 0.000066 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5943^{+0.0047}_{-0.0058} \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.591 \pm 0.031 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2994^{+0.0023}_{-0.0029} \quad (+0.6\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.804 \pm 0.026 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3083^{+0.0023}_{-0.0031} \quad (+0.5\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	z_{*}	$1090.01 \pm 0.30 \quad (+0.2\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	r_{*}	$144.29 \pm 0.32 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.5 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.226 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_{*}$	$1.04105 \pm 0.00031 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.7 \pm 2.3 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.667 \pm 0.079 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.860 \pm 0.029 \quad (-0.3\sigma)$	χ_{small}^2	$397.5 \pm 2.1 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.10 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1059.93 \pm 0.33 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.4 \pm 1.4 \quad (-1.2\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$146.96 \pm 0.31 \quad (-0.3\sigma)$	χ_{plik}^2	$2360.5 \pm 5.9 \quad (+0.2\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14099 \pm 0.00034 \quad (+0.3\sigma)$	χ_{prior}^2	$11.4 \pm 4.5 \quad (-0.0\sigma)$
H_0	$67.10 \pm 0.65 \quad (-0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00019 \quad (+0.0\sigma)$	χ_{CMB}^2	$2780.4 \pm 6.1 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6809 \pm 0.0091 \quad (-0.3\sigma)$	z_{eq}	$3417 \pm 33 \quad (+0.3\sigma)$		
Ω_{m}	$0.3191 \pm 0.0091 \quad (+0.3\sigma)$	k_{eq}	$0.01043 \pm 0.00010 \quad (+0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2791.89$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.35$; $R - 1 = 0.02012$

14.6 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243 \pm 0.00015 \quad (+0.1\sigma)$	$\Omega_m h^3$	$0.09638 \pm 0.00031 \quad (+0.2\sigma)$	$H(0.15)$	$72.90 \pm 0.40 \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.1195 \pm 0.0010 \quad (+0.2\sigma)$	σ_8	$0.8141^{+0.0071}_{-0.0085} \quad (+0.5\sigma)$	$D_M(0.15)$	$641.2 \pm 4.0 \quad (+0.1\sigma)$
$100\theta_{MC}$	$1.04100 \pm 0.00029 \quad (-0.0\sigma)$	S_8	$0.830 \pm 0.014 \quad (+0.4\sigma)$	$H(0.38)$	$83.03 \pm 0.30 \quad (-0.1\sigma)$
τ	$0.0597^{+0.0067}_{-0.0091} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4546 \pm 0.0075 \quad (+0.4\sigma)$	$D_M(0.38)$	$1529.1 \pm 8.0 \quad (+0.1\sigma)$
$\ln(10^{10} A_s)$	$3.054^{+0.014}_{-0.019} \quad (+0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6084^{+0.0071}_{-0.0080} \quad (+0.5\sigma)$	$H(0.51)$	$89.76 \pm 0.24 \quad (-0.1\sigma)$
n_s	$0.9644 \pm 0.0045 \quad (-0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.990^{+0.010}_{-0.012} \quad (+0.5\sigma)$	$D_M(0.51)$	$1980.7 \pm 9.4 \quad (+0.1\sigma)$
$dn_s/d \ln k$	0.000 ± 0.010	$r_{drag} h$	$99.50 \pm 0.80 \quad (-0.2\sigma)$	$H(0.61)$	$95.38 \pm 0.20 \quad (-0.1\sigma)$
$d^2 n_s/d \ln k^2$	0.0095 ± 0.013	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.025 \quad (-0.2\sigma)$	$D_M(0.61)$	$2305 \pm 10 \quad (+0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$8.18^{+0.70}_{-0.88} \quad (+0.4\sigma)$	$H(2.33)$	$236.29 \pm 0.63 \quad (+0.2\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.1\sigma)$	$10^9 A_s$	$2.121^{+0.029}_{-0.040} \quad (+0.5\sigma)$	$D_M(2.33)$	$5758.8 \pm 9.5 \quad (+0.0\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4592 \pm 0.0071 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$5.5 \pm 2.0 \quad (-0.0\sigma)$	D_{40}	$1215 \pm 18 \quad (-1.1\sigma)$	$\sigma_8(0.15)$	$0.7522^{+0.0063}_{-0.0077} \quad (+0.5\sigma)$
A_{100}^{PS}	$258 \pm 29 \quad (+0.0\sigma)$	D_{220}	$5744 \pm 39 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4775 \pm 0.0062 \quad (+0.5\sigma)$
A_{143}^{PS}	$45 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6667^{+0.0054}_{-0.0067} \quad (+0.5\sigma)$
$A_{143 \times 217}^{PS}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$817.7 \pm 4.9 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4761^{+0.0052}_{-0.0059} \quad (+0.5\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{2000}	$231.4 \pm 2.1 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6239^{+0.0050}_{-0.0063} \quad (+0.5\sigma)$
A^{kSZ}	$< 4.28 \quad (+0.0\sigma)$	$n_{s,0.002}$	$1.013 \pm 0.045 \quad (+12.2\sigma)$	$f\sigma_8(0.61)$	$0.4710^{+0.0049}_{-0.0056} \quad (+0.5\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245416^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5937^{+0.0047}_{-0.0060} \quad (+0.5\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246743^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2993^{+0.0023}_{-0.0030} \quad (+0.5\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.575 \pm 0.027 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3086^{+0.0024}_{-0.0031} \quad (+0.5\sigma)$
A_{217}^{dustTT}	$93.5 \pm 7.3 \quad (-0.0\sigma)$	Age/Gyr	$13.787 \pm 0.022 \quad (+0.0\sigma)$	f_{2000}^{143}	$29 \pm 4 \quad (-0.1\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.80 \pm 0.24 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.5 \quad (-0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	r_*	$144.52 \pm 0.24 \quad (-0.2\sigma)$	f_{2000}^{217}	$106.6 \pm 2.3 \quad (-0.1\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00028 \quad (-0.0\sigma)$	χ_{small}^2	$397.7 \pm 2.3 \quad (+0.2\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.880 \pm 0.023 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.2 \pm 1.5 \quad (-1.1\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.665 \pm 0.080 \quad (+0.0\sigma)$	z_{drag}	$1060.03 \pm 0.32 \quad (+0.1\sigma)$	χ_{plik}^2	$2360.8 \pm 6.0 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.09 \pm 0.26 \quad (-0.0\sigma)$	r_{drag}	$147.16 \pm 0.25 \quad (-0.2\sigma)$	χ_{6DF}^2	$0.067 \pm 0.076 \quad (+0.2\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14084 \pm 0.00031 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.19 \pm 0.42 \quad (-0.2\sigma)$
c_{217}	$0.99818 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_D$	$0.16071 \pm 0.00018 \quad (-0.1\sigma)$	$\chi_{DR12BAO}^2$	$5.1 \pm 1.6 \quad (+0.2\sigma)$
H_0	$67.61 \pm 0.47 \quad (-0.1\sigma)$	z_{eq}	$3391 \pm 23 \quad (+0.2\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_Λ	$0.6881 \pm 0.0063 \quad (-0.2\sigma)$	k_{eq}	$0.010350 \pm 0.000071 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.4 \pm 1.3 \quad (+0.2\sigma)$
Ω_m	$0.3119 \pm 0.0063 \quad (+0.2\sigma)$	$100\theta_{eq}$	$0.8155 \pm 0.0044 \quad (-0.2\sigma)$	χ_{CMB}^2	$2780.8 \pm 6.1 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.14256 \pm 0.00098 \quad (+0.2\sigma)$	$100\theta_{s,eq}$	$0.4505 \pm 0.0022 \quad (-0.2\sigma)$		

$$\bar{\chi}_{eff}^2 = 2798.65; \Delta \bar{\chi}_{eff}^2 = 0.93; R - 1 = 0.02773$$

14.7 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00016 \quad (-0.0\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1432 \pm 0.0011 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8127 \pm 0.0052 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0012 \quad (+0.2\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09634 \pm 0.00031 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4491 \pm 0.0026 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00030 \quad (-0.1\sigma)$	σ_8	$0.8145 \pm 0.0064 \quad (+0.5\sigma)$	$H(0.15)$	$72.64 \pm 0.48 \quad (-0.1\sigma)$
τ	$0.0572^{+0.0062}_{-0.0081} \quad (+0.3\sigma)$	S_8	$0.836 \pm 0.014 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.9 \pm 4.8 \quad (+0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.012}_{-0.016} \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4580 \pm 0.0075 \quad (+0.4\sigma)$	$H(0.38)$	$82.84 \pm 0.35 \quad (-0.1\sigma)$
n_{s}	$0.9626 \pm 0.0048 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6107 \pm 0.0069 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534.4 \pm 9.6 \quad (+0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	0.002 ± 0.010	$\sigma_8/h^{0.5}$	$0.9929 \pm 0.0099 \quad (+0.5\sigma)$	$H(0.51)$	$89.61 \pm 0.28 \quad (-0.1\sigma)$
$\mathrm{d}^2n_{\mathrm{s}}/\mathrm{d}\ln k^2$	0.011 ± 0.013	$r_{\mathrm{drag}}h$	$98.97 \pm 0.95 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1987 \pm 11 \quad (+0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.022 \quad (-0.4\sigma)$	$H(0.61)$	$95.26 \pm 0.23 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.96^{+0.65}_{-0.78} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2312 \pm 12 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.112^{+0.026}_{-0.033} \quad (+0.3\sigma)$	$H(2.33)$	$236.65 \pm 0.73 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.884 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 11 \quad (+0.1\sigma)$
A_{100}^{PS}	$259 \pm 29 \quad (-0.0\sigma)$	D_{40}	$1219 \pm 18 \quad (-1.1\sigma)$	$f\sigma_8(0.15)$	$0.4622 \pm 0.0069 \quad (+0.4\sigma)$
A_{143}^{PS}	$45 \pm 9 \quad (-0.2\sigma)$	D_{220}	$5740 \pm 39 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7522^{+0.0053}_{-0.0060} \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4795 \pm 0.0056 \quad (+0.4\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{1420}	$817.1 \pm 5.0 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6663^{+0.0045}_{-0.0053} \quad (+0.5\sigma)$
A^{kSZ}	$< 4.41 \quad (+0.0\sigma)$	D_{2000}	$231.3 \pm 2.1 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4776 \pm 0.0049 \quad (+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$1.012 \pm 0.044 \quad (+11.5\sigma)$	$\sigma_8(0.51)$	$0.6233^{+0.0042}_{-0.0050} \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245394^{+0.000066}_{-0.000059} \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4722 \pm 0.0045 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246720^{+0.000066}_{-0.000060} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5930^{+0.0040}_{-0.0048} \quad (+0.5\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.029 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2988^{+0.0020}_{-0.0025} \quad (+0.4\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.798 \pm 0.024 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3079^{+0.0021}_{-0.0027} \quad (+0.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	z_*	$1089.93 \pm 0.27 \quad (+0.1\sigma)$	f_{2000}^{143}	$29 \pm 3 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	r_*	$144.39 \pm 0.27 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.5 \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00029 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.6 \pm 2.3 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.666 \pm 0.079 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.870 \pm 0.025 \quad (-0.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.47 \pm 0.90 \quad (+0.4\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.26 \quad (+0.0\sigma)$	z_{drag}	$1059.95 \pm 0.33 \quad (-0.0\sigma)$	χ_{small}^2	$397.2 \pm 1.7 \quad (+0.1\sigma)$
c_{100}	$0.99969 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.05 \pm 0.27 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.4 \pm 1.6 \quad (-1.2\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	k_{D}	$0.14091 \pm 0.00032 \quad (+0.1\sigma)$	χ_{plik}^2	$2360.4 \pm 5.7 \quad (+0.2\sigma)$
H_0	$67.30 \pm 0.55 \quad (-0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00019 \quad (-0.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6839 \pm 0.0076 \quad (-0.2\sigma)$	z_{eq}	$3406 \pm 27 \quad (+0.2\sigma)$	χ_{CMB}^2	$2789.5 \pm 6.0 \quad (+0.1\sigma)$
Ω_{m}	$0.3161 \pm 0.0076 \quad (+0.2\sigma)$	k_{eq}	$0.010394 \pm 0.000084 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2800.94$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.43$; $R - 1 = 0.02757$

14.8 base_nrun_nrunrun_plikHM_TTTEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02243 \pm 0.00015 \quad (+0.1\sigma)$	$\Omega_m h^3$	$0.09637 \pm 0.00031 \quad (+0.1\sigma)$	$H(0.15)$	$72.93 \pm 0.37 \quad (-0.0\sigma)$
$\Omega_c h^2$	$0.11938 \pm 0.00095 \quad (+0.1\sigma)$	σ_8	$0.8133 \pm 0.0065 \quad (+0.5\sigma)$	$D_M(0.15)$	$640.9 \pm 3.7 \quad (+0.1\sigma)$
$100\theta_{MC}$	$1.04100 \pm 0.00028 \quad (-0.0\sigma)$	S_8	$0.828 \pm 0.011 \quad (+0.3\sigma)$	$H(0.38)$	$83.05 \pm 0.28 \quad (-0.0\sigma)$
τ	$0.0591^{+0.0065}_{-0.0081} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4538 \pm 0.0061 \quad (+0.3\sigma)$	$D_M(0.38)$	$1528.5 \pm 7.5 \quad (+0.0\sigma)$
$\ln(10^{10} A_s)$	$3.053^{+0.013}_{-0.016} \quad (+0.4\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6075 \pm 0.0061 \quad (+0.4\sigma)$	$H(0.51)$	$89.77 \pm 0.23 \quad (-0.0\sigma)$
n_s	$0.9647 \pm 0.0043 \quad (-0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.9888 \pm 0.0091 \quad (+0.4\sigma)$	$D_M(0.51)$	$1980.0 \pm 8.8 \quad (+0.0\sigma)$
$dn_s/d \ln k$	0.0011 ± 0.0099	$r_{drag} h$	$99.58 \pm 0.74 \quad (-0.1\sigma)$	$H(0.61)$	$95.39 \pm 0.19 \quad (-0.0\sigma)$
$d^2 n_s/d \ln k^2$	0.009 ± 0.012	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.021 \quad (-0.4\sigma)$	$D_M(0.61)$	$2304.0 \pm 9.5 \quad (+0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$8.12^{+0.67}_{-0.78} \quad (+0.4\sigma)$	$H(2.33)$	$236.22 \pm 0.58 \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.118^{+0.027}_{-0.034} \quad (+0.4\sigma)$	$D_M(2.33)$	$5758.5 \pm 9.2 \quad (-0.0\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4584 \pm 0.0058 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1217 \pm 18 \quad (-1.1\sigma)$	$\sigma_8(0.15)$	$0.7515^{+0.0055}_{-0.0061} \quad (+0.5\sigma)$
A_{100}^{PS}	$258 \pm 29 \quad (-0.0\sigma)$	D_{220}	$5745 \pm 39 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4768 \pm 0.0049 \quad (+0.4\sigma)$
A_{143}^{PS}	$44 \pm 9 \quad (-0.2\sigma)$	D_{810}	$2539 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6662^{+0.0048}_{-0.0055} \quad (+0.5\sigma)$
$A_{143 \times 217}^{PS}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$817.8 \pm 5.0 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4754 \pm 0.0045 \quad (+0.4\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	D_{2000}	$231.5 \pm 2.1 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6235^{+0.0044}_{-0.0052} \quad (+0.5\sigma)$
A^{kSZ}	$< 4.26 \quad (-0.0\sigma)$	$n_{s,0.002}$	$1.009 \pm 0.044 \quad (+11.3\sigma)$	$f\sigma_8(0.61)$	$0.4705 \pm 0.0042 \quad (+0.4\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245417^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5933^{+0.0042}_{-0.0050} \quad (+0.5\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246744^{+0.000060}_{-0.000053} \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2991^{+0.0021}_{-0.0026} \quad (+0.5\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.575 \pm 0.027 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3084^{+0.0022}_{-0.0027} \quad (+0.5\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.3 \quad (-0.0\sigma)$	Age/Gyr	$13.786 \pm 0.021 \quad (-0.0\sigma)$	f_{2000}^{143}	$29 \pm 4 \quad (-0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.79 \pm 0.23 \quad (-0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.5 \quad (-0.2\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.55 \pm 0.23 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.5 \pm 2.3 \quad (-0.2\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00028 \quad (-0.0\sigma)$	$\chi_{lensing}^2$	$9.20 \pm 0.62 \quad (+0.2\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.883 \pm 0.022 \quad (-0.1\sigma)$	χ_{small}^2	$397.5 \pm 2.0 \quad (+0.2\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.665 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1060.03 \pm 0.32 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.3 \pm 1.6 \quad (-1.1\sigma)$
A_{217}^{dustTE}	$2.09 \pm 0.26 \quad (+0.0\sigma)$	r_{drag}	$147.19 \pm 0.24 \quad (-0.1\sigma)$	χ_{plik}^2	$2360.7 \pm 5.8 \quad (+0.2\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14081 \pm 0.00030 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.058 \pm 0.065 \quad (+0.1\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_D$	$0.16071 \pm 0.00018 \quad (-0.1\sigma)$	χ_{MGS}^2	$1.23 \pm 0.40 \quad (-0.1\sigma)$
H_0	$67.65 \pm 0.43 \quad (-0.1\sigma)$	z_{eq}	$3389 \pm 22 \quad (+0.1\sigma)$	$\chi_{DR12BAO}^2$	$4.9 \pm 1.4 \quad (+0.1\sigma)$
Ω_Λ	$0.6887 \pm 0.0058 \quad (-0.1\sigma)$	k_{eq}	$0.010343 \pm 0.000066 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_m	$0.3113 \pm 0.0058 \quad (+0.1\sigma)$	$100\theta_{eq}$	$0.8160 \pm 0.0041 \quad (-0.1\sigma)$	χ_{CMB}^2	$2789.7 \pm 6.0 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.14245 \pm 0.00090 \quad (+0.1\sigma)$	$100\theta_{s,eq}$	$0.4507 \pm 0.0021 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.1 \quad (+0.1\sigma)$

$\bar{\chi}_{eff}^2 = 2807.47$; $\Delta \bar{\chi}_{eff}^2 = 0.75$; $R - 1 = 0.02999$

15 nrun+r

15.1 base_nrun_r_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022169	0.02221 ± 0.00024 (+0.4 σ)	$\sigma_8/h^{0.5}$	0.9939	0.991 ± 0.016 (−0.1 σ)	$H(0.51)$	89.332	89.43 ± 0.45 (+0.2 σ)
$\Omega_c h^2$	0.12080	0.1205 ± 0.0021 (−0.1 σ)	$r_{\text{drag}} h$	98.35	98.6 ± 1.6 (+0.1 σ)	$D_M(0.51)$	1996.5	1993 ± 19 (−0.2 σ)
$100\theta_{\text{MC}}$	1.040762	1.04082 ± 0.00048 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4503	2.438 ± 0.039 (−0.4 σ)	$H(0.61)$	95.025	95.10 ± 0.36 (+0.3 σ)
τ	0.0529	0.0537 ± 0.0085 (+0.2 σ)	z_{re}	7.60	7.64 ± 0.86 (+0.2 σ)	$D_M(0.61)$	2322.0	2318 ± 20 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0434	3.045 ± 0.018 (+0.3 σ)	$10^9 A_s$	2.0977	2.101 ± 0.037 (+0.3 σ)	$H(2.33)$	236.87	236.7 ± 1.3 (−0.0 σ)
n_s	0.9625	0.9627 ± 0.0060 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8870	1.887 ± 0.014 (+0.2 σ)	$D_M(2.33)$	5776.0	5773 ± 17 (−0.3 σ)
$dn_s/d \ln k$	−0.0036	$−0.0078 \pm 0.0082$	D_{40}	1224.8	1233 ± 23 (−0.0 σ)	$f\sigma_8(0.15)$	0.4644	0.462 ± 0.012 (−0.1 σ)
r	0.0001	< 0.0654	D_{220}	5711.8	5711 ± 41 (−0.0 σ)	$\sigma_8(0.15)$	0.7500	0.7488 ± 0.0076 (−0.1 σ)
y_{cal}	1.00039	1.0005 ± 0.0025 (+0.0 σ)	D_{810}	2538.8	2539 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4806	0.4788 ± 0.0096 (−0.1 σ)
A_{217}^{CIB}	50.9	49 ± 7 (+0.1 σ)	D_{1420}	814.7	813.8 ± 5.2 (−0.1 σ)	$\sigma_8(0.38)$	0.6638	0.6629 ± 0.0061 (−0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.07	—	D_{2000}	229.49	229.0 ± 1.9 (−0.3 σ)	$f\sigma_8(0.51)$	0.4781	0.4765 ± 0.0082 (−0.1 σ)
A_{143}^{tSZ}	7.15	4.9 ± 2.0 (−0.1 σ)	$n_{s,0.002}$	0.9741	0.988 ± 0.026 (+4.4 σ)	$\sigma_8(0.51)$	0.6207	0.6201 ± 0.0056 (−0.0 σ)
A_{100}^{PS}	257.8	267 ± 29 (+0.1 σ)	Y_{P}	0.245313	$0.24533^{+0.00011}_{-0.000087}$ (+0.4 σ)	$f\sigma_8(0.61)$	0.4723	0.4709 ± 0.0073 (−0.1 σ)
A_{143}^{PS}	46.9	51 ± 8 (+0.2 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246639	$0.24665^{+0.00011}_{-0.000087}$ (+0.4 σ)	$\sigma_8(0.61)$	0.5904	0.5898 ± 0.0052 (−0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	41.0	44 ± 9 (+0.0 σ)	10^5D/H	2.6238	2.616 ± 0.045 (−0.4 σ)	$f\sigma_8(2.33)$	0.29729	0.2971 ± 0.0026 (+0.0 σ)
A_{217}^{PS}	116.7	115 ± 10 (−0.0 σ)	Age/Gyr	13.8256	13.818 ± 0.038 (−0.3 σ)	$\sigma_8(2.33)$	0.30608	0.3060 ± 0.0027 (+0.0 σ)
A^{kSZ}	0.01	< 5.47 (+0.2 σ)	z_*	1090.246	1090.16 ± 0.42 (−0.3 σ)	$r_{0.002}$	0.0001	< 0.0622
A_{100}^{dustTT}	8.90	9.0 ± 1.8 (+0.0 σ)	r_*	144.378	144.43 ± 0.49 (−0.1 σ)	$r_{0.01}$	0.0001	< 0.0630
A_{143}^{dustTT}	10.82	10.8 ± 1.8 (+0.0 σ)	$100\theta_*$	1.040968	1.04102 ± 0.00047 (+0.1 σ)	$\ln(10^{10} A_t)$	−6.50	$−0.37^{+1.4}_{-0.64}$
$A_{143 \times 217}^{\text{dustTT}}$	19.02	18.4 ± 3.3 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8696	13.874 ± 0.046 (−0.1 σ)	r_{10}	0.0000	< 0.0323
A_{217}^{dustTT}	93.8	93.2 ± 7.4 (−0.0 σ)	z_{drag}	1059.513	1059.60 ± 0.50 (+0.5 σ)	$10^9 A_t$	0.000	< 0.137
c_{100}	0.99964	0.99961 ± 0.00062 (−0.0 σ)	r_{drag}	147.11	147.14 ± 0.50 (−0.1 σ)	$10^9 A_t e^{-2\tau}$	0.000	< 0.123
c_{217}	0.99828	0.99828 ± 0.00062 (+0.0 σ)	k_{D}	0.14070	0.14069 ± 0.00057 (+0.3 σ)	f_{2000}^{143}	31.19	32.3 ± 3.2 (+0.4 σ)
H_0	66.86	67.03 ± 0.93 (+0.2 σ)	$100\theta_{\text{D}}$	0.160989	0.16095 ± 0.00029 (−0.5 σ)	$f_{2000}^{143 \times 217}$	33.81	34.4 ± 2.2 (+0.4 σ)
Ω_{Λ}	0.6787	0.681 ± 0.013 (+0.1 σ)	z_{eq}	3416.5	3410 ± 48 (−0.0 σ)	f_{2000}^{217}	108.28	108.9 ± 2.1 (+0.4 σ)
Ω_{m}	0.3213	0.319 ± 0.013 (−0.1 σ)	k_{eq}	0.010428	0.01041 ± 0.00015 (−0.0 σ)	χ_{simall}^2	395.91	397.3 ± 1.8 (+0.2 σ)
$\Omega_{\text{m}} h^2$	0.14361	0.1433 ± 0.0020 (−0.0 σ)	$100\theta_{\text{eq}}$	0.8101	0.8115 ± 0.0090 (+0.1 σ)	χ_{lowl}^2	22.73	23.7 ± 2.3 (−0.2 σ)
$\Omega_{\text{m}} h^3$	0.096017	0.09606 ± 0.00050 (+0.4 σ)	$100\theta_{\text{s,eq}}$	0.44785	0.4486 ± 0.0046 (+0.1 σ)	χ_{plik}^2	759.2	773.6 ± 5.8 (+0.4 σ)
σ_8	0.8127	0.8112 ± 0.0090 (−0.1 σ)	$H(0.15)$	72.24	72.39 ± 0.79 (+0.2 σ)	χ_{prior}^2	1.53	7.3 ± 3.7 (+0.0 σ)
S_8	0.8410	0.837 ± 0.024 (−0.1 σ)	$D_M(0.15)$	647.7	646.3 ± 8.0 (−0.2 σ)	χ_{CMB}^2	1177.9	1194.6 ± 5.9 (+0.4 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4607	0.458 ± 0.013 (−0.1 σ)	$H(0.38)$	82.52	82.64 ± 0.57 (+0.2 σ)			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6119	0.610 ± 0.012 (−0.1 σ)	$D_M(0.38)$	1542.4	1540 ± 16 (−0.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1179.41$; $\Delta\chi_{\text{eff}}^2 = -0.16$; $\bar{\chi}_{\text{eff}}^2 = 1201.96$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.38$; $R - 1 = 0.00730$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.91 (Δ 0.03) commander_dx12_v3.2.29: 22.73 (Δ -0.87) plik_rd12_HM_v22_TT: 759.25 (Δ 0.50)

15.2 base_nrun_r_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022267	0.02230 ± 0.00022 (+0.4 σ)	$r_{\text{drag}} h$	99.84	99.83 ± 0.94 (+0.1 σ)	$H(0.61)$	95.319	95.34 ± 0.26 (+0.3 σ)
$\Omega_c h^2$	0.11893	0.1189 ± 0.0012 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4201	2.415 ± 0.030 (−0.5 σ)	$D_M(0.61)$	2304.2	2304 ± 12 (−0.2 σ)
$100\theta_{\text{MC}}$	1.041065	1.04102 ± 0.00042 (+0.1 σ)	z_{re}	7.64	7.76 ± 0.84 (+0.1 σ)	$H(2.33)$	235.76	235.80 ± 0.80 (+0.1 σ)
τ	0.0539	0.0553 ± 0.0084 (+0.2 σ)	$10^9 A_s$	2.0907	2.100 ± 0.038 (+0.3 σ)	$D_M(2.33)$	5763.8	5763 ± 13 (−0.3 σ)
$\ln(10^{10} A_s)$	3.0401	3.045 ± 0.018 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8772	1.880 ± 0.012 (+0.2 σ)	$f\sigma_8(0.15)$	0.4535	0.4538 ± 0.0077 (−0.1 σ)
n_s	0.96707	0.9662 ± 0.0045 (−0.0 σ)	D_{40}	1217.0	1228_{-23}^{+21} (+0.2 σ)	$\sigma_8(0.15)$	0.7455	0.7459 ± 0.0070 (−0.0 σ)
$dn_s/d \ln k$	−0.0024	$−0.0077 \pm 0.0082$	D_{220}	5715.1	5717 ± 41 (−0.1 σ)	$f\sigma_8(0.38)$	0.4722	0.4724 ± 0.0065 (−0.1 σ)
r	0.0000	< 0.0722	D_{810}	2535.9	2538 ± 14 (+0.2 σ)	$\sigma_8(0.38)$	0.6611	0.6614 ± 0.0059 (−0.0 σ)
y_{cal}	1.00017	1.0006 ± 0.0025 (+0.0 σ)	D_{1420}	815.4	814.7 ± 5.0 (−0.1 σ)	$f\sigma_8(0.51)$	0.4710	0.4713 ± 0.0059 (−0.1 σ)
A_{217}^{CIB}	50.7	49 ± 7 (+0.1 σ)	D_{2000}	229.88	229.3 ± 1.8 (−0.3 σ)	$\sigma_8(0.51)$	0.6188	0.6190 ± 0.0055 (−0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.04	—	$n_{s,0.002}$	0.9750	0.991 ± 0.026 (+5.7 σ)	$f\sigma_8(0.61)$	0.4662	0.4664 ± 0.0054 (−0.1 σ)
A_{143}^{tSZ}	7.24	4.9 ± 2.0 (−0.1 σ)	Y_P	0.245354	$0.245363_{-0.000081}^{+0.000092}$ (+0.4 σ)	$\sigma_8(0.61)$	0.5888	0.5891 ± 0.0052 (−0.0 σ)
A_{100}^{PS}	256.6	266 ± 28 (+0.1 σ)	Y_P^{BBN}	0.246680	$0.246690_{-0.000081}^{+0.000093}$ (+0.4 σ)	$f\sigma_8(2.33)$	0.29696	0.2971 ± 0.0026 (+0.0 σ)
A_{143}^{PS}	45.3	50 ± 8 (+0.2 σ)	10^5D/H	2.6050	2.600 ± 0.041 (−0.4 σ)	$\sigma_8(2.33)$	0.30624	0.3064 ± 0.0027 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	39.4	43_{-10}^{+9} (+0.0 σ)	Age/Gyr	13.7992	13.797 ± 0.030 (−0.3 σ)	$r_{0.002}$	0.0000	< 0.0695
A_{217}^{PS}	115.9	114 ± 10 (−0.0 σ)	z_*	1089.955	1089.92 ± 0.31 (−0.4 σ)	$r_{0.01}$	0.0000	< 0.0701
A^{kSZ}	0.00	< 5.43 (+0.2 σ)	r_*	144.788	144.76 ± 0.33 (−0.2 σ)	$\ln(10^{10} A_t)$	−7.24	$−0.27_{-0.64}^{+1.4}$
A_{100}^{dustTT}	8.96	9.0 ± 1.8 (+0.0 σ)	$100\theta_*$	1.041254	1.04121 ± 0.00042 (+0.1 σ)	r_{10}	0.0000	< 0.0361
A_{143}^{dustTT}	10.79	10.8 ± 1.8 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9051	13.903 ± 0.032 (−0.2 σ)	$10^9 A_t$	0.000	< 0.151
$A_{143 \times 217}^{\text{dustTT}}$	19.00	18.4 ± 3.3 (+0.0 σ)	z_{drag}	1059.628	1059.69 ± 0.49 (+0.4 σ)	$10^9 A_t e^{-2\tau}$	0.000	< 0.136
A_{217}^{dustTT}	93.8	93.2 ± 7.3 (−0.0 σ)	r_{drag}	147.490	147.45 ± 0.37 (−0.3 σ)	f_{2000}^{143}	30.71	32.0 ± 3.2 (+0.4 σ)
c_{100}	0.99965	0.99960 ± 0.00061 (−0.0 σ)	k_D	0.140367	0.14043 ± 0.00049 (+0.4 σ)	$f_{2000}^{143 \times 217}$	33.34	34.2 ± 2.2 (+0.4 σ)
c_{217}	0.99827	0.99828 ± 0.00062 (+0.0 σ)	$100\theta_D$	0.160957	0.16091 ± 0.00029 (−0.4 σ)	f_{2000}^{217}	107.84	108.6 ± 2.1 (+0.4 σ)
H_0	67.69	67.70 ± 0.55 (+0.2 σ)	z_{eq}	3374.1	3375 ± 29 (+0.1 σ)	χ_{simall}^2	395.94	397.4 ± 1.9 (+0.2 σ)
Ω_Λ	0.6905	0.6903 ± 0.0073 (+0.1 σ)	k_{eq}	0.010298	0.010302 ± 0.000088 (+0.1 σ)	χ_{lowl}^2	22.22	23.2 ± 2.1 (+0.1 σ)
Ω_m	0.3095	0.3097 ± 0.0073 (−0.1 σ)	$100\theta_{\text{eq}}$	0.8182	0.8181 ± 0.0053 (−0.0 σ)	χ_{plik}^2	760.6	774.0 ± 5.7 (+0.3 σ)
$\Omega_m h^2$	0.14184	0.1419 ± 0.0012 (+0.1 σ)	$100\theta_{s,\text{eq}}$	0.45201	0.4519 ± 0.0028 (−0.0 σ)	$\chi_{6\text{DF}}^2$	0.0173	0.055 ± 0.072 (−0.1 σ)
$\Omega_m h^3$	0.096015	0.09606 ± 0.00050 (+0.4 σ)	$H(0.15)$	72.950	72.96 ± 0.48 (+0.2 σ)	χ_{MGS}^2	1.34	1.38 ± 0.53 (+0.1 σ)
σ_8	0.8066	0.8070 ± 0.0078 (−0.0 σ)	$D_M(0.15)$	640.57	640.5 ± 4.7 (−0.2 σ)	χ_{DR12BAO}^2	4.08	4.7 ± 1.6 (−0.1 σ)
S_8	0.8193	0.820 ± 0.015 (−0.1 σ)	$H(0.38)$	83.023	83.04 ± 0.36 (+0.2 σ)	χ_{prior}^2	1.54	7.4 ± 3.7 (−0.0 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4488	0.4491 ± 0.0082 (−0.1 σ)	$D_M(0.38)$	1528.2	1528.0 ± 9.5 (−0.2 σ)	χ_{BAO}^2	5.44	6.2 ± 1.3 (−0.0 σ)
$\sigma_8 \Omega_m^{0.25}$	0.6016	0.6020 ± 0.0080 (−0.1 σ)	$H(0.51)$	89.718	89.73 ± 0.30 (+0.3 σ)	χ_{CMB}^2	1178.8	1194.6 ± 5.8 (+0.4 σ)
$\sigma_8/h^{0.5}$	0.9804	0.981 ± 0.012 (−0.1 σ)	$D_M(0.51)$	1980.0	1980 ± 11 (−0.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1185.74$; $\Delta\chi_{\text{eff}}^2 = -0.01$; $\bar{\chi}_{\text{eff}}^2 = 1208.12$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.09$; $R - 1 = 0.01047$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.00) MGS: 1.34 (Δ 0.06) DR12BAO: 4.08 (Δ -0.10) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.94 (Δ 0.06) commander_dx12_v3_2_29: 22.22 (Δ -0.61) plik_rd12_HM_v22_TT: 760.60 (Δ 0.50)

15.3 base_nrun_r_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022399	0.02247 ± 0.00023 (+0.4 σ)	$\sigma_8/h^{0.5}$	0.9706	0.968 ± 0.015 (−0.1 σ)	$H(0.51)$	90.075	90.20 ± 0.42 (+0.2 σ)
$\Omega_c h^2$	0.11731	0.1170 ± 0.0018 (−0.0 σ)	$r_{\text{drag}} h$	101.12	101.4 ± 1.5 (+0.1 σ)	$D_M(0.51)$	1965.4	1961 ± 16 (−0.2 σ)
$100\theta_{\text{MC}}$	1.041211	1.04133 ± 0.00046 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4002	$2.385^{+0.034}_{-0.038}$ (−0.4 σ)	$H(0.61)$	95.599	95.71 ± 0.35 (+0.3 σ)
τ	0.0566	$0.0582^{+0.0082}_{-0.0093}$ (+0.2 σ)	z_{re}	7.86	7.98 ± 0.86 (+0.2 σ)	$D_M(0.61)$	2288.5	2284 ± 18 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0428	3.046 ± 0.019 (+0.3 σ)	$10^9 A_s$	2.0964	2.104 ± 0.039 (+0.3 σ)	$H(2.33)$	234.85	234.7 ± 1.2 (+0.0 σ)
n_s	0.9706	0.9709 ± 0.0055 (−0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8722	1.872 ± 0.014 (+0.2 σ)	$D_M(2.33)$	5752.0	5747 ± 16 (−0.3 σ)
$dn_s/d \ln k$	−0.0020	$−0.0086 \pm 0.0083$	D_{40}	1212.9	1220^{+19}_{-24} (+0.2 σ)	$f\sigma_8(0.15)$	0.4450	0.443 ± 0.011 (−0.1 σ)
r	0.0001	< 0.0852	D_{220}	5732.8	5727 ± 40 (−0.1 σ)	$\sigma_8(0.15)$	0.7431	0.7422 ± 0.0077 (−0.0 σ)
y_{cal}	1.00062	1.0005 ± 0.0025 (−0.0 σ)	D_{810}	2537.0	2537 ± 14 (+0.2 σ)	$f\sigma_8(0.38)$	0.4658	0.4642 ± 0.0088 (−0.1 σ)
A_{217}^{CIB}	49.8	48 ± 7 (+0.1 σ)	D_{1420}	817.14	816.0 ± 4.9 (−0.2 σ)	$\sigma_8(0.38)$	0.6600	0.6595 ± 0.0063 (+0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.14	—	D_{2000}	230.57	229.8 ± 1.8 (−0.4 σ)	$f\sigma_8(0.51)$	0.4658	0.4645 ± 0.0077 (−0.1 σ)
A_{143}^{tSZ}	7.23	5.0 ± 2.1 (−0.1 σ)	$n_{s,0.002}$	0.9771	$0.999^{+0.024}_{-0.027}$ (+5.1 σ)	$\sigma_8(0.51)$	0.6182	0.6178 ± 0.0058 (+0.0 σ)
A_{100}^{PS}	255.3	264 ± 29 (+0.1 σ)	Y_{P}	0.245407	0.245430 ± 0.000090 (+0.4 σ)	$f\sigma_8(0.61)$	0.4618	0.4606 ± 0.0070 (−0.1 σ)
A_{143}^{PS}	45.8	49 ± 8 (+0.2 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246734	0.246757 ± 0.000091 (+0.4 σ)	$\sigma_8(0.61)$	0.5885	0.5882 ± 0.0054 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	41.3	42 ± 9 (−0.0 σ)	$10^5 \text{D}/\text{H}$	2.5800	2.569 ± 0.042 (−0.4 σ)	$f\sigma_8(2.33)$	0.29723	0.2972 ± 0.0027 (+0.0 σ)
A_{217}^{PS}	116.5	114 ± 10 (−0.1 σ)	Age/Gyr	13.7740	13.762 ± 0.035 (−0.3 σ)	$\sigma_8(2.33)$	0.30696	0.3070 ± 0.0028 (+0.1 σ)
A^{kSZ}	0.01	< 5.30 (+0.2 σ)	z_*	1089.647	1089.54 ± 0.37 (−0.3 σ)	$r_{0.002}$	0.0001	< 0.0844
A_{100}^{dustTT}	8.93	9.0 ± 1.8 (−0.1 σ)	r_*	145.107	145.13 ± 0.46 (−0.1 σ)	$r_{0.01}$	0.0001	< 0.0837
A_{143}^{dustTT}	10.81	10.8 ± 1.8 (+0.1 σ)	$100\theta_*$	1.041401	1.04150 ± 0.00046 (+0.1 σ)	$\ln(10^{10} A_{\text{t}})$	−6.44	$−0.11^{+1.4}_{-0.71}$
$A_{143 \times 217}^{\text{dustTT}}$	19.20	18.4 ± 3.3 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9338	13.935 ± 0.043 (−0.1 σ)	r_{10}	0.0000	< 0.0434
A_{217}^{dustTT}	94.3	93.3 ± 7.2 (+0.0 σ)	z_{drag}	1059.818	1059.94 ± 0.50 (+0.5 σ)	$10^9 A_{\text{t}}$	0.000	< 0.179
c_{100}	0.99966	0.99960 ± 0.00059 (−0.0 σ)	r_{drag}	147.773	147.77 ± 0.48 (−0.2 σ)	$10^9 A_{\text{t}} e^{-2\tau}$	0.000	< 0.160
c_{217}	0.99826	0.99829 ± 0.00064 (+0.0 σ)	k_{D}	0.14017	0.14022 ± 0.00057 (+0.3 σ)	f_{2000}^{143}	30.17	31.4 ± 3.2 (+0.4 σ)
H_0	68.43	68.63 ± 0.83 (+0.1 σ)	$100\theta_{\text{D}}$	0.160851	0.16079 ± 0.00028 (−0.4 σ)	$f_{2000}^{143 \times 217}$	32.92	33.7 ± 2.2 (+0.4 σ)
Ω_{Λ}	0.7003	$0.702^{+0.012}_{-0.010}$ (+0.1 σ)	z_{eq}	3338.7	3334 ± 43 (+0.0 σ)	f_{2000}^{217}	107.45	108.2 ± 2.1 (+0.4 σ)
Ω_{m}	0.2997	$0.298^{+0.010}_{-0.012}$ (−0.1 σ)	k_{eq}	0.010190	0.01018 ± 0.00013 (+0.0 σ)	χ_{simall}^2	396.27	397.9 ± 2.3 (+0.3 σ)
$\Omega_{\text{m}} h^2$	0.14036	0.1402 ± 0.0018 (+0.0 σ)	$100\theta_{\text{eq}}$	0.8251	0.8264 ± 0.0082 (+0.0 σ)	χ_{lowl}^2	21.83	22.6 ± 1.8 (+0.2 σ)
$\Omega_{\text{m}} h^3$	0.09605	0.09617 ± 0.00051 (+0.4 σ)	$100\theta_{\text{s,eq}}$	0.45554	0.4562 ± 0.0042 (+0.0 σ)	χ_{plik}^2	762.7	777.2 ± 6.5 (+0.2 σ)
σ_8	0.8029	0.8018 ± 0.0089 (−0.0 σ)	$H(0.15)$	73.58	73.76 ± 0.72 (+0.2 σ)	χ_{H073p45}^2	9.14	8.7 ± 3.0 (−0.1 σ)
S_8	0.8026	0.799 ± 0.021 (−0.1 σ)	$D_M(0.15)$	634.4	632.8 ± 6.9 (−0.2 σ)	χ_{prior}^2	1.55	7.5 ± 3.8 (+0.0 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4396	0.438 ± 0.011 (−0.1 σ)	$H(0.38)$	83.48	83.63 ± 0.53 (+0.2 σ)	χ_{CMB}^2	1180.8	1197.6 ± 6.7 (+0.3 σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5941	0.592 ± 0.011 (−0.1 σ)	$D_M(0.38)$	1515.7	1512 ± 14 (−0.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1191.50$; $\Delta\chi_{\text{eff}}^2 = -0.07$; $\bar{\chi}_{\text{eff}}^2 = 1213.73$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.65$; $R - 1 = 0.05584$
 χ_{eff}^2 : CMB - simall_100x143.offlike5_EE_Aplanck_B: 396.27 (Δ 0.20) commander_dx12_v3.2.29: 21.83 (Δ -0.26) plik_rd12_HM_v22_TT: 762.71 (Δ -0.31) Hubble - H073p45: 9.14 (Δ 0.16)

15.4 base_nrun_r_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02222 \pm 0.00023 \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.016 \quad (-0.1\sigma)$	$H(0.51)$	$89.45 \pm 0.45 \quad (+0.2\sigma)$
$\Omega_{\text{c}}h^2$	$0.1204 \pm 0.0021 \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$98.7 \pm 1.6 \quad (+0.1\sigma)$	$D_{\text{M}}(0.51)$	$1992 \pm 19 \quad (-0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04083 \pm 0.00048 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.440 \pm 0.039 \quad (-0.4\sigma)$	$H(0.61)$	$95.12 \pm 0.36 \quad (+0.3\sigma)$
τ	$0.0552^{+0.0054}_{-0.0088} \quad (+0.2\sigma)$	z_{re}	$7.80^{+0.60}_{-0.85} \quad (+0.2\sigma)$	$D_{\text{M}}(0.61)$	$2317 \pm 20 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.048^{+0.013}_{-0.017} \quad (+0.3\sigma)$	$10^9 A_{\text{s}}$	$2.107^{+0.027}_{-0.037} \quad (+0.3\sigma)$	$H(2.33)$	$236.7 \pm 1.3 \quad (+0.0\sigma)$
n_{s}	$0.9628 \pm 0.0060 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.887 \pm 0.014 \quad (+0.2\sigma)$	$D_{\text{M}}(2.33)$	$5772 \pm 17 \quad (-0.3\sigma)$
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0081 ± 0.0082	D_{40}	$1233 \pm 23 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.462 \pm 0.012 \quad (-0.1\sigma)$
r	< 0.0660	D_{220}	$5711 \pm 41 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7497 \pm 0.0071 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4791 \pm 0.0096 \quad (-0.1\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$813.8 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6638 \pm 0.0056 \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	$229.0 \pm 1.9 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4769 \pm 0.0082 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.989 \pm 0.026 \quad (+4.6\sigma)$	$\sigma_8(0.51)$	$0.6209^{+0.0046}_{-0.0053} \quad (-0.0\sigma)$
A_{100}^{PS}	$267 \pm 29 \quad (+0.1\sigma)$	Y_{P}	$0.24533^{+0.00011}_{-0.000087} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.4713 \pm 0.0072 \quad (-0.1\sigma)$
A_{143}^{PS}	$51 \pm 8 \quad (+0.2\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24666^{+0.00011}_{-0.000087} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5906^{+0.0042}_{-0.0050} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.614 \pm 0.044 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0020}_{-0.0025} \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	Age/Gyr	$13.816 \pm 0.037 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0020}_{-0.0027} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.47 \quad (+0.2\sigma)$	z_*	$1090.14 \pm 0.41 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0630
$A_{100}^{\text{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.44 \pm 0.49 \quad (-0.1\sigma)$	$r_{0.01}$	< 0.0638
$A_{143}^{\text{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04103 \pm 0.00047 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\text{t}})$	$-0.35^{+1.4}_{-0.64}$
$A_{143 \times 217}^{\text{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.875 \pm 0.046 \quad (-0.1\sigma)$	r_{10}	< 0.0327
$A_{217}^{\text{dust}TT}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	z_{drag}	$1059.62 \pm 0.50 \quad (+0.5\sigma)$	$10^9 A_{\text{t}}$	< 0.139
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.15 \pm 0.50 \quad (-0.1\sigma)$	$10^9 A_{\text{t}}e^{-2\tau}$	< 0.125
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14069 \pm 0.00056 \quad (+0.3\sigma)$	f_{2000}^{143}	$32.3 \pm 3.2 \quad (+0.4\sigma)$
H_0	$67.07 \pm 0.92 \quad (+0.2\sigma)$	$100\theta_{\text{D}}$	$0.16094 \pm 0.00029 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$34.4 \pm 2.2 \quad (+0.4\sigma)$
Ω_{Λ}	$0.681 \pm 0.013 \quad (+0.1\sigma)$	z_{eq}	$3409 \pm 48 \quad (-0.0\sigma)$	f_{2000}^{217}	$108.8 \pm 2.1 \quad (+0.4\sigma)$
Ω_{m}	$0.319 \pm 0.013 \quad (-0.1\sigma)$	k_{eq}	$0.01040 \pm 0.00015 \quad (-0.0\sigma)$	χ_{simall}^2	$397.2 \pm 1.8 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^2$	$0.1433 \pm 0.0020 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8118 \pm 0.0090 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.6 \pm 2.2 \quad (-0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.09608 \pm 0.00050 \quad (+0.4\sigma)$	$100\theta_{\text{s,eq}}$	$0.4487 \pm 0.0046 \quad (+0.0\sigma)$	χ_{plik}^2	$773.6 \pm 5.8 \quad (+0.4\sigma)$
σ_8	$0.8121 \pm 0.0086 \quad (-0.1\sigma)$	$H(0.15)$	$72.42 \pm 0.79 \quad (+0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.837 \pm 0.024 \quad (-0.1\sigma)$	$D_{\text{M}}(0.15)$	$646.0 \pm 8.0 \quad (-0.2\sigma)$	χ_{CMB}^2	$1194.4 \pm 5.9 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.459 \pm 0.013 \quad (-0.1\sigma)$	$H(0.38)$	$82.66 \pm 0.57 \quad (+0.2\sigma)$		
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.610 \pm 0.012 \quad (-0.1\sigma)$	$D_{\text{M}}(0.38)$	$1539 \pm 16 \quad (-0.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1201.72$; $\Delta\bar{\chi}_{\text{eff}}^2 = 2.40$; $R - 1 = 0.00869$

15.5 base_nrun_r_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02231 \pm 0.00022 \quad (+0.4\sigma)$	$r_{\mathrm{drag}} h$	$99.85 \pm 0.94 \quad (+0.1\sigma)$	$H(0.61)$	$95.34 \pm 0.26 \quad (+0.3\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1189 \pm 0.0012 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.417 \pm 0.029 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 12 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04102 \pm 0.00042 \quad (+0.1\sigma)$	z_{re}	$7.87^{+0.64}_{-0.84} \quad (+0.1\sigma)$	$H(2.33)$	$235.80 \pm 0.80 \quad (+0.1\sigma)$
τ	$0.0564^{+0.0059}_{-0.0086} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.105^{+0.029}_{-0.038} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763 \pm 13 \quad (-0.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.047^{+0.014}_{-0.018} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.012 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4541 \pm 0.0076 \quad (-0.1\sigma)$
n_{s}	$0.9663 \pm 0.0045 \quad (-0.1\sigma)$	D_{40}	$1228^{+20}_{-23} \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7466^{+0.0060}_{-0.0068} \quad (-0.0\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d} \ln k$	-0.0079 ± 0.0082	D_{220}	$5717 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4728 \pm 0.0064 \quad (-0.1\sigma)$
r	< 0.0726	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6621^{+0.0049}_{-0.0058} \quad (-0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{1420}	$814.7 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4717 \pm 0.0057 \quad (-0.1\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{2000}	$229.3 \pm 1.8 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6197^{+0.0045}_{-0.0054} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.992 \pm 0.026 \quad (+5.9\sigma)$	$f\sigma_8(0.61)$	$0.4669 \pm 0.0052 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	Y_{P}	$0.245366^{+0.000091}_{-0.000080} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5897^{+0.0042}_{-0.0051} \quad (-0.0\sigma)$
A_{100}^{PS}	$266 \pm 28 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246692^{+0.000092}_{-0.000080} \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0021}_{-0.0026} \quad (-0.0\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.2\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.598 \pm 0.040 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3067^{+0.0021}_{-0.0027} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (+0.0\sigma)$	Age/Gyr	$13.796 \pm 0.030 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0699
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	z_*	$1089.91 \pm 0.31 \quad (-0.4\sigma)$	$r_{0.01}$	< 0.0706
A^{kSZ}	$< 5.44 \quad (+0.2\sigma)$	r_*	$144.76 \pm 0.33 \quad (-0.2\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.26^{+1.4}_{-0.63}$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00042 \quad (+0.1\sigma)$	r_{10}	< 0.0363
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.903 \pm 0.032 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.153
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.0\sigma)$	z_{drag}	$1059.71 \pm 0.49 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.137
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.3 \quad (-0.0\sigma)$	r_{drag}	$147.45 \pm 0.37 \quad (-0.3\sigma)$	f_{2000}^{143}	$32.0 \pm 3.2 \quad (+0.4\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14044 \pm 0.00049 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$34.2 \pm 2.2 \quad (+0.4\sigma)$
c_{217}	$0.99828 \pm 0.00063 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16090 \pm 0.00028 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.6 \pm 2.1 \quad (+0.4\sigma)$
H_0	$67.71 \pm 0.55 \quad (+0.2\sigma)$	z_{eq}	$3375 \pm 29 \quad (+0.1\sigma)$	χ_{simall}^2	$397.4 \pm 1.9 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6905 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010301 \pm 0.000088 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.2 \pm 2.0 \quad (+0.1\sigma)$
Ω_{m}	$0.3095 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8181 \pm 0.0053 \quad (-0.0\sigma)$	χ_{plik}^2	$773.9 \pm 5.7 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0028 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.071 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09607 \pm 0.00050 \quad (+0.4\sigma)$	$H(0.15)$	$72.97 \pm 0.47 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.39 \pm 0.53 \quad (+0.1\sigma)$
σ_8	$0.8078^{+0.0069}_{-0.0076} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.4 \pm 4.7 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.1\sigma)$
S_8	$0.820 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.05 \pm 0.36 \quad (+0.2\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4494 \pm 0.0081 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.8 \pm 9.4 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6025 \pm 0.0078 \quad (-0.1\sigma)$	$H(0.51)$	$89.74 \pm 0.30 \quad (+0.3\sigma)$	χ_{CMB}^2	$1194.4 \pm 5.8 \quad (+0.4\sigma)$
$\sigma_8/h^{0.5}$	$0.982 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1207.94; \Delta \bar{\chi}_{\mathrm{eff}}^2 = 2.18; R - 1 = 0.01172$$

15.6 base_nrun_r_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02247 \pm 0.00023 \quad (+0.5\sigma)$	$\sigma_8/h^{0.5}$	$0.968 \pm 0.015 \quad (-0.1\sigma)$	$H(0.51)$	$90.21 \pm 0.42 \quad (+0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1170 \pm 0.0018 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$101.4 \pm 1.5 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1961 \pm 16 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04133 \pm 0.00046 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.386^{+0.033}_{-0.038} \quad (-0.5\sigma)$	$H(0.61)$	$95.72 \pm 0.35 \quad (+0.3\sigma)$
τ	$0.0590^{+0.0068}_{-0.0093} \quad (+0.2\sigma)$	z_{re}	$8.06^{+0.70}_{-0.91} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2284 \pm 18 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.048^{+0.016}_{-0.018} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.107^{+0.034}_{-0.039} \quad (+0.3\sigma)$	$H(2.33)$	$234.7 \pm 1.1 \quad (+0.0\sigma)$
n_{s}	$0.9709 \pm 0.0055 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.872 \pm 0.014 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5746 \pm 16 \quad (-0.3\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0088 ± 0.0083	D_{40}	$1220^{+19}_{-24} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.443 \pm 0.011 \quad (-0.1\sigma)$
r	< 0.0856	D_{220}	$5727 \pm 40 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7427 \pm 0.0074 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4645 \pm 0.0088 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$816.0 \pm 4.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6599 \pm 0.0060 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.9 \pm 1.8 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4647 \pm 0.0077 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.1 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.999^{+0.024}_{-0.027} \quad (+5.3\sigma)$	$\sigma_8(0.51)$	$0.6182 \pm 0.0055 \quad (-0.0\sigma)$
A_{100}^{PS}	$263 \pm 29 \quad (+0.1\sigma)$	Y_{P}	$0.245432 \pm 0.000090 \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.4609 \pm 0.0069 \quad (-0.1\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246759 \pm 0.000090 \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5887^{+0.0048}_{-0.0053} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.568 \pm 0.042 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0023}_{-0.0027} \quad (-0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.762 \pm 0.035 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3072^{+0.0023}_{-0.0028} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.30 \quad (+0.2\sigma)$	z_*	$1089.53 \pm 0.37 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0846
$A_{100}^{\mathrm{dust}TT}$	$9.1 \pm 1.9 \quad (-0.0\sigma)$	r_*	$145.13 \pm 0.46 \quad (-0.1\sigma)$	$r_{0.01}$	< 0.0841
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.1\sigma)$	$100\theta_*$	$1.04151 \pm 0.00046 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.1^{+1.4}_{-0.71}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.4 \pm 3.3 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.935 \pm 0.043 \quad (-0.1\sigma)$	r_{10}	< 0.0439
$A_{217}^{\mathrm{dust}TT}$	$93.3 \pm 7.2 \quad (+0.0\sigma)$	z_{drag}	$1059.95 \pm 0.50 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.182
c_{100}	$0.99960 \pm 0.00059 \quad (-0.0\sigma)$	r_{drag}	$147.77 \pm 0.48 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.161
c_{217}	$0.99829 \pm 0.00064 \quad (+0.0\sigma)$	k_{D}	$0.14022 \pm 0.00056 \quad (+0.3\sigma)$	f_{2000}^{143}	$31.4 \pm 3.2 \quad (+0.4\sigma)$
H_0	$68.64 \pm 0.83 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16078 \pm 0.00028 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.2 \quad (+0.5\sigma)$
Ω_{Λ}	$0.702^{+0.012}_{-0.010} \quad (+0.1\sigma)$	z_{eq}	$3333 \pm 43 \quad (-0.0\sigma)$	f_{2000}^{217}	$108.2 \pm 2.1 \quad (+0.4\sigma)$
Ω_{m}	$0.298^{+0.010}_{-0.012} \quad (-0.1\sigma)$	k_{eq}	$0.01017 \pm 0.00013 \quad (-0.0\sigma)$	χ_{small}^2	$397.8 \pm 2.4 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1401 \pm 0.0018 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8265 \pm 0.0082 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.5 \pm 1.8 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09618 \pm 0.00051 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4562 \pm 0.0042 \quad (+0.0\sigma)$	χ_{plik}^2	$777.1 \pm 6.5 \quad (+0.2\sigma)$
σ_8	$0.8023 \pm 0.0087 \quad (-0.1\sigma)$	$H(0.15)$	$73.77 \pm 0.72 \quad (+0.2\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$8.6 \pm 2.9 \quad (-0.2\sigma)$
S_8	$0.799 \pm 0.021 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$632.6 \pm 6.9 \quad (-0.2\sigma)$	χ_{prior}^2	$7.5 \pm 3.8 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.438 \pm 0.011 \quad (-0.1\sigma)$	$H(0.38)$	$83.64 \pm 0.53 \quad (+0.2\sigma)$	χ_{CMB}^2	$1197.5 \pm 6.7 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.593 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1512 \pm 14 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1213.56; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.75; R - 1 = 0.05904$$

15.7 base_nrun_r_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022399	0.02241 ± 0.00016 (+0.4 σ)	σ_8	0.8129	0.8119 ± 0.0077 (−0.0 σ)	$H(0.38)$	82.837	82.87 ± 0.39 (+0.1 σ)
$\Omega_c h^2$	0.12022	0.1202 ± 0.0014 (−0.0 σ)	S_8	0.8348	0.833 ± 0.017 (−0.1 σ)	$D_M(0.38)$	1534.5	1534 ± 11 (−0.1 σ)
$100\theta_{MC}$	1.040896	1.04091 ± 0.00032 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4572	0.4564 ± 0.0091 (−0.1 σ)	$H(0.51)$	89.610	89.64 ± 0.30 (+0.2 σ)
τ	0.0561	0.0563 ± 0.0082 (+0.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6097	0.6087 ± 0.0085 (−0.0 σ)	$D_M(0.51)$	1987.0	1986 ± 12 (−0.1 σ)
$\ln(10^{10} A_s)$	3.0495	3.050 ± 0.017 (+0.4 σ)	$\sigma_8/h^{0.5}$	0.9910	0.989 ± 0.012 (−0.0 σ)	$H(0.61)$	95.272	95.30 ± 0.24 (+0.2 σ)
n_s	0.96469	0.9643 ± 0.0047 (−0.1 σ)	$r_{drag} h$	98.92	99.0 ± 1.1 (+0.1 σ)	$D_M(0.61)$	2311.5	2311 ± 13 (−0.1 σ)
$dn_s/d \ln k$	−0.0044	$−0.0094 \pm 0.0074$	$\langle d^2 \rangle^{1/2}$	2.4438	2.433 ± 0.030 (−0.5 σ)	$H(2.33)$	236.73	236.71 ± 0.84 (+0.0 σ)
r	0.0001	< 0.0810	z_{re}	7.86	7.85 ± 0.82 (+0.2 σ)	$D_M(2.33)$	5763.3	5762 ± 11 (−0.2 σ)
y_{cal}	1.00053	1.0007 ± 0.0025 (+0.1 σ)	$10^9 A_s$	2.1105	2.113 ± 0.036 (+0.4 σ)	$f\sigma_8(0.15)$	0.4614	0.4606 ± 0.0085 (−0.0 σ)
A_{217}^{CIB}	48.9	48 ± 7 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8865	1.888 ± 0.012 (+0.3 σ)	$\sigma_8(0.15)$	0.7507	0.7498 ± 0.0068 (−0.0 σ)
$\xi^{tSZ \times CIB}$	0.26	—	D_{40}	1221.1	1232 ± 21 (+0.1 σ)	$f\sigma_8(0.38)$	0.4787	0.4779 ± 0.0069 (−0.0 σ)
A_{143}^{tSZ}	7.29	5.1 ± 2.0 (−0.2 σ)	D_{220}	5730.3	5726 ± 39 (−0.1 σ)	$\sigma_8(0.38)$	0.6649	0.6642 ± 0.0057 (+0.0 σ)
A_{100}^{PS}	253.1	264 ± 28 (+0.2 σ)	D_{810}	2541.9	2543 ± 13 (+0.3 σ)	$f\sigma_8(0.51)$	0.4768	0.4760 ± 0.0061 (−0.0 σ)
A_{143}^{PS}	46.8	49 ± 8 (+0.4 σ)	D_{1420}	817.10	816.0 ± 4.9 (−0.2 σ)	$\sigma_8(0.51)$	0.6220	0.6213 ± 0.0053 (+0.0 σ)
$A_{143 \times 217}^{PS}$	44.0	43_{-10}^{+9} (+0.1 σ)	D_{2000}	230.61	229.9 ± 1.8 (−0.6 σ)	$f\sigma_8(0.61)$	0.4714	0.4707 ± 0.0056 (−0.0 σ)
A_{217}^{PS}	118.0	115 ± 10 (−0.1 σ)	$n_{s,0.002}$	0.9789	$0.995_{-0.024}^{+0.022}$ (+6.8 σ)	$\sigma_8(0.61)$	0.59173	0.5911 ± 0.0050 (+0.0 σ)
A^{kSZ}	0.01	< 5.05 (+0.2 σ)	Y_P	0.245407	$0.245410_{-0.000056}^{+0.000062}$ (+0.4 σ)	$f\sigma_8(2.33)$	0.29816	0.2979 ± 0.0025 (+0.0 σ)
A_{100}^{dustTT}	8.90	8.9 ± 1.8 (+0.0 σ)	Y_P^{BBN}	0.246733	$0.246737_{-0.000056}^{+0.000062}$ (+0.4 σ)	$\sigma_8(2.33)$	0.30718	0.3069 ± 0.0026 (+0.0 σ)
A_{143}^{dustTT}	11.06	10.9 ± 1.8 (+0.0 σ)	$10^5 D/H$	2.5802	2.578 ± 0.029 (−0.4 σ)	$r_{0.002}$	0.0001	< 0.0787
$A_{143 \times 217}^{dustTT}$	19.72	18.6 ± 3.3 (+0.0 σ)	Age/Gyr	13.7963	13.794 ± 0.025 (−0.2 σ)	$r_{0.01}$	0.0001	< 0.0789
A_{217}^{dustTT}	94.6	93.4 ± 7.3 (−0.1 σ)	z_*	1089.904	1089.88 ± 0.28 (−0.3 σ)	$\ln(10^{10} A_t)$	−6.53	$−0.12_{-0.54}^{+1.3}$
A_{100}^{dustTE}	0.1138	0.116 ± 0.038 (+0.0 σ)	r_*	144.353	144.36 ± 0.31 (−0.1 σ)	r_{10}	0.0000	< 0.0410
$A_{100 \times 143}^{dustTE}$	0.1349	0.136 ± 0.029 (+0.0 σ)	$100\theta_*$	1.041074	1.04109 ± 0.00031 (+0.0 σ)	$10^9 A_t$	0.000	< 0.171
$A_{100 \times 217}^{dustTE}$	0.484	0.481 ± 0.084 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8658	13.866 ± 0.029 (−0.1 σ)	$10^9 A_t e^{-2\tau}$	0.000	< 0.153
A_{143}^{dustTE}	0.226	0.227 ± 0.054 (+0.0 σ)	z_{drag}	1060.009	1060.05 ± 0.32 (+0.4 σ)	f_{2000}^{143}	29.85	31.2 ± 3.1 (+0.6 σ)
$A_{143 \times 217}^{dustTE}$	0.666	0.664 ± 0.080 (−0.0 σ)	r_{drag}	147.003	147.00 ± 0.31 (−0.2 σ)	$f_{2000}^{143 \times 217}$	32.71	33.5 ± 2.2 (+0.7 σ)
A_{217}^{dustTE}	2.089	2.08 ± 0.27 (−0.0 σ)	k_D	0.140983	0.14099 ± 0.00034 (+0.3 σ)	f_{2000}^{217}	107.32	108.1 ± 2.0 (+0.6 σ)
c_{100}	0.99971	0.99967 ± 0.00062 (+0.0 σ)	$100\theta_D$	0.160708	0.16069 ± 0.00018 (−0.4 σ)	χ_{simall}^2	396.34	397.6 ± 2.0 (+0.2 σ)
c_{217}	0.99821	0.99823 ± 0.00063 (+0.1 σ)	z_{eq}	3408.1	3407 ± 32 (+0.0 σ)	χ_{lowl}^2	22.29	23.3 ± 1.9 (−0.3 σ)
H_0	67.29	67.34 ± 0.62 (+0.1 σ)	k_{eq}	0.010402	0.010399 ± 0.000097 (+0.0 σ)	χ_{plik}^2	2344.9	2361.1 ± 6.1 (+0.3 σ)
Ω_Λ	0.6836	0.6840 ± 0.0086 (+0.1 σ)	$100\theta_{eq}$	0.8123	0.8126 ± 0.0059 (+0.0 σ)	χ_{prior}^2	1.85	11.6 ± 4.6 (+0.0 σ)
Ω_m	0.3164	0.3160 ± 0.0086 (−0.1 σ)	$100\theta_{s,eq}$	0.44884	0.4490 ± 0.0030 (+0.0 σ)	χ_{CMB}^2	2763.6	2782.0 ± 6.2 (+0.3 σ)
$\Omega_m h^2$	0.14326	0.1432 ± 0.0013 (+0.0 σ)	$H(0.15)$	72.63	72.67 ± 0.53 (+0.1 σ)			
$\Omega_m h^3$	0.096404	0.09643 ± 0.00031 (+0.3 σ)	$D_M(0.15)$	643.9	643.6 ± 5.3 (−0.1 σ)			

Best-fit $\chi_{eff}^2 = 2765.44$; $\Delta\chi_{eff}^2 = -0.33$; $\bar{\chi}_{eff}^2 = 2793.62$; $\Delta\bar{\chi}_{eff}^2 = 1.86$; $R - 1 = 0.01370$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.35 (Δ 0.30) commander_dx12_v3.2.29: 22.29 (Δ -0.96) plik_rd12_HM_v22b_TTTEEE: 2344.95 (Δ 0.30)

15.8 base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022443	0.02247 ± 0.00014 (+0.4 σ)	S_8	0.8261	0.824 ± 0.013 (−0.1 σ)	$H(0.51)$	89.770	89.82 ± 0.23 (+0.2 σ)
$\Omega_c h^2$	0.11944	0.1193 ± 0.0010 (−0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4525	0.4511 ± 0.0071 (−0.1 σ)	$D_M(0.51)$	1980.2	1978.3 ± 9.1 (−0.2 σ)
$100\theta_{MC}$	1.041007	1.04102 ± 0.00030 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6057	0.6043 ± 0.0071 (−0.1 σ)	$H(0.61)$	95.395	95.44 ± 0.19 (+0.3 σ)
τ	0.0568	0.0574 ± 0.0082 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9858	0.984 ± 0.010 (−0.1 σ)	$D_M(0.61)$	2304.2	2302.2 ± 9.9 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0489	3.051 ± 0.017 (+0.3 σ)	$r_{drag} h$	99.54	99.68 ± 0.79 (+0.1 σ)	$H(2.33)$	236.27	236.19 ± 0.63 (+0.0 σ)
n_s	0.96669	0.9665 ± 0.0040 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4324	2.420 ± 0.027 (−0.6 σ)	$D_M(2.33)$	5758.2	5756.2 ± 9.2 (−0.3 σ)
$dn_s/d \ln k$	−0.0038	$-0.0092^{+0.0078}_{-0.0070}$	z_{re}	7.91	7.94 ± 0.81 (+0.2 σ)	$f\sigma_8(0.15)$	0.4571	0.4558 ± 0.0067 (−0.1 σ)
r	0.0009	< 0.0865	$10^9 A_s$	2.1093	2.113 ± 0.036 (+0.3 σ)	$\sigma_8(0.15)$	0.7491	0.7482 ± 0.0065 (−0.0 σ)
y_{cal}	1.00054	1.0008 ± 0.0025 (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8827	1.884 ± 0.011 (+0.3 σ)	$f\sigma_8(0.38)$	0.4754	0.4743 ± 0.0057 (−0.1 σ)
A_{217}^{CIB}	48.8	48 ± 7 (+0.2 σ)	D_{40}	1218.7	1230^{+19}_{-21} (+0.2 σ)	$\sigma_8(0.38)$	0.6641	0.6634 ± 0.0056 (−0.0 σ)
$\xi^{tSZ \times CIB}$	0.25	—	D_{220}	5732.8	5729 ± 39 (−0.1 σ)	$f\sigma_8(0.51)$	0.4740	0.4730 ± 0.0052 (−0.1 σ)
A_{143}^{tSZ}	7.28	5.2 ± 2.0 (−0.2 σ)	D_{810}	2541.1	2542 ± 14 (+0.2 σ)	$\sigma_8(0.51)$	0.6214	0.6209 ± 0.0052 (−0.0 σ)
A_{100}^{PS}	253.5	263 ± 28 (+0.2 σ)	D_{1420}	817.65	816.6 ± 4.9 (−0.2 σ)	$f\sigma_8(0.61)$	0.46904	0.4682 ± 0.0049 (−0.1 σ)
A_{143}^{PS}	45.9	48 ± 8 (+0.3 σ)	D_{2000}	230.87	230.2 ± 1.8 (−0.6 σ)	$\sigma_8(0.61)$	0.59132	0.5908 ± 0.0050 (−0.0 σ)
$A_{143 \times 217}^{PS}$	43.2	42 ± 9 (+0.0 σ)	$n_{s,0.002}$	0.9788	$0.996^{+0.022}_{-0.025}$ (+7.7 σ)	$f\sigma_8(2.33)$	0.29815	0.2979 ± 0.0025 (−0.0 σ)
A_{217}^{PS}	117.6	114 ± 10 (−0.1 σ)	Y_P	0.245424	0.245433 ± 0.000053 (+0.4 σ)	$\sigma_8(2.33)$	0.30737	0.3072 ± 0.0026 (+0.0 σ)
A^{kSZ}	0.00	< 4.99 (+0.2 σ)	Y_P^{BBN}	0.246750	0.246760 ± 0.000054 (+0.4 σ)	$r_{0.002}$	0.0008	< 0.0848
A_{100}^{dustTT}	8.89	8.9 ± 1.9 (+0.0 σ)	$10^5 D/H$	2.5720	2.567 ± 0.026 (−0.4 σ)	$r_{0.01}$	0.0009	< 0.0846
A_{143}^{dustTT}	11.01	11.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.7853	13.781 ± 0.021 (−0.3 σ)	$\ln(10^{10} A_t)$	−3.97	$-0.05^{+1.3}_{-0.53}$
$A_{143 \times 217}^{dustTT}$	19.58	18.6 ± 3.3 (+0.0 σ)	z_*	1089.778	1089.73 ± 0.23 (−0.3 σ)	r_{10}	0.0004	< 0.0441
A_{217}^{dustTT}	94.5	93.4 ± 7.3 (−0.1 σ)	r_*	144.521	144.54 ± 0.24 (−0.1 σ)	$10^9 A_t$	0.002	< 0.183
A_{100}^{dustTE}	0.1151	0.116 ± 0.038 (+0.1 σ)	$100\theta_*$	1.041178	1.04119 ± 0.00029 (+0.0 σ)	$10^9 A_t e^{-2\tau}$	0.002	< 0.163
$A_{100 \times 143}^{dustTE}$	0.1353	0.135 ± 0.029 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8806	13.882 ± 0.024 (−0.1 σ)	f_{2000}^{143}	29.52	30.9 ± 3.1 (+0.6 σ)
$A_{100 \times 217}^{dustTE}$	0.478	0.481 ± 0.083 (+0.0 σ)	z_{drag}	1060.047	1060.12 ± 0.31 (+0.4 σ)	$f_{2000}^{143 \times 217}$	32.42	33.2 ± 2.1 (+0.7 σ)
A_{143}^{dustTE}	0.225	0.225 ± 0.053 (−0.0 σ)	r_{drag}	147.161	147.17 ± 0.26 (−0.2 σ)	f_{2000}^{217}	107.07	107.9 ± 2.0 (+0.6 σ)
$A_{143 \times 217}^{dustTE}$	0.664	0.662 ± 0.079 (−0.0 σ)	k_D	0.140850	0.14086 ± 0.00031 (+0.3 σ)	χ_{simall}^2	396.43	397.8 ± 2.1 (+0.2 σ)
A_{217}^{dustTE}	2.074	2.07 ± 0.27 (−0.1 σ)	$100\theta_D$	0.160689	0.16066 ± 0.00018 (−0.4 σ)	χ_{lowl}^2	22.15	23.1 ± 1.8 (−0.0 σ)
c_{100}	0.99972	0.99967 ± 0.00061 (+0.0 σ)	z_{eq}	3390.5	3387 ± 23 (+0.0 σ)	χ_{plik}^2	2345.5	2361.2 ± 6.2 (+0.3 σ)
c_{217}	0.99821	0.99823 ± 0.00062 (+0.1 σ)	k_{eq}	0.010348	0.010338 ± 0.000072 (+0.0 σ)	χ_{6DF}^2	0.0377	0.053 ± 0.065 (−0.1 σ)
H_0	67.639	67.73 ± 0.46 (+0.1 σ)	$100\theta_{eq}$	0.81567	0.8164 ± 0.0044 (+0.0 σ)	χ_{MGS}^2	1.156	1.29 ± 0.43 (+0.1 σ)
Ω_Λ	0.6885	0.6896 ± 0.0062 (+0.1 σ)	$100\theta_{s,eq}$	0.45057	0.4509 ± 0.0023 (+0.0 σ)	$\chi_{DR12BAO}^2$	4.63	4.8 ± 1.4 (−0.1 σ)
Ω_m	0.3115	0.3104 ± 0.0062 (−0.1 σ)	$H(0.15)$	72.925	73.01 ± 0.39 (+0.2 σ)	χ_{prior}^2	1.79	11.6 ± 4.5 (−0.0 σ)
$\Omega_m h^2$	0.14252	0.14239 ± 0.00098 (+0.0 σ)	$D_M(0.15)$	640.94	640.2 ± 3.9 (−0.2 σ)	χ_{BAO}^2	5.82	6.1 ± 1.1 (−0.0 σ)
$\Omega_m h^3$	0.096402	0.09643 ± 0.00031 (+0.3 σ)	$H(0.38)$	83.047	83.11 ± 0.29 (+0.2 σ)	χ_{CMB}^2	2764.1	2782.0 ± 6.2 (+0.3 σ)
σ_8	0.8107	0.8096 ± 0.0073 (−0.0 σ)	$D_M(0.38)$	1528.6	1527.0 ± 7.8 (−0.2 σ)			

Best-fit $\chi_{eff}^2 = 2771.67$; $\Delta\chi_{eff}^2 = -0.25$; $\bar{\chi}_{eff}^2 = 2799.74$; $\Delta\bar{\chi}_{eff}^2 = 1.83$; $R - 1 = 0.01808$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.63 (Δ 0.21) CMB - simall_100x143.offlike5_EE_Aplanck.B: 396.43 (Δ 0.23) commander_dx12.v3.2.29: 22.15 (Δ -0.72) plik_rd12_HM.v22b_TTTEEE: 2345.48 (Δ -0.02)

15.9 base_nrun_r_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022512	0.02255 ± 0.00015 (+0.4 σ)	$\Omega_{\text{m}}h^3$	0.096443	0.09648 ± 0.00031 (+0.4 σ)	$H(0.15)$	73.22	73.32 ± 0.51 (+0.2 σ)
$\Omega_{\text{c}}h^2$	0.11871	0.1185 ± 0.0013 (−0.1 σ)	σ_8	0.8089	0.8075 ± 0.0080 (−0.1 σ)	$D_{\text{M}}(0.15)$	638.04	637.1 ± 5.0 (−0.2 σ)
$100\theta_{\text{MC}}$	1.041082	1.04112 ± 0.00031 (+0.1 σ)	S_8	0.8183	0.815 ± 0.016 (−0.2 σ)	$H(0.38)$	83.261	83.34 ± 0.37 (+0.2 σ)
τ	0.0578	$0.0585^{+0.0079}_{-0.0087}$ (+0.2 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4482	0.4465 ± 0.0087 (−0.2 σ)	$D_{\text{M}}(0.38)$	1522.8	1520.8 ± 9.9 (−0.2 σ)
$\ln(10^{10}A_{\text{s}})$	3.0493	3.051 ± 0.018 (+0.3 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6021	0.6004 ± 0.0085 (−0.1 σ)	$H(0.51)$	89.939	90.01 ± 0.29 (+0.2 σ)
n_{s}	0.96879	0.9684 ± 0.0046 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9811	0.979 ± 0.012 (−0.2 σ)	$D_{\text{M}}(0.51)$	1973.3	1971 ± 12 (−0.2 σ)
$\text{d}n_{\text{s}}/\text{d}\ln k$	−0.0033	$-0.0094^{+0.0080}_{-0.0070}$	$r_{\text{drag}}h$	100.12	100.3 ± 1.0 (+0.1 σ)	$H(0.61)$	95.529	95.58 ± 0.24 (+0.3 σ)
r	0.0005	< 0.0929	$\langle d^2 \rangle^{1/2}$	2.4219	2.408 ± 0.031 (−0.7 σ)	$D_{\text{M}}(0.61)$	2296.8	2294 ± 13 (−0.2 σ)
y_{cal}	1.00059	1.0008 ± 0.0024 (+0.1 σ)	z_{re}	7.98	8.02 ± 0.83 (+0.1 σ)	$H(2.33)$	235.87	235.77 ± 0.80 (−0.0 σ)
A_{217}^{CIB}	47.3	48 ± 7 (+0.2 σ)	$10^9 A_{\text{s}}$	2.1101	2.115 ± 0.038 (+0.3 σ)	$D_{\text{M}}(2.33)$	5752.4	5750 ± 11 (−0.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.45	—	$10^9 A_{\text{s}}e^{-2\tau}$	1.8798	1.881 ± 0.012 (+0.3 σ)	$f\sigma_8(0.15)$	0.4531	0.4515 ± 0.0082 (−0.2 σ)
A_{143}^{tSZ}	7.22	5.2 ± 2.0 (−0.2 σ)	D_{40}	1215.8	1227 ± 20 (+0.3 σ)	$\sigma_8(0.15)$	0.7480	0.7468 ± 0.0071 (−0.1 σ)
A_{100}^{PS}	249.8	263 ± 28 (+0.2 σ)	D_{220}	5737.7	5734 ± 38 (−0.2 σ)	$f\sigma_8(0.38)$	0.4725	$0.4710^{+0.0071}_{-0.0065}$ (−0.1 σ)
A_{143}^{PS}	48.1	47 ± 8 (+0.3 σ)	D_{810}	2541.3	2542 ± 13 (+0.2 σ)	$\sigma_8(0.38)$	0.6635	0.6626 ± 0.0060 (−0.1 σ)
$A_{143 \times 217}^{\text{PS}}$	48.3	42 ± 9 (+0.0 σ)	D_{1420}	818.68	817.3 ± 5.0 (−0.2 σ)	$f\sigma_8(0.51)$	0.4716	$0.4703^{+0.0064}_{-0.0058}$ (−0.1 σ)
A_{217}^{PS}	119.7	114 ± 10 (−0.1 σ)	D_{2000}	231.32	230.5 ± 1.8 (−0.6 σ)	$\sigma_8(0.51)$	0.6211	0.6204 ± 0.0055 (−0.1 σ)
A^{kSZ}	0.01	< 4.94 (+0.2 σ)	$n_{\text{s},0.002}$	0.9793	$0.999^{+0.021}_{-0.025}$ (+7.1 σ)	$f\sigma_8(0.61)$	0.4670	$0.4659^{+0.0059}_{-0.0053}$ (−0.1 σ)
A_{100}^{dustTT}	8.90	9.0 ± 1.9 (+0.1 σ)	Y_{P}	0.245449	0.245461 ± 0.000057 (+0.4 σ)	$\sigma_8(0.61)$	0.5911	0.5905 ± 0.0052 (−0.1 σ)
A_{143}^{dustTT}	11.05	11.0 ± 1.7 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246775	0.246788 ± 0.000057 (+0.4 σ)	$f\sigma_8(2.33)$	0.29824	0.2980 ± 0.0026 (−0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.91	18.6 ± 3.3 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.5598	2.554 ± 0.027 (−0.4 σ)	$\sigma_8(2.33)$	0.30767	0.3074 ± 0.0027 (−0.0 σ)
A_{217}^{dustTT}	95.1	93.3 ± 7.4 (−0.0 σ)	Age/Gyr	13.7727	13.767 ± 0.024 (−0.3 σ)	$r_{0.002}$	0.0005	< 0.0917
A_{100}^{dustTE}	0.1137	0.114 ± 0.038 (+0.0 σ)	z_*	1089.631	1089.57 ± 0.26 (−0.3 σ)	$r_{0.01}$	0.0005	< 0.0914
$A_{100 \times 143}^{\text{dustTE}}$	0.1352	0.136 ± 0.030 (+0.0 σ)	r_*	144.656	144.69 ± 0.30 (−0.1 σ)	$\ln(10^{10}A_{\text{t}})$	−4.52	$0.02^{+1.3}_{-0.51}$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.082 (+0.0 σ)	$100\theta_*$	1.041258	1.04129 ± 0.00031 (+0.1 σ)	r_{10}	0.0002	< 0.0477
A_{143}^{dustTE}	0.224	0.225 ± 0.054 (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8924	13.895 ± 0.028 (−0.1 σ)	$10^9 A_{\text{t}}$	0.001	< 0.196
$A_{143 \times 217}^{\text{dustTE}}$	0.662	0.661 ± 0.078 (−0.0 σ)	z_{drag}	1060.162	1060.24 ± 0.31 (+0.5 σ)	$10^9 A_{\text{t}}e^{-2\tau}$	0.001	< 0.174
A_{217}^{dustTE}	2.065	2.06 ± 0.27 (−0.0 σ)	r_{drag}	147.276	147.29 ± 0.30 (−0.1 σ)	χ_{small}^2	396.57	398.0 ± 2.4 (+0.1 σ)
c_{100}	0.99974	0.99969 ± 0.00061 (+0.0 σ)	k_{D}	0.140781	0.14079 ± 0.00034 (+0.3 σ)	χ_{lowl}^2	21.95	22.9 ± 1.7 (+0.0 σ)
c_{217}	0.99819	0.99822 ± 0.00062 (+0.1 σ)	$100\theta_{\text{D}}$	0.160631	0.16060 ± 0.00018 (−0.5 σ)	χ_{plik}^2	2346.6	2362.7 ± 6.6 (+0.2 σ)
H_0	67.98	68.10 ± 0.59 (+0.2 σ)	z_{eq}	3374.8	3371 ± 30 (−0.1 σ)	χ_{H073p45}^2	10.85	10.5 ± 2.3 (−0.2 σ)
Ω_{Λ}	0.6930	0.6943 ± 0.0079 (+0.1 σ)	k_{eq}	0.010300	0.010287 ± 0.000091 (−0.1 σ)	χ_{prior}^2	1.72	11.5 ± 4.5 (−0.0 σ)
Ω_{m}	0.3070	0.3057 ± 0.0079 (−0.1 σ)	$100\theta_{\text{eq}}$	0.8187	0.8197 ± 0.0057 (+0.1 σ)	χ_{CMB}^2	2765.1	2783.5 ± 6.6 (+0.3 σ)
$\Omega_{\text{m}}h^2$	0.14187	0.1417 ± 0.0013 (−0.1 σ)	$100\theta_{\text{s,eq}}$	0.45213	0.4526 ± 0.0029 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2777.70$; $\Delta\chi_{\text{eff}}^2 = -0.24$; $\bar{\chi}_{\text{eff}}^2 = 2805.57$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.41$; $R - 1 = 0.02989$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.57 (Δ 0.10) commander_dx12_v3.2_29: 21.95 (Δ -0.59) plik_rd12_HM_v22b_TTTEEE: 2346.61 (Δ -0.15) Hubble - H073p45: 10.85 (Δ 0.27)

15.10 base_nrun_r_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02242 \pm 0.00015 \quad (+0.4\sigma)$	σ_8	$0.8125 \pm 0.0073 \quad (-0.0\sigma)$	$H(0.38)$	$82.88 \pm 0.38 \quad (+0.1\sigma)$
$\Omega_c h^2$	$0.1201 \pm 0.0014 \quad (-0.0\sigma)$	S_8	$0.834 \pm 0.016 \quad (-0.1\sigma)$	$D_M(0.38)$	$1534 \pm 11 \quad (-0.1\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00032 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4566 \pm 0.0090 \quad (-0.1\sigma)$	$H(0.51)$	$89.64 \pm 0.30 \quad (+0.2\sigma)$
τ	$0.0571^{+0.0062}_{-0.0086} \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6091 \pm 0.0084 \quad (-0.0\sigma)$	$D_M(0.51)$	$1986 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.052^{+0.014}_{-0.017} \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.012 \quad (-0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.24 \quad (+0.2\sigma)$
n_s	$0.9643 \pm 0.0047 \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$99.0 \pm 1.1 \quad (+0.0\sigma)$	$D_M(0.61)$	$2310 \pm 13 \quad (-0.1\sigma)$
$dn_s/d \ln k$	$-0.0095^{+0.0077}_{-0.0069}$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.030 \quad (-0.6\sigma)$	$H(2.33)$	$236.70 \pm 0.84 \quad (+0.0\sigma)$
r	< 0.0810	z_{re}	$7.94^{+0.67}_{-0.83} \quad (+0.2\sigma)$	$D_M(2.33)$	$5762 \pm 11 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	$10^9 A_s$	$2.116^{+0.029}_{-0.037} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4608 \pm 0.0084 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.888 \pm 0.012 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7504^{+0.0059}_{-0.0067} \quad (-0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	$1232^{+19}_{-22} \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4782 \pm 0.0068 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.2\sigma)$	D_{220}	$5726 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6647^{+0.0048}_{-0.0057} \quad (-0.0\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.2\sigma)$	D_{810}	$2543 \pm 13 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4763 \pm 0.0060 \quad (-0.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.4\sigma)$	D_{1420}	$816.0 \pm 4.9 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6218^{+0.0044}_{-0.0053} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.1\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4710 \pm 0.0054 \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.995^{+0.021}_{-0.024} \quad (+6.9\sigma)$	$\sigma_8(0.61)$	$0.5916^{+0.0041}_{-0.0050} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.04 \quad (+0.2\sigma)$	Y_P	$0.245412^{+0.000061}_{-0.000056} \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2981^{+0.0020}_{-0.0025} \quad (+0.0\sigma)$
$A_{100}^{\text{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246738^{+0.000062}_{-0.000056} \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3072^{+0.0021}_{-0.0026} \quad (+0.0\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.8 \quad (+0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.577 \pm 0.028 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0789
$A_{143 \times 217}^{\text{dust}TT}$	$18.7 \pm 3.3 \quad (+0.0\sigma)$	Age/Gyr	$13.793 \pm 0.025 \quad (-0.2\sigma)$	$r_{0.01}$	< 0.0790
$A_{217}^{\text{dust}TT}$	$93.4 \pm 7.3 \quad (-0.0\sigma)$	z_*	$1089.87 \pm 0.28 \quad (-0.3\sigma)$	$\ln(10^{10} A_t)$	$-0.12^{+1.3}_{-0.54}$
$A_{100}^{\text{dust}TE}$	$0.116 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.36 \pm 0.31 \quad (-0.1\sigma)$	r_{10}	< 0.0411
$A_{100 \times 143}^{\text{dust}TE}$	$0.136 \pm 0.029 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00031 \quad (+0.0\sigma)$	$10^9 A_t$	< 0.172
$A_{100 \times 217}^{\text{dust}TE}$	$0.481 \pm 0.084 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.866 \pm 0.029 \quad (-0.1\sigma)$	$10^9 A_t e^{-2\tau}$	< 0.153
$A_{143}^{\text{dust}TE}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	z_{drag}	$1060.06 \pm 0.31 \quad (+0.4\sigma)$	f_{2000}^{143}	$31.2 \pm 3.1 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	r_{drag}	$147.00 \pm 0.31 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.2 \quad (+0.7\sigma)$
$A_{217}^{\text{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	k_D	$0.14099 \pm 0.00034 \quad (+0.3\sigma)$	f_{2000}^{217}	$108.1 \pm 2.0 \quad (+0.7\sigma)$
c_{100}	$0.99967 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_D$	$0.16069 \pm 0.00018 \quad (-0.4\sigma)$	χ_{simall}^2	$397.6 \pm 2.0 \quad (+0.2\sigma)$
c_{217}	$0.99823 \pm 0.00063 \quad (+0.1\sigma)$	z_{eq}	$3407 \pm 32 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.3 \pm 1.9 \quad (-0.3\sigma)$
H_0	$67.35 \pm 0.62 \quad (+0.1\sigma)$	k_{eq}	$0.010397 \pm 0.000096 \quad (+0.0\sigma)$	χ_{plik}^2	$2360.9 \pm 6.1 \quad (+0.3\sigma)$
Ω_Λ	$0.6842 \pm 0.0086 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8127 \pm 0.0059 \quad (+0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_m	$0.3158 \pm 0.0086 \quad (-0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4490 \pm 0.0030 \quad (-0.0\sigma)$	χ_{CMB}^2	$2781.8 \pm 6.1 \quad (+0.3\sigma)$
$\Omega_m h^2$	$0.1432 \pm 0.0013 \quad (+0.0\sigma)$	$H(0.15)$	$72.68 \pm 0.53 \quad (+0.1\sigma)$		
$\Omega_m h^3$	$0.09643 \pm 0.00031 \quad (+0.3\sigma)$	$D_M(0.15)$	$643.5 \pm 5.3 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2793.42; \Delta \bar{\chi}_{\text{eff}}^2 = 1.88; R - 1 = 0.01323$$

15.11 base_nrun_r_plikHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02248 \pm 0.00014 \quad (+0.4\sigma)$	S_8	$0.824 \pm 0.013 \quad (-0.1\sigma)$	$H(0.51)$	$89.82 \pm 0.23 \quad (+0.2\sigma)$
$\Omega_c h^2$	$0.1193 \pm 0.0010 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4513 \pm 0.0069 \quad (-0.1\sigma)$	$D_M(0.51)$	$1978.2 \pm 9.1 \quad (-0.2\sigma)$
$100\theta_{MC}$	$1.04102 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6047 \pm 0.0069 \quad (-0.1\sigma)$	$H(0.61)$	$95.44 \pm 0.19 \quad (+0.2\sigma)$
τ	$0.0581^{+0.0064}_{-0.0086} \quad (+0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.010 \quad (-0.1\sigma)$	$D_M(0.61)$	$2302.0 \pm 9.8 \quad (-0.2\sigma)$
$\ln(10^{10} A_s)$	$3.052^{+0.014}_{-0.018} \quad (+0.3\sigma)$	$r_{\text{drag}} h$	$99.69 \pm 0.78 \quad (+0.1\sigma)$	$H(2.33)$	$236.19 \pm 0.63 \quad (+0.0\sigma)$
n_s	$0.9665 \pm 0.0040 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.026 \quad (-0.7\sigma)$	$D_M(2.33)$	$5756.1 \pm 9.2 \quad (-0.3\sigma)$
$dn_s/d \ln k$	$-0.0093^{+0.0078}_{-0.0069}$	z_{re}	$8.01^{+0.68}_{-0.83} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4560 \pm 0.0065 \quad (-0.1\sigma)$
r	< 0.0867	$10^9 A_s$	$2.116^{+0.030}_{-0.038} \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7487^{+0.0057}_{-0.0065} \quad (-0.0\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.884 \pm 0.011 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4746 \pm 0.0056 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	D_{40}	$1230 \pm 20 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6638^{+0.0048}_{-0.0057} \quad (-0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	$5729 \pm 39 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4733 \pm 0.0051 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.2\sigma)$	D_{810}	$2542 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6213^{+0.0045}_{-0.0053} \quad (-0.0\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	D_{1420}	$816.6 \pm 4.9 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4684 \pm 0.0047 \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.3\sigma)$	D_{2000}	$230.2 \pm 1.8 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.5912^{+0.0042}_{-0.0050} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.997^{+0.021}_{-0.025} \quad (+7.9\sigma)$	$f\sigma_8(2.33)$	$0.2981^{+0.0021}_{-0.0025} \quad (-0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	Y_P	$0.245434 \pm 0.000053 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3074^{+0.0022}_{-0.0026} \quad (-0.0\sigma)$
A^{kSZ}	$< 4.99 \quad (+0.2\sigma)$	Y_P^{BBN}	$0.246761 \pm 0.000053 \quad (+0.4\sigma)$	$r_{0.002}$	< 0.0849
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$10^5 D/H$	$2.567 \pm 0.025 \quad (-0.4\sigma)$	$r_{0.01}$	< 0.0848
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.781 \pm 0.021 \quad (-0.3\sigma)$	$\ln(10^{10} A_t)$	$-0.05^{+1.3}_{-0.54}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1089.72 \pm 0.23 \quad (-0.3\sigma)$	r_{10}	< 0.0442
A_{217}^{dustTT}	$93.3 \pm 7.3 \quad (-0.1\sigma)$	r_*	$144.54 \pm 0.24 \quad (-0.1\sigma)$	$10^9 A_t$	< 0.184
A_{100}^{dustTE}	$0.116 \pm 0.038 \quad (+0.1\sigma)$	$100\theta_*$	$1.04119 \pm 0.00029 \quad (+0.0\sigma)$	$10^9 A_t e^{-2\tau}$	< 0.163
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.882 \pm 0.023 \quad (-0.1\sigma)$	f_{2000}^{143}	$30.9 \pm 3.1 \quad (+0.6\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.083 \quad (+0.0\sigma)$	z_{drag}	$1060.13 \pm 0.30 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.1 \quad (+0.7\sigma)$
A_{143}^{dustTE}	$0.225 \pm 0.054 \quad (-0.0\sigma)$	r_{drag}	$147.17 \pm 0.26 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.9 \pm 2.0 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.662 \pm 0.079 \quad (-0.0\sigma)$	k_D	$0.14086 \pm 0.00031 \quad (+0.3\sigma)$	χ_{small}^2	$397.7 \pm 2.2 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.1\sigma)$	$100\theta_D$	$0.16065 \pm 0.00018 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.1 \pm 1.8 \quad (-0.1\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	z_{eq}	$3387 \pm 23 \quad (+0.0\sigma)$	χ_{plik}^2	$2361.0 \pm 6.1 \quad (+0.3\sigma)$
c_{217}	$0.99823 \pm 0.00062 \quad (+0.1\sigma)$	k_{eq}	$0.010337 \pm 0.000071 \quad (+0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.053 \pm 0.064 \quad (-0.1\sigma)$
H_0	$67.74 \pm 0.45 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8164 \pm 0.0044 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.29 \pm 0.43 \quad (+0.1\sigma)$
Ω_Λ	$0.6896 \pm 0.0061 \quad (+0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4509 \pm 0.0022 \quad (+0.0\sigma)$	χ_{DR12BAO}^2	$4.8 \pm 1.4 \quad (-0.0\sigma)$
Ω_m	$0.3104 \pm 0.0061 \quad (-0.1\sigma)$	$H(0.15)$	$73.01 \pm 0.39 \quad (+0.2\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.14238 \pm 0.00098 \quad (+0.0\sigma)$	$D_M(0.15)$	$640.1 \pm 3.9 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (-0.0\sigma)$
$\Omega_m h^3$	$0.09644 \pm 0.00031 \quad (+0.3\sigma)$	$H(0.38)$	$83.11 \pm 0.29 \quad (+0.2\sigma)$	χ_{CMB}^2	$2781.9 \pm 6.1 \quad (+0.3\sigma)$
σ_8	$0.8101^{+0.0065}_{-0.0072} \quad (-0.1\sigma)$	$D_M(0.38)$	$1526.9 \pm 7.7 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2799.55; \Delta\bar{\chi}_{\text{eff}}^2 = 1.83; R - 1 = 0.01821$$

15.12 base_nrun_r_plikHM_TTTEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02255 \pm 0.00015 \quad (+0.4\sigma)$	σ_8	$0.8081 \pm 0.0075 \quad (-0.1\sigma)$	$H(0.38)$	$83.34 \pm 0.37 \quad (+0.2\sigma)$
$\Omega_c h^2$	$0.1185 \pm 0.0013 \quad (-0.1\sigma)$	S_8	$0.816 \pm 0.016 \quad (-0.1\sigma)$	$D_M(0.38)$	$1520.8 \pm 9.9 \quad (-0.2\sigma)$
$100\theta_{MC}$	$1.04112 \pm 0.00031 \quad (+0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4467 \pm 0.0086 \quad (-0.1\sigma)$	$H(0.51)$	$90.01 \pm 0.29 \quad (+0.2\sigma)$
τ	$0.0592^{+0.0066}_{-0.0089} \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6008 \pm 0.0082 \quad (-0.1\sigma)$	$D_M(0.51)$	$1971 \pm 12 \quad (-0.2\sigma)$
$\ln(10^{10} A_s)$	$3.053^{+0.015}_{-0.018} \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.979 \pm 0.012 \quad (-0.2\sigma)$	$H(0.61)$	$95.59 \pm 0.24 \quad (+0.3\sigma)$
n_s	$0.9684 \pm 0.0046 \quad (-0.1\sigma)$	$r_{drag} h$	$100.3 \pm 1.0 \quad (+0.1\sigma)$	$D_M(0.61)$	$2294 \pm 12 \quad (-0.2\sigma)$
$dn_s/d \ln k$	$-0.0095^{+0.0080}_{-0.0070}$	$\langle d^2 \rangle^{1/2}$	$2.410 \pm 0.030 \quad (-0.7\sigma)$	$H(2.33)$	$235.77 \pm 0.80 \quad (-0.0\sigma)$
r	< 0.0930	z_{re}	$8.09^{+0.69}_{-0.86} \quad (+0.1\sigma)$	$D_M(2.33)$	$5750 \pm 11 \quad (-0.3\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.1\sigma)$	$10^9 A_s$	$2.117^{+0.030}_{-0.039} \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4518 \pm 0.0081 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.2\sigma)$	$10^9 A_s e^{-2\tau}$	$1.881 \pm 0.012 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7473 \pm 0.0066 \quad (-0.1\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{40}	$1227 \pm 20 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4713 \pm 0.0067 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.2\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6631^{+0.0052}_{-0.0059} \quad (-0.1\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.2\sigma)$	D_{810}	$2542 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4706 \pm 0.0060 \quad (-0.1\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (+0.3\sigma)$	D_{1420}	$817.3 \pm 5.0 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6208^{+0.0047}_{-0.0055} \quad (-0.1\sigma)$
$A_{143 \times 217}^{PS}$	$42^{+9}_{-10} \quad (+0.0\sigma)$	D_{2000}	$230.5 \pm 1.8 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4661 \pm 0.0055 \quad (-0.1\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.999^{+0.021}_{-0.026} \quad (+7.2\sigma)$	$\sigma_8(0.61)$	$0.5909^{+0.0044}_{-0.0052} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.91 \quad (+0.2\sigma)$	Y_P	$0.245462 \pm 0.000056 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0021}_{-0.0026} \quad (-0.1\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.9 \quad (+0.1\sigma)$	Y_P^{BBN}	$0.246788 \pm 0.000056 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3077^{+0.0022}_{-0.0027} \quad (-0.0\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.7 \quad (+0.0\sigma)$	$10^5 D/H$	$2.554 \pm 0.027 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0921
$A_{143 \times 217}^{dustTT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Age/Gyr	$13.767 \pm 0.024 \quad (-0.3\sigma)$	$r_{0.01}$	< 0.0915
A_{217}^{dustTT}	$93.3 \pm 7.4 \quad (-0.0\sigma)$	z_*	$1089.57 \pm 0.26 \quad (-0.3\sigma)$	$\ln(10^{10} A_t)$	$0.02^{+1.3}_{-0.52}$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.68 \pm 0.30 \quad (-0.1\sigma)$	r_{10}	< 0.0479
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	$100\theta_*$	$1.04128 \pm 0.00031 \quad (+0.1\sigma)$	$10^9 A_t$	< 0.196
$A_{100 \times 217}^{dustTE}$	$0.482 \pm 0.082 \quad (+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.895 \pm 0.028 \quad (-0.1\sigma)$	$10^9 A_t e^{-2\tau}$	< 0.175
A_{143}^{dustTE}	$0.225 \pm 0.054 \quad (+0.0\sigma)$	z_{drag}	$1060.24 \pm 0.31 \quad (+0.5\sigma)$	f_{2000}^{143}	$30.5 \pm 3.1 \quad (+0.6\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.660 \pm 0.078 \quad (-0.0\sigma)$	r_{drag}	$147.29 \pm 0.30 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.9 \pm 2.2 \quad (+0.7\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.0\sigma)$	k_D	$0.14079 \pm 0.00034 \quad (+0.3\sigma)$	f_{2000}^{217}	$107.7 \pm 2.0 \quad (+0.6\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_D$	$0.16059 \pm 0.00018 \quad (-0.5\sigma)$	χ_{small}^2	$398.0 \pm 2.4 \quad (+0.1\sigma)$
c_{217}	$0.99822 \pm 0.00062 \quad (+0.1\sigma)$	z_{eq}	$3371 \pm 30 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.9 \pm 1.7 \quad (+0.0\sigma)$
H_0	$68.10 \pm 0.59 \quad (+0.2\sigma)$	k_{eq}	$0.010287 \pm 0.000091 \quad (-0.0\sigma)$	χ_{plik}^2	$2362.5 \pm 6.5 \quad (+0.3\sigma)$
Ω_Λ	$0.6944 \pm 0.0078 \quad (+0.1\sigma)$	$100\theta_{eq}$	$0.8197 \pm 0.0057 \quad (+0.1\sigma)$	$\chi_{H073p45}^2$	$10.5 \pm 2.3 \quad (-0.2\sigma)$
Ω_m	$0.3056 \pm 0.0078 \quad (-0.1\sigma)$	$100\theta_{s,eq}$	$0.4526 \pm 0.0029 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1417 \pm 0.0012 \quad (-0.0\sigma)$	$H(0.15)$	$73.32 \pm 0.50 \quad (+0.2\sigma)$	χ_{CMB}^2	$2783.4 \pm 6.5 \quad (+0.3\sigma)$
$\Omega_m h^3$	$0.09649 \pm 0.00031 \quad (+0.4\sigma)$	$D_M(0.15)$	$637.1 \pm 4.9 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2805.37; \Delta \bar{\chi}_{\text{eff}}^2 = 1.49; R - 1 = 0.03153$$

15.13 base_nrun_r_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022137	0.02222 ± 0.00024 (+0.4 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6117	0.608 ± 0.012 (−0.2 σ)	$D_{\mathrm{M}}(0.38)$	1543.1	1537 ± 16 (−0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.12088	0.1202 ± 0.0021 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9937	0.988 ± 0.016 (−0.2 σ)	$H(0.51)$	89.309	89.49 ± 0.45 (+0.3 σ)
$100\theta_{\mathrm{MC}}$	1.040808	1.04089 ± 0.00047 (+0.1 σ)	$r_{\mathrm{drag}}h$	98.30	98.9 ± 1.6 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1997.4	1990 ± 19 (−0.2 σ)
τ	0.0529	0.0535 ± 0.0084 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4507	2.432 ± 0.039 (−0.4 σ)	$H(0.61)$	95.005	95.15 ± 0.37 (+0.3 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0421	3.042 ± 0.018 (+0.2 σ)	z_{re}	7.60	7.61 ± 0.85 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2322.9	2315 ± 20 (−0.2 σ)
n_{s}	0.9616	0.9642 ± 0.0060 (+0.1 σ)	$10^9 A_{\mathrm{s}}$	2.0950	2.095 ± 0.037 (+0.2 σ)	$H(2.33)$	236.90	236.5 ± 1.3 (−0.1 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0039	$−0.0067 \pm 0.0084$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8847	1.883 ± 0.014 (+0.1 σ)	$D_{\mathrm{M}}(2.33)$	5777.0	5771 ± 17 (−0.3 σ)
r	0.0001	< 0.0695	D_{40}	1224.4	1232 ± 23 (+0.2 σ)	$f\sigma_8(0.15)$	0.4645	0.460 ± 0.012 (−0.2 σ)
y_{cal}	1.00043	1.0005 ± 0.0025 (−0.0 σ)	D_{220}	5704.4	5701 ± 42 (−0.1 σ)	$\sigma_8(0.15)$	0.7495	0.7478 ± 0.0076 (−0.1 σ)
A_{100}^{PS}	247.5	246 ± 25 (+0.1 σ)	D_{810}	2534.8	2536 ± 14 (+0.1 σ)	$f\sigma_8(0.38)$	0.4805	0.4772 ± 0.0096 (−0.2 σ)
A_{143}^{PS}	39.7	43 ± 9 (+0.2 σ)	D_{1420}	812.8	813.7 ± 5.3 (−0.1 σ)	$\sigma_8(0.38)$	0.6633	0.6622 ± 0.0061 (−0.1 σ)
A_{217}^{PS}	98.2	100 ± 10 (−0.1 σ)	D_{2000}	228.81	229.0 ± 2.0 (−0.3 σ)	$f\sigma_8(0.51)$	0.4779	0.4751 ± 0.0083 (−0.2 σ)
A_{217}^{CIB}	44.6	42_{-8}^{+7} (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9742	0.986 ± 0.027 (+3.8 σ)	$\sigma_8(0.51)$	0.6203	0.6195 ± 0.0056 (−0.1 σ)
A_{143}^{tSZ}	4.35	$3.6_{-2.6}^{+1.7}$ (−0.1 σ)	Y_{P}	0.245300	$0.24533_{-0.000089}^{+0.00011}$ (+0.4 σ)	$f\sigma_8(0.61)$	0.4721	0.4697 ± 0.0073 (−0.2 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.548	0.64 ± 0.13 (−0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246626	$0.24666_{-0.000089}^{+0.00011}$ (+0.4 σ)	$\sigma_8(0.61)$	0.5899	0.5893 ± 0.0052 (−0.1 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.683	> 0.484 (+0.1 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6300	2.614 ± 0.045 (−0.4 σ)	$f\sigma_8(2.33)$	0.29705	0.2969 ± 0.0026 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.00	—	Age/Gyr	13.8279	13.814 ± 0.038 (−0.3 σ)	$\sigma_8(2.33)$	0.30581	0.3059 ± 0.0027 (+0.0 σ)
A^{kSZ}	3.81	$5.2_{-2.2}^{+4.0}$ (+0.1 σ)	z_*	1090.295	1090.12 ± 0.42 (−0.3 σ)	$r_{0.002}$	0.0001	< 0.0660
A_{100}^{dust}	1.019	1.01 ± 0.20 (+0.0 σ)	r_*	144.383	144.50 ± 0.49 (+0.0 σ)	$r_{0.01}$	0.0001	< 0.0671
A_{143}^{dust}	0.984	0.98 ± 0.18 (+0.0 σ)	$100\theta_*$	1.041014	1.04109 ± 0.00046 (+0.1 σ)	$\ln(10^{10}A_{\mathrm{t}})$	−6.04	$−0.32_{-0.61}^{+1.4}$
A_{217}^{dust}	0.959	0.97 ± 0.10 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8694	13.880 ± 0.045 (+0.0 σ)	r_{10}	0.0001	< 0.0343
$A_{143 \times 217}^{\mathrm{dust}}$	1.006	1.03 ± 0.16 (+0.0 σ)	z_{drag}	1059.47	1059.61 ± 0.51 (+0.4 σ)	$10^9 A_{\mathrm{t}}$	0.000	< 0.146
c_{100}	0.99743	0.9975 ± 0.0011 (+0.0 σ)	r_{drag}	147.118	147.21 ± 0.50 (−0.0 σ)	$10^9 A_{\mathrm{t}}e^{-2\tau}$	0.000	< 0.131
c_{217}	1.00143	1.0013 ± 0.0016 (+0.1 σ)	k_{D}	0.14066	0.14063 ± 0.00056 (+0.2 σ)	f_{2000}^{143}	32.28	31.8 ± 3.4 (+0.3 σ)
H_0	66.82	67.17 ± 0.93 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.161038	0.16096 ± 0.00029 (−0.4 σ)	f_{2000}^{217}	108.47	108.2 ± 2.2 (+0.3 σ)
Ω_{Λ}	0.6782	0.683 ± 0.013 (+0.2 σ)	z_{eq}	3417.6	3403 ± 48 (−0.1 σ)	$f_{2000}^{143 \times 217}$	33.88	33.7 ± 2.4 (+0.3 σ)
Ω_{m}	0.3218	0.317 ± 0.013 (−0.2 σ)	k_{eq}	0.010431	0.01039 ± 0.00015 (−0.1 σ)	χ_{small}^2	395.90	397.3 ± 1.7 (+0.2 σ)
$\Omega_{\mathrm{m}}h^2$	0.14366	0.1430 ± 0.0020 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8098	0.8128 ± 0.0090 (+0.1 σ)	χ_{lowl}^2	22.71	23.7 ± 2.3 (+0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.095992	0.09606 ± 0.00050 (+0.3 σ)	$100\theta_{\mathrm{s,eq}}$	0.44774	0.4493 ± 0.0046 (+0.1 σ)	$\chi_{\mathrm{CamSpec}}^2$	7050.5	7065.1 ± 5.7 (+0.3 σ)
σ_8	0.8122	0.8098 ± 0.0091 (−0.1 σ)	$H(0.15)$	72.21	72.51 ± 0.79 (+0.2 σ)	χ_{prior}^2	2.42	7.7 ± 3.5 (+0.0 σ)
S_8	0.8412	0.833 ± 0.024 (−0.2 σ)	$D_{\mathrm{M}}(0.15)$	648.1	645.1 ± 8.0 (−0.2 σ)	χ_{CMB}^2	7469.1	7486.1 ± 5.9 (+0.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4607	0.456 ± 0.013 (−0.2 σ)	$H(0.38)$	82.49	82.72 ± 0.57 (+0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7471.53$; $\Delta\chi_{\mathrm{eff}}^2 = -0.20$; $\bar{\chi}_{\mathrm{eff}}^2 = 7493.80$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.26$; $R - 1 = 0.00512$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.07) commander_dx12_v3.2.29: 22.71 (Δ -0.68) CamSpec like_10.7HM: 7050.49 (Δ 0.15)

15.14 base_nrun_r_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00022 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.979 \pm 0.012 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0012 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.91 \pm 0.95 \quad (+0.1\sigma)$	$H(0.61)$	$95.35 \pm 0.26 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04106 \pm 0.00041 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.412 \pm 0.030 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 12 \quad (-0.2\sigma)$
τ	$0.0548 \pm 0.0083 \quad (+0.1\sigma)$	z_{re}	$7.70 \pm 0.83 \quad (+0.1\sigma)$	$H(2.33)$	$235.75 \pm 0.81 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042 \pm 0.018 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.094 \pm 0.037 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 13 \quad (-0.3\sigma)$
n_{s}	$0.9673 \pm 0.0045 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.012 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4529 \pm 0.0077 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0065 ± 0.0086	D_{40}	$1228 \pm 22 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.7452 \pm 0.0069 \quad (-0.1\sigma)$
r	< 0.0752	D_{220}	$5707 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4717 \pm 0.0065 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6608 \pm 0.0059 \quad (-0.1\sigma)$
A_{100}^{PS}	$245 \pm 25 \quad (+0.2\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4706 \pm 0.0059 \quad (-0.1\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.2\sigma)$	D_{2000}	$229.3 \pm 1.9 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6185 \pm 0.0054 \quad (-0.0\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.988 \pm 0.027 \quad (+4.9\sigma)$	$f\sigma_8(0.61)$	$0.4658 \pm 0.0054 \quad (-0.1\sigma)$
A_{217}^{CIB}	$42 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.245362^{+0.000093}_{-0.000080} \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5886 \pm 0.0051 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246689^{+0.000094}_{-0.000080} \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2969 \pm 0.0026 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.600 \pm 0.041 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3062 \pm 0.0027 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.482 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.796 \pm 0.029 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0726
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$< 0.637 \quad (-0.0\sigma)$	z_*	$1089.91 \pm 0.31 \quad (-0.3\sigma)$	$r_{0.01}$	< 0.0733
A^{kSZ}	$5.2^{+4.0}_{-2.2} \quad (+0.1\sigma)$	r_*	$144.78 \pm 0.34 \quad (-0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.24^{+1.4}_{-0.61}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00040 \quad (+0.0\sigma)$	r_{10}	< 0.0377
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.033 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.158
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_{drag}	$1059.68 \pm 0.50 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.142
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_{drag}	$147.48 \pm 0.37 \quad (-0.2\sigma)$	f_{2000}^{143}	$31.5 \pm 3.4 \quad (+0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	k_{D}	$0.14040 \pm 0.00050 \quad (+0.3\sigma)$	f_{2000}^{217}	$108.0 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16092 \pm 0.00029 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.4 \quad (+0.4\sigma)$
H_0	$67.75 \pm 0.55 \quad (+0.1\sigma)$	z_{eq}	$3373 \pm 29 \quad (+0.0\sigma)$	χ_{small}^2	$397.4 \pm 1.8 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6909 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010295 \pm 0.000089 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.3 \pm 2.1 \quad (+0.6\sigma)$
Ω_{m}	$0.3091 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8185 \pm 0.0054 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.3 \pm 5.6 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4521 \pm 0.0028 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.052 \pm 0.069 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00050 \quad (+0.3\sigma)$	$H(0.15)$	$73.00 \pm 0.48 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.43 \pm 0.54 \quad (+0.1\sigma)$
σ_8	$0.8061 \pm 0.0078 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.2 \pm 4.7 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.0\sigma)$
S_8	$0.818 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.06 \pm 0.36 \quad (+0.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4482 \pm 0.0082 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.3 \pm 9.5 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6011 \pm 0.0080 \quad (-0.1\sigma)$	$H(0.51)$	$89.75 \pm 0.30 \quad (+0.2\sigma)$	χ_{CMB}^2	$7486.0 \pm 5.7 \quad (+0.4\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 7499.85; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.30; R - 1 = 0.00974$$

15.15 base_nrun_r_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02223 \pm 0.00024 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.608 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 16 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0021 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.989 \pm 0.016 \quad (-0.2\sigma)$	$H(0.51)$	$89.51 \pm 0.45 \quad (+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00047 \quad (+0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.9 \pm 1.6 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1990 \pm 18 \quad (-0.2\sigma)$
τ	$0.0550^{+0.0051}_{-0.0089} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.039 \quad (-0.5\sigma)$	$H(0.61)$	$95.17^{+0.34}_{-0.38} \quad (+0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.018} \quad (+0.2\sigma)$	z_{re}	$7.77^{+0.57}_{-0.86} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2314 \pm 20 \quad (-0.2\sigma)$
n_{s}	$0.9644 \pm 0.0060 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.027}_{-0.038} \quad (+0.2\sigma)$	$H(2.33)$	$236.5 \pm 1.3 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0070 ± 0.0084	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882 \pm 0.014 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5770 \pm 17 \quad (-0.3\sigma)$
r	< 0.0704	D_{40}	$1231 \pm 23 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.460 \pm 0.012 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5702 \pm 42 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7487 \pm 0.0072 \quad (-0.1\sigma)$
A_{100}^{PS}	$245 \pm 25 \quad (+0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4776 \pm 0.0096 \quad (-0.2\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.2\sigma)$	D_{1420}	$813.7 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6631^{+0.0052}_{-0.0059} \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	D_{2000}	$229.1 \pm 2.0 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4755 \pm 0.0082 \quad (-0.2\sigma)$
A_{217}^{CIB}	$42^{+7}_{-8} \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.987 \pm 0.027 \quad (+3.9\sigma)$	$\sigma_8(0.51)$	$0.6203^{+0.0046}_{-0.0053} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.6^{+1.7}_{-2.6} \quad (-0.1\sigma)$	Y_{P}	$0.24534^{+0.00011}_{-0.000088} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.4701 \pm 0.0072 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00011}_{-0.000088} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5901^{+0.0042}_{-0.0050} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.482 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.612 \pm 0.045 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0020}_{-0.0025} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.812 \pm 0.038 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0020}_{-0.0027} \quad (-0.0\sigma)$
A^{kSZ}	$5.2^{+4.0}_{-2.2} \quad (+0.1\sigma)$	z_*	$1090.11 \pm 0.42 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0671
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.51 \pm 0.49 \quad (+0.0\sigma)$	$r_{0.01}$	< 0.0681
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00046 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.30^{+1.4}_{-0.61}$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.881 \pm 0.045 \quad (+0.0\sigma)$	r_{10}	< 0.0348
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.62 \pm 0.51 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.148
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_{drag}	$147.22 \pm 0.50 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.132
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	k_{D}	$0.14062 \pm 0.00057 \quad (+0.2\sigma)$	f_{2000}^{143}	$31.7 \pm 3.4 \quad (+0.3\sigma)$
H_0	$67.21 \pm 0.92 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16095 \pm 0.00029 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.1 \pm 2.2 \quad (+0.3\sigma)$
Ω_{Λ}	$0.683 \pm 0.013 \quad (+0.2\sigma)$	z_{eq}	$3401 \pm 48 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.4 \quad (+0.4\sigma)$
Ω_{m}	$0.317 \pm 0.013 \quad (-0.2\sigma)$	k_{eq}	$0.01038 \pm 0.00015 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.7 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1430 \pm 0.0020 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8132 \pm 0.0089 \quad (+0.1\sigma)$	χ_{lowl}^2	$23.6 \pm 2.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09607 \pm 0.00050 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4494 \pm 0.0046 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.0 \pm 5.7 \quad (+0.3\sigma)$
σ_8	$0.8108 \pm 0.0087 \quad (-0.2\sigma)$	$H(0.15)$	$72.54 \pm 0.79 \quad (+0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
S_8	$0.833 \pm 0.024 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$644.8 \pm 7.9 \quad (-0.2\sigma)$	χ_{CMB}^2	$7485.8 \pm 5.8 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.456 \pm 0.013 \quad (-0.2\sigma)$	$H(0.38)$	$82.74 \pm 0.57 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7493.58$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.32$; $R - 1 = 0.00549$

15.16 base_nrun_r_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00022 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0012 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.92 \pm 0.95 \quad (+0.1\sigma)$	$H(0.61)$	$95.36 \pm 0.26 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04106 \pm 0.00041 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.414 \pm 0.029 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 12 \quad (-0.2\sigma)$
τ	$0.0560^{+0.0055}_{-0.0088} \quad (+0.1\sigma)$	z_{re}	$7.83^{+0.61}_{-0.85} \quad (+0.1\sigma)$	$H(2.33)$	$235.74 \pm 0.81 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.013}_{-0.018} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.027}_{-0.038} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 13 \quad (-0.3\sigma)$
n_{s}	$0.9673 \pm 0.0045 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.012 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4533 \pm 0.0076 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0067 ± 0.0086	D_{40}	$1227 \pm 22 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.7460^{+0.0059}_{-0.0067} \quad (-0.1\sigma)$
r	< 0.0760	D_{220}	$5706 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4721 \pm 0.0064 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6615^{+0.0048}_{-0.0058} \quad (-0.1\sigma)$
A_{100}^{PS}	$245 \pm 25 \quad (+0.2\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4710 \pm 0.0057 \quad (-0.1\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.2\sigma)$	D_{2000}	$229.3 \pm 1.9 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6192^{+0.0044}_{-0.0054} \quad (-0.1\sigma)$
A_{217}^{PS}	$100 \pm 10 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.989 \pm 0.027 \quad (+5.0\sigma)$	$f\sigma_8(0.61)$	$0.4663 \pm 0.0052 \quad (-0.1\sigma)$
A_{217}^{CIB}	$42 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.245364^{+0.000093}_{-0.000079} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5893^{+0.0041}_{-0.0051} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246691^{+0.000094}_{-0.000080} \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0020}_{-0.0025} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.64 \pm 0.13 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.599 \pm 0.041 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0021}_{-0.0026} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.479 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.795 \pm 0.029 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0733
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	$< 0.637 \quad (-0.0\sigma)$	z_*	$1089.91 \pm 0.31 \quad (-0.3\sigma)$	$r_{0.01}$	< 0.0740
A^{kSZ}	$5.2^{+3.9}_{-2.3} \quad (+0.1\sigma)$	r_*	$144.78 \pm 0.34 \quad (-0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.23^{+1.4}_{-0.60}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00040 \quad (-0.0\sigma)$	r_{10}	< 0.0380
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.033 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.160
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_{drag}	$1059.69 \pm 0.50 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.143
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_{drag}	$147.48 \pm 0.38 \quad (-0.2\sigma)$	f_{2000}^{143}	$31.5 \pm 3.4 \quad (+0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	k_{D}	$0.14041 \pm 0.00050 \quad (+0.3\sigma)$	f_{2000}^{217}	$107.9 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091 \pm 0.00029 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.4 \quad (+0.4\sigma)$
H_0	$67.76 \pm 0.55 \quad (+0.2\sigma)$	z_{eq}	$3373 \pm 29 \quad (+0.0\sigma)$	χ_{small}^2	$397.3 \pm 1.8 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6911 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010294 \pm 0.000089 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.3 \pm 2.1 \quad (+0.5\sigma)$
Ω_{m}	$0.3089 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8185 \pm 0.0054 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7065.3 \pm 5.6 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522 \pm 0.0028 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.051 \pm 0.068 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00050 \quad (+0.3\sigma)$	$H(0.15)$	$73.01 \pm 0.48 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.44 \pm 0.54 \quad (+0.1\sigma)$
σ_8	$0.8070^{+0.0068}_{-0.0076} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.1 \pm 4.7 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.0\sigma)$
S_8	$0.819 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.07 \pm 0.36 \quad (+0.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4485 \pm 0.0081 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.1 \pm 9.5 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6016 \pm 0.0078 \quad (-0.1\sigma)$	$H(0.51)$	$89.76 \pm 0.30 \quad (+0.2\sigma)$	χ_{CMB}^2	$7485.8 \pm 5.7 \quad (+0.4\sigma)$
$\bar{\chi}_{\mathrm{eff}}^2 = 7499.67; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.35; R - 1 = 0.00851$					

15.17 base_nrun_r_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022185	0.02223 ± 0.00023 (+0.4 σ)	$\sigma_8/h^{0.5}$	0.9883	0.988 ± 0.011 (−0.1 σ)	$H(0.51)$	89.464	89.49 ± 0.37 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11999	0.1201 ± 0.0016 (−0.1 σ)	$r_{\mathrm{drag}}h$	98.95	98.9 ± 1.2 (+0.1 σ)	$D_{\mathrm{M}}(0.51)$	1990.3	1990 ± 15 (−0.2 σ)
$100\theta_{\mathrm{MC}}$	1.040839	1.04084 ± 0.00044 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4408	2.435 ± 0.028 (−0.5 σ)	$H(0.61)$	95.118	95.15 ± 0.31 (+0.3 σ)
τ	0.0528	0.0538 ± 0.0081 (+0.2 σ)	z_{re}	7.56	7.64 ± 0.80 (+0.1 σ)	$D_{\mathrm{M}}(0.61)$	2315.4	2315 ± 16 (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0406	3.044 ± 0.016 (+0.3 σ)	10^9A_{s}	2.0917	2.099 ± 0.033 (+0.3 σ)	$H(2.33)$	236.36	236.47 ± 0.97 (+0.0 σ)
n_{s}	0.9646	0.9635 ± 0.0051 (+0.0 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8821	1.885 ± 0.012 (+0.2 σ)	$D_{\mathrm{M}}(2.33)$	5772.5	5771 ± 15 (−0.3 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.0010	$−0.0062 \pm 0.0080$	D_{40}	1226.7	1235^{+20}_{-22} (+0.2 σ)	$f\sigma_8(0.15)$	0.4599	0.4601 ± 0.0082 (−0.1 σ)
r	0.0000	< 0.0626	D_{220}	5714.7	5716 ± 41 (+0.0 σ)	$\sigma_8(0.15)$	0.7480	0.7481 ± 0.0056 (−0.0 σ)
y_{cal}	1.00026	1.0006 ± 0.0024 (+0.0 σ)	D_{810}	2537.2	2539 ± 13 (+0.2 σ)	$f\sigma_8(0.38)$	0.4771	0.4773 ± 0.0063 (−0.1 σ)
A_{217}^{CIB}	49.7	49 ± 7 (+0.1 σ)	D_{1420}	815.3	814.4 ± 5.2 (−0.0 σ)	$\sigma_8(0.38)$	0.66252	0.6626 ± 0.0048 (+0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.22	—	D_{2000}	229.84	229.2 ± 1.9 (−0.2 σ)	$f\sigma_8(0.51)$	0.4751	0.4752 ± 0.0054 (−0.1 σ)
A_{143}^{tSZ}	6.99	4.9 ± 2.0 (−0.1 σ)	$n_{\mathrm{s},0.002}$	0.9678	0.983 ± 0.025 (+4.2 σ)	$\sigma_8(0.51)$	0.61979	0.6198 ± 0.0045 (+0.0 σ)
A_{100}^{PS}	255.9	266 ± 29 (+0.1 σ)	Y_{P}	0.245320	$0.24533^{+0.00010}_{-0.000088}$ (+0.4 σ)	$f\sigma_8(0.61)$	0.46972	0.4698 ± 0.0048 (−0.1 σ)
A_{143}^{PS}	48.4	50 ± 8 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246646	$0.24666^{+0.00010}_{-0.000088}$ (+0.4 σ)	$\sigma_8(0.61)$	0.58960	0.5896 ± 0.0044 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	44.4	43^{+9}_{-10} (+0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6207	2.613 ± 0.044 (−0.4 σ)	$f\sigma_8(2.33)$	0.29709	0.2971 ± 0.0023 (+0.0 σ)
A_{217}^{PS}	117.9	114 ± 10 (−0.0 σ)	Age/Gyr	13.8184	13.815 ± 0.034 (−0.3 σ)	$\sigma_8(2.33)$	0.30607	0.3061 ± 0.0025 (+0.1 σ)
A^{kSZ}	0.02	< 5.31 (+0.1 σ)	z_*	1090.152	1090.11 ± 0.37 (−0.4 σ)	$r_{0.002}$	0.0000	< 0.0592
$A_{100}^{\mathrm{dustTT}}$	9.07	9.0 ± 1.8 (+0.0 σ)	r_*	144.575	144.52 ± 0.38 (−0.1 σ)	$r_{0.01}$	0.0000	< 0.0603
$A_{143}^{\mathrm{dustTT}}$	10.88	10.8 ± 1.8 (+0.0 σ)	$100\theta_*$	1.041046	1.04104 ± 0.00043 (+0.1 σ)	$\ln(10^{10}A_{\mathrm{t}})$	−8.76	$−0.41^{+1.4}_{-0.62}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.29	18.3 ± 3.3 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8874	13.882 ± 0.036 (−0.1 σ)	r_{10}	0.0000	< 0.0307
$A_{217}^{\mathrm{dustTT}}$	94.3	93.2 ± 7.4 (−0.0 σ)	z_{drag}	1059.51	1059.61 ± 0.51 (+0.5 σ)	10^9A_{t}	0.000	< 0.131
c_{100}	0.99966	0.99961 ± 0.00061 (+0.0 σ)	r_{drag}	147.299	147.23 ± 0.40 (−0.2 σ)	$10^9A_{\mathrm{t}}e^{-2\tau}$	0.000	< 0.118
c_{217}	0.99830	0.99828 ± 0.00062 (+0.0 σ)	k_{D}	0.14050	0.14061 ± 0.00050 (+0.3 σ)	f_{2000}^{143}	30.59	32.0 ± 3.2 (+0.3 σ)
H_0	67.18	67.18 ± 0.72 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.161005	0.16095 ± 0.00030 (−0.4 σ)	$f_{2000}^{143 \times 217}$	33.38	34.1 ± 2.2 (+0.3 σ)
Ω_{Λ}	0.6835	0.6831 ± 0.0098 (+0.1 σ)	z_{eq}	3397.6	3401 ± 36 (−0.0 σ)	f_{2000}^{217}	107.82	108.6 ± 2.1 (+0.2 σ)
Ω_{m}	0.3165	0.3169 ± 0.0098 (−0.1 σ)	k_{eq}	0.010370	0.01038 ± 0.00011 (−0.0 σ)	$\chi_{\mathrm{lensing}}^2$	8.89	9.69 ± 0.95 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14282	0.1430 ± 0.0015 (−0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8136	0.8131 ± 0.0067 (+0.1 σ)	χ_{small}^2	395.90	397.2 ± 1.7 (+0.2 σ)
$\Omega_{\mathrm{m}}h^3$	0.095945	0.09604 ± 0.00049 (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.44965	0.4494 ± 0.0035 (+0.0 σ)	χ_{lowl}^2	23.09	23.9 ± 2.3 (+0.2 σ)
σ_8	0.8100	0.8101 ± 0.0063 (−0.0 σ)	$H(0.15)$	72.51	72.52 ± 0.62 (+0.2 σ)	χ_{plik}^2	759.3	772.8 ± 5.5 (+0.3 σ)
S_8	0.8320	0.833 ± 0.016 (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	645.0	645.0 ± 6.2 (−0.2 σ)	χ_{prior}^2	1.40	7.3 ± 3.7 (−0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4557	0.4560 ± 0.0089 (−0.1 σ)	$H(0.38)$	82.701	82.72 ± 0.46 (+0.2 σ)	χ_{CMB}^2	1187.1	1203.5 ± 5.9 (+0.4 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6076	0.6078 ± 0.0077 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1537.0	1537 ± 12 (−0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1188.53$; $\Delta\chi_{\mathrm{eff}}^2 = -0.03$; $\bar{\chi}_{\mathrm{eff}}^2 = 1210.83$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.42$; $R - 1 = 0.00920$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.88 (Δ -0.02) small_100x143_offlike5_EE_Aplanck_B: 395.90 (Δ 0.04) commander_dx12.v3.2.29: 23.09 (Δ -0.15) plik_rd12_HM_v22_TT: 759.26 (Δ -0.06)

15.18 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022206	0.02230 ± 0.00022 (+0.5 σ)	$r_{\mathrm{drag}}h$	99.62	99.73 ± 0.84 (+0.1 σ)	$H(0.61)$	95.235	95.32 ± 0.25 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11914	0.1191 ± 0.0011 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4294	2.424 ± 0.024 (−0.6 σ)	$D_{\mathrm{M}}(0.61)$	2307.9	2305 ± 11 (−0.3 σ)
$100\theta_{\mathrm{MC}}$	1.040977	1.04099 ± 0.00041 (+0.0 σ)	z_{re}	7.73	7.88 ± 0.75 (+0.1 σ)	$H(2.33)$	235.84	235.88 ± 0.72 (+0.1 σ)
τ	0.0545	$0.0564^{+0.0071}_{-0.0080}$ (+0.2 σ)	$10^9 A_{\mathrm{s}}$	2.0946	2.107 ± 0.033 (+0.3 σ)	$D_{\mathrm{M}}(2.33)$	5768.0	5764 ± 13 (−0.4 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0420	3.048 ± 0.016 (+0.3 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8782	1.882 ± 0.011 (+0.2 σ)	$f\sigma_{\mathrm{s}}(0.15)$	0.4557	0.4552 ± 0.0062 (−0.1 σ)
n_{s}	0.96672	0.9660 ± 0.0042 (+0.0 σ)	D_{40}	1222.0	1232 ± 21 (+0.3 σ)	$\sigma_{\mathrm{s}}(0.15)$	0.7471	0.7475 ± 0.0056 (−0.0 σ)
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	−0.00099	$−0.0064 \pm 0.0082$	D_{220}	5713.6	5723 ± 40 (−0.0 σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4740	0.4738 ± 0.0051 (−0.1 σ)
r	0.0001	< 0.0672	D_{810}	2536.3	2540 ± 13 (+0.2 σ)	$\sigma_{\mathrm{s}}(0.38)$	0.66226	0.6627 ± 0.0049 (−0.0 σ)
y_{cal}	1.00043	1.0008 ± 0.0024 (+0.0 σ)	D_{1420}	815.6	815.4 ± 5.0 (−0.0 σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.47264	0.4725 ± 0.0046 (−0.1 σ)
A_{217}^{CIB}	50.1	48 ± 7 (+0.1 σ)	D_{2000}	229.95	229.6 ± 1.9 (−0.2 σ)	$\sigma_{\mathrm{s}}(0.51)$	0.61977	0.6202 ± 0.0046 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.14	—	$n_{\mathrm{s},0.002}$	0.9699	0.986 ± 0.026 (+5.0 σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.46770	0.4676 ± 0.0042 (−0.1 σ)
A_{143}^{tSZ}	7.13	4.9 ± 2.0 (−0.1 σ)	Y_{P}	0.245328	$0.245362^{+0.000093}_{-0.000084}$ (+0.5 σ)	$\sigma_{\mathrm{s}}(0.61)$	0.58973	0.5902 ± 0.0044 (+0.0 σ)
A_{100}^{PS}	256.2	265 ± 28 (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246655	$0.246689^{+0.000093}_{-0.000084}$ (+0.5 σ)	$f\sigma_{\mathrm{s}}(2.33)$	0.29736	0.2976 ± 0.0022 (+0.0 σ)
A_{143}^{PS}	47.0	50 ± 8 (+0.1 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6168	2.600 ± 0.041 (−0.5 σ)	$\sigma_{\mathrm{s}}(2.33)$	0.30657	0.3069 ± 0.0024 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	42.2	43 ± 9 (+0.0 σ)	Age/Gyr	13.8088	13.799 ± 0.030 (−0.4 σ)	$r_{0.002}$	0.0001	< 0.0644
A_{217}^{PS}	117.2	115 ± 10 (−0.0 σ)	z_{*}	1090.055	1089.93 ± 0.31 (−0.4 σ)	$r_{0.01}$	0.0001	< 0.0652
A^{kSZ}	0.00	< 5.21 (+0.1 σ)	r_{*}	144.778	144.73 ± 0.30 (−0.2 σ)	$\ln(10^{10} A_{\mathrm{t}})$	−6.05	$−0.34^{+1.4}_{-0.61}$
$A_{100}^{\mathrm{dustTT}}$	8.96	8.9 ± 1.9 (+0.0 σ)	$100\theta_{*}$	1.041174	1.04118 ± 0.00040 (+0.0 σ)	r_{10}	0.0001	< 0.0333
$A_{143}^{\mathrm{dustTT}}$	10.87	10.7 ± 1.8 (+0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9053	13.901 ± 0.030 (−0.2 σ)	$10^9 A_{\mathrm{t}}$	0.000	< 0.142
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.18	18.3 ± 3.3 (+0.0 σ)	z_{drag}	1059.475	1059.70 ± 0.50 (+0.5 σ)	$10^9 A_{\mathrm{t}} e^{-2\tau}$	0.000	< 0.127
$A_{217}^{\mathrm{dustTT}}$	94.1	93.2 ± 7.4 (−0.0 σ)	r_{drag}	147.503	147.42 ± 0.34 (−0.3 σ)	f_{2000}^{143}	30.69	31.6 ± 3.2 (+0.2 σ)
c_{100}	0.99962	0.99962 ± 0.00061 (−0.0 σ)	k_{D}	0.140310	0.14046 ± 0.00047 (+0.4 σ)	$f_{2000}^{143 \times 217}$	33.40	33.9 ± 2.2 (+0.3 σ)
c_{217}	0.99827	0.99828 ± 0.00062 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.161021	0.16090 ± 0.00029 (−0.5 σ)	f_{2000}^{217}	107.88	108.4 ± 2.1 (+0.3 σ)
H_0	67.54	67.65 ± 0.50 (+0.2 σ)	z_{eq}	3377.8	3378 ± 26 (+0.0 σ)	$\chi_{\mathrm{lensing}}^2$	8.96	9.49 ± 0.78 (+0.3 σ)
Ω_{Λ}	0.6887	0.6896 ± 0.0066 (+0.1 σ)	k_{eq}	0.010309	0.010310 ± 0.000078 (+0.0 σ)	χ_{small}^2	396.06	397.5 ± 1.9 (+0.2 σ)
Ω_{m}	0.3113	0.3104 ± 0.0066 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.81726	0.8175 ± 0.0047 (+0.0 σ)	χ_{lowl}^2	22.68	23.5 ± 2.2 (+0.3 σ)
$\Omega_{\mathrm{m}}h^2$	0.14200	0.1420 ± 0.0011 (+0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.45158	0.4516 ± 0.0024 (+0.0 σ)	χ_{plik}^2	759.8	773.1 ± 5.5 (+0.3 σ)
$\Omega_{\mathrm{m}}h^3$	0.095900	0.09606 ± 0.00050 (+0.4 σ)	$H(0.15)$	72.812	72.91 ± 0.44 (+0.2 σ)	$\chi_{6\mathrm{DF}}^2$	0.0312	0.054 ± 0.068 (−0.1 σ)
σ_{s}	0.8085	0.8088 ± 0.0062 (−0.0 σ)	$D_{\mathrm{M}}(0.15)$	641.92	641.0 ± 4.3 (−0.2 σ)	χ_{MGS}^2	1.217	1.32 ± 0.47 (+0.1 σ)
S_{s}	0.8236	0.823 ± 0.012 (−0.1 σ)	$H(0.38)$	82.912	83.00 ± 0.34 (+0.3 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.41	4.7 ± 1.5 (−0.1 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4511	0.4506 ± 0.0066 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1531.0	1528.9 ± 8.8 (−0.2 σ)	χ_{prior}^2	1.57	7.3 ± 3.7 (+0.0 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.6039	0.6037 ± 0.0063 (−0.1 σ)	$H(0.51)$	89.622	89.71 ± 0.28 (+0.3 σ)	χ_{CMB}^2	1187.5	1203.5 ± 5.7 (+0.4 σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9838	0.9834 ± 0.0090 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1983.3	1981 ± 10 (−0.2 σ)	χ_{BAO}^2	5.66	6.1 ± 1.2 (−0.1 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.69$; $\Delta\chi_{\mathrm{eff}}^2 = 0.01$; $\bar{\chi}_{\mathrm{eff}}^2 = 1216.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.26$; $R - 1 = 0.01565$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.41 (Δ 0.04) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.96 (Δ 0.08) small_100x143_offlike5_EE_Aplanck.L
396.06 (Δ -0.03) commander_dx12_v3.2_29: 22.68 (Δ -0.28) plik_rd12_HM_v22_TT: 759.76 (Δ -0.04)

15.19 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02224 \pm 0.00023 \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.989 \pm 0.011 \quad (-0.1\sigma)$	$H(0.51)$	$89.51 \pm 0.36 \quad (+0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0015 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.0 \pm 1.2 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1989 \pm 14 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04085 \pm 0.00044 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.028 \quad (-0.5\sigma)$	$H(0.61)$	$95.17 \pm 0.30 \quad (+0.3\sigma)$
τ	$0.0550^{+0.0052}_{-0.0086} \quad (+0.2\sigma)$	z_{re}	$7.77^{+0.57}_{-0.83} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2314 \pm 15 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.034} \quad (+0.3\sigma)$	$H(2.33)$	$236.41 \pm 0.95 \quad (+0.0\sigma)$
n_{s}	$0.9638 \pm 0.0050 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.884 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5770 \pm 15 \quad (-0.3\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0064 ± 0.0080	D_{40}	$1234 \pm 21 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4600 \pm 0.0082 \quad (-0.1\sigma)$
r	< 0.0632	D_{220}	$5716 \pm 41 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7487 \pm 0.0052 \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4773 \pm 0.0063 \quad (-0.1\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6632^{+0.0041}_{-0.0047} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.3 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4754 \pm 0.0054 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.984 \pm 0.025 \quad (+4.4\sigma)$	$\sigma_8(0.51)$	$0.6204^{+0.0038}_{-0.0045} \quad (-0.0\sigma)$
A_{100}^{PS}	$266 \pm 29 \quad (+0.1\sigma)$	Y_{P}	$0.24534^{+0.00010}_{-0.000087} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.4700 \pm 0.0048 \quad (-0.1\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.2\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24666^{+0.00010}_{-0.000088} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5902^{+0.0035}_{-0.0043} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.611 \pm 0.044 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0018}_{-0.0023} \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.813 \pm 0.034 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0020}_{-0.0025} \quad (+0.0\sigma)$
A^{kSZ}	$< 5.30 \quad (+0.1\sigma)$	z_*	$1090.09 \pm 0.36 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0599
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.54 \pm 0.37 \quad (-0.1\sigma)$	$r_{0.01}$	< 0.0610
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00043 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.40^{+1.4}_{-0.63}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.884 \pm 0.035 \quad (-0.1\sigma)$	r_{10}	< 0.0311
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	z_{drag}	$1059.62 \pm 0.51 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.133
c_{100}	$0.99961 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.40 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.119
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14060 \pm 0.00050 \quad (+0.3\sigma)$	f_{2000}^{143}	$32.0 \pm 3.2 \quad (+0.3\sigma)$
H_0	$67.23 \pm 0.70 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16094 \pm 0.00030 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$34.1 \pm 2.2 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6838 \pm 0.0095 \quad (+0.1\sigma)$	z_{eq}	$3399 \pm 35 \quad (+0.0\sigma)$	f_{2000}^{217}	$108.6 \pm 2.0 \quad (+0.3\sigma)$
Ω_{m}	$0.3162 \pm 0.0095 \quad (-0.1\sigma)$	k_{eq}	$0.01037 \pm 0.00011 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.67 \pm 0.95 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0015 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8136 \pm 0.0066 \quad (+0.0\sigma)$	χ_{simall}^2	$397.1 \pm 1.7 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09604 \pm 0.00049 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4496 \pm 0.0034 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.8 \pm 2.3 \quad (+0.1\sigma)$
σ_8	$0.8107 \pm 0.0060 \quad (-0.1\sigma)$	$H(0.15)$	$72.56 \pm 0.60 \quad (+0.2\sigma)$	χ_{plik}^2	$772.7 \pm 5.5 \quad (+0.3\sigma)$
S_8	$0.832 \pm 0.016 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$644.5 \pm 6.0 \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4559 \pm 0.0089 \quad (-0.1\sigma)$	$H(0.38)$	$82.75 \pm 0.45 \quad (+0.2\sigma)$	χ_{CMB}^2	$1203.3 \pm 5.8 \quad (+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6079 \pm 0.0077 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1536 \pm 12 \quad (-0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1210.63$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.47$; $R - 1 = 0.00844$

15.20 base_nrun_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00022 \quad (+0.5\sigma)$	$r_{\mathrm{drag}}h$	$99.75 \pm 0.84 \quad (+0.1\sigma)$	$H(0.61)$	$95.32 \pm 0.25 \quad (+0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1190 \pm 0.0011 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.024 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 11 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04099 \pm 0.00041 \quad (+0.0\sigma)$	z_{re}	$7.94^{+0.64}_{-0.78} \quad (+0.1\sigma)$	$H(2.33)$	$235.86 \pm 0.71 \quad (+0.1\sigma)$
τ	$0.0570^{+0.0060}_{-0.0082} \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.109^{+0.027}_{-0.034} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763 \pm 13 \quad (-0.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.049^{+0.013}_{-0.016} \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.3\sigma)$	$f\sigma_{\mathrm{s}}(0.15)$	$0.4553 \pm 0.0061 \quad (-0.1\sigma)$
n_{s}	$0.9660 \pm 0.0042 \quad (+0.0\sigma)$	D_{40}	$1232 \pm 21 \quad (+0.3\sigma)$	$\sigma_{\mathrm{s}}(0.15)$	$0.7478 \pm 0.0053 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0065 ± 0.0082	D_{220}	$5723 \pm 40 \quad (-0.0\sigma)$	$f\sigma_{\mathrm{s}}(0.38)$	$0.4739 \pm 0.0051 \quad (-0.1\sigma)$
r	< 0.0676	D_{810}	$2540 \pm 13 \quad (+0.2\sigma)$	$\sigma_{\mathrm{s}}(0.38)$	$0.6630^{+0.0043}_{-0.0049} \quad (-0.0\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.0\sigma)$	D_{1420}	$815.4 \pm 5.0 \quad (-0.0\sigma)$	$f\sigma_{\mathrm{s}}(0.51)$	$0.4727 \pm 0.0045 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{2000}	$229.6 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_{\mathrm{s}}(0.51)$	$0.6205^{+0.0040}_{-0.0046} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.987 \pm 0.026 \quad (+5.1\sigma)$	$f\sigma_{\mathrm{s}}(0.61)$	$0.4678 \pm 0.0041 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.1\sigma)$	Y_{P}	$0.245363^{+0.000093}_{-0.000083} \quad (+0.5\sigma)$	$\sigma_{\mathrm{s}}(0.61)$	$0.5905^{+0.0038}_{-0.0044} \quad (-0.0\sigma)$
A_{100}^{PS}	$265 \pm 28 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246690^{+0.000093}_{-0.000084} \quad (+0.5\sigma)$	$f\sigma_{\mathrm{s}}(2.33)$	$0.2978^{+0.0019}_{-0.0023} \quad (-0.0\sigma)$
A_{143}^{PS}	$50 \pm 8 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.600 \pm 0.041 \quad (-0.5\sigma)$	$\sigma_{\mathrm{s}}(2.33)$	$0.3071^{+0.0020}_{-0.0025} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.798 \pm 0.029 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0648
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	z_{*}	$1089.93 \pm 0.31 \quad (-0.4\sigma)$	$r_{0.01}$	< 0.0657
A^{kSZ}	$< 5.22 \quad (+0.1\sigma)$	r_{*}	$144.73 \pm 0.30 \quad (-0.2\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.33^{+1.4}_{-0.61}$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$100\theta_{*}$	$1.04118 \pm 0.00040 \quad (+0.0\sigma)$	r_{10}	< 0.0335
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.901 \pm 0.030 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.143
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_{drag}	$1059.70 \pm 0.50 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.127
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.4 \quad (-0.0\sigma)$	r_{drag}	$147.43 \pm 0.34 \quad (-0.3\sigma)$	f_{2000}^{143}	$31.7 \pm 3.2 \quad (+0.3\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	k_{D}	$0.14046 \pm 0.00047 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.9 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$0.99828 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16090 \pm 0.00029 \quad (-0.5\sigma)$	f_{2000}^{217}	$108.4 \pm 2.1 \quad (+0.3\sigma)$
H_0	$67.66 \pm 0.50 \quad (+0.2\sigma)$	z_{eq}	$3378 \pm 26 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.46 \pm 0.74 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6898 \pm 0.0065 \quad (+0.1\sigma)$	k_{eq}	$0.010309 \pm 0.000078 \quad (+0.0\sigma)$	χ_{small}^2	$397.4 \pm 1.9 \quad (+0.2\sigma)$
Ω_{m}	$0.3102 \pm 0.0065 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8176 \pm 0.0047 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.5 \pm 2.1 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0024 \quad (+0.0\sigma)$	χ_{plik}^2	$773.0 \pm 5.5 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00050 \quad (+0.4\sigma)$	$H(0.15)$	$72.93 \pm 0.44 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.052 \pm 0.066 \quad (-0.1\sigma)$
σ_{s}	$0.8091 \pm 0.0059 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.9 \pm 4.3 \quad (-0.2\sigma)$	χ_{MGS}^2	$1.33 \pm 0.47 \quad (+0.1\sigma)$
S_{s}	$0.823 \pm 0.012 \quad (-0.1\sigma)$	$H(0.38)$	$83.01 \pm 0.33 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.4 \quad (-0.1\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	$0.4507 \pm 0.0066 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.7 \pm 8.7 \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	$0.6039 \pm 0.0062 \quad (-0.1\sigma)$	$H(0.51)$	$89.71 \pm 0.28 \quad (+0.3\sigma)$	χ_{CMB}^2	$1203.4 \pm 5.7 \quad (+0.4\sigma)$
$\sigma_{\mathrm{s}}/h^{0.5}$	$0.9837 \pm 0.0089 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 10 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (-0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1216.87; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 2.29; R - 1 = 0.01475$$

15.21 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022398	0.02243 ± 0.00015 (+0.4 σ)	σ_8	0.8121	0.8109 ± 0.0060 (−0.0 σ)	$H(0.38)$	82.860	82.93 ± 0.34 (+0.2 σ)
$\Omega_c h^2$	0.12015	0.1199 ± 0.0012 (−0.1 σ)	S_8	0.8333	0.830 ± 0.013 (−0.1 σ)	$D_M(0.38)$	1533.9	1531.9 ± 9.3 (−0.2 σ)
$100\theta_{MC}$	1.040936	1.04093 ± 0.00030 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4564	0.4547 ± 0.0069 (−0.1 σ)	$H(0.51)$	89.628	89.69 ± 0.27 (+0.2 σ)
τ	0.0546	0.0561 ± 0.0077 (+0.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6088	0.6072 ± 0.0064 (−0.1 σ)	$D_M(0.51)$	1986.3	1984 ± 11 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0464	3.049 ± 0.015 (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9897	0.9874 ± 0.0090 (−0.1 σ)	$H(0.61)$	95.286	95.33 ± 0.22 (+0.2 σ)
n_s	0.96542	0.9647 ± 0.0044 (−0.0 σ)	$r_{drag} h$	98.99	99.18 ± 0.93 (+0.1 σ)	$D_M(0.61)$	2310.7	2308 ± 12 (−0.2 σ)
$dn_s/d \ln k$	−0.0025	$−0.0085 \pm 0.0073$	$\langle d^2 \rangle^{1/2}$	2.4423	2.431 ± 0.024 (−0.7 σ)	$H(2.33)$	236.69	236.55 ± 0.72 (−0.0 σ)
r	0.0007	< 0.0778	z_{re}	7.71	7.83 ± 0.76 (+0.2 σ)	$D_M(2.33)$	5762.6	5761 ± 10 (−0.3 σ)
y_{cal}	1.00064	1.0007 ± 0.0025 (+0.0 σ)	$10^9 A_s$	2.1039	$2.110^{+0.030}_{-0.033}$ (+0.4 σ)	$f\sigma_8(0.15)$	0.4606	0.4590 ± 0.0064 (−0.1 σ)
A_{217}^{CIB}	47.4	48 ± 7 (+0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8862	1.886 ± 0.011 (+0.3 σ)	$\sigma_8(0.15)$	0.7500	0.7490 ± 0.0054 (−0.0 σ)
$\xi^{tSZ \times CIB}$	0.47	—	D_{40}	1224.7	1233^{+19}_{-21} (+0.1 σ)	$f\sigma_8(0.38)$	0.4780	0.4767 ± 0.0052 (−0.1 σ)
A_{143}^{tSZ}	7.12	5.2 ± 2.0 (−0.1 σ)	D_{220}	5732.5	5729 ± 39 (−0.2 σ)	$\sigma_8(0.38)$	0.66430	0.6636 ± 0.0048 (−0.0 σ)
A_{100}^{PS}	251.3	264 ± 28 (+0.1 σ)	D_{810}	2542.8	2542 ± 13 (+0.2 σ)	$f\sigma_8(0.51)$	0.47611	0.4749 ± 0.0046 (−0.1 σ)
A_{143}^{PS}	49.3	48 ± 8 (+0.3 σ)	D_{1420}	818.14	816.2 ± 5.0 (−0.2 σ)	$\sigma_8(0.51)$	0.62148	0.6209 ± 0.0045 (+0.0 σ)
$A_{143 \times 217}^{PS}$	49.2	43 ± 9 (+0.0 σ)	D_{2000}	231.06	230.0 ± 1.8 (−0.5 σ)	$f\sigma_8(0.61)$	0.47077	0.4697 ± 0.0042 (−0.1 σ)
A_{217}^{PS}	120.2	115 ± 10 (−0.0 σ)	$n_{s,0.002}$	0.9735	0.992 ± 0.023 (+6.5 σ)	$\sigma_8(0.61)$	0.59123	0.5907 ± 0.0043 (+0.0 σ)
A^{kSZ}	0.00	< 5.03 (+0.2 σ)	Y_P	0.245407	0.245416 ± 0.000059 (+0.4 σ)	$f\sigma_8(2.33)$	0.29793	0.2977 ± 0.0022 (+0.0 σ)
A_{100}^{dustTT}	8.87	9.0 ± 1.8 (+0.0 σ)	Y_P^{BBN}	0.246733	0.246743 ± 0.000059 (+0.4 σ)	$\sigma_8(2.33)$	0.30696	0.3068 ± 0.0024 (+0.0 σ)
A_{143}^{dustTT}	11.05	11.0 ± 1.8 (+0.0 σ)	$10^5 D/H$	2.5802	2.575 ± 0.028 (−0.4 σ)	$r_{0.002}$	0.0006	< 0.0752
$A_{143 \times 217}^{dustTT}$	19.92	18.7 ± 3.3 (+0.0 σ)	Age/Gyr	13.7949	13.791 ± 0.023 (−0.3 σ)	$r_{0.01}$	0.0006	< 0.0756
A_{217}^{dustTT}	95.0	93.5 ± 7.4 (−0.0 σ)	z_*	1089.898	1089.84 ± 0.26 (−0.3 σ)	$\ln(10^{10} A_t)$	−4.27	$−0.17^{+1.3}_{-0.52}$
A_{100}^{dustTE}	0.1141	0.115 ± 0.038 (+0.0 σ)	r_*	144.371	144.41 ± 0.27 (−0.1 σ)	r_{10}	0.0003	< 0.0391
$A_{100 \times 143}^{dustTE}$	0.1348	0.136 ± 0.029 (+0.0 σ)	$100\theta_*$	1.041112	1.04111 ± 0.00030 (+0.0 σ)	$10^9 A_t$	0.001	< 0.164
$A_{100 \times 217}^{dustTE}$	0.481	0.479 ± 0.085 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8670	13.871 ± 0.025 (−0.1 σ)	$10^9 A_t e^{-2\tau}$	0.001	< 0.147
A_{143}^{dustTE}	0.224	0.226 ± 0.054 (+0.0 σ)	z_{drag}	1060.009	1060.06 ± 0.32 (+0.4 σ)	f_{2000}^{143}	29.32	31.1 ± 3.1 (+0.5 σ)
$A_{143 \times 217}^{dustTE}$	0.666	0.664 ± 0.080 (−0.0 σ)	r_{drag}	147.021	147.05 ± 0.27 (−0.1 σ)	$f_{2000}^{143 \times 217}$	32.38	33.4 ± 2.2 (+0.6 σ)
A_{217}^{dustTE}	2.085	2.08 ± 0.27 (−0.0 σ)	k_D	0.140963	0.14095 ± 0.00032 (+0.3 σ)	f_{2000}^{217}	106.91	108.0 ± 2.0 (+0.6 σ)
c_{100}	0.99973	0.99968 ± 0.00061 (+0.0 σ)	$100\theta_D$	0.160717	0.16068 ± 0.00019 (−0.4 σ)	$\chi_{lensing}^2$	8.96	9.56 ± 0.76 (+0.5 σ)
c_{217}	0.99820	0.99822 ± 0.00062 (+0.0 σ)	z_{eq}	3406.4	3401 ± 27 (−0.0 σ)	χ_{small}^2	396.06	397.4 ± 1.8 (+0.3 σ)
H_0	67.33	67.44 ± 0.54 (+0.2 σ)	k_{eq}	0.010397	0.010381 ± 0.000082 (−0.0 σ)	χ_{lowl}^2	22.66	23.4 ± 1.9 (−0.2 σ)
Ω_Λ	0.6841	0.6856 ± 0.0074 (+0.1 σ)	$100\theta_{eq}$	0.8126	0.8137 ± 0.0051 (+0.1 σ)	χ_{plik}^2	2345.1	2360.6 ± 5.9 (+0.2 σ)
Ω_m	0.3159	0.3144 ± 0.0074 (−0.1 σ)	$100\theta_{s,eq}$	0.44901	0.4495 ± 0.0026 (+0.1 σ)	χ_{prior}^2	1.66	11.6 ± 4.6 (+0.0 σ)
$\Omega_m h^2$	0.14319	0.1430 ± 0.0011 (−0.0 σ)	$H(0.15)$	72.661	72.76 ± 0.46 (+0.2 σ)	χ_{CMB}^2	2772.8	2791.0 ± 6.2 (+0.3 σ)
$\Omega_m h^3$	0.096409	0.09642 ± 0.00031 (+0.3 σ)	$D_M(0.15)$	643.59	642.6 ± 4.6 (−0.2 σ)			

Best-fit $\chi_{eff}^2 = 2774.45$; $\Delta\chi_{eff}^2 = -0.18$; $\bar{\chi}_{eff}^2 = 2802.59$; $\Delta\bar{\chi}_{eff}^2 = 1.90$; $R - 1 = 0.00905$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.96 (Δ 0.09) simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2_29: 22.66 (Δ -0.59) plik_rd12_HM_v22b_TTTEE: 2345.10 (Δ 0.17)

15.22 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022442	0.02248 ± 0.00014 (+0.4 σ)	S_8	0.8260	0.824 ± 0.011 (−0.1 σ)	$H(0.51)$	89.767	89.82 ± 0.22 (+0.2 σ)
$\Omega_c h^2$	0.11941	0.11925 ± 0.00094 (−0.1 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4524	0.4513 ± 0.0058 (−0.1 σ)	$D_M(0.51)$	1980.2	1978.2 ± 8.6 (−0.2 σ)
$100\theta_{MC}$	1.040977	1.04101 ± 0.00029 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6056	0.6046 ± 0.0057 (−0.1 σ)	$H(0.61)$	95.390	95.44 ± 0.19 (+0.3 σ)
τ	0.0569	$0.0579^{+0.0067}_{-0.0076}$ (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9857	0.9843 ± 0.0083 (−0.1 σ)	$D_M(0.61)$	2304.2	2302.1 ± 9.3 (−0.2 σ)
$\ln(10^{10} A_s)$	3.0493	$3.052^{+0.014}_{-0.016}$ (+0.4 σ)	$r_{drag} h$	99.54	99.69 ± 0.73 (+0.1 σ)	$H(2.33)$	236.25	236.18 ± 0.58 (+0.0 σ)
n_s	0.96642	0.9664 ± 0.0040 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4332	2.424 ± 0.023 (−0.7 σ)	$D_M(2.33)$	5758.5	5756.2 ± 9.1 (−0.3 σ)
$dn_s/d \ln k$	−0.0037	$−0.0084 \pm 0.0074$	z_{re}	7.92	7.99 ± 0.73 (+0.2 σ)	$f\sigma_8(0.15)$	0.4570	0.4560 ± 0.0054 (−0.1 σ)
r	0.0004	< 0.0813	$10^9 A_s$	2.1101	$2.115^{+0.029}_{-0.034}$ (+0.4 σ)	$\sigma_8(0.15)$	0.7491	0.7487 ± 0.0054 (−0.0 σ)
y_{cal}	1.00069	1.0008 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8831	1.884 ± 0.011 (+0.3 σ)	$f\sigma_8(0.38)$	0.47538	0.4746 ± 0.0046 (−0.1 σ)
A_{217}^{CIB}	49.0	48 ± 7 (+0.1 σ)	D_{40}	1219.6	1231^{+19}_{-22} (+0.2 σ)	$\sigma_8(0.38)$	0.66405	0.6638 ± 0.0048 (+0.0 σ)
$\xi^{tSZ \times CIB}$	0.19	—	D_{220}	5736.1	5733 ± 39 (−0.2 σ)	$f\sigma_8(0.51)$	0.47399	0.4733 ± 0.0042 (−0.1 σ)
A_{143}^{tSZ}	7.30	5.2 ± 2.0 (−0.1 σ)	D_{810}	2541.5	2542 ± 13 (+0.2 σ)	$\sigma_8(0.51)$	0.62144	0.6212 ± 0.0045 (+0.0 σ)
A_{100}^{PS}	253.3	263 ± 28 (+0.1 σ)	D_{1420}	817.64	816.8 ± 4.9 (−0.2 σ)	$f\sigma_8(0.61)$	0.46901	0.4684 ± 0.0039 (−0.1 σ)
A_{143}^{PS}	45.1	48 ± 8 (+0.3 σ)	D_{2000}	230.85	230.3 ± 1.8 (−0.5 σ)	$\sigma_8(0.61)$	0.59132	0.5912 ± 0.0043 (+0.0 σ)
$A_{143 \times 217}^{PS}$	41.9	42 ± 9 (+0.0 σ)	$n_{s,0.002}$	0.9785	0.993 ± 0.023 (+7.1 σ)	$f\sigma_8(2.33)$	0.29815	0.2981 ± 0.0022 (+0.0 σ)
A_{217}^{PS}	117.4	114 ± 10 (−0.0 σ)	Y_P	0.245423	0.245434 ± 0.000054 (+0.4 σ)	$\sigma_8(2.33)$	0.30738	$0.3074^{+0.0022}_{-0.0024}$ (+0.0 σ)
A^{kSZ}	0.00	< 4.92 (+0.2 σ)	Y_P^{BBN}	0.246750	0.246761 ± 0.000054 (+0.4 σ)	$r_{0.002}$	0.0004	< 0.0793
A_{100}^{dustTT}	8.93	9.0 ± 1.8 (+0.1 σ)	$10^5 D/H$	2.5722	2.567 ± 0.026 (−0.4 σ)	$r_{0.01}$	0.0004	< 0.0793
A_{143}^{dustTT}	11.01	11.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.7860	13.781 ± 0.021 (−0.3 σ)	$\ln(10^{10} A_t)$	−4.68	$−0.13^{+1.3}_{-0.51}$
$A_{143 \times 217}^{dustTT}$	19.41	18.6 ± 3.3 (+0.0 σ)	z_*	1089.777	1089.72 ± 0.22 (−0.3 σ)	r_{10}	0.0002	< 0.0411
A_{217}^{dustTT}	94.4	93.4 ± 7.4 (−0.0 σ)	r_*	144.529	144.54 ± 0.22 (−0.1 σ)	$10^9 A_t$	0.001	< 0.172
A_{100}^{dustTE}	0.1144	0.115 ± 0.039 (+0.0 σ)	$100\theta_*$	1.041153	1.04118 ± 0.00028 (−0.0 σ)	$10^9 A_t e^{-2\tau}$	0.001	< 0.153
$A_{100 \times 143}^{dustTE}$	0.1358	0.136 ± 0.030 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8817	13.883 ± 0.022 (−0.1 σ)	f_{2000}^{143}	29.62	30.8 ± 3.1 (+0.5 σ)
$A_{100 \times 217}^{dustTE}$	0.481	0.478 ± 0.084 (−0.0 σ)	z_{drag}	1060.047	1060.12 ± 0.31 (+0.4 σ)	$f_{2000}^{143 \times 217}$	32.52	33.1 ± 2.1 (+0.6 σ)
A_{143}^{dustTE}	0.225	0.225 ± 0.054 (+0.0 σ)	r_{drag}	147.169	147.17 ± 0.24 (−0.2 σ)	f_{2000}^{217}	107.22	107.9 ± 2.0 (+0.5 σ)
$A_{143 \times 217}^{dustTE}$	0.663	0.664 ± 0.079 (−0.1 σ)	k_D	0.140841	0.14086 ± 0.00030 (+0.3 σ)	$\chi_{lensing}^2$	8.840	9.42 ± 0.64 (+0.5 σ)
A_{217}^{dustTE}	2.072	2.07 ± 0.27 (−0.0 σ)	$100\theta_D$	0.160687	0.16065 ± 0.00018 (−0.4 σ)	χ_{small}^2	396.45	397.7 ± 2.0 (+0.3 σ)
c_{100}	0.99971	0.99968 ± 0.00062 (+0.0 σ)	z_{eq}	3389.8	3387 ± 21 (−0.0 σ)	χ_{lowl}^2	22.19	23.2 ± 1.9 (−0.0 σ)
c_{217}	0.99820	0.99822 ± 0.00062 (+0.1 σ)	k_{eq}	0.010346	0.010337 ± 0.000065 (−0.0 σ)	χ_{plik}^2	2345.4	2360.6 ± 5.9 (+0.2 σ)
H_0	67.640	67.73 ± 0.43 (+0.2 σ)	$100\theta_{eq}$	0.81577	0.8164 ± 0.0040 (+0.1 σ)	χ_{6DF}^2	0.0373	0.049 ± 0.058 (−0.1 σ)
Ω_Λ	0.6885	0.6896 ± 0.0057 (+0.1 σ)	$100\theta_{s,eq}$	0.45062	0.4509 ± 0.0021 (+0.0 σ)	χ_{MGS}^2	1.156	1.29 ± 0.40 (+0.1 σ)
Ω_m	0.3115	0.3104 ± 0.0057 (−0.1 σ)	$H(0.15)$	72.925	73.01 ± 0.37 (+0.2 σ)	$\chi_{DR12BAO}^2$	4.62	4.7 ± 1.3 (−0.1 σ)
$\Omega_m h^2$	0.14250	0.14237 ± 0.00090 (−0.0 σ)	$D_M(0.15)$	640.94	640.1 ± 3.6 (−0.2 σ)	χ_{prior}^2	1.89	11.7 ± 4.6 (+0.0 σ)
$\Omega_m h^3$	0.096383	0.09643 ± 0.00031 (+0.3 σ)	$H(0.38)$	83.044	83.11 ± 0.27 (+0.2 σ)	χ_{CMB}^2	2772.8	2790.9 ± 6.2 (+0.3 σ)
σ_8	0.8107	0.8101 ± 0.0059 (−0.0 σ)	$D_M(0.38)$	1528.6	1527.0 ± 7.3 (−0.2 σ)	χ_{BAO}^2	5.81	6.1 ± 1.0 (−0.1 σ)

Best-fit $\chi_{\text{eff}}^2 = 2780.54$; $\Delta\chi_{\text{eff}}^2 = -0.16$; $\bar{\chi}_{\text{eff}}^2 = 2808.64$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.79$; $R - 1 = 0.01143$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.62 (Δ 0.20) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.84 (Δ 0.11) small_100x143_offlike5_EE_Aplanck: 396.45 (Δ -0.07) commander_dx12_v3.2_29: 22.19 (Δ -0.71) plik_rd12_HM_v22b_TTTEE: 2345.36 (Δ 0.04)

15.23 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02243 \pm 0.00015 \quad (+0.4\sigma)$	σ_8	$0.8113^{+0.0054}_{-0.0060} \quad (-0.1\sigma)$	$H(0.38)$	$82.95 \pm 0.34 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0012 \quad (-0.1\sigma)$	S_8	$0.830 \pm 0.013 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531.6 \pm 9.2 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4547 \pm 0.0070 \quad (-0.1\sigma)$	$H(0.51)$	$89.70 \pm 0.27 \quad (+0.2\sigma)$
τ	$0.0568^{+0.0058}_{-0.0080} \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6073 \pm 0.0063 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1984 \pm 11 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.051^{+0.012}_{-0.016} \quad (+0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.9877 \pm 0.0089 \quad (-0.1\sigma)$	$H(0.61)$	$95.34 \pm 0.22 \quad (+0.2\sigma)$
n_{s}	$0.9649 \pm 0.0044 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.21 \pm 0.92 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2308 \pm 12 \quad (-0.2\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0086 ± 0.0073	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.024 \quad (-0.7\sigma)$	$H(2.33)$	$236.53 \pm 0.71 \quad (-0.0\sigma)$
r	< 0.0784	z_{re}	$7.90^{+0.61}_{-0.76} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760 \pm 10 \quad (-0.3\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.113^{+0.025}_{-0.034} \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4590 \pm 0.0065 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.886 \pm 0.011 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7494^{+0.0047}_{-0.0055} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1233^{+19}_{-21} \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4768 \pm 0.0052 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.1\sigma)$	D_{220}	$5729 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6640^{+0.0040}_{-0.0048} \quad (-0.0\sigma)$
A_{100}^{PS}	$264 \pm 28 \quad (+0.2\sigma)$	D_{810}	$2542 \pm 13 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4751 \pm 0.0045 \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.3\sigma)$	D_{1420}	$816.2 \pm 5.0 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6213^{+0.0038}_{-0.0046} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (-0.5\sigma)$	$f\sigma_8(0.61)$	$0.4699 \pm 0.0041 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.992 \pm 0.023 \quad (+6.6\sigma)$	$\sigma_8(0.61)$	$0.5911^{+0.0036}_{-0.0044} \quad (-0.0\sigma)$
A^{kSZ}	$< 5.03 \quad (+0.2\sigma)$	Y_{P}	$0.245418 \pm 0.000059 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0018}_{-0.0023} \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246744 \pm 0.000059 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0019}_{-0.0025} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$11.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.574 \pm 0.028 \quad (-0.4\sigma)$	$r_{0.002}$	< 0.0758
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.7 \pm 3.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.790 \pm 0.023 \quad (-0.3\sigma)$	$r_{0.01}$	< 0.0763
$A_{217}^{\mathrm{dust}TT}$	$93.5 \pm 7.4 \quad (-0.0\sigma)$	z_*	$1089.83 \pm 0.26 \quad (-0.3\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.16^{+1.3}_{-0.52}$
$A_{100}^{\mathrm{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.42 \pm 0.27 \quad (-0.1\sigma)$	r_{10}	< 0.0395
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.136 \pm 0.029 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00030 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.166
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.872 \pm 0.025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.148
$A_{143}^{\mathrm{dust}TE}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	z_{drag}	$1060.07 \pm 0.32 \quad (+0.4\sigma)$	f_{2000}^{143}	$31.1 \pm 3.1 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	r_{drag}	$147.06 \pm 0.27 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.2 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	k_{D}	$0.14095 \pm 0.00031 \quad (+0.3\sigma)$	f_{2000}^{217}	$108.0 \pm 2.0 \quad (+0.6\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16068 \pm 0.00019 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.55 \pm 0.76 \quad (+0.5\sigma)$
c_{217}	$0.99822 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3400 \pm 27 \quad (-0.0\sigma)$	χ_{small}^2	$397.4 \pm 1.9 \quad (+0.3\sigma)$
H_0	$67.46 \pm 0.53 \quad (+0.2\sigma)$	k_{eq}	$0.010378 \pm 0.000081 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.3 \pm 1.9 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6859 \pm 0.0073 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8139 \pm 0.0050 \quad (+0.1\sigma)$	χ_{plik}^2	$2360.5 \pm 5.9 \quad (+0.2\sigma)$
Ω_{m}	$0.3141 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4496 \pm 0.0026 \quad (+0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0011 \quad (-0.0\sigma)$	$H(0.15)$	$72.78 \pm 0.46 \quad (+0.2\sigma)$	χ_{CMB}^2	$2790.8 \pm 6.2 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09642 \pm 0.00031 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.5 \pm 4.6 \quad (-0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2802.46; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.95; R - 1 = 0.01057$$

15.24 base_nrun_r_plikHM_TTTEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02248 ± 0.00014 (+0.4 σ)	S_8	0.824 ± 0.011 (−0.1 σ)	$H(0.51)$	89.83 ± 0.22 (+0.2 σ)
$\Omega_c h^2$	0.11924 ± 0.00094 (−0.1 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4513 ± 0.0058 (−0.1 σ)	$D_M(0.51)$	1978.0 ± 8.6 (−0.2 σ)
$100\theta_{MC}$	1.04101 ± 0.00029 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6048 ± 0.0056 (−0.1 σ)	$H(0.61)$	95.44 ± 0.19 (+0.3 σ)
τ	$0.0583^{+0.0060}_{-0.0077}$ (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9845 ± 0.0082 (−0.1 σ)	$D_M(0.61)$	2301.9 ± 9.3 (−0.2 σ)
$\ln(10^{10} A_s)$	$3.052^{+0.013}_{-0.016}$ (+0.4 σ)	$r_{\text{drag}} h$	99.70 ± 0.72 (+0.1 σ)	$H(2.33)$	236.17 ± 0.57 (+0.0 σ)
n_s	0.9664 ± 0.0040 (−0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.023 (−0.7 σ)	$D_M(2.33)$	5756.0 ± 9.0 (−0.3 σ)
$dn_s/d \ln k$	-0.0084 ± 0.0074	z_{re}	$8.03^{+0.63}_{-0.74}$ (+0.2 σ)	$f\sigma_8(0.15)$	0.4560 ± 0.0054 (−0.1 σ)
r	< 0.0819	$10^9 A_s$	$2.117^{+0.027}_{-0.034}$ (+0.4 σ)	$\sigma_8(0.15)$	$0.7489^{+0.0048}_{-0.0056}$ (−0.0 σ)
y_{cal}	1.0008 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.884 ± 0.011 (+0.3 σ)	$f\sigma_8(0.38)$	0.4746 ± 0.0046 (−0.1 σ)
A_{217}^{CIB}	48 ± 7 (+0.1 σ)	D_{40}	1231^{+19}_{-22} (+0.2 σ)	$\sigma_8(0.38)$	$0.6640^{+0.0042}_{-0.0049}$ (−0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	5733 ± 39 (−0.2 σ)	$f\sigma_8(0.51)$	0.4734 ± 0.0041 (−0.1 σ)
A_{143}^{tSZ}	5.2 ± 2.0 (−0.1 σ)	D_{810}	2542 ± 13 (+0.2 σ)	$\sigma_8(0.51)$	$0.6214^{+0.0039}_{-0.0047}$ (−0.0 σ)
A_{100}^{PS}	263 ± 28 (+0.1 σ)	D_{1420}	816.8 ± 4.9 (−0.2 σ)	$f\sigma_8(0.61)$	0.4685 ± 0.0038 (−0.1 σ)
A_{143}^{PS}	48 ± 8 (+0.3 σ)	D_{2000}	230.3 ± 1.8 (−0.5 σ)	$\sigma_8(0.61)$	$0.5913^{+0.0037}_{-0.0045}$ (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	42 ± 9 (+0.0 σ)	$n_{s,0.002}$	0.994 ± 0.023 (+7.2 σ)	$f\sigma_8(2.33)$	$0.2982^{+0.0019}_{-0.0023}$ (+0.0 σ)
A_{217}^{PS}	114 ± 10 (−0.0 σ)	Y_P	0.245435 ± 0.000054 (+0.4 σ)	$\sigma_8(2.33)$	$0.3075^{+0.0020}_{-0.0024}$ (+0.0 σ)
A^{kSZ}	< 4.92 (+0.2 σ)	Y_P^{BBN}	0.246761 ± 0.000054 (+0.4 σ)	$r_{0.002}$	< 0.0797
A_{100}^{dustTT}	9.0 ± 1.8 (+0.1 σ)	$10^5 D/H$	2.566 ± 0.026 (−0.4 σ)	$r_{0.01}$	< 0.0798
A_{143}^{dustTT}	11.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.781 ± 0.020 (−0.3 σ)	$\ln(10^{10} A_t)$	$-0.12^{+1.3}_{-0.51}$
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3 (+0.0 σ)	z_*	1089.72 ± 0.22 (−0.3 σ)	r_{10}	< 0.0413
A_{217}^{dustTT}	93.4 ± 7.4 (−0.0 σ)	r_*	144.55 ± 0.22 (−0.1 σ)	$10^9 A_t$	< 0.173
A_{100}^{dustTE}	0.115 ± 0.039 (+0.0 σ)	$100\theta_*$	1.04119 ± 0.00028 (−0.0 σ)	$10^9 A_t e^{-2\tau}$	< 0.154
$A_{100 \times 143}^{\text{dustTE}}$	0.136 ± 0.030 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.883 ± 0.022 (−0.1 σ)	f_{2000}^{143}	30.8 ± 3.1 (+0.5 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.478 ± 0.084 (−0.0 σ)	z_{drag}	1060.13 ± 0.31 (+0.4 σ)	$f_{2000}^{143 \times 217}$	33.1 ± 2.1 (+0.6 σ)
A_{143}^{dustTE}	0.225 ± 0.054 (+0.0 σ)	r_{drag}	147.17 ± 0.24 (−0.2 σ)	f_{2000}^{217}	107.8 ± 2.0 (+0.5 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.664 ± 0.080 (−0.0 σ)	k_D	0.14086 ± 0.00030 (+0.3 σ)	χ_{lensing}^2	9.40 ± 0.63 (+0.6 σ)
A_{217}^{dustTE}	2.07 ± 0.27 (−0.0 σ)	$100\theta_D$	0.16065 ± 0.00018 (−0.4 σ)	χ_{simall}^2	397.7 ± 2.1 (+0.3 σ)
c_{100}	0.99968 ± 0.00062 (+0.0 σ)	z_{eq}	3387 ± 21 (−0.0 σ)	χ_{lowl}^2	23.2 ± 1.9 (−0.0 σ)
c_{217}	0.99822 ± 0.00062 (+0.1 σ)	k_{eq}	0.010336 ± 0.000065 (−0.0 σ)	χ_{plik}^2	2360.5 ± 5.9 (+0.2 σ)
H_0	67.74 ± 0.42 (+0.2 σ)	$100\theta_{\text{eq}}$	0.8165 ± 0.0040 (+0.1 σ)	$\chi_{6\text{DF}}^2$	0.048 ± 0.057 (−0.1 σ)
Ω_Λ	0.6897 ± 0.0057 (+0.1 σ)	$100\theta_{s,\text{eq}}$	0.4510 ± 0.0021 (+0.0 σ)	χ_{MGS}^2	1.30 ± 0.40 (+0.1 σ)
Ω_m	0.3103 ± 0.0057 (−0.1 σ)	$H(0.15)$	73.02 ± 0.37 (+0.2 σ)	χ_{DR12BAO}^2	4.7 ± 1.3 (−0.1 σ)
$\Omega_m h^2$	0.14236 ± 0.00089 (−0.0 σ)	$D_M(0.15)$	640.1 ± 3.6 (−0.2 σ)	χ_{prior}^2	11.7 ± 4.5 (+0.0 σ)
$\Omega_m h^3$	0.09644 ± 0.00031 (+0.3 σ)	$H(0.38)$	83.12 ± 0.27 (+0.2 σ)	χ_{CMB}^2	2790.8 ± 6.2 (+0.3 σ)
σ_8	$0.8103^{+0.0054}_{-0.0061}$ (−0.0 σ)	$D_M(0.38)$	1526.8 ± 7.3 (−0.2 σ)	χ_{BAO}^2	6.1 ± 1.0 (−0.1 σ)

$$\bar{\chi}_{\text{eff}}^2 = 2808.56; \Delta\bar{\chi}_{\text{eff}}^2 = 1.84; R - 1 = 0.01181$$

15.25 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022298	0.02234 ± 0.00016 (+0.3 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4534	0.4525 ± 0.0071 (−0.1 σ)	$D_M(0.38)$	1533.3	1531.6 ± 9.6 (−0.2 σ)
$\Omega_c h^2$	0.11968	0.1195 ± 0.0012 (−0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6056	0.6050 ± 0.0065 (−0.1 σ)	$H(0.51)$	89.592	89.65 ± 0.28 (+0.2 σ)
$100\theta_{MC}$	1.040850	1.04088 ± 0.00031 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9855	0.9847 ± 0.0092 (−0.1 σ)	$D_M(0.51)$	1985.9	1984 ± 11 (−0.2 σ)
τ	0.0534	0.0549 ± 0.0078 (+0.2 σ)	$r_{drag}h$	99.23	99.38 ± 0.96 (+0.2 σ)	$H(0.61)$	95.231	95.28 ± 0.23 (+0.2 σ)
$\ln(10^{10} A_s)$	3.0405	3.044 ± 0.016 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.4347	2.425 ± 0.024 (−0.6 σ)	$D_M(0.61)$	2310.5	2308 ± 12 (−0.2 σ)
n_s	0.96587	0.9663 ± 0.0046 (+0.2 σ)	z_{re}	7.60	7.72 ± 0.78 (+0.2 σ)	$H(2.33)$	236.27	236.21 ± 0.75 (−0.1 σ)
$dn_s/d \ln k$	−0.0008	$−0.0055 \pm 0.0076$	$10^9 A_s$	2.0916	$2.099^{+0.031}_{-0.034}$ (+0.2 σ)	$D_M(2.33)$	5766.9	5764 ± 11 (−0.2 σ)
r	0.0203	< 0.0970	$10^9 A_s e^{-2\tau}$	1.8798	1.881 ± 0.011 (+0.1 σ)	$f\sigma_8(0.15)$	0.4578	0.4569 ± 0.0066 (−0.1 σ)
y_{cal}	1.00052	1.0006 ± 0.0025 (+0.0 σ)	D_{40}	1231.4	1239^{+20}_{-22} (+1.0 σ)	$\sigma_8(0.15)$	0.7473	0.7473 ± 0.0055 (−0.0 σ)
A_{100}^{PS}	235.5	242 ± 25 (+0.1 σ)	D_{220}	5718.3	5714 ± 39 (−0.2 σ)	$f\sigma_8(0.38)$	0.4755	0.4749 ± 0.0053 (−0.1 σ)
A_{143}^{PS}	39.5	41 ± 9 (+0.2 σ)	D_{810}	2536.2	2537 ± 14 (+0.2 σ)	$\sigma_8(0.38)$	0.66211	0.6623 ± 0.0048 (+0.0 σ)
A_{217}^{PS}	101.9	102 ± 10 (−0.0 σ)	D_{1420}	816.0	815.5 ± 5.1 (−0.0 σ)	$f\sigma_8(0.51)$	0.47377	0.4733 ± 0.0046 (−0.1 σ)
A_{217}^{CIB}	44.6	40 ± 7 (+0.1 σ)	D_{2000}	230.28	229.9 ± 1.9 (−0.2 σ)	$\sigma_8(0.51)$	0.61950	0.6197 ± 0.0046 (+0.0 σ)
A_{143}^{tSZ}	6.54	$3.8^{+1.8}_{-2.6}$ (−0.1 σ)	$n_{s,0.002}$	0.9685	0.984 ± 0.024 (+4.4 σ)	$f\sigma_8(0.61)$	0.46859	0.4683 ± 0.0042 (−0.1 σ)
$r_{143 \times 217}^{PS}$	0.586	0.65 ± 0.13 (−0.0 σ)	Y_P	0.245367	$0.245379^{+0.000069}_{-0.000059}$ (+0.3 σ)	$\sigma_8(0.61)$	0.58940	0.5896 ± 0.0044 (+0.0 σ)
$r_{143 \times 217}^{CIB}$	0.778	$0.57^{+0.40}_{-0.15}$ (+0.1 σ)	Y_P^{BBN}	0.246693	$0.246706^{+0.000069}_{-0.000059}$ (+0.3 σ)	$f\sigma_8(2.33)$	0.29708	0.2972 ± 0.0023 (+0.0 σ)
$\xi^{tSZ \times CIB}$	0.07	—	$10^5 D/H$	2.5990	2.593 ± 0.030 (−0.3 σ)	$\sigma_8(2.33)$	0.30616	0.3064 ± 0.0025 (+0.1 σ)
A^{kSZ}	0.00	$4.9^{+2.8}_{-3.5}$ (+0.1 σ)	Age/Gyr	13.8054	13.800 ± 0.025 (−0.2 σ)	$r_{0.002}$	0.0184	< 0.0938
A_{100}^{dust}	1.009	1.01 ± 0.19 (+0.0 σ)	z_*	1089.985	1089.92 ± 0.27 (−0.3 σ)	$r_{0.01}$	0.0193	< 0.0946
A_{143}^{dust}	0.969	0.96 ± 0.18 (+0.0 σ)	r_*	144.568	144.58 ± 0.28 (+0.0 σ)	$\ln(10^{10} A_t)$	−0.86	$0.09^{+1.2}_{-0.43}$
A_{217}^{dust}	0.969	0.97 ± 0.10 (−0.0 σ)	$100\theta_*$	1.041042	1.04107 ± 0.00031 (+0.0 σ)	r_{10}	0.0094	< 0.0487
$A_{143 \times 217}^{dust}$	1.003	1.02 ± 0.16 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8869	13.888 ± 0.027 (+0.0 σ)	$10^9 A_t$	0.042	< 0.204
c_{100}	0.99769	0.9975 ± 0.0010 (+0.0 σ)	z_{drag}	1059.742	1059.82 ± 0.35 (+0.3 σ)	$10^9 A_t e^{-2\tau}$	0.038	< 0.182
c_{217}	1.00132	1.0012 ± 0.0016 (+0.0 σ)	r_{drag}	147.256	147.26 ± 0.29 (−0.0 σ)	f_{2000}^{143}	30.09	30.4 ± 3.3 (+0.2 σ)
c_{TE}	0.99656	0.9963 ± 0.0049 (−0.1 σ)	k_D	0.140640	0.14066 ± 0.00034 (+0.1 σ)	f_{2000}^{217}	106.89	107.4 ± 2.2 (+0.3 σ)
c_{EE}	0.99224	0.9921 ± 0.0050 (−0.0 σ)	$100\theta_D$	0.160856	0.16082 ± 0.00020 (−0.3 σ)	$f_{2000}^{143 \times 217}$	32.12	32.7 ± 2.4 (+0.3 σ)
H_0	67.38	67.48 ± 0.56 (+0.2 σ)	z_{eq}	3392.9	3390 ± 28 (−0.1 σ)	$\chi_{lensing}^2$	8.89	9.56 ± 0.78 (+0.4 σ)
Ω_Λ	0.6859	0.6870 ± 0.0076 (+0.2 σ)	k_{eq}	0.010355	0.010346 ± 0.000085 (−0.1 σ)	χ_{simall}^2	396.00	397.4 ± 1.7 (+0.3 σ)
Ω_m	0.3141	0.3130 ± 0.0076 (−0.2 σ)	$100\theta_{eq}$	0.8147	0.8154 ± 0.0053 (+0.1 σ)	χ_{lowl}^2	23.48	24.3 ± 2.2 (+1.2 σ)
$\Omega_m h^2$	0.14263	0.1425 ± 0.0012 (−0.1 σ)	$100\theta_{s,eq}$	0.45017	0.4505 ± 0.0027 (+0.1 σ)	$\chi_{CamSpec}^2$	11499.1	11514.1 ± 5.8 (−0.0 σ)
$\Omega_m h^3$	0.096106	0.09616 ± 0.00033 (+0.2 σ)	$H(0.15)$	72.692	72.78 ± 0.48 (+0.2 σ)	χ_{prior}^2	2.15	7.8 ± 3.4 (−0.0 σ)
σ_8	0.8090	0.8089 ± 0.0061 (−0.0 σ)	$D_M(0.15)$	643.19	642.3 ± 4.8 (−0.2 σ)	χ_{CMB}^2	11927.5	11945.3 ± 6.0 (+0.3 σ)
S_8	0.8278	0.826 ± 0.013 (−0.1 σ)	$H(0.38)$	82.849	82.92 ± 0.35 (+0.2 σ)			

Best-fit $\chi_{eff}^2 = 11929.59$; $\Delta\chi_{eff}^2 = -0.06$; $\bar{\chi}_{eff}^2 = 11953.15$; $\Delta\bar{\chi}_{eff}^2 = 1.71$; $R - 1 = 0.01351$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp.p_teb_consext8: 8.89 (Δ 0.06) simall_100x143_offlike5_EE_Aplanck_B: 396.00 (Δ 0.13) commander_dx12_v3.2_29: 23.48 (Δ 0.26) CamSpec like_10.7HM_1400_unified: 11499.08 (Δ -0.58)

15.26 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00015 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6028 \pm 0.0057 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978.9 \pm 8.7 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11897 \pm 0.00095 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9821 \pm 0.0084 \quad (-0.1\sigma)$	$H(0.61)$	$95.37 \pm 0.19 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00030 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.81 \pm 0.74 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302.9 \pm 9.4 \quad (-0.2\sigma)$
τ	$0.0564 \pm 0.0076 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.419 \pm 0.023 \quad (-0.6\sigma)$	$H(2.33)$	$235.89 \pm 0.59 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046 \pm 0.016 \quad (+0.2\sigma)$	z_{re}	$7.86 \pm 0.75 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760.6 \pm 9.4 \quad (-0.2\sigma)$
n_{s}	$0.9676 \pm 0.0042 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.030}_{-0.034} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4544 \pm 0.0054 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.0054^{+0.0080}_{-0.0072}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7470 \pm 0.0055 \quad (-0.0\sigma)$
r	< 0.101	D_{40}	$1238^{+20}_{-22} \quad (+1.1\sigma)$	$f\sigma_8(0.38)$	$0.4731 \pm 0.0046 \quad (-0.1\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5718 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6624 \pm 0.0049 \quad (+0.0\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.1\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4719 \pm 0.0042 \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{1420}	$816.1 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6200 \pm 0.0046 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4671 \pm 0.0039 \quad (-0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.985^{+0.022}_{-0.025} \quad (+4.7\sigma)$	$\sigma_8(0.61)$	$0.5900 \pm 0.0044 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.1\sigma)$	Y_{P}	$0.245394^{+0.000063}_{-0.000056} \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2976 \pm 0.0023 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246721^{+0.000063}_{-0.000057} \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3069 \pm 0.0024 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16} \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.028 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0979
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.792 \pm 0.021 \quad (-0.2\sigma)$	$r_{0.01}$	< 0.0985
A^{kSZ}	$4.8^{+2.4}_{-3.8} \quad (+0.1\sigma)$	z_*	$1089.83 \pm 0.23 \quad (-0.3\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$0.14^{+1.2}_{-0.43}$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	r_*	$144.70 \pm 0.24 \quad (-0.0\sigma)$	r_{10}	< 0.0508
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00030 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.211
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898 \pm 0.023 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.189
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.87 \pm 0.34 \quad (+0.3\sigma)$	f_{2000}^{143}	$30.2 \pm 3.3 \quad (+0.2\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.36 \pm 0.25 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	k_{D}	$0.14058 \pm 0.00033 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.4 \quad (+0.3\sigma)$
c_{TE}	$0.9964 \pm 0.0050 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16079 \pm 0.00020 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.56 \pm 0.82 \quad (+0.3\sigma)$
c_{EE}	$0.9923 \pm 0.0050 \quad (-0.0\sigma)$	z_{eq}	$3378 \pm 22 \quad (-0.1\sigma)$	χ_{simall}^2	$397.6 \pm 1.9 \quad (+0.3\sigma)$
H_0	$67.73 \pm 0.43 \quad (+0.2\sigma)$	k_{eq}	$0.010309 \pm 0.000066 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.1 \pm 2.2 \quad (+1.5\sigma)$
Ω_{Λ}	$0.6904 \pm 0.0057 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8178 \pm 0.0041 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.0 \pm 5.7 \quad (-0.1\sigma)$
Ω_{m}	$0.3096 \pm 0.0057 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0021 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.042 \pm 0.052 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14199 \pm 0.00091 \quad (-0.1\sigma)$	$H(0.15)$	$72.99 \pm 0.37 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.36 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09617 \pm 0.00033 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.2 \pm 3.7 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.2 \quad (-0.1\sigma)$
σ_8	$0.8082 \pm 0.0060 \quad (-0.0\sigma)$	$H(0.38)$	$83.07 \pm 0.28 \quad (+0.2\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.821 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.4 \pm 7.4 \quad (-0.2\sigma)$	χ_{CMB}^2	$11945.2 \pm 5.9 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4497 \pm 0.0058 \quad (-0.1\sigma)$	$H(0.51)$	$89.77 \pm 0.23 \quad (+0.2\sigma)$	χ_{BAO}^2	$5.93 \pm 0.90 \quad (-0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.98; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.58; R - 1 = 0.01470$$

15.27 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00016 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4525 \pm 0.0071 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531.1 \pm 9.4 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0012 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6052 \pm 0.0064 \quad (-0.1\sigma)$	$H(0.51)$	$89.66 \pm 0.28 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00031 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9850 \pm 0.0090 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1983 \pm 11 \quad (-0.2\sigma)$
τ	$0.0558^{+0.0056}_{-0.0083} \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.42 \pm 0.95 \quad (+0.1\sigma)$	$H(0.61)$	$95.29 \pm 0.23 \quad (+0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.024 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2308 \pm 12 \quad (-0.2\sigma)$
n_{s}	$0.9664 \pm 0.0046 \quad (+0.2\sigma)$	z_{re}	$7.81^{+0.61}_{-0.80} \quad (+0.2\sigma)$	$H(2.33)$	$236.17 \pm 0.74 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0056 ± 0.0076	10^9A_{s}	$2.103^{+0.025}_{-0.034} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 11 \quad (-0.2\sigma)$
r	< 0.0979	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4570 \pm 0.0066 \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1239^{+20}_{-22} \quad (+1.0\sigma)$	$\sigma_8(0.15)$	$0.7478^{+0.0048}_{-0.0055} \quad (-0.0\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5714 \pm 39 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4750 \pm 0.0053 \quad (-0.1\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.2\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0041}_{-0.0049} \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4735 \pm 0.0046 \quad (-0.1\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.1\sigma)$	D_{2000}	$229.9 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6201^{+0.0038}_{-0.0046} \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.985 \pm 0.024 \quad (+4.5\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0042 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245382^{+0.000068}_{-0.000059} \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5901^{+0.0036}_{-0.0045} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246708^{+0.000068}_{-0.000059} \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0018}_{-0.0023} \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.030 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0025} \quad (+0.0\sigma)$
A^{kSZ}	$4.9^{+2.8}_{-3.5} \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.799 \pm 0.024 \quad (-0.2\sigma)$	$r_{0.002}$	< 0.0947
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.91 \pm 0.27 \quad (-0.3\sigma)$	$r_{0.01}$	< 0.0954
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.28 \quad (+0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$0.10^{+1.2}_{-0.42}$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00031 \quad (+0.0\sigma)$	r_{10}	< 0.0491
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.027 \quad (+0.0\sigma)$	10^9A_{t}	< 0.205
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	z_{drag}	$1059.83 \pm 0.35 \quad (+0.3\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.184
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.27 \pm 0.29 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.4 \pm 3.3 \quad (+0.3\sigma)$
c_{TE}	$0.9962 \pm 0.0049 \quad (-0.1\sigma)$	k_{D}	$0.14066 \pm 0.00035 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.4 \pm 2.2 \quad (+0.3\sigma)$
c_{EE}	$0.9920 \pm 0.0050 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16081 \pm 0.00020 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.4 \quad (+0.3\sigma)$
H_0	$67.51 \pm 0.55 \quad (+0.2\sigma)$	z_{eq}	$3389 \pm 28 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.53 \pm 0.75 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6874 \pm 0.0075 \quad (+0.2\sigma)$	k_{eq}	$0.010343 \pm 0.000084 \quad (-0.1\sigma)$	χ_{small}^2	$397.4 \pm 1.8 \quad (+0.3\sigma)$
Ω_{m}	$0.3126 \pm 0.0075 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8157 \pm 0.0052 \quad (+0.1\sigma)$	χ_{lowl}^2	$24.2 \pm 2.2 \quad (+1.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0012 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0027 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.0 \pm 5.8 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09616 \pm 0.00033 \quad (+0.2\sigma)$	$H(0.15)$	$72.80 \pm 0.47 \quad (+0.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.8093 \pm 0.0058 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.1 \pm 4.7 \quad (-0.2\sigma)$	χ_{CMB}^2	$11945.1 \pm 6.0 \quad (+0.3\sigma)$
S_8	$0.826 \pm 0.013 \quad (-0.1\sigma)$	$H(0.38)$	$82.94 \pm 0.35 \quad (+0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11953.00; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.75; R - 1 = 0.01489$$

15.28 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238 \pm 0.00015 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6030 \pm 0.0056 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978.7 \pm 8.7 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11895 \pm 0.00095 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9824 \pm 0.0082 \quad (-0.1\sigma)$	$H(0.61)$	$95.38 \pm 0.19 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04096 \pm 0.00030 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.83 \pm 0.73 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302.7 \pm 9.4 \quad (-0.2\sigma)$
τ	$0.0570^{+0.0060}_{-0.0079} \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.420 \pm 0.023 \quad (-0.6\sigma)$	$H(2.33)$	$235.87 \pm 0.59 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.016} \quad (+0.2\sigma)$	z_{re}	$7.92^{+0.64}_{-0.76} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760.4 \pm 9.4 \quad (-0.2\sigma)$
n_{s}	$0.9677 \pm 0.0041 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.027}_{-0.034} \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4545 \pm 0.0054 \quad (-0.1\sigma)$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	$-0.0055^{+0.0079}_{-0.0072}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7474^{+0.0048}_{-0.0056} \quad (-0.0\sigma)$
r	< 0.101	D_{40}	$1238^{+20}_{-22} \quad (+1.1\sigma)$	$f\sigma_8(0.38)$	$0.4733 \pm 0.0046 \quad (-0.1\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5718 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0042}_{-0.0050} \quad (+0.0\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.1\sigma)$	D_{810}	$2538 \pm 14 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4721 \pm 0.0041 \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{1420}	$816.1 \pm 5.0 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6203^{+0.0039}_{-0.0047} \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.1 \pm 1.9 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4673 \pm 0.0038 \quad (-0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.985^{+0.022}_{-0.025} \quad (+4.8\sigma)$	$\sigma_8(0.61)$	$0.5903^{+0.0037}_{-0.0045} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.1\sigma)$	Y_{P}	$0.245395 \pm 0.000060 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2977^{+0.0019}_{-0.0023} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246722 \pm 0.000060 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0025} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.585 \pm 0.028 \quad (-0.3\sigma)$	$r_{0.002}$	< 0.0984
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.791 \pm 0.021 \quad (-0.2\sigma)$	$r_{0.01}$	< 0.0990
A^{kSZ}	$4.8^{+2.5}_{-3.8} \quad (+0.1\sigma)$	z_*	$1089.82 \pm 0.23 \quad (-0.3\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$0.14^{+1.2}_{-0.43}$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	r_*	$144.70 \pm 0.23 \quad (-0.0\sigma)$	r_{10}	< 0.0509
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00030 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.212
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898 \pm 0.023 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.190
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.87 \pm 0.34 \quad (+0.3\sigma)$	f_{2000}^{143}	$30.2 \pm 3.3 \quad (+0.2\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.37 \pm 0.25 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.2 \quad (+0.3\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	k_{D}	$0.14058 \pm 0.00033 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.3 \quad (+0.3\sigma)$
c_{TE}	$0.9964 \pm 0.0050 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16079 \pm 0.00020 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.52 \pm 0.77 \quad (+0.4\sigma)$
c_{EE}	$0.9923 \pm 0.0050 \quad (-0.0\sigma)$	z_{eq}	$3377 \pm 22 \quad (-0.1\sigma)$	χ_{simall}^2	$397.6 \pm 1.9 \quad (+0.3\sigma)$
H_0	$67.74 \pm 0.43 \quad (+0.2\sigma)$	k_{eq}	$0.010307 \pm 0.000066 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.1 \pm 2.2 \quad (+1.4\sigma)$
Ω_{Λ}	$0.6906 \pm 0.0057 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0041 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.9 \pm 5.7 \quad (-0.0\sigma)$
Ω_{m}	$0.3094 \pm 0.0057 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4518 \pm 0.0021 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.040 \pm 0.051 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14197 \pm 0.00091 \quad (-0.1\sigma)$	$H(0.15)$	$73.00 \pm 0.37 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.37 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09617 \pm 0.00033 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.1 \pm 3.6 \quad (-0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.2 \quad (-0.1\sigma)$
σ_8	$0.8086^{+0.0054}_{-0.0061} \quad (-0.0\sigma)$	$H(0.38)$	$83.08 \pm 0.28 \quad (+0.2\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.821 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.2 \pm 7.4 \quad (-0.2\sigma)$	χ_{CMB}^2	$11945.1 \pm 5.9 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4497 \pm 0.0058 \quad (-0.1\sigma)$	$H(0.51)$	$89.77 \pm 0.23 \quad (+0.2\sigma)$	χ_{BAO}^2	$5.90 \pm 0.88 \quad (-0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.86; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.60; R - 1 = 0.01525$$

15.29 base_nrun_r_plikHM_TT_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022119	0.02215 ± 0.00023	$\Omega_m h^3$	0.096015	0.09605 ± 0.00050	$D_M(0.15)$	651.0	649.6 ± 7.8
$\Omega_c h^2$	0.12167	0.1213 ± 0.0021	σ_8	0.8159	0.8150 ± 0.0088	$H(0.38)$	82.29	82.41 ± 0.55
$100\theta_{MC}$	1.040644	1.04072 ± 0.00047	S_8	0.8516	0.848 ± 0.024	$D_M(0.38)$	1549.0	1546 ± 15
τ	0.0531	0.0541 ± 0.0084	$\sigma_8 \Omega_m^{0.5}$	0.4665	0.464 ± 0.013	$H(0.51)$	89.160	89.25 ± 0.43
$\ln(10^{10} A_s)$	3.0459	3.048 ± 0.018	$\sigma_8 \Omega_m^{0.25}$	0.6169	0.615 ± 0.011	$D_M(0.51)$	2004.1	2001 ± 18
n_s	0.9607	0.9607 ± 0.0058	$\sigma_8/h^{0.5}$	1.0007	0.998 ± 0.016	$H(0.61)$	94.894	94.97 ± 0.34
$dn_s/d \ln k$	-0.0042	-0.0063 ± 0.0076	$r_{drag} h$	97.68	98.0 ± 1.6	$D_M(0.61)$	2330.1	2326 ± 19
r	0.0135	< 0.0332	$\langle d^2 \rangle^{1/2}$	2.4648	2.459 ± 0.038	$H(2.33)$	237.39	237.2 ± 1.3
y_{cal}	1.00039	1.0006 ± 0.0025	z_{re}	7.64	7.71 ± 0.85	$D_M(2.33)$	5781.6	5778 ± 16
$A_{B,dust}$	4.64	$4.85^{+0.81}_{-1.2}$	$10^9 A_s$	2.1029	$2.107^{+0.034}_{-0.038}$	$f\sigma_8(0.15)$	0.4698	0.468 ± 0.012
$A_{B,sync}$	1.47	$1.63^{+0.53}_{-1.4}$	$10^9 A_s e^{-2\tau}$	1.8909	1.891 ± 0.014	$\sigma_8(0.15)$	0.7525	0.7518 ± 0.0075
$\alpha_{B,dust}$	-0.538	$-0.57^{+0.21}_{-0.33}$	D_{40}	1232.0	1232 ± 21	$f\sigma_8(0.38)$	0.4848	0.4833 ± 0.0093
$\beta_{B,dust}$	1.578	1.600 ± 0.096	D_{220}	5706.8	5712 ± 41	$\sigma_8(0.38)$	0.6653	0.6651 ± 0.0060
$\alpha_{B,sync}$	-0.33	—	D_{810}	2539.7	2540 ± 14	$f\sigma_8(0.51)$	0.4815	0.4803 ± 0.0080
$\beta_{B,sync}$	-3.031	-3.10 ± 0.27	D_{1420}	814.2	813.8 ± 5.2	$\sigma_8(0.51)$	0.6220	0.6218 ± 0.0055
$\epsilon_{dust,sync}$	-0.347	-0.35 ± 0.28	D_{2000}	229.30	229.0 ± 1.9	$f\sigma_8(0.61)$	0.4753	0.4743 ± 0.0071
A_{217}^{CIB}	50.7	49 ± 7	$n_{s,0.002}$	0.9741	0.981 ± 0.024	$\sigma_8(0.61)$	0.5914	0.5913 ± 0.0052
$\xi^{tSZ \times CIB}$	0.09	—	Y_P	0.245292	$0.24530^{+0.00011}_{-0.000088}$	$f\sigma_8(2.33)$	0.29760	0.2976 ± 0.0026
A_{143}^{tSZ}	7.06	4.9 ± 2.0	Y_P^{BBN}	0.246618	$0.24663^{+0.00011}_{-0.000088}$	$\sigma_8(2.33)$	0.30617	0.3063 ± 0.0027
A_{100}^{PS}	258.0	267 ± 28	$10^5 D/H$	2.6334	2.628 ± 0.044	$r_{0.002}$	0.0122	< 0.0308
A_{143}^{PS}	47.8	51 ± 8	Age/Gyr	13.8377	13.831 ± 0.037	$r_{0.01}$	0.0128	< 0.0317
$A_{143 \times 217}^{PS}$	41.8	44^{+9}_{-10}	z_*	1090.385	1090.32 ± 0.41	$\ln(10^{10} A_t)$	-1.26	$-0.92^{+1.1}_{-0.42}$
A_{217}^{PS}	117.3	115 ± 10	r_*	144.194	144.26 ± 0.48	r_{10}	0.0063	< 0.0159
A^{kSZ}	0.01	< 5.36	$100\theta_*$	1.040855	1.04093 ± 0.00046	$10^9 A_t$	0.0284	< 0.0701
A_{100}^{dustTT}	8.89	9.0 ± 1.8	$D_M(z_*)/Gpc$	13.8534	13.859 ± 0.045	$10^9 A_t e^{-2\tau}$	0.0255	< 0.0629
A_{143}^{dustTT}	10.80	10.7 ± 1.8	z_{drag}	1059.475	1059.52 ± 0.50	f_{2000}^{143}	31.36	32.3 ± 3.2
$A_{143 \times 217}^{dustTT}$	19.12	18.4 ± 3.3	r_{drag}	146.932	146.99 ± 0.49	$f_{2000}^{143 \times 217}$	33.96	34.4 ± 2.2
A_{217}^{dustTT}	94.0	93.2 ± 7.4	k_D	0.14084	0.14080 ± 0.00056	f_{2000}^{217}	108.43	108.9 ± 2.1
c_{100}	0.99963	0.99961 ± 0.00061	$100\theta_D$	0.161017	0.16100 ± 0.00029	$\chi_{BKPLANCK}^2$	734.70	739.1 ± 2.7
c_{217}	0.99827	0.99827 ± 0.00063	z_{eq}	3436.1	3429 ± 47	χ_{small}^2	396.03	397.3 ± 1.9
H_0	66.48	66.65 ± 0.90	k_{eq}	0.010487	0.01046 ± 0.00014	χ_{lowl}^2	23.33	23.6 ± 2.2
Ω_Λ	0.6732	0.675 ± 0.013	$100\theta_{eq}$	0.8064	0.8080 ± 0.0087	χ_{plik}^2	759.2	772.8 ± 5.7
Ω_m	0.3268	0.325 ± 0.013	$100\theta_{s,eq}$	0.44596	0.4468 ± 0.0045	χ_{prior}^2	1.54	8.9 ± 4.0
$\Omega_m h^2$	0.14443	0.1441 ± 0.0020	$H(0.15)$	71.92	72.07 ± 0.76	χ_{CMB}^2	1913.3	1932.8 ± 6.3

Best-fit $\chi_{eff}^2 = 1914.80$; $\bar{\chi}_{eff}^2 = 1941.72$; $R - 1 = 0.00186$

χ_{eff}^2 : CMB - BK15_dust: 734.70 simall_100x143_offlike5_EE_Aplanck_B: 396.03 commander_dx12_v3_2_29: 23.33 plik_rd12_HM_v22_TT: 759.19

15.30 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022241	0.02227 ± 0.00022	S_8	0.8255	0.825 ± 0.015	$D_{\text{M}}(0.51)$	1983.5	1983 ± 11
$\Omega_{\text{c}}h^2$	0.11928	0.1192 ± 0.0012	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4522	0.4518 ± 0.0081	$H(0.61)$	95.249	95.28 ± 0.25
$100\theta_{\text{MC}}$	1.040970	1.04100 ± 0.00042	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6051	0.6048 ± 0.0080	$D_{\text{M}}(0.61)$	2308.0	2307 ± 12
τ	0.0559	$0.0564^{+0.0076}_{-0.0085}$	$\sigma_8/h^{0.5}$	0.9854	0.985 ± 0.012	$H(2.33)$	235.96	235.97 ± 0.80
$\ln(10^{10}A_{\text{s}})$	3.0462	$3.048^{+0.017}_{-0.018}$	$r_{\text{drag}}h$	99.54	99.59 ± 0.93	$D_{\text{M}}(2.33)$	5766.8	5765 ± 13
n_{s}	0.96596	0.9655 ± 0.0044	$\langle d^2 \rangle^{1/2}$	2.4296	2.428 ± 0.029	$f\sigma_8(0.15)$	0.4567	0.4564 ± 0.0077
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0041	-0.0058 ± 0.0077	z_{re}	7.86	7.89 ± 0.83	$\sigma_8(0.15)$	0.7481	0.7481 ± 0.0070
r	0.0146	$0.0295^{+0.0087}_{-0.028}$	$10^9 A_{\text{s}}$	2.1036	$2.107^{+0.034}_{-0.039}$	$f\sigma_8(0.38)$	0.4750	0.4747 ± 0.0065
y_{cal}	1.00057	1.0008 ± 0.0025	$10^9 A_{\text{s}}e^{-2\tau}$	1.8810	1.882 ± 0.012	$\sigma_8(0.38)$	0.6631	$0.6631^{+0.0055}_{-0.0062}$
$A_{B,\text{dust}}$	4.66	$4.85^{+0.82}_{-1.2}$	D_{40}	1221.6	1225 ± 20	$f\sigma_8(0.51)$	0.4735	0.4733 ± 0.0058
$A_{B,\text{sync}}$	1.51	$1.62^{+0.53}_{-1.4}$	D_{220}	5716.9	5721 ± 40	$\sigma_8(0.51)$	0.6206	$0.6206^{+0.0051}_{-0.0057}$
$\alpha_{B,\text{dust}}$	-0.502	$-0.55^{+0.23}_{-0.31}$	D_{810}	2538.4	2539 ± 14	$f\sigma_8(0.61)$	0.4685	0.4683 ± 0.0054
$\beta_{B,\text{dust}}$	1.577	1.597 ± 0.096	D_{1420}	815.4	815.0 ± 5.1	$\sigma_8(0.61)$	0.5905	$0.5905^{+0.0048}_{-0.0054}$
$\alpha_{B,\text{sync}}$	-0.16	—	D_{2000}	229.73	229.5 ± 1.9	$f\sigma_8(2.33)$	0.29770	$0.2977^{+0.0024}_{-0.0027}$
$\beta_{B,\text{sync}}$	-3.027	-3.10 ± 0.27	$n_{\text{s},0.002}$	0.9793	0.984 ± 0.024	$\sigma_8(2.33)$	0.30690	$0.3069^{+0.0025}_{-0.0028}$
$\epsilon_{\text{dust,sync}}$	-0.328	-0.35 ± 0.28	Y_{P}	0.245343	$0.245349^{+0.000096}_{-0.000079}$	$r_{0.002}$	0.0134	$0.0278^{+0.0073}_{-0.027}$
A_{217}^{CIB}	50.8	48 ± 7	$Y_{\text{P}}^{\text{BBN}}$	0.246669	$0.246676^{+0.000096}_{-0.000079}$	$r_{0.01}$	0.0139	$0.0284^{+0.0080}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.05	—	$10^5 \text{D}/\text{H}$	2.6101	2.606 ± 0.041	$\ln(10^{10}A_{\text{t}})$	-1.18	$-0.79^{+1.0}_{-0.41}$
A_{143}^{tSZ}	7.11	4.9 ± 2.0	Age/Gyr	13.8059	13.803 ± 0.030	r_{10}	0.0069	$0.0143^{+0.0037}_{-0.014}$
A_{100}^{PS}	258.8	266 ± 28	z_*	1090.022	1089.99 ± 0.31	$10^9 A_{\text{t}}$	0.0307	$0.062^{+0.018}_{-0.058}$
A_{143}^{PS}	46.8	50 ± 8	r_*	144.715	144.71 ± 0.33	$10^9 A_{\text{t}}e^{-2\tau}$	0.0274	$0.055^{+0.016}_{-0.052}$
$A_{143 \times 217}^{\text{PS}}$	40.4	43^{+9}_{-10}	$100\theta_*$	1.041173	1.04119 ± 0.00042	f_{2000}^{143}	31.25	31.8 ± 3.2
A_{217}^{PS}	116.5	114 ± 10	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8993	13.898 ± 0.032	$f_{2000}^{143 \times 217}$	33.76	34.0 ± 2.2
A^{kSZ}	0.02	< 5.28	z_{drag}	1059.589	1059.64 ± 0.49	f_{2000}^{217}	108.25	108.5 ± 2.1
A_{100}^{dustTT}	8.86	8.9 ± 1.8	r_{drag}	147.425	147.41 ± 0.37	χ_{BKPLANCK}^2	735.55	739.8 ± 2.6
A_{143}^{dustTT}	10.80	10.8 ± 1.8	k_{D}	0.140416	0.14045 ± 0.00050	χ_{small}^2	396.34	397.5 ± 2.2
$A_{143 \times 217}^{\text{dustTT}}$	19.08	18.3 ± 3.4	$100\theta_{\text{D}}$	0.160969	0.16094 ± 0.00029	χ_{lowl}^2	22.42	23.0 ± 1.9
A_{217}^{dustTT}	94.0	93.2 ± 7.5	z_{eq}	3382.0	3382 ± 29	χ_{plik}^2	760.1	773.1 ± 5.7
c_{100}	0.99963	0.99962 ± 0.00062	k_{eq}	0.010322	0.010321 ± 0.000088	$\chi_{6\text{DF}}^2$	0.0375	0.070 ± 0.086
c_{217}	0.99827	0.99827 ± 0.00063	$100\theta_{\text{eq}}$	0.8166	0.8168 ± 0.0053	χ_{MGS}^2	1.156	1.25 ± 0.50
H_0	67.52	67.56 ± 0.54	$100\theta_{\text{s,eq}}$	0.45121	0.4513 ± 0.0027	χ_{DR12BAO}^2	4.57	5.1 ± 1.8
Ω_{Λ}	0.6881	0.6885 ± 0.0073	$H(0.15)$	72.799	72.84 ± 0.47	χ_{prior}^2	1.60	9.0 ± 4.0
Ω_{m}	0.3119	0.3115 ± 0.0073	$D_{\text{M}}(0.15)$	642.08	641.7 ± 4.6	χ_{BAO}^2	5.76	6.4 ± 1.5
$\Omega_{\text{m}}h^2$	0.14217	0.1422 ± 0.0012	$H(0.38)$	82.913	82.95 ± 0.35	χ_{CMB}^2	1914.4	1933.4 ± 6.3
$\Omega_{\text{m}}h^3$	0.09599	0.09604 ± 0.00050	$D_{\text{M}}(0.38)$	1531.2	1530.5 ± 9.3			
σ_8	0.8097	0.8095 ± 0.0078	$H(0.51)$	89.630	89.66 ± 0.29			

Best-fit $\chi_{\text{eff}}^2 = 1921.76$; $\bar{\chi}_{\text{eff}}^2 = 1948.77$; $R - 1 = 0.00528$
 χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.57 CMB - BK15_dust: 735.55 small_100x143_offlike5_EE_Aplanck_B: 396.34 commander_dx12_v3_2_29: 22.42 plik_rd12_HM_v22_TT: 760.08

15.31 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022183	0.02218 ± 0.00023	σ_8	0.8121	0.8116 ± 0.0063	$D_M(0.38)$	1540.3	1540 ± 12
$\Omega_c h^2$	0.12050	0.1205 ± 0.0016	S_8	0.8380	0.837 ± 0.016	$H(0.51)$	89.388	89.39 ± 0.36
$100\theta_{MC}$	1.040798	1.04079 ± 0.00045	$\sigma_8 \Omega_m^{0.5}$	0.4590	0.4587 ± 0.0088	$D_M(0.51)$	1994.0	1994 ± 14
τ	0.0534	0.0536 ± 0.0081	$\sigma_8 \Omega_m^{0.25}$	0.6105	0.6101 ± 0.0076	$H(0.61)$	95.066	95.07 ± 0.30
$\ln(10^{10} A_s)$	3.0435	3.044 ± 0.016	$\sigma_8/h^{0.5}$	0.9922	0.992 ± 0.010	$D_M(0.61)$	2319.3	2319 ± 16
n_s	0.96315	0.9625 ± 0.0049	$r_{\text{drag}} h$	98.58	98.6 ± 1.2	$H(2.33)$	236.69	236.67 ± 0.96
$dn_s/d \ln k$	-0.0029	-0.0049 ± 0.0075	$\langle d^2 \rangle^{1/2}$	2.4478	2.445 ± 0.027	$D_M(2.33)$	5774.4	5774 ± 15
r	0.0134	< 0.0341	z_{re}	7.64	7.64 ± 0.81	$f\sigma_8(0.15)$	0.4629	0.4626 ± 0.0080
y_{cal}	1.00048	1.0006 ± 0.0025	$10^9 A_s$	2.0979	2.100 ± 0.033	$\sigma_8(0.15)$	0.7496	0.7492 ± 0.0055
$A_{B,\text{dust}}$	4.66	$4.85^{+0.82}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.8854	1.886 ± 0.012	$f\sigma_8(0.38)$	0.4795	0.4792 ± 0.0062
$A_{B,\text{sync}}$	1.44	$1.63^{+0.53}_{-1.4}$	D_{40}	1230.1	1232 ± 21	$\sigma_8(0.38)$	0.66362	0.6633 ± 0.0049
$\alpha_{B,\text{dust}}$	-0.517	$-0.56^{+0.22}_{-0.32}$	D_{220}	5714.2	5715 ± 41	$f\sigma_8(0.51)$	0.4772	0.4768 ± 0.0053
$\beta_{B,\text{dust}}$	1.575	1.598 ± 0.097	D_{810}	2538.4	2538 ± 14	$\sigma_8(0.51)$	0.62068	0.6204 ± 0.0046
$\alpha_{B,\text{sync}}$	-0.44	—	D_{1420}	814.9	814.1 ± 5.2	$f\sigma_8(0.61)$	0.47154	0.4712 ± 0.0047
$\beta_{B,\text{sync}}$	-3.037	-3.10 ± 0.27	D_{2000}	229.60	229.2 ± 1.9	$\sigma_8(0.61)$	0.59037	0.5901 ± 0.0044
$\epsilon_{\text{dust,sync}}$	-0.339	-0.35 ± 0.29	$n_{s,0.002}$	0.9725	0.978 ± 0.024	$f\sigma_8(2.33)$	0.29736	0.2972 ± 0.0023
A_{217}^{CIB}	50.8	48 ± 7	Y_P	0.245319	$0.24531^{+0.00011}_{-0.000086}$	$\sigma_8(2.33)$	0.30623	0.3061 ± 0.0026
$\xi^{\text{tSZ} \times \text{CIB}}$	0.06	—	Y_P^{BBN}	0.246645	$0.24664^{+0.00011}_{-0.000086}$	$r_{0.002}$	0.0121	< 0.0315
A_{143}^{tSZ}	7.17	4.9 ± 2.0	$10^5 D/H$	2.6213	2.623 ± 0.043	$r_{0.01}$	0.0127	< 0.0326
A_{100}^{PS}	258.8	266 ± 28	Age/Gyr	13.8221	13.822 ± 0.034	$\ln(10^{10} A_t)$	-1.27	$-0.88^{+1.1}_{-0.41}$
A_{143}^{PS}	46.8	50 ± 8	z_*	1090.201	1090.21 ± 0.36	r_{10}	0.0062	< 0.0162
$A_{143 \times 217}^{\text{PS}}$	40.7	44^{+9}_{-10}	r_*	144.445	144.46 ± 0.37	$10^9 A_t$	0.0281	< 0.0717
A_{217}^{PS}	116.5	115 ± 10	$100\theta_*$	1.041003	1.04100 ± 0.00044	$10^9 A_t e^{-2\tau}$	0.0252	< 0.0643
A^{kSZ}	0.00	< 5.32	$D_M(z_*)/\text{Gpc}$	13.8756	13.877 ± 0.035	f_{2000}^{143}	31.22	32.1 ± 3.2
A_{100}^{dustTT}	8.93	8.9 ± 1.8	z_{drag}	1059.551	1059.52 ± 0.50	$f_{2000}^{143 \times 217}$	33.77	34.2 ± 2.2
A_{143}^{dustTT}	10.86	10.8 ± 1.8	r_{drag}	147.167	147.18 ± 0.39	f_{2000}^{217}	108.24	108.7 ± 2.1
$A_{143 \times 217}^{\text{dustTT}}$	19.09	18.4 ± 3.3	k_D	0.140641	0.14062 ± 0.00049	χ_{lensing}^2	9.08	9.7 ± 1.0
A_{217}^{dustTT}	93.9	93.3 ± 7.4	$100\theta_D$	0.160986	0.16100 ± 0.00029	χ_{BKPLANCK}^2	735.20	739.4 ± 2.6
c_{100}	0.99962	0.99961 ± 0.00062	z_{eq}	3409.7	3409 ± 36	χ_{small}^2	396.02	397.1 ± 1.7
c_{217}	0.99827	0.99827 ± 0.00062	k_{eq}	0.010407	0.01040 ± 0.00011	χ_{lowl}^2	23.21	23.6 ± 2.2
H_0	66.98	66.99 ± 0.71	$100\theta_{\text{eq}}$	0.8114	0.8116 ± 0.0066	χ_{plik}^2	759.0	772.3 ± 5.5
Ω_Λ	0.6806	0.6806 ± 0.0098	$100\theta_{s,\text{eq}}$	0.44850	0.4486 ± 0.0034	χ_{prior}^2	1.66	8.9 ± 4.0
Ω_m	0.3194	0.3194 ± 0.0098	$H(0.15)$	72.35	72.36 ± 0.61	χ_{CMB}^2	1922.5	1942.2 ± 6.3
$\Omega_m h^2$	0.14333	0.1433 ± 0.0015	$D_M(0.15)$	646.6	646.6 ± 6.1			
$\Omega_m h^3$	0.096008	0.09599 ± 0.00049	$H(0.38)$	82.594	82.60 ± 0.45			

Best-fit $\chi_{\text{eff}}^2 = 1924.17$; $\bar{\chi}_{\text{eff}}^2 = 1951.15$; $R - 1 = 0.00356$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.09 BK15_dust: 735.20 small_100x143_offlike5_EE_Aplanck_B: 396.02 commander_dx12_v3_2.29: 23.21 plik_rd12_HM_v22_TT: 758.99

15.32 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022250	0.02226 ± 0.00021	S_8	0.8257	0.826 ± 0.012	$D_M(0.51)$	1983.3	1983 ± 10
$\Omega_c h^2$	0.11929	0.1193 ± 0.0011	$\sigma_8 \Omega_m^{0.5}$	0.4523	0.4522 ± 0.0065	$H(0.61)$	95.256	95.27 ± 0.25
$100\theta_{MC}$	1.040982	1.04098 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6052	0.6053 ± 0.0062	$D_M(0.61)$	2307.8	2307 ± 11
τ	0.0558	0.0568 ± 0.0077	$\sigma_8/h^{0.5}$	0.9856	0.9857 ± 0.0090	$H(2.33)$	235.98	235.97 ± 0.71
$\ln(10^{10} A_s)$	3.0466	3.049 ± 0.016	$r_{\text{drag}} h$	99.54	99.57 ± 0.84	$D_M(2.33)$	5766.4	5766 ± 13
n_s	0.96557	0.9653 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.4331	2.432 ± 0.024	$f\sigma_8(0.15)$	0.4568	0.4568 ± 0.0061
$dn_s/d \ln k$	-0.0032	-0.0050 ± 0.0076	z_{re}	7.84	7.93 ± 0.76	$\sigma_8(0.15)$	0.7483	0.7486 ± 0.0056
r	0.0155	$0.0289^{+0.0085}_{-0.027}$	$10^9 A_s$	2.1044	$2.109^{+0.030}_{-0.034}$	$f\sigma_8(0.38)$	0.4751	0.4751 ± 0.0050
y_{cal}	1.00083	1.0008 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8823	1.882 ± 0.011	$\sigma_8(0.38)$	0.66330	0.6635 ± 0.0050
$A_{B,\text{dust}}$	4.62	$4.86^{+0.82}_{-1.2}$	D_{40}	1226.6	1227 ± 20	$f\sigma_8(0.51)$	0.47363	0.4737 ± 0.0045
$A_{B,\text{sync}}$	1.46	$1.62^{+0.52}_{-1.4}$	D_{220}	5726.2	5724 ± 40	$\sigma_8(0.51)$	0.62072	$0.6210^{+0.0043}_{-0.0048}$
$\alpha_{B,\text{dust}}$	-0.499	$-0.56^{+0.23}_{-0.31}$	D_{810}	2539.9	2539 ± 14	$f\sigma_8(0.61)$	0.46863	0.4687 ± 0.0042
$\beta_{B,\text{dust}}$	1.577	1.598 ± 0.096	D_{1420}	816.0	815.2 ± 5.1	$\sigma_8(0.61)$	0.59062	$0.5908^{+0.0041}_{-0.0046}$
$\alpha_{B,\text{sync}}$	-0.24	—	D_{2000}	229.97	229.6 ± 1.9	$f\sigma_8(2.33)$	0.29778	$0.2979^{+0.0021}_{-0.0024}$
$\beta_{B,\text{sync}}$	-3.036	-3.10 ± 0.27	$n_{s,0.002}$	0.9759	0.981 ± 0.024	$\sigma_8(2.33)$	0.30698	0.3071 ± 0.0024
$\epsilon_{\text{dust,sync}}$	-0.337	-0.35 ± 0.28	Y_P	0.245346	$0.245347^{+0.000096}_{-0.000078}$	$r_{0.002}$	0.0142	$0.0272^{+0.0071}_{-0.026}$
A_{217}^{CIB}	50.9	48 ± 7	Y_P^{BBN}	0.246673	$0.246673^{+0.000096}_{-0.000079}$	$r_{0.01}$	0.0148	$0.0278^{+0.0078}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.06	—	$10^5 \text{D}/\text{H}$	2.6084	2.607 ± 0.040	$\ln(10^{10} A_t)$	-1.12	$-0.81^{+1.0}_{-0.41}$
A_{143}^{tSZ}	7.12	5.0 ± 2.0	Age/Gyr	13.8049	13.804 ± 0.029	r_{10}	0.0073	$0.0140^{+0.0036}_{-0.014}$
A_{100}^{PS}	258.9	265 ± 28	z_*	1090.011	1090.00 ± 0.30	$10^9 A_t$	0.0326	$0.061^{+0.018}_{-0.058}$
A_{143}^{PS}	46.6	50 ± 8	r_*	144.706	144.71 ± 0.30	$10^9 A_t e^{-2\tau}$	0.0291	$0.054^{+0.016}_{-0.052}$
$A_{143 \times 217}^{\text{PS}}$	40.3	43^{+9}_{-10}	$100\theta_*$	1.041174	1.04118 ± 0.00042	f_{2000}^{143}	31.06	31.7 ± 3.2
A_{217}^{PS}	116.3	115 ± 10	$D_M(z_*)/\text{Gpc}$	13.8984	13.898 ± 0.030	$f_{2000}^{143 \times 217}$	33.60	33.9 ± 2.2
A^{kSZ}	0.00	< 5.21	z_{drag}	1059.589	1059.63 ± 0.49	f_{2000}^{217}	108.13	108.5 ± 2.1
A_{100}^{dustTT}	8.86	8.9 ± 1.8	r_{drag}	147.415	147.41 ± 0.34	χ^2_{lensing}	8.873	9.38 ± 0.70
A_{143}^{dustTT}	10.72	10.7 ± 1.8	k_D	0.140436	0.14044 ± 0.00047	χ^2_{BKPLANCK}	735.50	739.8 ± 2.6
$A_{143 \times 217}^{\text{dustTT}}$	18.98	18.3 ± 3.4	$100\theta_D$	0.160956	0.16095 ± 0.00028	χ^2_{small}	396.35	397.5 ± 2.0
A_{217}^{dustTT}	93.8	93.3 ± 7.5	z_{eq}	3382.4	3382 ± 26	χ^2_{lowl}	22.81	23.2 ± 2.0
c_{100}	0.99968	0.99962 ± 0.00062	k_{eq}	0.010323	0.010322 ± 0.000078	χ^2_{plik}	759.8	772.6 ± 5.6
c_{217}	0.99828	0.99827 ± 0.00063	$100\theta_{\text{eq}}$	0.81656	0.8167 ± 0.0047	$\chi^2_{6\text{DF}}$	0.0374	0.064 ± 0.076
H_0	67.523	67.55 ± 0.50	$100\theta_{s,\text{eq}}$	0.45118	0.4513 ± 0.0024	χ^2_{MGS}	1.156	1.24 ± 0.45
Ω_Λ	0.6881	0.6883 ± 0.0065	$H(0.15)$	72.805	72.83 ± 0.43	χ^2_{DR12BAO}	4.57	5.0 ± 1.6
Ω_m	0.3119	0.3117 ± 0.0065	$D_M(0.15)$	642.02	641.8 ± 4.3	χ^2_{prior}	1.56	9.0 ± 4.0
$\Omega_m h^2$	0.14219	0.1422 ± 0.0011	$H(0.38)$	82.919	82.94 ± 0.33	χ^2_{CMB}	1923.3	1942.4 ± 6.3
$\Omega_m h^3$	0.096008	0.09602 ± 0.00049	$D_M(0.38)$	1531.1	1530.7 ± 8.7	χ^2_{BAO}	5.76	6.3 ± 1.3
σ_8	0.8099	0.8101 ± 0.0062	$H(0.51)$	89.637	89.65 ± 0.28			

Best-fit $\chi^2_{\text{eff}} = 1930.66$; $\bar{\chi}^2_{\text{eff}} = 1957.70$; $R - 1 = 0.00643$
 χ^2_{eff} : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.57 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 BK15_dust: 735.50 small_100x143_offlike5_EE_Aplanck_B: 396.35 commander_dx12_v3.2.29: 22.81 plik_rd12_HM_v22.TT: 759.81

15.33 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02216 ± 0.00023	$\Omega_{\mathrm{m}}h^3$	0.09606 ± 0.00049	$D_{\mathrm{M}}(0.15)$	649.3 ± 7.8
$\Omega_{\mathrm{c}}h^2$	0.1213 ± 0.0021	σ_8	0.8158 ± 0.0085	$H(0.38)$	82.43 ± 0.54
$100\theta_{\mathrm{MC}}$	1.04073 ± 0.00047	S_8	0.848 ± 0.024	$D_{\mathrm{M}}(0.38)$	1545 ± 15
τ	$0.0554^{+0.0055}_{-0.0089}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.465 ± 0.013	$H(0.51)$	89.27 ± 0.43
$\ln(10^{10}A_{\mathrm{s}})$	$3.050^{+0.013}_{-0.018}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.616 ± 0.011	$D_{\mathrm{M}}(0.51)$	2000 ± 18
n_{s}	0.9608 ± 0.0057	$\sigma_8/h^{0.5}$	0.999 ± 0.016	$H(0.61)$	$94.98^{+0.32}_{-0.36}$
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0066 ± 0.0076	$r_{\mathrm{drag}}h$	98.0 ± 1.6	$D_{\mathrm{M}}(0.61)$	2326 ± 19
r	< 0.0334	$\langle d^2 \rangle^{1/2}$	2.460 ± 0.037	$H(2.33)$	237.2 ± 1.3
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.84^{+0.60}_{-0.86}$	$D_{\mathrm{M}}(2.33)$	5778 ± 16
$A_{B,\mathrm{dust}}$	$4.85^{+0.81}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.112^{+0.027}_{-0.038}$	$f\sigma_8(0.15)$	0.468 ± 0.012
$A_{B,\mathrm{sync}}$	$1.63^{+0.53}_{-1.4}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.891 ± 0.014	$\sigma_8(0.15)$	0.7526 ± 0.0071
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.33}$	D_{40}	1232 ± 21	$f\sigma_8(0.38)$	0.4835 ± 0.0093
$\beta_{B,\mathrm{dust}}$	1.600 ± 0.097	D_{220}	5712 ± 41	$\sigma_8(0.38)$	$0.6657^{+0.0051}_{-0.0059}$
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2540 ± 14	$f\sigma_8(0.51)$	0.4806 ± 0.0079
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{1420}	813.8 ± 5.2	$\sigma_8(0.51)$	$0.6225^{+0.0045}_{-0.0055}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{2000}	229.0 ± 1.9	$f\sigma_8(0.61)$	0.4746 ± 0.0070
A_{217}^{CIB}	49 ± 7	$n_{\mathrm{s},0.002}$	0.982 ± 0.024	$\sigma_8(0.61)$	$0.5920^{+0.0041}_{-0.0051}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.24530^{+0.00011}_{-0.000087}$	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0026}$
A_{143}^{tSZ}	4.9 ± 2.0	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00011}_{-0.000088}$	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0028}$
A_{100}^{PS}	267 ± 28	$10^5 \mathrm{D}/\mathrm{H}$	2.626 ± 0.044	$r_{0.002}$	< 0.0309
A_{143}^{PS}	51 ± 8	$\mathrm{Age}/\mathrm{Gyr}$	13.829 ± 0.036	$r_{0.01}$	< 0.0318
$A_{143 \times 217}^{\mathrm{PS}}$	44^{+9}_{-10}	z_*	1090.30 ± 0.40	$\ln(10^{10}A_{\mathrm{t}})$	$-0.91^{+1.1}_{-0.42}$
A_{217}^{PS}	115 ± 10	r_*	144.27 ± 0.48	r_{10}	< 0.0160
A^{kSZ}	< 5.35	$100\theta_*$	1.04094 ± 0.00046	$10^9 A_{\mathrm{t}}$	< 0.0705
$A_{100}^{\mathrm{dust}TT}$	9.0 ± 1.8	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.860 ± 0.045	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0631
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	z_{drag}	1059.54 ± 0.49	f_{2000}^{143}	32.3 ± 3.2
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.4 ± 3.3	r_{drag}	147.00 ± 0.49	$f_{2000}^{143 \times 217}$	34.4 ± 2.2
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.4	k_{D}	0.14080 ± 0.00056	f_{2000}^{217}	108.9 ± 2.1
c_{100}	0.99961 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16099 ± 0.00029	$\chi_{\mathrm{BKPLANCK}}^2$	739.1 ± 2.7
c_{217}	0.99827 ± 0.00063	z_{eq}	3427 ± 47	χ_{simall}^2	397.2 ± 2.0
H_0	66.69 ± 0.89	k_{eq}	0.01046 ± 0.00014	χ_{lowl}^2	23.5 ± 2.2
Ω_{Λ}	0.676 ± 0.013	$100\theta_{\mathrm{eq}}$	0.8082 ± 0.0087	χ_{plik}^2	772.7 ± 5.7
Ω_{m}	0.324 ± 0.013	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4469 ± 0.0045	χ_{prior}^2	8.9 ± 4.0
$\Omega_{\mathrm{m}}h^2$	0.1441 ± 0.0020	$H(0.15)$	72.10 ± 0.76	χ_{CMB}^2	1932.6 ± 6.2

$$\bar{\chi}_{\mathrm{eff}}^2 = 1941.52; R - 1 = 0.00204$$

15.34 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02227 ± 0.00021	S_8	0.825 ± 0.015	$D_M(0.51)$	1982 ± 11
$\Omega_c h^2$	0.1192 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4521 ± 0.0081	$H(0.61)$	95.28 ± 0.25
$100\theta_{MC}$	1.04100 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6052 ± 0.0078	$D_M(0.61)$	2307 ± 12
τ	$0.0573^{+0.0060}_{-0.0088}$	$\sigma_8/h^{0.5}$	0.986 ± 0.011	$H(2.33)$	235.96 ± 0.80
$\ln(10^{10} A_s)$	$3.049^{+0.014}_{-0.019}$	$r_{\text{drag}} h$	99.60 ± 0.93	$D_M(2.33)$	5765 ± 13
n_s	0.9655 ± 0.0044	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.028	$f\sigma_8(0.15)$	0.4567 ± 0.0076
$dn_s/d \ln k$	-0.0060 ± 0.0077	z_{re}	$7.97^{+0.65}_{-0.85}$	$\sigma_8(0.15)$	$0.7486^{+0.0059}_{-0.0071}$
r	$0.0295^{+0.0088}_{-0.028}$	$10^9 A_s$	$2.110^{+0.029}_{-0.040}$	$f\sigma_8(0.38)$	0.4750 ± 0.0064
y_{cal}	1.0007 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.882 ± 0.012	$\sigma_8(0.38)$	$0.6636^{+0.0048}_{-0.0061}$
$A_{B,\text{dust}}$	$4.85^{+0.82}_{-1.2}$	D_{40}	1224 ± 20	$f\sigma_8(0.51)$	0.4736 ± 0.0057
$A_{B,\text{sync}}$	$1.62^{+0.52}_{-1.4}$	D_{220}	5721 ± 40	$\sigma_8(0.51)$	$0.6210^{+0.0044}_{-0.0057}$
$\alpha_{B,\text{dust}}$	$-0.55^{+0.23}_{-0.31}$	D_{810}	2539 ± 14	$f\sigma_8(0.61)$	0.4687 ± 0.0053
$\beta_{B,\text{dust}}$	1.598 ± 0.097	D_{1420}	815.0 ± 5.1	$\sigma_8(0.61)$	$0.5909^{+0.0041}_{-0.0054}$
$\alpha_{B,\text{sync}}$	—	D_{2000}	229.5 ± 1.9	$f\sigma_8(2.33)$	$0.2980^{+0.0021}_{-0.0027}$
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	$n_{s,0.002}$	0.985 ± 0.024	$\sigma_8(2.33)$	$0.3072^{+0.0021}_{-0.0028}$
$\epsilon_{\text{dust,sync}}$	-0.35 ± 0.28	Y_P	$0.245351^{+0.000095}_{-0.000079}$	$r_{0.002}$	$0.0278^{+0.0074}_{-0.027}$
A_{217}^{CIB}	48 ± 7	Y_P^{BBN}	$0.246677^{+0.000096}_{-0.000079}$	$r_{0.01}$	$0.0284^{+0.0081}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 D/H$	2.605 ± 0.040	$\ln(10^{10} A_t)$	$-0.79^{+1.0}_{-0.41}$
A_{143}^{tSZ}	4.9 ± 2.0	Age/Gyr	13.802 ± 0.029	r_{10}	$0.0144^{+0.0037}_{-0.014}$
A_{100}^{PS}	266 ± 28	z_*	1089.98 ± 0.31	$10^9 A_t$	$0.062^{+0.019}_{-0.058}$
A_{143}^{PS}	50 ± 8	r_*	144.71 ± 0.33	$10^9 A_t e^{-2\tau}$	$0.055^{+0.017}_{-0.052}$
$A_{143 \times 217}^{\text{PS}}$	43^{+9}_{-10}	$100\theta_*$	1.04119 ± 0.00042	f_{2000}^{143}	31.8 ± 3.2
A_{217}^{PS}	114 ± 10	$D_M(z_*)/\text{Gpc}$	13.898 ± 0.033	$f_{2000}^{143 \times 217}$	34.0 ± 2.2
A^{kSZ}	< 5.27	z_{drag}	1059.65 ± 0.49	f_{2000}^{217}	108.5 ± 2.1
A_{100}^{dustTT}	8.9 ± 1.8	r_{drag}	147.41 ± 0.37	χ_{BKPLANCK}^2	739.8 ± 2.6
A_{143}^{dustTT}	10.8 ± 1.8	k_D	0.14046 ± 0.00050	χ_{simall}^2	397.5 ± 2.2
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.4	$100\theta_D$	0.16094 ± 0.00029	χ_{lowl}^2	22.9 ± 1.9
A_{217}^{dustTT}	93.3 ± 7.5	z_{eq}	3382 ± 29	χ_{plik}^2	773.0 ± 5.7
c_{100}	0.99962 ± 0.00062	k_{eq}	0.010321 ± 0.000088	$\chi_{6\text{DF}}^2$	0.069 ± 0.085
c_{217}	0.99827 ± 0.00063	$100\theta_{\text{eq}}$	0.8168 ± 0.0053	χ_{MGS}^2	1.26 ± 0.50
H_0	67.57 ± 0.54	$100\theta_{s,\text{eq}}$	0.4513 ± 0.0027	χ_{DR12BAO}^2	5.0 ± 1.8
Ω_Λ	0.6886 ± 0.0073	$H(0.15)$	72.85 ± 0.47	χ_{prior}^2	9.0 ± 4.0
Ω_m	0.3114 ± 0.0073	$D_M(0.15)$	641.6 ± 4.6	χ_{BAO}^2	6.4 ± 1.5
$\Omega_m h^2$	0.1421 ± 0.0012	$H(0.38)$	82.95 ± 0.35	χ_{CMB}^2	1933.2 ± 6.3
$\Omega_m h^3$	0.09604 ± 0.00050	$D_M(0.38)$	1530.3 ± 9.3		
σ_8	$0.8101^{+0.0068}_{-0.0080}$	$H(0.51)$	89.67 ± 0.29		

$$\bar{\chi}_{\text{eff}}^2 = 1948.61; R - 1 = 0.00617$$

15.35 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00022	σ_8	0.8122 ± 0.0060	$D_M(0.38)$	1539 ± 12
$\Omega_c h^2$	0.1204 ± 0.0015	S_8	0.837 ± 0.016	$H(0.51)$	89.42 ± 0.36
$100\theta_{MC}$	1.04081 ± 0.00045	$\sigma_8 \Omega_m^{0.5}$	0.4585 ± 0.0088	$D_M(0.51)$	1993 ± 14
τ	$0.0549^{+0.0052}_{-0.0086}$	$\sigma_8 \Omega_m^{0.25}$	0.6102 ± 0.0076	$H(0.61)$	95.09 ± 0.30
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.016}$	$\sigma_8/h^{0.5}$	0.992 ± 0.010	$D_M(0.61)$	2318 ± 15
n_s	0.9628 ± 0.0049	$r_{\text{drag}} h$	98.7 ± 1.2	$H(2.33)$	236.61 ± 0.94
$dn_s/d \ln k$	-0.0051 ± 0.0075	$\langle d^2 \rangle^{1/2}$	2.446 ± 0.027	$D_M(2.33)$	5774 ± 15
r	< 0.0344	z_{re}	$7.77^{+0.58}_{-0.82}$	$f\sigma_8(0.15)$	0.4625 ± 0.0080
y_{cal}	1.0006 ± 0.0025	$10^9 A_s$	$2.105^{+0.024}_{-0.034}$	$\sigma_8(0.15)$	0.7498 ± 0.0052
$A_{B,\text{dust}}$	$4.86^{+0.82}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.886 ± 0.012	$f\sigma_8(0.38)$	0.4792 ± 0.0062
$A_{B,\text{sync}}$	$1.63^{+0.53}_{-1.4}$	D_{40}	1231 ± 20	$\sigma_8(0.38)$	$0.6639^{+0.0040}_{-0.0048}$
$\alpha_{B,\text{dust}}$	$-0.56^{+0.22}_{-0.32}$	D_{220}	5715 ± 41	$f\sigma_8(0.51)$	0.4770 ± 0.0053
$\beta_{B,\text{dust}}$	1.599 ± 0.097	D_{810}	2538 ± 14	$\sigma_8(0.51)$	$0.6210^{+0.0036}_{-0.0046}$
$\alpha_{B,\text{sync}}$	—	D_{1420}	814.1 ± 5.2	$f\sigma_8(0.61)$	0.4714 ± 0.0047
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	D_{2000}	229.2 ± 1.9	$\sigma_8(0.61)$	$0.5907^{+0.0034}_{-0.0044}$
$\epsilon_{\text{dust,sync}}$	-0.35 ± 0.29	$n_{s,0.002}$	0.979 ± 0.024	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0023}$
A_{217}^{CIB}	48 ± 7	Y_P	$0.24532^{+0.00010}_{-0.000085}$	$\sigma_8(2.33)$	$0.3065^{+0.0019}_{-0.0026}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.24664^{+0.00010}_{-0.000085}$	$r_{0.002}$	< 0.0318
A_{143}^{tSZ}	4.9 ± 2.0	10^5D/H	2.620 ± 0.042	$r_{0.01}$	< 0.0328
A_{100}^{PS}	266 ± 28	Age/Gyr	13.820 ± 0.033	$\ln(10^{10} A_t)$	$-0.87^{+1.1}_{-0.41}$
A_{143}^{PS}	50 ± 8	z_*	1090.18 ± 0.35	r_{10}	< 0.0164
$A_{143 \times 217}^{\text{PS}}$	44^{+9}_{-10}	r_*	144.48 ± 0.37	$10^9 A_t$	< 0.0722
A_{217}^{PS}	115 ± 10	$100\theta_*$	1.04101 ± 0.00044	$10^9 A_t e^{-2\tau}$	< 0.0648
A^{kSZ}	< 5.33	$D_M(z_*)/\text{Gpc}$	13.879 ± 0.035	f_{2000}^{143}	32.0 ± 3.2
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	z_{drag}	1059.54 ± 0.49	$f_{2000}^{143 \times 217}$	34.2 ± 2.2
$A_{143}^{\text{dust}TT}$	10.8 ± 1.8	r_{drag}	147.20 ± 0.39	f_{2000}^{217}	108.7 ± 2.1
$A_{143 \times 217}^{\text{dust}TT}$	18.4 ± 3.3	k_D	0.14061 ± 0.00049	χ_{lensing}^2	9.7 ± 1.1
$A_{217}^{\text{dust}TT}$	93.3 ± 7.4	$100\theta_D$	0.16099 ± 0.00029	χ_{BKPLANCK}^2	739.4 ± 2.6
c_{100}	0.99961 ± 0.00061	z_{eq}	3406 ± 35	χ_{small}^2	397.1 ± 1.7
c_{217}	0.99827 ± 0.00063	k_{eq}	0.01040 ± 0.00011	χ_{lowl}^2	23.6 ± 2.2
H_0	67.05 ± 0.69	$100\theta_{\text{eq}}$	0.8120 ± 0.0064	χ_{plik}^2	772.2 ± 5.5
Ω_Λ	0.6813 ± 0.0095	$100\theta_{s,\text{eq}}$	0.4488 ± 0.0033	χ_{prior}^2	8.9 ± 4.0
Ω_m	0.3187 ± 0.0095	$H(0.15)$	72.40 ± 0.59	χ_{CMB}^2	1942.0 ± 6.2
$\Omega_m h^2$	0.1432 ± 0.0015	$D_M(0.15)$	646.1 ± 6.0		
$\Omega_m h^3$	0.09600 ± 0.00049	$H(0.38)$	82.63 ± 0.44		

$\bar{\chi}_{\text{eff}}^2 = 1950.93$; $R - 1 = 0.00327$

15.36 base_nrun_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02226 ± 0.00021	S_8	0.826 ± 0.012	$D_M(0.51)$	1983 ± 10
$\Omega_c h^2$	0.1192 ± 0.0011	$\sigma_8 \Omega_m^{0.5}$	0.4523 ± 0.0065	$H(0.61)$	95.28 ± 0.24
$100\theta_{MC}$	1.04099 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6054 ± 0.0062	$D_M(0.61)$	2307 ± 11
τ	$0.0574^{+0.0061}_{-0.0080}$	$\sigma_8/h^{0.5}$	0.9860 ± 0.0088	$H(2.33)$	235.96 ± 0.71
$\ln(10^{10} A_s)$	$3.050^{+0.013}_{-0.016}$	$r_{\text{drag}} h$	99.59 ± 0.83	$D_M(2.33)$	5766 ± 13
n_s	0.9654 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.024	$f\sigma_8(0.15)$	0.4569 ± 0.0061
$dn_s/d \ln k$	-0.0051 ± 0.0076	z_{re}	$7.99^{+0.65}_{-0.77}$	$\sigma_8(0.15)$	$0.7489^{+0.0050}_{-0.0058}$
r	$0.0290^{+0.0085}_{-0.027}$	$10^9 A_s$	$2.111^{+0.027}_{-0.035}$	$f\sigma_8(0.38)$	0.4752 ± 0.0050
y_{cal}	1.0008 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.882 ± 0.011	$\sigma_8(0.38)$	$0.6638^{+0.0042}_{-0.0051}$
$A_{B,\text{dust}}$	$4.85^{+0.82}_{-1.2}$	D_{40}	1227 ± 20	$f\sigma_8(0.51)$	0.4738 ± 0.0045
$A_{B,\text{sync}}$	$1.62^{+0.52}_{-1.4}$	D_{220}	5724 ± 40	$\sigma_8(0.51)$	$0.6212^{+0.0039}_{-0.0048}$
$\alpha_{B,\text{dust}}$	$-0.56^{+0.23}_{-0.31}$	D_{810}	2539 ± 14	$f\sigma_8(0.61)$	0.4688 ± 0.0041
$\beta_{B,\text{dust}}$	1.598 ± 0.097	D_{1420}	815.2 ± 5.1	$\sigma_8(0.61)$	$0.5911^{+0.0037}_{-0.0046}$
$\alpha_{B,\text{sync}}$	—	D_{2000}	229.6 ± 1.9	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0024}$
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	$n_{s,0.002}$	0.982 ± 0.024	$\sigma_8(2.33)$	$0.3073^{+0.0020}_{-0.0025}$
$\epsilon_{\text{dust,sync}}$	-0.35 ± 0.28	Y_P	$0.245348^{+0.000095}_{-0.000078}$	$r_{0.002}$	$0.0272^{+0.0071}_{-0.026}$
A_{217}^{CIB}	48 ± 7	Y_P^{BBN}	$0.246675^{+0.000096}_{-0.000079}$	$r_{0.01}$	$0.0279^{+0.0078}_{-0.027}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^5 D/H$	2.606 ± 0.040	$\ln(10^{10} A_t)$	$-0.81^{+1.0}_{-0.41}$
A_{143}^{tSZ}	5.0 ± 2.0	Age/Gyr	13.803 ± 0.029	r_{10}	$0.0140^{+0.0036}_{-0.014}$
A_{100}^{PS}	265 ± 28	z_*	1089.99 ± 0.30	$10^9 A_t$	$0.061^{+0.018}_{-0.058}$
A_{143}^{PS}	50 ± 8	r_*	144.71 ± 0.30	$10^9 A_t e^{-2\tau}$	$0.055^{+0.016}_{-0.052}$
$A_{143 \times 217}^{\text{PS}}$	43^{+9}_{-10}	$100\theta_*$	1.04118 ± 0.00042	f_{2000}^{143}	31.7 ± 3.2
A_{217}^{PS}	115 ± 10	$D_M(z_*)/\text{Gpc}$	13.899 ± 0.030	$f_{2000}^{143 \times 217}$	33.9 ± 2.2
A^{kSZ}	< 5.21	z_{drag}	1059.63 ± 0.49	f_{2000}^{217}	108.5 ± 2.1
A_{100}^{dustTT}	8.9 ± 1.8	r_{drag}	147.41 ± 0.34	χ_{lensing}^2	9.36 ± 0.67
A_{143}^{dustTT}	10.7 ± 1.8	k_D	0.14044 ± 0.00047	χ_{BKPLANCK}^2	739.7 ± 2.6
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.4	$100\theta_D$	0.16094 ± 0.00028	χ_{small}^2	397.5 ± 2.0
A_{217}^{dustTT}	93.3 ± 7.5	z_{eq}	3381 ± 25	χ_{lowl}^2	23.2 ± 2.0
c_{100}	0.99962 ± 0.00062	k_{eq}	0.010320 ± 0.000078	χ_{plik}^2	772.6 ± 5.6
c_{217}	0.99827 ± 0.00063	$100\theta_{\text{eq}}$	0.8168 ± 0.0046	$\chi_{6\text{DF}}^2$	0.062 ± 0.074
H_0	67.56 ± 0.49	$100\theta_{s,\text{eq}}$	0.4513 ± 0.0024	χ_{MGS}^2	1.25 ± 0.45
Ω_Λ	0.6885 ± 0.0065	$H(0.15)$	72.84 ± 0.43	χ_{DR12BAO}^2	4.9 ± 1.6
Ω_m	0.3115 ± 0.0065	$D_M(0.15)$	641.7 ± 4.2	χ_{prior}^2	9.0 ± 4.0
$\Omega_m h^2$	0.1421 ± 0.0011	$H(0.38)$	82.94 ± 0.33	χ_{CMB}^2	1942.4 ± 6.3
$\Omega_m h^3$	0.09603 ± 0.00049	$D_M(0.38)$	1530.5 ± 8.6	χ_{BAO}^2	6.3 ± 1.3
σ_8	$0.8104^{+0.0056}_{-0.0063}$	$H(0.51)$	89.66 ± 0.28		

$\bar{\chi}_{\text{eff}}^2 = 1957.58$; $R - 1 = 0.00713$

15.37 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022384	0.02238 ± 0.00015	H_0	67.14	67.14 ± 0.61	$100\theta_{s,eq}$	0.44798	0.4480 ± 0.0030
$\Omega_c h^2$	0.12062	0.1206 ± 0.0014	Ω_Λ	0.6813	0.6813 ± 0.0086	$H(0.15)$	72.50	72.51 ± 0.52
$100\theta_{MC}$	1.040876	1.04087 ± 0.00031	Ω_m	0.3187	0.3187 ± 0.0086	$D_M(0.15)$	645.2	645.2 ± 5.3
τ	0.0559	$0.0569^{+0.0076}_{-0.0085}$	$\Omega_m h^2$	0.14365	0.1436 ± 0.0013	$H(0.38)$	82.748	82.75 ± 0.38
$\ln(10^{10} A_s)$	3.0504	3.053 ± 0.017	$\Omega_m h^3$	0.096438	0.09643 ± 0.00031	$D_M(0.38)$	1537.1	1537 ± 11
n_s	0.96367	0.9629 ± 0.0046	σ_8	0.8139	0.8143 ± 0.0076	$H(0.51)$	89.545	89.55 ± 0.30
$dn_s/d \ln k$	-0.0063	-0.0079 ± 0.0070	S_8	0.8389	0.839 ± 0.016	$D_M(0.51)$	1990.0	1990 ± 12
r	0.0167	$0.0297^{+0.0091}_{-0.028}$	$\sigma_8 \Omega_m^{0.5}$	0.4595	0.4597 ± 0.0089	$H(0.61)$	95.226	95.23 ± 0.24
y_{cal}	1.00052	1.0008 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6116	0.6118 ± 0.0084	$D_M(0.61)$	2314.7	2315 ± 13
$A_{B,dust}$	4.62	$4.86^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.9934	0.994 ± 0.012	$H(2.33)$	236.98	236.96 ± 0.84
$A_{B,sync}$	1.49	$1.62^{+0.52}_{-1.3}$	$r_{drag} h$	98.63	98.7 ± 1.1	$D_M(2.33)$	5765.0	5765 ± 11
$\alpha_{B,dust}$	-0.515	$-0.57^{+0.21}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.4463	2.447 ± 0.029	$f\sigma_8(0.15)$	0.4635	0.4637 ± 0.0083
$\beta_{B,dust}$	1.579	1.601 ± 0.096	z_{re}	7.85	7.93 ± 0.82	$\sigma_8(0.15)$	0.7514	0.7518 ± 0.0067
$\alpha_{B,sync}$	-0.32	—	$10^9 A_s$	2.1124	$2.118^{+0.033}_{-0.038}$	$f\sigma_8(0.38)$	0.4803	0.4805 ± 0.0068
$\beta_{B,sync}$	-3.039	$-3.10^{+0.29}_{-0.26}$	$10^9 A_s e^{-2\tau}$	1.8888	1.890 ± 0.012	$\sigma_8(0.38)$	0.6653	0.6656 ± 0.0057
$\epsilon_{dust,sync}$	-0.348	-0.36 ± 0.28	D_{40}	1224.0	1227 ± 19	$f\sigma_8(0.51)$	0.4780	0.4782 ± 0.0060
A_{217}^{CIB}	49.5	48 ± 7	D_{220}	5726.9	5730 ± 39	$\sigma_8(0.51)$	0.6223	0.6226 ± 0.0053
$\xi^{tSZ \times CIB}$	0.17	—	D_{810}	2542.7	2543 ± 14	$f\sigma_8(0.61)$	0.4725	0.4726 ± 0.0055
A_{143}^{tSZ}	7.27	5.1 ± 2.0	D_{1420}	816.61	816.0 ± 5.0	$\sigma_8(0.61)$	0.59192	0.5922 ± 0.0050
A_{100}^{PS}	254.9	264 ± 28	D_{2000}	230.31	230.0 ± 1.8	$f\sigma_8(2.33)$	0.29816	0.2983 ± 0.0025
A_{143}^{PS}	46.6	49 ± 8	$n_{s,0.002}$	0.9840	0.989 ± 0.021	$\sigma_8(2.33)$	0.30708	0.3073 ± 0.0027
$A_{143 \times 217}^{PS}$	42.4	43 ± 9	Y_P	0.245401	$0.245398^{+0.000063}_{-0.000056}$	$r_{0.002}$	0.0155	$0.0281^{+0.0075}_{-0.027}$
A_{217}^{PS}	117.6	115 ± 10	Y_P^{BBN}	0.246728	$0.246725^{+0.000063}_{-0.000056}$	$r_{0.01}$	0.0160	$0.0285^{+0.0083}_{-0.027}$
A^{kSZ}	0.00	< 4.97	$10^5 D/H$	2.5828	2.584 ± 0.029	$\ln(10^{10} A_t)$	-1.04	$-0.78^{+1.0}_{-0.39}$
$A_{100}^{dust TT}$	8.88	8.9 ± 1.8	Age/Gyr	13.7998	13.800 ± 0.025	r_{10}	0.0080	$0.0146^{+0.0038}_{-0.014}$
$A_{143}^{dust TT}$	11.02	11.0 ± 1.8	z_*	1089.957	1089.96 ± 0.28	$10^9 A_t$	0.0353	$0.063^{+0.019}_{-0.058}$
$A_{143 \times 217}^{dust TT}$	19.57	18.7 ± 3.3	r_*	144.262	144.27 ± 0.31	$10^9 A_t e^{-2\tau}$	0.0316	$0.056^{+0.017}_{-0.052}$
$A_{217}^{dust TT}$	94.5	93.5 ± 7.3	$100\theta_*$	1.041057	1.04105 ± 0.00031	f_{2000}^{143}	30.36	31.2 ± 3.1
$A_{100}^{dust TE}$	0.1150	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.8572	13.858 ± 0.029	$f_{2000}^{143 \times 217}$	33.07	33.4 ± 2.2
$A_{100 \times 143}^{dust TE}$	0.1349	0.135 ± 0.030	z_{drag}	1060.009	1060.01 ± 0.32	f_{2000}^{217}	107.65	108.1 ± 2.0
$A_{100 \times 217}^{dust TE}$	0.482	0.481 ± 0.085	r_{drag}	146.914	146.92 ± 0.31	$\chi_{BKPLANCK}^2$	735.07	739.4 ± 2.7
$A_{143}^{dust TE}$	0.226	0.226 ± 0.054	k_D	0.141067	0.14106 ± 0.00034	χ_{small}^2	396.36	397.6 ± 2.2
$A_{143 \times 217}^{dust TE}$	0.665	0.665 ± 0.080	$100\theta_D$	0.160712	0.16072 ± 0.00018	χ_{lowl}^2	22.43	22.9 ± 1.7
$A_{217}^{dust TE}$	2.080	2.08 ± 0.27	z_{eq}	3417.3	3417 ± 31	χ_{plik}^2	2345.1	2360.7 ± 6.1
c_{100}	0.99971	0.99967 ± 0.00061	k_{eq}	0.010430	0.010428 ± 0.000096	χ_{prior}^2	1.85	13.2 ± 4.8
c_{217}	0.99820	0.99822 ± 0.00062	$100\theta_{eq}$	0.8106	0.8108 ± 0.0059	χ_{CMB}^2	3499.0	3520.6 ± 6.6

Best-fit $\chi_{eff}^2 = 3500.83$; $\bar{\chi}_{eff}^2 = 3533.84$; $R - 1 = 0.00338$

χ_{eff}^2 : CMB - BK15_dust: 735.07 small_100x143_offlike5_EE_Aplanck_B: 396.36 commander_dx12_v3_2_29: 22.43 plik_rd12_HM_v22b_TTTEE: 2345.11

15.38 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022446	0.02245 ± 0.00014	Ω_{m}	0.3125	0.3120 ± 0.0061	$D_{\text{M}}(0.38)$	1529.6	1529.0 ± 7.7
$\Omega_{\text{c}}h^2$	0.11961	0.1195 ± 0.0010	$\Omega_{\text{m}}h^2$	0.14270	0.14262 ± 0.00098	$H(0.51)$	89.747	89.77 ± 0.23
$100\theta_{\text{MC}}$	1.040982	1.04099 ± 0.00029	$\Omega_{\text{m}}h^3$	0.096432	0.09643 ± 0.00031	$D_{\text{M}}(0.51)$	1981.3	1980.6 ± 9.0
τ	0.0580	$0.0585^{+0.0075}_{-0.0087}$	σ_8	0.8126	0.8118 ± 0.0074	$H(0.61)$	95.379	95.40 ± 0.19
$\ln(10^{10}A_{\text{s}})$	3.0531	$3.054^{+0.016}_{-0.018}$	S_8	0.8293	0.828 ± 0.013	$D_{\text{M}}(0.61)$	2305.4	2304.6 ± 9.7
n_{s}	0.96641	0.9656 ± 0.0040	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4542	0.4534 ± 0.0070	$H(2.33)$	236.39	236.33 ± 0.63
$\text{d}n_{\text{s}}/\text{d}\ln k$	-0.0053	-0.0074 ± 0.0070	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6075	0.6067 ± 0.0071	$D_{\text{M}}(2.33)$	5758.6	5758.0 ± 9.1
r	0.0218	$0.031^{+0.010}_{-0.028}$	$\sigma_8/h^{0.5}$	0.9885	0.987 ± 0.010	$f\sigma_8(0.15)$	0.4588	0.4580 ± 0.0066
y_{cal}	1.00101	1.0009 ± 0.0025	$r_{\text{drag}}h$	99.41	99.48 ± 0.78	$\sigma_8(0.15)$	0.7508	0.7501 ± 0.0067
$A_{B,\text{dust}}$	4.61	$4.85^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4360	2.433 ± 0.026	$f\sigma_8(0.38)$	0.4769	0.4762 ± 0.0057
$A_{B,\text{sync}}$	1.40	$1.63^{+0.53}_{-1.3}$	z_{re}	8.03	8.06 ± 0.82	$\sigma_8(0.38)$	0.6654	0.6648 ± 0.0058
$\alpha_{B,\text{dust}}$	-0.510	$-0.56^{+0.22}_{-0.31}$	10^9A_{s}	2.1180	$2.119^{+0.034}_{-0.039}$	$f\sigma_8(0.51)$	0.4754	0.4748 ± 0.0052
$\beta_{B,\text{dust}}$	1.580	1.599 ± 0.096	$10^9A_{\text{s}}e^{-2\tau}$	1.8862	1.885 ± 0.012	$\sigma_8(0.51)$	0.6226	0.6222 ± 0.0054
$\alpha_{B,\text{sync}}$	-0.37	—	D_{40}	1224.1	1224 ± 19	$f\sigma_8(0.61)$	0.47034	0.4697 ± 0.0049
$\beta_{B,\text{sync}}$	-3.042	-3.11 ± 0.27	D_{220}	5736.4	5735 ± 38	$\sigma_8(0.61)$	0.5924	0.5920 ± 0.0051
$\epsilon_{\text{dust,sync}}$	-0.367	-0.35 ± 0.28	D_{810}	2544.5	2543 ± 14	$f\sigma_8(2.33)$	0.29867	0.2985 ± 0.0026
A_{217}^{CIB}	48.6	48 ± 7	D_{1420}	818.3	816.8 ± 5.0	$\sigma_8(2.33)$	0.30787	0.3077 ± 0.0027
$\xi^{\text{tSZ} \times \text{CIB}}$	0.31	—	D_{2000}	231.01	230.4 ± 1.8	$r_{0.002}$	0.0203	$0.0295^{+0.0087}_{-0.028}$
A_{143}^{tSZ}	7.22	5.2 ± 2.0	$n_{\text{s},0.002}$	0.9835	0.989 ± 0.022	$r_{0.01}$	0.0209	$0.0299^{+0.0095}_{-0.027}$
A_{100}^{PS}	253.1	263 ± 28	Y_{P}	0.245425	$0.245425^{+0.000056}_{-0.000050}$	$\ln(10^{10}A_{\text{t}})$	-0.77	$-0.73^{+1.0}_{-0.39}$
A_{143}^{PS}	47.4	48 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.246752	$0.246752^{+0.000056}_{-0.000050}$	r_{10}	0.0104	$0.0152^{+0.0044}_{-0.014}$
$A_{143 \times 217}^{\text{PS}}$	45.4	43 ± 9	$10^5\text{D}/\text{H}$	2.5715	2.571 ± 0.026	10^9A_{t}	0.0461	$0.066^{+0.022}_{-0.059}$
A_{217}^{PS}	118.7	115 ± 10	Age/Gyr	13.7861	13.785 ± 0.021	$10^9A_{\text{t}}e^{-2\tau}$	0.0411	$0.058^{+0.019}_{-0.053}$
A^{kSZ}	0.01	< 4.81	z_*	1089.790	1089.78 ± 0.23	f_{2000}^{143}	29.69	30.7 ± 3.1
A_{100}^{dustTT}	8.84	9.0 ± 1.8	r_*	144.474	144.49 ± 0.24	$f_{2000}^{143 \times 217}$	32.63	33.1 ± 2.1
A_{143}^{dustTT}	11.02	11.0 ± 1.8	$100\theta_*$	1.041166	1.04117 ± 0.00029	f_{2000}^{217}	107.27	107.8 ± 2.0
$A_{143 \times 217}^{\text{dustTT}}$	19.64	18.7 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8762	13.878 ± 0.023	χ_{BKPLANCK}^2	735.29	739.8 ± 2.7
A_{217}^{dustTT}	94.5	93.5 ± 7.3	z_{drag}	1060.085	1060.09 ± 0.31	χ_{small}^2	396.77	397.9 ± 2.5
A_{100}^{dustTE}	0.1144	0.115 ± 0.038	r_{drag}	147.110	147.13 ± 0.26	χ_{lowl}^2	22.40	22.6 ± 1.6
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.135 ± 0.030	k_{D}	0.140905	0.14089 ± 0.00031	χ_{plik}^2	2345.0	2360.4 ± 6.0
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085	$100\theta_{\text{D}}$	0.160677	0.16067 ± 0.00018	$\chi_{6\text{DF}}^2$	0.0486	0.068 ± 0.074
A_{143}^{dustTE}	0.225	0.225 ± 0.054	z_{eq}	3394.7	3393 ± 23	χ_{MGS}^2	1.097	1.18 ± 0.41
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.663 ± 0.080	k_{eq}	0.010361	0.010355 ± 0.000071	χ_{DR12BAO}^2	4.88	5.1 ± 1.6
A_{217}^{dustTE}	2.075	2.07 ± 0.27	$100\theta_{\text{eq}}$	0.81490	0.8153 ± 0.0043	χ_{prior}^2	1.89	13.2 ± 4.9
c_{100}	0.99973	0.99967 ± 0.00062	$100\theta_{\text{s,eq}}$	0.45016	0.4504 ± 0.0022	χ_{BAO}^2	6.02	6.4 ± 1.3
c_{217}	0.99821	0.99821 ± 0.00061	$H(0.15)$	72.873	72.91 ± 0.39	χ_{CMB}^2	3499.5	3520.8 ± 6.6
H_0	67.576	67.62 ± 0.45	$D_{\text{M}}(0.15)$	641.47	641.1 ± 3.8			
Ω_{Λ}	0.6875	0.6880 ± 0.0061	$H(0.38)$	83.013	83.04 ± 0.28			

Best-fit $\chi_{\text{eff}}^2 = 3507.39$; $\bar{\chi}_{\text{eff}}^2 = 3540.38$; $R - 1 = 0.00677$
 χ_{eff}^2 : BAO - 6DF: 0.05 MGS: 1.10 DR12BAO: 4.88 CMB - BK15_dust: 735.29 small_100x143_offlike5_EE_Aplanck_B: 396.77 commander_dx12_v3_2_29: 22.40 plik_rd12_HM_v22b_TTEEE_lowl_lowE_BK15_post_BAO: 2345.00

15.39 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00015	H_0	67.16 ± 0.61	$100\theta_{s,eq}$	0.4481 ± 0.0030
$\Omega_c h^2$	0.1206 ± 0.0014	Ω_Λ	0.6815 ± 0.0086	$H(0.15)$	72.52 ± 0.52
$100\theta_{MC}$	1.04087 ± 0.00031	Ω_m	0.3185 ± 0.0086	$D_M(0.15)$	645.1 ± 5.2
τ	$0.0576^{+0.0062}_{-0.0088}$	$\Omega_m h^2$	0.1436 ± 0.0013	$H(0.38)$	82.76 ± 0.38
$\ln(10^{10} A_s)$	$3.054^{+0.014}_{-0.018}$	$\Omega_m h^3$	0.09643 ± 0.00031	$D_M(0.38)$	1537 ± 10
n_s	0.9630 ± 0.0046	σ_8	0.8148 ± 0.0073	$H(0.51)$	89.56 ± 0.30
$dn_s/d \ln k$	-0.0080 ± 0.0069	S_8	0.840 ± 0.016	$D_M(0.51)$	1990 ± 12
r	$0.0298^{+0.0090}_{-0.028}$	$\sigma_8 \Omega_m^{0.5}$	0.4599 ± 0.0089	$H(0.61)$	95.23 ± 0.24
y_{cal}	1.0008 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6121 ± 0.0083	$D_M(0.61)$	2314 ± 13
$A_{B,dust}$	$4.86^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.994 ± 0.012	$H(2.33)$	236.95 ± 0.84
$A_{B,sync}$	$1.62^{+0.52}_{-1.3}$	$r_{drag} h$	98.7 ± 1.1	$D_M(2.33)$	5765 ± 11
$\alpha_{B,dust}$	$-0.57^{+0.21}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.448 ± 0.028	$f\sigma_8(0.15)$	0.4639 ± 0.0083
$\beta_{B,dust}$	1.601 ± 0.096	z_{re}	$8.01^{+0.67}_{-0.84}$	$\sigma_8(0.15)$	$0.7522^{+0.0060}_{-0.0067}$
$\alpha_{B,sync}$	—	$10^9 A_s$	$2.121^{+0.029}_{-0.038}$	$f\sigma_8(0.38)$	0.4807 ± 0.0067
$\beta_{B,sync}$	$-3.10^{+0.29}_{-0.26}$	$10^9 A_s e^{-2\tau}$	1.890 ± 0.012	$\sigma_8(0.38)$	$0.6660^{+0.0049}_{-0.0058}$
$\epsilon_{dust,sync}$	-0.36 ± 0.28	D_{40}	1227 ± 19	$f\sigma_8(0.51)$	0.4785 ± 0.0059
A_{217}^{CIB}	48 ± 7	D_{220}	5730 ± 39	$\sigma_8(0.51)$	$0.6230^{+0.0045}_{-0.0054}$
$\xi^{tSZ \times CIB}$	—	D_{810}	2543 ± 14	$f\sigma_8(0.61)$	0.4729 ± 0.0053
A_{143}^{tSZ}	5.1 ± 2.0	D_{1420}	816.0 ± 5.0	$\sigma_8(0.61)$	$0.5926^{+0.0042}_{-0.0051}$
A_{100}^{PS}	264 ± 28	D_{2000}	230.0 ± 1.8	$f\sigma_8(2.33)$	$0.2985^{+0.0021}_{-0.0026}$
A_{143}^{PS}	49 ± 8	$n_{s,0.002}$	0.989 ± 0.021	$\sigma_8(2.33)$	$0.3075^{+0.0022}_{-0.0027}$
$A_{143 \times 217}^{PS}$	43 ± 9	Y_P	$0.245400^{+0.000063}_{-0.000056}$	$r_{0.002}$	$0.0282^{+0.0075}_{-0.027}$
A_{217}^{PS}	115 ± 10	Y_P^{BBN}	$0.246726^{+0.000063}_{-0.000056}$	$r_{0.01}$	$0.0286^{+0.0083}_{-0.027}$
A^{kSZ}	< 4.96	$10^5 D/H$	2.583 ± 0.028	$\ln(10^{10} A_t)$	$-0.77^{+1.0}_{-0.39}$
A_{100}^{dustTT}	8.9 ± 1.8	Age/Gyr	13.800 ± 0.024	r_{10}	$0.0146^{+0.0037}_{-0.014}$
A_{143}^{dustTT}	11.0 ± 1.8	z_*	1089.95 ± 0.28	$10^9 A_t$	$0.063^{+0.019}_{-0.059}$
$A_{143 \times 217}^{dustTT}$	18.6 ± 3.3	r_*	144.27 ± 0.31	$10^9 A_t e^{-2\tau}$	$0.056^{+0.017}_{-0.052}$
A_{217}^{dustTT}	93.5 ± 7.3	$100\theta_*$	1.04105 ± 0.00031	f_{2000}^{143}	31.2 ± 3.1
A_{100}^{dustTE}	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.859 ± 0.029	$f_{2000}^{143 \times 217}$	33.4 ± 2.1
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.030	z_{drag}	1060.01 ± 0.31	f_{2000}^{217}	108.1 ± 2.0
$A_{100 \times 217}^{dustTE}$	0.481 ± 0.085	r_{drag}	146.93 ± 0.31	$\chi_{BKPLANCK}^2$	739.4 ± 2.7
A_{143}^{dustTE}	0.226 ± 0.054	k_D	0.14105 ± 0.00034	χ_{small}^2	397.6 ± 2.3
$A_{143 \times 217}^{dustTE}$	0.665 ± 0.080	$100\theta_D$	0.16071 ± 0.00018	χ_{lowl}^2	22.9 ± 1.7
A_{217}^{dustTE}	2.08 ± 0.27	z_{eq}	3416 ± 31	χ_{plik}^2	2360.6 ± 6.1
c_{100}	0.99967 ± 0.00061	k_{eq}	0.010426 ± 0.000096	χ_{prior}^2	13.2 ± 4.8
c_{217}	0.99822 ± 0.00062	$100\theta_{eq}$	0.8109 ± 0.0058	χ_{CMB}^2	3520.5 ± 6.6

$$\bar{\chi}_{eff}^2 = 3533.65; R - 1 = 0.00314$$

15.40 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02245 ± 0.00014	Ω_m	0.3119 ± 0.0061	$D_M(0.38)$	1528.9 ± 7.7
$\Omega_c h^2$	0.1195 ± 0.0010	$\Omega_m h^2$	0.14261 ± 0.00098	$H(0.51)$	89.77 ± 0.23
$100\theta_{MC}$	1.04100 ± 0.00029	$\Omega_m h^3$	0.09643 ± 0.00031	$D_M(0.51)$	1980.5 ± 9.0
τ	$0.0590^{+0.0065}_{-0.0090}$	σ_8	$0.8122^{+0.0066}_{-0.0075}$	$H(0.61)$	95.40 ± 0.19
$\ln(10^{10} A_s)$	$3.055^{+0.014}_{-0.018}$	S_8	0.828 ± 0.013	$D_M(0.61)$	2304.5 ± 9.7
n_s	0.9656 ± 0.0040	$\sigma_8 \Omega_m^{0.5}$	0.4536 ± 0.0069	$H(2.33)$	236.33 ± 0.63
$dn_s/d \ln k$	-0.0075 ± 0.0070	$\sigma_8 \Omega_m^{0.25}$	0.6070 ± 0.0069	$D_M(2.33)$	5757.9 ± 9.1
r	$0.031^{+0.010}_{-0.028}$	$\sigma_8/h^{0.5}$	0.988 ± 0.010	$f\sigma_8(0.15)$	0.4582 ± 0.0065
y_{cal}	1.0009 ± 0.0025	$r_{drag} h$	99.49 ± 0.78	$\sigma_8(0.15)$	$0.7505^{+0.0058}_{-0.0067}$
$A_{B,dust}$	$4.85^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.025	$f\sigma_8(0.38)$	0.4764 ± 0.0056
$A_{B,sync}$	$1.63^{+0.52}_{-1.3}$	z_{re}	$8.11^{+0.69}_{-0.85}$	$\sigma_8(0.38)$	$0.6652^{+0.0050}_{-0.0059}$
$\alpha_{B,dust}$	$-0.56^{+0.22}_{-0.31}$	$10^9 A_s$	$2.122^{+0.030}_{-0.039}$	$f\sigma_8(0.51)$	0.4750 ± 0.0051
$\beta_{B,dust}$	1.599 ± 0.096	$10^9 A_s e^{-2\tau}$	1.885 ± 0.012	$\sigma_8(0.51)$	$0.6225^{+0.0046}_{-0.0055}$
$\alpha_{B,sync}$	—	D_{40}	1223 ± 19	$f\sigma_8(0.61)$	0.4700 ± 0.0047
$\beta_{B,sync}$	-3.11 ± 0.27	D_{220}	5735 ± 38	$\sigma_8(0.61)$	$0.5923^{+0.0043}_{-0.0052}$
$\epsilon_{dust,sync}$	-0.35 ± 0.28	D_{810}	2543 ± 14	$f\sigma_8(2.33)$	$0.2986^{+0.0022}_{-0.0027}$
A_{217}^{CIB}	48 ± 7	D_{1420}	816.8 ± 5.0	$\sigma_8(2.33)$	$0.3078^{+0.0022}_{-0.0028}$
$\xi^{tSZ \times CIB}$	—	D_{2000}	230.4 ± 1.8	$r_{0.002}$	$0.0295^{+0.0085}_{-0.028}$
A_{143}^{tSZ}	5.2 ± 2.0	$n_{s,0.002}$	0.990 ± 0.021	$r_{0.01}$	$0.0299^{+0.0093}_{-0.028}$
A_{100}^{PS}	263 ± 28	Y_P	$0.245426^{+0.000056}_{-0.000050}$	$\ln(10^{10} A_t)$	$-0.73^{+1.0}_{-0.39}$
A_{143}^{PS}	48 ± 8	Y_P^{BBN}	$0.246752^{+0.000056}_{-0.000050}$	r_{10}	$0.0152^{+0.0043}_{-0.015}$
$A_{143 \times 217}^{PS}$	43 ± 9	$10^5 D/H$	2.571 ± 0.026	$10^9 A_t$	$0.066^{+0.021}_{-0.060}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.785 ± 0.021	$10^9 A_t e^{-2\tau}$	$0.058^{+0.019}_{-0.053}$
A^{kSZ}	< 4.79	z_*	1089.77 ± 0.22	f_{2000}^{143}	30.7 ± 3.1
A_{100}^{dustTT}	9.0 ± 1.8	r_*	144.49 ± 0.25	$f_{2000}^{143 \times 217}$	33.1 ± 2.1
A_{143}^{dustTT}	11.0 ± 1.8	$100\theta_*$	1.04117 ± 0.00029	f_{2000}^{217}	107.8 ± 2.0
$A_{143 \times 217}^{dustTT}$	18.7 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.878 ± 0.023	$\chi_{BKPLANCK}^2$	739.8 ± 2.7
A_{217}^{dustTT}	93.5 ± 7.3	z_{drag}	1060.09 ± 0.31	χ_{small}^2	397.9 ± 2.5
A_{100}^{dustTE}	0.115 ± 0.038	r_{drag}	147.13 ± 0.26	χ_{lowl}^2	22.6 ± 1.6
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.030	k_D	0.14089 ± 0.00031	χ_{plik}^2	2360.3 ± 6.0
$A_{100 \times 217}^{dustTE}$	0.480 ± 0.085	$100\theta_D$	0.16067 ± 0.00018	χ_{6DF}^2	0.067 ± 0.074
A_{143}^{dustTE}	0.225 ± 0.054	z_{eq}	3393 ± 23	χ_{MGS}^2	1.19 ± 0.41
$A_{143 \times 217}^{dustTE}$	0.663 ± 0.080	k_{eq}	0.010354 ± 0.000071	$\chi_{DR12BAO}^2$	5.1 ± 1.6
A_{217}^{dustTE}	2.07 ± 0.27	$100\theta_{eq}$	0.8153 ± 0.0043	χ_{prior}^2	13.2 ± 4.9
c_{100}	0.99967 ± 0.00062	$100\theta_{s,eq}$	0.4504 ± 0.0022	χ_{BAO}^2	6.4 ± 1.3
c_{217}	0.99821 ± 0.00061	$H(0.15)$	72.91 ± 0.39	χ_{CMB}^2	3520.7 ± 6.6
H_0	67.62 ± 0.45	$D_M(0.15)$	641.1 ± 3.8		
Ω_Λ	0.6881 ± 0.0061	$H(0.38)$	83.04 ± 0.28		

$$\bar{\chi}_{\text{eff}}^2 = 3540.25; R - 1 = 0.00710$$

15.41 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022129	0.02215 ± 0.00023	$\Omega_{\text{m}}h^3$	0.096048	0.09606 ± 0.00049	$H(0.38)$	82.39	82.46 ± 0.55
$\Omega_{\text{c}}h^2$	0.12137	0.1211 ± 0.0021	σ_8	0.8144	0.8142 ± 0.0089	$D_{\text{M}}(0.38)$	1546.2	1544 ± 16
$100\theta_{\text{MC}}$	1.040786	1.04080 ± 0.00048	S_8	0.8472	0.845 ± 0.024	$H(0.51)$	89.237	89.30 ± 0.44
τ	0.0534	$0.0540^{+0.0075}_{-0.0085}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4640	0.463 ± 0.013	$D_{\text{M}}(0.51)$	2000.9	1999 ± 18
$\ln(10^{10}A_{\text{s}})$	3.0451	3.046 ± 0.018	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6147	0.614 ± 0.012	$H(0.61)$	94.955	95.00 ± 0.35
n_{s}	0.9605	0.9618 ± 0.0059	$\sigma_8/h^{0.5}$	0.9977	0.997 ± 0.016	$D_{\text{M}}(0.61)$	2326.7	2324 ± 20
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0056	-0.0054 ± 0.0076	$r_{\text{drag}}h$	97.95	98.1 ± 1.6	$H(2.33)$	237.21	237.1 ± 1.3
r	0.0137	< 0.0340	$\langle d^2 \rangle^{1/2}$	2.4574	2.454 ± 0.038	$D_{\text{M}}(2.33)$	5778.8	5777 ± 16
y_{cal}	1.00067	1.0007 ± 0.0025	z_{re}	7.66	7.69 ± 0.85	$f\sigma_8(0.15)$	0.4675	0.467 ± 0.012
$A_{B,\text{dust}}$	4.62	$4.86^{+0.81}_{-1.2}$	$10^9 A_{\text{s}}$	2.1012	$2.103^{+0.034}_{-0.038}$	$\sigma_8(0.15)$	0.7512	0.7512 ± 0.0075
$A_{B,\text{sync}}$	1.48	$1.63^{+0.51}_{-1.4}$	$10^9 A_{\text{s}}e^{-2\tau}$	1.8884	1.887 ± 0.014	$f\sigma_8(0.38)$	0.4830	0.4822 ± 0.0094
$\alpha_{B,\text{dust}}$	-0.528	$-0.57^{+0.21}_{-0.32}$	D_{40}	1227.8	1231 ± 21	$\sigma_8(0.38)$	0.6645	0.6646 ± 0.0061
$\beta_{B,\text{dust}}$	1.579	1.600 ± 0.096	D_{220}	5704.2	5703 ± 41	$f\sigma_8(0.51)$	0.4800	0.4794 ± 0.0080
$\alpha_{B,\text{sync}}$	-0.25	—	D_{810}	2536.8	2537 ± 14	$\sigma_8(0.51)$	0.6213	0.6214 ± 0.0056
$\beta_{B,\text{sync}}$	-3.036	-3.10 ± 0.27	D_{1420}	812.8	813.5 ± 5.3	$f\sigma_8(0.61)$	0.4740	0.4735 ± 0.0071
$\epsilon_{\text{dust,sync}}$	-0.338	-0.35 ± 0.28	D_{2000}	228.70	229.0 ± 2.0	$\sigma_8(0.61)$	0.5908	0.5910 ± 0.0052
A_{100}^{PS}	249.5	246 ± 25	$n_{\text{s},0.002}$	0.9786	0.979 ± 0.024	$f\sigma_8(2.33)$	0.29738	0.2975 ± 0.0026
A_{143}^{PS}	39.5	43 ± 9	Y_{P}	0.245296	$0.24530^{+0.00011}_{-0.000087}$	$\sigma_8(2.33)$	0.30603	0.3063 ± 0.0027
A_{217}^{PS}	97.9	100 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246622	$0.24663^{+0.00011}_{-0.000088}$	$r_{0.002}$	0.0125	< 0.0314
A_{217}^{CIB}	44.0	42 ± 8	$10^5 \text{D}/\text{H}$	2.6315	2.628 ± 0.044	$r_{0.01}$	0.0130	< 0.0325
A_{143}^{tSZ}	3.85	$3.6^{+1.7}_{-2.7}$	Age/Gyr	13.8315	13.827 ± 0.037	$\ln(10^{10}A_{\text{t}})$	-1.25	$-0.89^{+1.1}_{-0.43}$
$r_{143 \times 217}^{\text{PS}}$	0.542	0.64 ± 0.13	z_*	1090.347	1090.30 ± 0.41	r_{10}	0.0065	< 0.0163
$r_{143 \times 217}^{\text{CIB}}$	0.658	> 0.485	r_*	144.262	144.31 ± 0.48	$10^9 A_{\text{t}}$	0.0288	< 0.0715
$\xi^{\text{tSZ} \times \text{CIB}}$	0.00	—	$100\theta_*$	1.040990	1.04101 ± 0.00047	$10^9 A_{\text{t}}e^{-2\tau}$	0.0259	< 0.0642
A^{kSZ}	4.70	$5.2^{+3.9}_{-2.3}$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8582	13.862 ± 0.045	f_{2000}^{143}	32.54	31.9 ± 3.4
A_{100}^{dust}	1.015	1.01 ± 0.19	z_{drag}	1059.475	1059.51 ± 0.50	f_{2000}^{217}	108.75	108.3 ± 2.2
A_{143}^{dust}	0.984	0.98 ± 0.18	r_{drag}	146.999	147.04 ± 0.49	$f_{2000}^{143 \times 217}$	34.09	33.8 ± 2.4
A_{217}^{dust}	0.962	0.97 ± 0.10	k_{D}	0.14078	0.14075 ± 0.00056	χ_{BKPLANCK}^2	734.86	739.2 ± 2.7
$A_{143 \times 217}^{\text{dust}}$	1.007	1.03 ± 0.16	$100\theta_{\text{D}}$	0.161032	0.16101 ± 0.00029	χ_{small}^2	396.03	397.3 ± 2.0
c_{100}	0.99739	0.9975 ± 0.0011	z_{eq}	3429.2	3424 ± 47	χ_{lowl}^2	22.86	23.6 ± 2.2
c_{217}	1.00143	1.0013 ± 0.0016	k_{eq}	0.010466	0.01045 ± 0.00014	χ_{CamSpec}^2	7050.6	7064.4 ± 5.6
H_0	66.63	66.75 ± 0.90	$100\theta_{\text{eq}}$	0.8078	0.8088 ± 0.0087	χ_{prior}^2	2.59	9.3 ± 3.9
Ω_{Λ}	0.6753	0.677 ± 0.013	$100\theta_{\text{s,eq}}$	0.44666	0.4472 ± 0.0045	χ_{CMB}^2	8204.4	8224.5 ± 6.3
Ω_{m}	0.3247	0.323 ± 0.013	$H(0.15)$	72.05	72.15 ± 0.77			
$\Omega_{\text{m}}h^2$	0.14414	0.1439 ± 0.0020	$D_{\text{M}}(0.15)$	649.7	648.8 ± 7.8			

Best-fit $\chi_{\text{eff}}^2 = 8206.96$; $\bar{\chi}_{\text{eff}}^2 = 8233.85$; $R - 1 = 0.00340$

χ_{eff}^2 : CMB - BK15_dust: 734.86 small_100x143_offlike5_EE_Aplanck_B: 396.03 commander_dx12_v3_2_29: 22.86 CamSpec like_10.7HM: 7050.61

15.42 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022242	0.02226 ± 0.00021	σ_8	0.8082	0.8091 ± 0.0078	$H(0.51)$	89.662	89.68 ± 0.29
$\Omega_{\text{c}}h^2$	0.11917	0.1192 ± 0.0012	S_8	0.8229	0.824 ± 0.015	$D_{\text{M}}(0.51)$	1982.2	1982 ± 11
$100\theta_{\text{MC}}$	1.041041	1.04106 ± 0.00043	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4507	0.4513 ± 0.0081	$H(0.61)$	95.275	95.29 ± 0.25
τ	0.0553	$0.0560^{+0.0074}_{-0.0088}$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6035	0.6042 ± 0.0079	$D_{\text{M}}(0.61)$	2306.6	2306 ± 12
$\ln(10^{10}A_{\text{s}})$	3.0438	$3.046^{+0.017}_{-0.019}$	$\sigma_8/h^{0.5}$	0.9831	0.984 ± 0.011	$H(2.33)$	235.89	235.94 ± 0.80
n_{s}	0.96574	0.9663 ± 0.0045	$r_{\text{drag}}h$	99.65	99.65 ± 0.94	$D_{\text{M}}(2.33)$	5765.6	5765 ± 13
$\text{d}n_{\text{s}}/\text{d} \ln k$	-0.0048	-0.0049 ± 0.0077	$\langle d^2 \rangle^{1/2}$	2.4242	2.426 ± 0.028	$f\sigma_8(0.15)$	0.4553	0.4559 ± 0.0076
r	0.0170	$0.0297^{+0.0079}_{-0.029}$	z_{re}	7.80	7.85 ± 0.85	$\sigma_8(0.15)$	0.7468	0.7477 ± 0.0070
y_{cal}	1.00079	1.0008 ± 0.0025	$10^9 A_{\text{s}}$	2.0985	$2.103^{+0.034}_{-0.040}$	$f\sigma_8(0.38)$	0.4737	0.4743 ± 0.0064
$A_{B,\text{dust}}$	4.60	$4.87^{+0.81}_{-1.2}$	$10^9 A_{\text{s}}e^{-2\tau}$	1.8789	1.879 ± 0.012	$\sigma_8(0.38)$	0.6621	0.6628 ± 0.0060
$A_{B,\text{sync}}$	1.45	$1.64^{+0.54}_{-1.3}$	D_{40}	1220.0	1224 ± 20	$f\sigma_8(0.51)$	0.4724	0.4729 ± 0.0058
$\alpha_{B,\text{dust}}$	-0.504	$-0.56^{+0.22}_{-0.32}$	D_{220}	5712.7	5712 ± 41	$\sigma_8(0.51)$	0.6196	$0.6203^{+0.0051}_{-0.0057}$
$\beta_{B,\text{dust}}$	1.575	1.596 ± 0.097	D_{810}	2535.7	2537 ± 14	$f\sigma_8(0.61)$	0.4675	0.4680 ± 0.0054
$\alpha_{B,\text{sync}}$	-0.38	—	D_{1420}	814.3	814.8 ± 5.3	$\sigma_8(0.61)$	0.5896	$0.5902^{+0.0049}_{-0.0054}$
$\beta_{B,\text{sync}}$	-3.053	-3.10 ± 0.28	D_{2000}	229.30	229.6 ± 2.0	$f\sigma_8(2.33)$	0.29728	$0.2976^{+0.0024}_{-0.0028}$
$\epsilon_{\text{dust,sync}}$	-0.339	-0.35 ± 0.29	$n_{\text{s},0.002}$	0.9811	0.982 ± 0.024	$\sigma_8(2.33)$	0.30650	$0.3068^{+0.0025}_{-0.0029}$
A_{100}^{PS}	249.0	245 ± 25	Y_{P}	0.245343	$0.245347^{+0.000093}_{-0.000080}$	$r_{0.002}$	0.0157	< 0.0345
A_{143}^{PS}	41.7	42 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246670	$0.246673^{+0.000094}_{-0.000080}$	$r_{0.01}$	0.0162	$0.0286^{+0.0072}_{-0.028}$
A_{217}^{PS}	98.5	100 ± 10	$10^5 \text{D}/\text{H}$	2.6099	2.607 ± 0.040	$\ln(10^{10}A_{\text{t}})$	-1.03	$-0.79^{+1.1}_{-0.40}$
A_{217}^{CIB}	42.9	42 ± 8	Age/Gyr	13.8033	13.801 ± 0.030	r_{10}	0.0081	< 0.0178
A_{143}^{tSZ}	3.55	$3.6^{+1.7}_{-2.7}$	z_*	1090.009	1089.99 ± 0.31	$10^9 A_{\text{t}}$	0.0356	$0.062^{+0.017}_{-0.061}$
$r_{143 \times 217}^{\text{PS}}$	0.583	0.64 ± 0.13	r_*	144.744	144.72 ± 0.33	$10^9 A_{\text{t}}e^{-2\tau}$	0.0319	$0.056^{+0.015}_{-0.054}$
$r_{143 \times 217}^{\text{CIB}}$	0.682	> 0.475	$100\theta_*$	1.041237	1.04125 ± 0.00042	f_{2000}^{143}	32.01	31.4 ± 3.3
$\xi^{\text{tSZ} \times \text{CIB}}$	0.29	—	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9012	13.899 ± 0.032	f_{2000}^{217}	108.26	108.0 ± 2.2
A^{kSZ}	5.1	—	z_{drag}	1059.589	1059.62 ± 0.49	$f_{2000}^{143 \times 217}$	33.61	33.4 ± 2.4
A_{100}^{dust}	1.016	1.01 ± 0.19	r_{drag}	147.454	147.43 ± 0.37	χ_{BKPLANCK}^2	735.64	740.0 ± 2.7
A_{143}^{dust}	0.988	0.97 ± 0.18	k_{D}	0.140386	0.14043 ± 0.00049	χ_{simall}^2	396.20	397.5 ± 2.2
A_{217}^{dust}	0.966	0.97 ± 0.10	$100\theta_{\text{D}}$	0.160981	0.16096 ± 0.00028	χ_{lowl}^2	22.26	23.0 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	0.996	1.03 ± 0.16	z_{eq}	3379.2	3380 ± 29	χ_{CamSpec}^2	7051.6	7064.6 ± 5.5
c_{100}	0.99743	0.9975 ± 0.0011	k_{eq}	0.010314	0.010318 ± 0.000088	$\chi_{6\text{DF}}^2$	0.0291	0.066 ± 0.083
c_{217}	1.00144	1.0013 ± 0.0016	$100\theta_{\text{eq}}$	0.8172	0.8170 ± 0.0053	χ_{MGS}^2	1.22	1.29 ± 0.51
H_0	67.58	67.59 ± 0.55	$100\theta_{\text{s,eq}}$	0.45150	0.4514 ± 0.0027	χ_{DR12BAO}^2	4.37	5.0 ± 1.8
Ω_{Λ}	0.6890	0.6889 ± 0.0073	$H(0.15)$	72.854	72.87 ± 0.47	χ_{prior}^2	2.52	9.4 ± 3.9
Ω_{m}	0.3110	0.3111 ± 0.0073	$D_{\text{M}}(0.15)$	641.53	641.5 ± 4.7	χ_{BAO}^2	5.61	6.3 ± 1.5
$\Omega_{\text{m}}h^2$	0.14205	0.1421 ± 0.0012	$H(0.38)$	82.953	82.97 ± 0.36	χ_{CMB}^2	8205.7	8225.0 ± 6.3
$\Omega_{\text{m}}h^3$	0.09600	0.09605 ± 0.00050	$D_{\text{M}}(0.38)$	1530.1	1529.9 ± 9.4			

Best-fit $\chi_{\text{eff}}^2 = 8213.81$; $\bar{\chi}_{\text{eff}}^2 = 8240.71$; $R - 1 = 0.00691$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.37 CMB - BK15_dust: 735.64 simall_100x143_offlike5_EE_Aplanck_B: 396.20 commander_dx12_v3_2_29: 22.25 CamSpec like_10.7HM: 7051.59

15.43 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022141	0.02217 ± 0.00023	$\Omega_{\mathrm{m}}h^3$	0.095960	0.09601 ± 0.00049	$H(0.38)$	82.543	82.61 ± 0.46
$\Omega_{\mathrm{c}}h^2$	0.12063	0.1205 ± 0.0016	σ_8	0.8119	0.8118 ± 0.0063	$D_{\mathrm{M}}(0.38)$	1541.6	1540 ± 12
$100\theta_{\mathrm{MC}}$	1.040822	1.04085 ± 0.00046	S_8	0.8389	0.838 ± 0.016	$H(0.51)$	89.345	89.40 ± 0.37
τ	0.0535	$0.0537^{+0.0073}_{-0.0082}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4595	0.4588 ± 0.0089	$D_{\mathrm{M}}(0.51)$	1995.6	1994 ± 15
$\ln(10^{10}A_{\mathrm{s}})$	3.0430	3.043 ± 0.016	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6108	0.6102 ± 0.0076	$H(0.61)$	95.029	95.08 ± 0.31
n_{s}	0.9620	0.9632 ± 0.0051	$\sigma_8/h^{0.5}$	0.9925	0.992 ± 0.010	$D_{\mathrm{M}}(0.61)$	2321.0	2319 ± 16
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0041	-0.0041 ± 0.0076	$r_{\mathrm{drag}}h$	98.48	98.6 ± 1.2	$H(2.33)$	236.74	236.69 ± 0.97
r	0.0130	< 0.0343	$\langle d^2 \rangle^{1/2}$	2.4479	2.445 ± 0.027	$D_{\mathrm{M}}(2.33)$	5776.2	5774 ± 15
y_{cal}	1.00061	1.0007 ± 0.0025	z_{re}	7.66	7.65 ± 0.82	$f\sigma_8(0.15)$	0.4634	0.4627 ± 0.0081
$A_{B,\mathrm{dust}}$	4.63	$4.87^{+0.81}_{-1.2}$	$10^9 A_{\mathrm{s}}$	2.0969	$2.098^{+0.031}_{-0.034}$	$\sigma_8(0.15)$	0.7493	0.7494 ± 0.0056
$A_{B,\mathrm{sync}}$	1.47	$1.64^{+0.53}_{-1.3}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8842	1.884 ± 0.012	$f\sigma_8(0.38)$	0.4797	0.4793 ± 0.0062
$\alpha_{B,\mathrm{dust}}$	-0.515	$-0.57^{+0.21}_{-0.32}$	D_{40}	1227.6	1231 ± 20	$\sigma_8(0.38)$	0.66329	0.6634 ± 0.0049
$\beta_{B,\mathrm{dust}}$	1.577	1.598 ± 0.096	D_{220}	5706.2	5706 ± 41	$f\sigma_8(0.51)$	0.4773	0.4769 ± 0.0053
$\alpha_{B,\mathrm{sync}}$	-0.26	—	D_{810}	2535.1	2536 ± 14	$\sigma_8(0.51)$	0.62033	0.6205 ± 0.0046
$\beta_{B,\mathrm{sync}}$	-3.039	-3.10 ± 0.27	D_{1420}	812.9	813.8 ± 5.4	$f\sigma_8(0.61)$	0.47161	0.4713 ± 0.0047
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.330	-0.35 ± 0.28	D_{2000}	228.81	229.2 ± 2.0	$\sigma_8(0.61)$	0.59002	0.5902 ± 0.0045
A_{100}^{PS}	248.9	245 ± 25	$n_{\mathrm{s},0.002}$	0.9754	0.976 ± 0.024	$f\sigma_8(2.33)$	0.29715	0.2973 ± 0.0024
A_{143}^{PS}	39.5	42 ± 9	Y_{P}	0.245301	$0.24531^{+0.00011}_{-0.000084}$	$\sigma_8(2.33)$	0.30597	0.3062 ± 0.0026
A_{217}^{PS}	97.7	100 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246627	$0.24664^{+0.00011}_{-0.000084}$	$r_{0.002}$	0.0118	< 0.0316
A_{217}^{CIB}	44.5	42 ± 7	$10^5 \mathrm{D}/\mathrm{H}$	2.6293	2.623 ± 0.043	$r_{0.01}$	0.0124	< 0.0327
A_{143}^{tSZ}	4.11	$3.6^{+1.7}_{-2.7}$	$\mathrm{Age}/\mathrm{Gyr}$	13.8263	13.821 ± 0.034	$\ln(10^{10}A_{\mathrm{t}})$	-1.30	$-0.88^{+1.1}_{-0.42}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.544	0.64 ± 0.13	z_{*}	1090.267	1090.21 ± 0.37	r_{10}	0.0061	< 0.0163
$r_{143 \times 217}^{\mathrm{CIB}}$	0.670	> 0.483	r_{*}	144.444	144.45 ± 0.38	$10^9 A_{\mathrm{t}}$	0.0273	< 0.0720
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.00	—	$100\theta_{*}$	1.041022	1.04106 ± 0.00045	$10^9 A_{\mathrm{t}}e^{-2\tau}$	0.0246	< 0.0646
A^{kSZ}	4.2	—	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8752	13.876 ± 0.035	f_{2000}^{143}	32.36	31.6 ± 3.3
A_{100}^{dust}	1.018	1.01 ± 0.20	z_{drag}	1059.437	1059.52 ± 0.50	f_{2000}^{217}	108.53	108.1 ± 2.2
A_{143}^{dust}	0.979	0.98 ± 0.18	r_{drag}	147.183	147.18 ± 0.39	$f_{2000}^{143 \times 217}$	33.93	33.6 ± 2.4
A_{217}^{dust}	0.959	0.97 ± 0.10	k_{D}	0.140594	0.14062 ± 0.00049	$\chi_{\mathrm{lensing}}^2$	9.11	9.71 ± 0.98
$A_{143 \times 217}^{\mathrm{dust}}$	1.005	1.03 ± 0.16	$100\theta_{\mathrm{D}}$	0.161043	0.16101 ± 0.00029	$\chi_{\mathrm{BKPLANCK}}^2$	735.18	739.5 ± 2.6
c_{100}	0.99744	0.9975 ± 0.0011	z_{eq}	3411.7	3409 ± 36	χ_{small}^2	396.02	397.1 ± 1.8
c_{217}	1.00145	1.0013 ± 0.0016	k_{eq}	0.010413	0.01041 ± 0.00011	χ_{lowl}^2	22.95	23.7 ± 2.2
H_0	66.91	67.00 ± 0.72	$100\theta_{\mathrm{eq}}$	0.8109	0.8115 ± 0.0067	$\chi_{\mathrm{CamSpec}}^2$	7050.4	7063.8 ± 5.4
Ω_{Λ}	0.6797	0.6806 ± 0.0099	$100\theta_{\mathrm{s,eq}}$	0.44829	0.4486 ± 0.0034	χ_{prior}^2	2.53	9.3 ± 3.8
Ω_{m}	0.3203	0.3194 ± 0.0099	$H(0.15)$	72.28	72.36 ± 0.62	χ_{CMB}^2	8213.7	8233.8 ± 6.3
$\Omega_{\mathrm{m}}h^2$	0.14341	0.1433 ± 0.0015	$D_{\mathrm{M}}(0.15)$	647.3	646.5 ± 6.2			

Best-fit $\chi_{\mathrm{eff}}^2 = 8216.23$; $\bar{\chi}_{\mathrm{eff}}^2 = 8243.12$; $R - 1 = 0.00347$

χ_{eff}^2 : CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 9.11 BK15_dust: 735.18 small_100x143_offlike5_EE_Aplanck_B: 396.02 commander_dx12_v3_2.29: 22.95 CamSpec like_10.7HM: 7050.44

15.44 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022257	0.02226 ± 0.00021	σ_8	0.8095	0.8103 ± 0.0062	$H(0.51)$	89.651	89.66 ± 0.28
$\Omega_c h^2$	0.11935	0.1193 ± 0.0011	S_8	0.8255	0.826 ± 0.012	$D_M(0.51)$	1983.1	1983 ± 10
$100\theta_{MC}$	1.041046	1.04104 ± 0.00043	$\sigma_8 \Omega_m^{0.5}$	0.4521	0.4523 ± 0.0065	$H(0.61)$	95.272	95.28 ± 0.25
τ	0.0563	$0.0570^{+0.0068}_{-0.0084}$	$\sigma_8 \Omega_m^{0.25}$	0.6050	0.6054 ± 0.0061	$D_M(0.61)$	2307.5	2307 ± 11
$\ln(10^{10} A_s)$	3.0461	$3.048^{+0.015}_{-0.016}$	$\sigma_8/h^{0.5}$	0.9851	0.9859 ± 0.0088	$H(2.33)$	236.03	235.98 ± 0.72
n_s	0.96517	0.9661 ± 0.0044	$r_{drag} h$	99.53	99.59 ± 0.85	$D_M(2.33)$	5765.4	5765 ± 13
$dn_s/d \ln k$	-0.0045	-0.0042 ± 0.0076	$\langle d^2 \rangle^{1/2}$	2.4306	2.431 ± 0.023	$f\sigma_8(0.15)$	0.4567	0.4569 ± 0.0060
r	0.0155	$0.0288^{+0.0072}_{-0.029}$	z_{re}	7.89	$7.94^{+0.71}_{-0.79}$	$\sigma_8(0.15)$	0.7480	0.7488 ± 0.0057
y_{cal}	1.00075	1.0010 ± 0.0025	$10^9 A_s$	2.1034	$2.107^{+0.030}_{-0.035}$	$f\sigma_8(0.38)$	0.47490	0.4752 ± 0.0050
$A_{B,dust}$	4.62	$4.87^{+0.82}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.8796	1.880 ± 0.011	$\sigma_8(0.38)$	0.66300	$0.6637^{+0.0047}_{-0.0052}$
$A_{B,sync}$	1.42	$1.65^{+0.55}_{-1.3}$	D_{40}	1222.2	1227 ± 20	$f\sigma_8(0.51)$	0.47345	0.4738 ± 0.0045
$\alpha_{B,dust}$	-0.508	$-0.56^{+0.22}_{-0.32}$	D_{220}	5715.8	5716 ± 41	$\sigma_8(0.51)$	0.62044	$0.6211^{+0.0044}_{-0.0049}$
$\beta_{B,dust}$	1.574	1.596 ± 0.097	D_{810}	2535.7	2537 ± 14	$f\sigma_8(0.61)$	0.46844	0.4688 ± 0.0041
$\alpha_{B,sync}$	-0.48	—	D_{1420}	814.2	815.1 ± 5.3	$\sigma_8(0.61)$	0.59035	$0.5910^{+0.0042}_{-0.0047}$
$\beta_{B,sync}$	-3.044	-3.10 ± 0.27	D_{2000}	229.35	229.7 ± 2.0	$f\sigma_8(2.33)$	0.29764	$0.2980^{+0.0021}_{-0.0025}$
$\epsilon_{dust,sync}$	-0.344	-0.34 ± 0.29	$n_{s,0.002}$	0.9796	0.980 ± 0.024	$\sigma_8(2.33)$	0.30683	$0.3072^{+0.0023}_{-0.0027}$
A_{100}^{PS}	248.2	245 ± 25	Y_P	0.245349	$0.245346^{+0.000094}_{-0.000080}$	$r_{0.002}$	0.0143	< 0.0333
A_{143}^{PS}	39.5	42 ± 9	Y_P^{BBN}	0.246676	$0.246672^{+0.000094}_{-0.000080}$	$r_{0.01}$	0.0148	< 0.0344
A_{217}^{PS}	98.1	101 ± 10	$10^5 D/H$	2.6070	2.608 ± 0.040	$\ln(10^{10} A_t)$	-1.12	$-0.82^{+1.1}_{-0.40}$
A_{217}^{CIB}	43.7	41 ± 7	Age/Gyr	13.8025	13.802 ± 0.029	r_{10}	0.0073	< 0.0171
A_{143}^{tSZ}	3.97	$3.7^{+1.7}_{-2.7}$	z_*	1090.007	1090.00 ± 0.31	$10^9 A_t$	0.0326	$0.061^{+0.015}_{-0.060}$
$r_{143 \times 217}^{PS}$	0.561	0.64 ± 0.13	r_*	144.686	144.71 ± 0.30	$10^9 A_t e^{-2\tau}$	0.0291	$0.054^{+0.014}_{-0.054}$
$r_{143 \times 217}^{CIB}$	0.661	> 0.471	$100\theta_*$	1.041238	1.04124 ± 0.00042	f_{2000}^{143}	31.91	31.2 ± 3.3
$\xi^{tSZ \times CIB}$	0.09	—	$D_M(z_*)/Gpc$	13.8956	13.898 ± 0.030	f_{2000}^{217}	108.19	107.9 ± 2.2
A^{kSZ}	4.5	—	z_{drag}	1059.628	1059.62 ± 0.49	$f_{2000}^{143 \times 217}$	33.55	33.3 ± 2.4
A_{100}^{dust}	1.017	1.01 ± 0.20	r_{drag}	147.390	147.41 ± 0.34	$\chi_{lensing}^2$	9.03	9.45 ± 0.74
A_{143}^{dust}	0.984	0.97 ± 0.18	k_D	0.140465	0.14044 ± 0.00046	$\chi_{BKPLANCK}^2$	735.56	739.8 ± 2.6
A_{217}^{dust}	0.960	0.97 ± 0.10	$100\theta_D$	0.160955	0.16096 ± 0.00028	χ_{small}^2	396.42	397.5 ± 2.2
$A_{143 \times 217}^{dust}$	1.006	1.03 ± 0.16	z_{eq}	3383.9	3382 ± 26	χ_{lowl}^2	22.43	23.2 ± 2.0
c_{100}	0.99745	0.9975 ± 0.0011	k_{eq}	0.010328	0.010323 ± 0.000079	$\chi_{CamSpec}^2$	7051.2	7064.1 ± 5.4
c_{217}	1.00137	1.0013 ± 0.0016	$100\theta_{eq}$	0.81636	0.8167 ± 0.0048	χ_{6DF}^2	0.0379	0.064 ± 0.076
H_0	67.53	67.56 ± 0.51	$100\theta_{s,eq}$	0.45107	0.4512 ± 0.0025	χ_{MGS}^2	1.156	1.25 ± 0.46
Ω_Λ	0.6881	0.6884 ± 0.0067	$H(0.15)$	72.814	72.84 ± 0.44	$\chi_{DR12BAO}^2$	4.57	5.0 ± 1.6
Ω_m	0.3119	0.3116 ± 0.0067	$D_M(0.15)$	641.95	641.8 ± 4.4	χ_{prior}^2	2.49	9.3 ± 3.8
$\Omega_m h^2$	0.14225	0.1422 ± 0.0011	$H(0.38)$	82.931	82.95 ± 0.34	χ_{CMB}^2	8214.6	8234.1 ± 6.3
$\Omega_m h^3$	0.096062	0.09605 ± 0.00049	$D_M(0.38)$	1530.9	1530.5 ± 8.8	χ_{BAO}^2	5.77	6.3 ± 1.3

Best-fit $\chi_{eff}^2 = 8222.87$; $\bar{\chi}_{eff}^2 = 8249.75$; $R - 1 = 0.00778$
 χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.57 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 9.03 BK15_dust: 735.56 simall_100x143_offlike5_EE_Aplanck_B: 396.42 commander_dx12_v3.2.29: 22.43 CamSpec like_10.7HM: 7051.18

15.45 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02216 ± 0.00023	$\Omega_{\mathrm{m}}h^3$	0.09607 ± 0.00049	$H(0.38)$	82.48 ± 0.55
$\Omega_{\mathrm{c}}h^2$	0.1211 ± 0.0021	σ_8	0.8150 ± 0.0085	$D_{\mathrm{M}}(0.38)$	1544 ± 15
$100\theta_{\mathrm{MC}}$	1.04081 ± 0.00048	S_8	0.846 ± 0.024	$H(0.51)$	89.31 ± 0.43
τ	$0.0553^{+0.0052}_{-0.0090}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.463 ± 0.013	$D_{\mathrm{M}}(0.51)$	1998 ± 18
$\ln(10^{10}A_{\mathrm{s}})$	$3.048^{+0.013}_{-0.018}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.614 ± 0.011	$H(0.61)$	95.02 ± 0.35
n_{s}	0.9620 ± 0.0059	$\sigma_8/h^{0.5}$	0.997 ± 0.016	$D_{\mathrm{M}}(0.61)$	2324 ± 19
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0056 ± 0.0076	$r_{\mathrm{drag}}h$	98.2 ± 1.6	$H(2.33)$	237.1 ± 1.3
r	< 0.0340	$\langle d^2 \rangle^{1/2}$	2.455 ± 0.037	$D_{\mathrm{M}}(2.33)$	5776 ± 16
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.83^{+0.58}_{-0.87}$	$f\sigma_8(0.15)$	0.467 ± 0.012
$A_{B,\mathrm{dust}}$	$4.86^{+0.81}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.108^{+0.027}_{-0.038}$	$\sigma_8(0.15)$	0.7519 ± 0.0071
$A_{B,\mathrm{sync}}$	$1.63^{+0.51}_{-1.4}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.887 ± 0.014	$f\sigma_8(0.38)$	0.4825 ± 0.0093
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.32}$	D_{40}	1230 ± 21	$\sigma_8(0.38)$	$0.6653^{+0.0051}_{-0.0060}$
$\beta_{B,\mathrm{dust}}$	1.601 ± 0.096	D_{220}	5703 ± 41	$f\sigma_8(0.51)$	0.4798 ± 0.0080
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2537 ± 14	$\sigma_8(0.51)$	$0.6221^{+0.0045}_{-0.0055}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.28	D_{1420}	813.5 ± 5.3	$f\sigma_8(0.61)$	0.4739 ± 0.0070
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{2000}	229.1 ± 2.0	$\sigma_8(0.61)$	$0.5917^{+0.0041}_{-0.0052}$
A_{100}^{PS}	246 ± 25	$n_{\mathrm{s},0.002}$	0.980 ± 0.024	$f\sigma_8(2.33)$	$0.2979^{+0.0020}_{-0.0026}$
A_{143}^{PS}	43 ± 9	Y_{P}	$0.24530^{+0.00011}_{-0.000087}$	$\sigma_8(2.33)$	$0.3066^{+0.0020}_{-0.0028}$
A_{217}^{PS}	100 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00011}_{-0.000087}$	$r_{0.002}$	< 0.0315
A_{217}^{CIB}	42 ± 8	$10^5 \mathrm{D}/\mathrm{H}$	2.626 ± 0.044	$r_{0.01}$	< 0.0325
A_{143}^{tSZ}	$3.6^{+1.7}_{-2.7}$	$\mathrm{Age}/\mathrm{Gyr}$	13.826 ± 0.037	$\ln(10^{10}A_{\mathrm{t}})$	$-0.88^{+1.1}_{-0.43}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.64 ± 0.13	z_*	1090.28 ± 0.41	r_{10}	< 0.0163
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.485	r_*	144.32 ± 0.48	$10^9 A_{\mathrm{t}}$	< 0.0718
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$100\theta_*$	1.04101 ± 0.00047	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0642
A^{kSZ}	$5.2^{+3.9}_{-2.3}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.863 ± 0.045	f_{2000}^{143}	31.8 ± 3.3
A_{100}^{dust}	1.01 ± 0.19	z_{drag}	1059.52 ± 0.50	f_{2000}^{217}	108.3 ± 2.2
A_{143}^{dust}	0.98 ± 0.18	r_{drag}	147.04 ± 0.49	$f_{2000}^{143 \times 217}$	33.8 ± 2.4
A_{217}^{dust}	0.97 ± 0.10	k_{D}	0.14075 ± 0.00056	$\chi_{\mathrm{BKPLANCK}}^2$	739.2 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_{\mathrm{D}}$	0.16101 ± 0.00029	χ_{simall}^2	397.2 ± 2.0
c_{100}	0.9975 ± 0.0011	z_{eq}	3423 ± 47	χ_{lowl}^2	23.5 ± 2.2
c_{217}	1.0013 ± 0.0016	k_{eq}	0.01045 ± 0.00014	$\chi_{\mathrm{CamSpec}}^2$	7064.3 ± 5.6
H_0	66.78 ± 0.90	$100\theta_{\mathrm{eq}}$	0.8090 ± 0.0087	χ_{prior}^2	9.3 ± 3.9
Ω_{Λ}	0.677 ± 0.013	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4473 ± 0.0045	χ_{CMB}^2	8224.3 ± 6.3
Ω_{m}	0.323 ± 0.013	$H(0.15)$	72.18 ± 0.76		
$\Omega_{\mathrm{m}}h^2$	0.1439 ± 0.0020	$D_{\mathrm{M}}(0.15)$	648.5 ± 7.8		

$\bar{\chi}_{\mathrm{eff}}^2 = 8233.63$; $R - 1 = 0.00394$

15.46 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02226 ± 0.00021	σ_8	$0.8097^{+0.0067}_{-0.0079}$	$H(0.51)$	89.68 ± 0.29
$\Omega_c h^2$	0.1192 ± 0.0012	S_8	0.824 ± 0.015	$D_M(0.51)$	1982 ± 11
$100\theta_{MC}$	1.04106 ± 0.00043	$\sigma_8 \Omega_m^{0.5}$	0.4516 ± 0.0080	$H(0.61)$	95.30 ± 0.25
τ	$0.0570^{+0.0057}_{-0.0091}$	$\sigma_8 \Omega_m^{0.25}$	0.6047 ± 0.0077	$D_M(0.61)$	2306 ± 12
$\ln(10^{10} A_s)$	$3.047^{+0.014}_{-0.019}$	$\sigma_8/h^{0.5}$	0.985 ± 0.011	$H(2.33)$	235.93 ± 0.80
n_s	0.9663 ± 0.0045	$r_{\text{drag}} h$	99.66 ± 0.94	$D_M(2.33)$	5764 ± 13
$dn_s/d \ln k$	-0.0051 ± 0.0077	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.028	$f\sigma_8(0.15)$	0.4562 ± 0.0075
r	$0.0296^{+0.0078}_{-0.029}$	z_{re}	$7.94^{+0.62}_{-0.88}$	$\sigma_8(0.15)$	$0.7483^{+0.0058}_{-0.0071}$
y_{cal}	1.0008 ± 0.0025	$10^9 A_s$	$2.106^{+0.029}_{-0.040}$	$f\sigma_8(0.38)$	0.4746 ± 0.0063
$A_{B,\text{dust}}$	$4.87^{+0.81}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.879 ± 0.012	$\sigma_8(0.38)$	$0.6633^{+0.0049}_{-0.0061}$
$A_{B,\text{sync}}$	$1.64^{+0.54}_{-1.3}$	D_{40}	1223 ± 20	$f\sigma_8(0.51)$	0.4733 ± 0.0056
$\alpha_{B,\text{dust}}$	$-0.56^{+0.22}_{-0.32}$	D_{220}	5712 ± 41	$\sigma_8(0.51)$	$0.6208^{+0.0044}_{-0.0057}$
$\beta_{B,\text{dust}}$	1.596 ± 0.097	D_{810}	2537 ± 14	$f\sigma_8(0.61)$	0.4683 ± 0.0052
$\alpha_{B,\text{sync}}$	—	D_{1420}	814.8 ± 5.3	$\sigma_8(0.61)$	$0.5907^{+0.0042}_{-0.0054}$
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	D_{2000}	229.5 ± 2.0	$f\sigma_8(2.33)$	$0.2979^{+0.0021}_{-0.0027}$
$\epsilon_{\text{dust,sync}}$	-0.35 ± 0.29	$n_{s,0.002}$	0.983 ± 0.024	$\sigma_8(2.33)$	$0.3071^{+0.0021}_{-0.0029}$
A_{100}^{PS}	245 ± 25	Y_P	$0.245348^{+0.000092}_{-0.000080}$	$r_{0.002}$	< 0.0345
A_{143}^{PS}	42 ± 9	Y_P^{BBN}	$0.246675^{+0.000093}_{-0.000081}$	$r_{0.01}$	$0.0285^{+0.0070}_{-0.028}$
A_{217}^{PS}	100 ± 10	10^5D/H	2.606 ± 0.040	$\ln(10^{10} A_t)$	$-0.79^{+1.1}_{-0.41}$
A_{217}^{CIB}	42 ± 7	Age/Gyr	13.801 ± 0.029	r_{10}	< 0.0177
A_{143}^{tSZ}	$3.6^{+1.6}_{-2.7}$	z_*	1089.99 ± 0.31	$10^9 A_t$	$0.062^{+0.017}_{-0.061}$
$r_{143 \times 217}^{\text{PS}}$	0.64 ± 0.13	r_*	144.72 ± 0.33	$10^9 A_t e^{-2\tau}$	$0.056^{+0.015}_{-0.054}$
$r_{143 \times 217}^{\text{CIB}}$	> 0.476	$100\theta_*$	1.04125 ± 0.00042	f_{2000}^{143}	31.4 ± 3.3
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$D_M(z_*)/\text{Gpc}$	13.899 ± 0.032	f_{2000}^{217}	108.0 ± 2.2
A^{kSZ}	—	z_{drag}	1059.63 ± 0.49	$f_{2000}^{143 \times 217}$	33.4 ± 2.4
A_{100}^{dust}	1.01 ± 0.20	r_{drag}	147.43 ± 0.37	χ_{BKPLANCK}^2	739.9 ± 2.7
A_{143}^{dust}	0.98 ± 0.18	k_D	0.14043 ± 0.00049	χ_{small}^2	397.5 ± 2.3
A_{217}^{dust}	0.97 ± 0.10	$100\theta_D$	0.16096 ± 0.00028	χ_{lowl}^2	22.9 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	z_{eq}	3380 ± 29	χ_{CamSpec}^2	7064.5 ± 5.5
c_{100}	0.9975 ± 0.0011	k_{eq}	0.010317 ± 0.000088	$\chi_{6\text{DF}}^2$	0.065 ± 0.082
c_{217}	1.0013 ± 0.0016	$100\theta_{\text{eq}}$	0.8171 ± 0.0053	χ_{MGS}^2	1.29 ± 0.51
H_0	67.60 ± 0.54	$100\theta_{s,\text{eq}}$	0.4514 ± 0.0027	χ_{DR12BAO}^2	4.9 ± 1.7
Ω_Λ	0.6889 ± 0.0073	$H(0.15)$	72.87 ± 0.47	χ_{prior}^2	9.4 ± 3.9
Ω_m	0.3111 ± 0.0073	$D_M(0.15)$	641.4 ± 4.7	χ_{BAO}^2	6.3 ± 1.4
$\Omega_m h^2$	0.1421 ± 0.0012	$H(0.38)$	82.97 ± 0.35	χ_{CMB}^2	8224.8 ± 6.2
$\Omega_m h^3$	0.09605 ± 0.00050	$D_M(0.38)$	1529.8 ± 9.4		

$$\bar{\chi}_{\text{eff}}^2 = 8240.52; R - 1 = 0.00672$$

15.47 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02218 ± 0.00022	$\Omega_{\mathrm{m}}h^3$	0.09602 ± 0.00049	$H(0.38)$	$82.64^{+0.42}_{-0.46}$
$\Omega_{\mathrm{c}}h^2$	0.1204 ± 0.0015	σ_8	0.8123 ± 0.0060	$D_{\mathrm{M}}(0.38)$	1539 ± 12
$100\theta_{\mathrm{MC}}$	1.04087 ± 0.00046	S_8	0.837 ± 0.016	$H(0.51)$	$89.43^{+0.34}_{-0.37}$
τ	$0.0550^{+0.0051}_{-0.0086}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4586 ± 0.0088	$D_{\mathrm{M}}(0.51)$	1993 ± 14
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6103 ± 0.0076	$H(0.61)$	95.10 ± 0.30
n_{s}	0.9634 ± 0.0050	$\sigma_8/h^{0.5}$	0.992 ± 0.010	$D_{\mathrm{M}}(0.61)$	2318 ± 15
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0043 ± 0.0075	$r_{\mathrm{drag}}h$	98.7 ± 1.2	$H(2.33)$	236.63 ± 0.95
r	$0.0277^{+0.0067}_{-0.028}$	$\langle d^2 \rangle^{1/2}$	2.445 ± 0.026	$D_{\mathrm{M}}(2.33)$	5773 ± 15
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.78^{+0.56}_{-0.83}$	$f\sigma_8(0.15)$	0.4626 ± 0.0081
$A_{B,\mathrm{dust}}$	$4.88^{+0.81}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.024}_{-0.034}$	$\sigma_8(0.15)$	$0.7499^{+0.0049}_{-0.0055}$
$A_{B,\mathrm{sync}}$	$1.64^{+0.53}_{-1.3}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.012	$f\sigma_8(0.38)$	0.4793 ± 0.0062
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.32}$	D_{40}	1230 ± 20	$\sigma_8(0.38)$	$0.6640^{+0.0040}_{-0.0049}$
$\beta_{B,\mathrm{dust}}$	1.599 ± 0.097	D_{220}	5706 ± 41	$f\sigma_8(0.51)$	0.4770 ± 0.0053
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2536 ± 14	$\sigma_8(0.51)$	$0.6211^{+0.0037}_{-0.0046}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{1420}	813.8 ± 5.3	$f\sigma_8(0.61)$	0.4715 ± 0.0047
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{2000}	229.2 ± 2.0	$\sigma_8(0.61)$	$0.5908^{+0.0035}_{-0.0045}$
A_{100}^{PS}	245 ± 25	$n_{\mathrm{s},0.002}$	0.977 ± 0.023	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0024}$
A_{143}^{PS}	42 ± 9	Y_{P}	$0.24531^{+0.00010}_{-0.000084}$	$\sigma_8(2.33)$	$0.3065^{+0.0020}_{-0.0027}$
A_{217}^{PS}	100 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000084}$	$r_{0.002}$	< 0.0317
A_{217}^{CIB}	42 ± 7	$10^5 \mathrm{D}/\mathrm{H}$	2.621 ± 0.043	$r_{0.01}$	< 0.0328
A_{143}^{tSZ}	$3.6^{+1.7}_{-2.7}$	$\mathrm{Age}/\mathrm{Gyr}$	13.819 ± 0.033	$\ln(10^{10}A_{\mathrm{t}})$	$-0.87^{+1.1}_{-0.42}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.64 ± 0.13	z_*	1090.19 ± 0.36	r_{10}	< 0.0163
$r_{143 \times 217}^{\mathrm{CIB}}$	> 0.482	r_*	144.47 ± 0.37	$10^9 A_{\mathrm{t}}$	$0.058^{+0.014}_{-0.058}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$100\theta_*$	1.04107 ± 0.00045	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.052^{+0.013}_{-0.052}$
A^{kSZ}	—	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.877 ± 0.035	f_{2000}^{143}	31.6 ± 3.3
A_{100}^{dust}	1.01 ± 0.20	z_{drag}	1059.53 ± 0.49	f_{2000}^{217}	108.1 ± 2.2
A_{143}^{dust}	0.98 ± 0.18	r_{drag}	147.20 ± 0.39	$f_{2000}^{143 \times 217}$	33.6 ± 2.4
A_{217}^{dust}	0.97 ± 0.10	k_{D}	0.14061 ± 0.00049	$\chi_{\mathrm{lensing}}^2$	9.70 ± 0.99
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_{\mathrm{D}}$	0.16100 ± 0.00029	$\chi_{\mathrm{BKPLANCK}}^2$	739.5 ± 2.6
c_{100}	0.9975 ± 0.0011	z_{eq}	3407 ± 35	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0013 ± 0.0016	k_{eq}	0.01040 ± 0.00011	χ_{lowl}^2	23.6 ± 2.2
H_0	67.05 ± 0.70	$100\theta_{\mathrm{eq}}$	0.8119 ± 0.0065	$\chi_{\mathrm{CamSpec}}^2$	7063.8 ± 5.4
Ω_{Λ}	0.6813 ± 0.0096	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4488 ± 0.0034	χ_{prior}^2	9.3 ± 3.8
Ω_{m}	0.3187 ± 0.0096	$H(0.15)$	72.41 ± 0.60	χ_{CMB}^2	8233.6 ± 6.3
$\Omega_{\mathrm{m}}h^2$	0.1432 ± 0.0015	$D_{\mathrm{M}}(0.15)$	646.1 ± 6.1		

$\bar{\chi}_{\mathrm{eff}}^2 = 8242.90$; $R - 1 = 0.00417$

15.48 base_nrun_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02226 ± 0.00021	σ_8	$0.8106^{+0.0056}_{-0.0064}$	$H(0.51)$	89.67 ± 0.28
$\Omega_c h^2$	0.1193 ± 0.0011	S_8	0.826 ± 0.012	$D_M(0.51)$	1982 ± 10
$100\theta_{MC}$	1.04104 ± 0.00043	$\sigma_8 \Omega_m^{0.5}$	0.4524 ± 0.0065	$H(0.61)$	95.28 ± 0.25
τ	$0.0575^{+0.0058}_{-0.0085}$	$\sigma_8 \Omega_m^{0.25}$	0.6055 ± 0.0061	$D_M(0.61)$	2307 ± 11
$\ln(10^{10} A_s)$	$3.049^{+0.013}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9862 ± 0.0087	$H(2.33)$	235.97 ± 0.72
n_s	0.9661 ± 0.0044	$r_{\text{drag}} h$	99.61 ± 0.85	$D_M(2.33)$	5765 ± 13
$dn_s/d \ln k$	-0.0043 ± 0.0076	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.023	$f\sigma_8(0.15)$	0.4570 ± 0.0060
r	$0.0288^{+0.0072}_{-0.029}$	z_{re}	$8.00^{+0.62}_{-0.82}$	$\sigma_8(0.15)$	$0.7490^{+0.0050}_{-0.0058}$
y_{cal}	1.0010 ± 0.0025	$10^9 A_s$	$2.109^{+0.027}_{-0.035}$	$f\sigma_8(0.38)$	0.4753 ± 0.0050
$A_{B,\text{dust}}$	$4.87^{+0.82}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.880 ± 0.011	$\sigma_8(0.38)$	$0.6640^{+0.0043}_{-0.0052}$
$A_{B,\text{sync}}$	$1.65^{+0.55}_{-1.3}$	D_{40}	1226 ± 20	$f\sigma_8(0.51)$	0.4739 ± 0.0044
$\alpha_{B,\text{dust}}$	$-0.56^{+0.22}_{-0.32}$	D_{220}	5716 ± 41	$\sigma_8(0.51)$	$0.6214^{+0.0040}_{-0.0049}$
$\beta_{B,\text{dust}}$	1.596 ± 0.097	D_{810}	2537 ± 14	$f\sigma_8(0.61)$	0.4689 ± 0.0041
$\alpha_{B,\text{sync}}$	—	D_{1420}	815.1 ± 5.3	$\sigma_8(0.61)$	$0.5913^{+0.0038}_{-0.0047}$
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	D_{2000}	229.7 ± 2.0	$f\sigma_8(2.33)$	$0.2981^{+0.0019}_{-0.0025}$
$\epsilon_{\text{dust,sync}}$	-0.34 ± 0.29	$n_{s,0.002}$	0.980 ± 0.024	$\sigma_8(2.33)$	$0.3074^{+0.0021}_{-0.0027}$
A_{100}^{PS}	245 ± 25	Y_P	$0.245347^{+0.000093}_{-0.000080}$	$r_{0.002}$	< 0.0333
A_{143}^{PS}	42 ± 9	Y_P^{BBN}	$0.246673^{+0.000093}_{-0.000080}$	$r_{0.01}$	< 0.0344
A_{217}^{PS}	101 ± 10	10^5D/H	2.607 ± 0.040	$\ln(10^{10} A_t)$	$-0.82^{+1.1}_{-0.40}$
A_{217}^{CIB}	41 ± 7	Age/Gyr	13.802 ± 0.029	r_{10}	< 0.0171
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7}$	z_*	1090.00 ± 0.31	$10^9 A_t$	$0.061^{+0.015}_{-0.060}$
$r_{143 \times 217}^{\text{PS}}$	0.64 ± 0.13	r_*	144.71 ± 0.30	$10^9 A_t e^{-2\tau}$	$0.054^{+0.014}_{-0.054}$
$r_{143 \times 217}^{\text{CIB}}$	> 0.471	$100\theta_*$	1.04124 ± 0.00042	f_{2000}^{143}	31.2 ± 3.3
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$D_M(z_*)/\text{Gpc}$	13.898 ± 0.030	f_{2000}^{217}	107.9 ± 2.2
A^{kSZ}	—	z_{drag}	1059.62 ± 0.49	$f_{2000}^{143 \times 217}$	33.3 ± 2.4
A_{100}^{dust}	1.01 ± 0.20	r_{drag}	147.41 ± 0.34	χ_{lensing}^2	9.42 ± 0.70
A_{143}^{dust}	0.97 ± 0.18	k_D	0.14044 ± 0.00046	χ_{BKPLANCK}^2	739.8 ± 2.6
A_{217}^{dust}	0.97 ± 0.10	$100\theta_D$	0.16096 ± 0.00028	χ_{simall}^2	397.5 ± 2.2
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	z_{eq}	3382 ± 26	χ_{lowl}^2	23.2 ± 2.0
c_{100}	0.9975 ± 0.0011	k_{eq}	0.010321 ± 0.000079	χ_{CamSpec}^2	7064.1 ± 5.4
c_{217}	1.0013 ± 0.0016	$100\theta_{\text{eq}}$	0.8168 ± 0.0047	$\chi_{6\text{DF}}^2$	0.062 ± 0.074
H_0	67.57 ± 0.50	$100\theta_{s,\text{eq}}$	0.4513 ± 0.0025	χ_{MGS}^2	1.26 ± 0.46
Ω_Λ	0.6885 ± 0.0066	$H(0.15)$	72.85 ± 0.44	χ_{DR12BAO}^2	4.9 ± 1.6
Ω_m	0.3115 ± 0.0066	$D_M(0.15)$	641.7 ± 4.3	χ_{prior}^2	9.3 ± 3.8
$\Omega_m h^2$	0.1422 ± 0.0011	$H(0.38)$	82.95 ± 0.34	χ_{CMB}^2	8234.0 ± 6.3
$\Omega_m h^3$	0.09605 ± 0.00049	$D_M(0.38)$	1530.3 ± 8.8	χ_{BAO}^2	6.3 ± 1.3

$$\bar{\chi}_{\text{eff}}^2 = 8249.63; R - 1 = 0.00812$$

15.49 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022290	0.02230 ± 0.00016	Ω_m	0.3158	0.3151 ± 0.0085	$H(0.15)$	72.60	72.65 ± 0.52
$\Omega_c h^2$	0.11998	0.1198 ± 0.0014	$\Omega_m h^2$	0.14292	0.1428 ± 0.0013	$D_M(0.15)$	644.2	643.7 ± 5.2
$100\theta_{MC}$	1.040847	1.04085 ± 0.00031	$\Omega_m h^3$	0.096139	0.09613 ± 0.00033	$H(0.38)$	82.784	82.82 ± 0.38
τ	0.0542	$0.0543^{+0.0073}_{-0.0083}$	σ_8	0.8105	0.8098 ± 0.0076	$D_M(0.38)$	1535.2	1534 ± 10
$\ln(10^{10} A_s)$	3.0437	3.043 ± 0.017	S_8	0.8316	0.830 ± 0.016	$H(0.51)$	89.545	89.57 ± 0.30
n_s	0.96489	0.9652 ± 0.0048	$\sigma_8 \Omega_m^{0.5}$	0.4555	0.4546 ± 0.0089	$D_M(0.51)$	1988.1	1987 ± 12
$dn_s/d \ln k$	-0.0032	-0.0038 ± 0.0070	$\sigma_8 \Omega_m^{0.25}$	0.6076	0.6067 ± 0.0084	$H(0.61)$	95.198	95.22 ± 0.24
r	0.0243	$0.034^{+0.013}_{-0.028}$	$\sigma_8/h^{0.5}$	0.9882	0.987 ± 0.012	$D_M(0.61)$	2312.9	2312 ± 13
y_{cal}	1.00074	1.0007 ± 0.0025	$r_{drag} h$	99.01	99.1 ± 1.1	$H(2.33)$	236.46	236.38 ± 0.85
$A_{B,dust}$	4.60	$4.86^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4378	2.434 ± 0.029	$D_M(2.33)$	5768.0	5767 ± 11
$A_{B,sync}$	1.38	$1.62^{+0.52}_{-1.3}$	z_{re}	7.69	7.67 ± 0.82	$f\sigma_8(0.15)$	0.4597	0.4588 ± 0.0083
$\alpha_{B,dust}$	-0.515	$-0.56^{+0.22}_{-0.32}$	$10^9 A_s$	2.0982	$2.098^{+0.033}_{-0.037}$	$\sigma_8(0.15)$	0.7485	0.7479 ± 0.0067
$\beta_{B,dust}$	1.584	1.601 ± 0.097	$10^9 A_s e^{-2\tau}$	1.8826	1.882 ± 0.012	$f\sigma_8(0.38)$	0.4771	0.4763 ± 0.0068
$\alpha_{B,sync}$	-0.42	—	D_{40}	1229.4	1230 ± 19	$\sigma_8(0.38)$	0.6630	0.6626 ± 0.0057
$\beta_{B,sync}$	-3.036	$-3.10^{+0.29}_{-0.26}$	D_{220}	5717.5	5715 ± 39	$f\sigma_8(0.51)$	0.4752	0.4745 ± 0.0060
$\epsilon_{dust,sync}$	-0.370	-0.36 ± 0.28	D_{810}	2537.8	2537 ± 14	$\sigma_8(0.51)$	0.6203	0.6199 ± 0.0053
A_{100}^{PS}	237.1	242 ± 25	D_{1420}	815.6	815.3 ± 5.0	$f\sigma_8(0.61)$	0.4699	0.4692 ± 0.0055
A_{143}^{PS}	40.4	41 ± 8	D_{2000}	230.00	229.9 ± 1.9	$\sigma_8(0.61)$	0.59010	0.5897 ± 0.0050
A_{217}^{PS}	100.9	102 ± 10	$n_{s,0.002}$	0.9751	0.977 ± 0.021	$f\sigma_8(2.33)$	0.29736	0.2972 ± 0.0025
A_{217}^{CIB}	45.6	40^{+7}_{-8}	Y_P	0.245363	$0.245365^{+0.000068}_{-0.000062}$	$\sigma_8(2.33)$	0.30638	0.3063 ± 0.0026
A_{143}^{tSZ}	6.54	$3.8^{+1.8}_{-2.6}$	Y_P^{BBN}	0.246689	$0.246691^{+0.000069}_{-0.000062}$	$r_{0.002}$	0.0222	$0.032^{+0.011}_{-0.027}$
$r_{143 \times 217}^{PS}$	0.578	0.65 ± 0.13	$10^5 D/H$	2.6007	2.599 ± 0.030	$r_{0.01}$	0.0231	$0.033^{+0.012}_{-0.027}$
$r_{143 \times 217}^{CIB}$	0.795	$0.57^{+0.41}_{-0.15}$	Age/Gyr	13.8078	13.806 ± 0.025	$\ln(10^{10} A_t)$	-0.68	$-0.62^{+0.97}_{-0.36}$
$\xi^{tSZ \times CIB}$	0.05	—	z_*	1090.020	1090.00 ± 0.28	r_{10}	0.0114	$0.0163^{+0.0056}_{-0.014}$
A^{kSZ}	0.11	4.9 ± 2.7	r_*	144.496	144.53 ± 0.33	$10^9 A_t$	0.0509	$0.071^{+0.027}_{-0.059}$
A_{100}^{dust}	1.009	1.01 ± 0.20	$100\theta_*$	1.041037	1.04104 ± 0.00030	$10^9 A_t e^{-2\tau}$	0.0457	$0.064^{+0.024}_{-0.052}$
A_{143}^{dust}	0.974	0.96 ± 0.18	$D_M(z_*)/\text{Gpc}$	13.8801	13.883 ± 0.030	f_{2000}^{143}	30.78	30.5 ± 3.3
A_{217}^{dust}	0.966	0.97 ± 0.10	z_{drag}	1059.742	1059.76 ± 0.34	f_{2000}^{217}	107.36	107.4 ± 2.2
$A_{143 \times 217}^{dust}$	1.000	1.03 ± 0.16	r_{drag}	147.186	147.21 ± 0.33	$f_{2000}^{143 \times 217}$	32.69	32.7 ± 2.3
c_{100}	0.99764	0.9975 ± 0.0011	k_D	0.140707	0.14068 ± 0.00038	$\chi_{BKPLANCK}^2$	735.31	740.0 ± 2.8
c_{217}	1.00138	1.0012 ± 0.0016	$100\theta_D$	0.160858	0.16085 ± 0.00020	χ_{small}^2	396.13	397.2 ± 1.9
c_{TE}	0.99620	0.9963 ± 0.0049	z_{eq}	3399.9	3397 ± 32	χ_{lowl}^2	23.09	23.5 ± 1.9
c_{EE}	0.99193	0.9919 ± 0.0049	k_{eq}	0.010377	0.010368 ± 0.000097	$\chi_{CamSpec}^2$	11499.2	11514.7 ± 5.9
H_0	67.27	67.33 ± 0.61	$100\theta_{eq}$	0.8134	0.8140 ± 0.0059	χ_{prior}^2	2.37	9.5 ± 3.8
Ω_Λ	0.6842	0.6849 ± 0.0085	$100\theta_{s,eq}$	0.44951	0.4498 ± 0.0031	χ_{CMB}^2	12653.8	12675.4 ± 6.5

Best-fit $\chi_{eff}^2 = 12656.13$; $\bar{\chi}_{eff}^2 = 12684.91$; $R - 1 = 0.00385$

χ_{eff}^2 : CMB - BK15_dust: 735.31 small_100x143_offlike5_EE_Aplanck_B: 396.13 commander_dx12_v3_2_29: 23.09 CamSpec like_10.7HM_1400_unified: 11499.22

15.50 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022346	0.02234 ± 0.00015	$\Omega_m h^3$	0.096172	0.09612 ± 0.00033	$H(0.51)$	89.724	89.73 ± 0.23
$\Omega_c h^2$	0.11919	0.1191 ± 0.0010	σ_8	0.8078	0.8077 ± 0.0073	$D_M(0.51)$	1980.7	1980.1 ± 9.1
$100\theta_{MC}$	1.040993	1.04094 ± 0.00029	S_8	0.8221	0.821 ± 0.013	$H(0.61)$	95.338	95.34 ± 0.19
τ	0.0546	$0.0552^{+0.0073}_{-0.0083}$	$\sigma_8 \Omega_m^{0.5}$	0.4503	0.4499 ± 0.0070	$D_M(0.61)$	2304.9	2304.3 ± 9.8
$\ln(10^{10} A_s)$	3.0419	3.043 ± 0.017	$\sigma_8 \Omega_m^{0.25}$	0.6031	0.6028 ± 0.0071	$H(2.33)$	236.01	235.92 ± 0.64
n_s	0.96694	0.9671 ± 0.0042	$\sigma_8/h^{0.5}$	0.9822	0.982 ± 0.010	$D_M(2.33)$	5762.0	5762.2 ± 9.3
$dn_s/d \ln k$	-0.0028	-0.0033 ± 0.0070	$r_{\text{drag}} h$	99.65	99.73 ± 0.79	$f\sigma_8(0.15)$	0.4549	0.4546 ± 0.0066
r	0.0247	$0.035^{+0.013}_{-0.028}$	$\langle d^2 \rangle^{1/2}$	2.4241	2.423 ± 0.026	$\sigma_8(0.15)$	0.7465	0.7465 ± 0.0066
y_{cal}	1.00050	1.0007 ± 0.0025	z_{re}	7.70	7.74 ± 0.81	$f\sigma_8(0.38)$	0.4734	0.4731 ± 0.0057
$A_{B,\text{dust}}$	4.62	$4.87^{+0.83}_{-1.2}$	$10^9 A_s$	2.0946	$2.098^{+0.033}_{-0.037}$	$\sigma_8(0.38)$	0.6618	0.6619 ± 0.0057
$A_{B,\text{sync}}$	1.37	$1.62^{+0.51}_{-1.3}$	$10^9 A_s e^{-2\tau}$	1.8780	1.878 ± 0.011	$f\sigma_8(0.51)$	0.4721	0.4719 ± 0.0052
$\alpha_{B,\text{dust}}$	-0.504	$-0.56^{+0.22}_{-0.31}$	D_{40}	1225.4	1228 ± 19	$\sigma_8(0.51)$	0.6193	0.6195 ± 0.0053
$\beta_{B,\text{dust}}$	1.583	1.600 ± 0.097	D_{220}	5717.5	5719 ± 39	$f\sigma_8(0.61)$	0.46716	0.4670 ± 0.0049
$\alpha_{B,\text{sync}}$	-0.48	—	D_{810}	2535.9	2536 ± 14	$\sigma_8(0.61)$	0.58934	0.5895 ± 0.0050
$\beta_{B,\text{sync}}$	-3.045	$-3.10^{+0.29}_{-0.26}$	D_{1420}	815.82	815.8 ± 5.0	$f\sigma_8(2.33)$	0.29718	0.2973 ± 0.0025
$\epsilon_{\text{dust,sync}}$	-0.383	-0.36 ± 0.28	D_{2000}	230.16	230.1 ± 1.8	$\sigma_8(2.33)$	0.30641	0.3065 ± 0.0026
A_{100}^{PS}	235.9	241 ± 25	$n_{s,0.002}$	0.9759	0.978 ± 0.021	$r_{0.002}$	0.0228	$0.033^{+0.012}_{-0.028}$
A_{143}^{PS}	40.8	40 ± 8	Y_P	0.245386	$0.245383^{+0.000064}_{-0.000056}$	$r_{0.01}$	0.0236	$0.033^{+0.012}_{-0.028}$
A_{217}^{PS}	101.3	102 ± 10	Y_P^{BBN}	0.246712	$0.246709^{+0.000064}_{-0.000057}$	$\ln(10^{10} A_t)$	-0.66	$-0.59^{+0.96}_{-0.36}$
A_{217}^{CIB}	44.9	40^{+7}_{-8}	$10^5 D/H$	2.5901	2.591 ± 0.028	r_{10}	0.0117	$0.0168^{+0.0058}_{-0.014}$
A_{143}^{tSZ}	6.46	$3.8^{+1.8}_{-2.6}$	Age/Gyr	13.7946	13.795 ± 0.021	$10^9 A_t$	0.0518	$0.073^{+0.028}_{-0.059}$
$r_{143 \times 217}^{\text{PS}}$	0.592	0.65 ± 0.13	z_*	1089.879	1089.87 ± 0.24	$10^9 A_t e^{-2\tau}$	0.0464	$0.065^{+0.025}_{-0.053}$
$r_{143 \times 217}^{\text{CIB}}$	0.798	$0.57^{+0.41}_{-0.14}$	r_*	144.659	144.70 ± 0.26	f_{2000}^{143}	30.56	30.2 ± 3.3
$\xi^{\text{tSZ} \times \text{CIB}}$	0.12	—	$100\theta_*$	1.041174	1.04113 ± 0.00029	f_{2000}^{217}	107.16	107.2 ± 2.2
A^{kSZ}	0.32	4.9 ± 2.7	$D_M(z_*)/\text{Gpc}$	13.8938	13.898 ± 0.024	$f_{2000}^{143 \times 217}$	32.51	32.5 ± 2.3
A_{100}^{dust}	1.008	1.01 ± 0.20	z_{drag}	1059.818	1059.81 ± 0.34	χ_{BKPLANCK}^2	735.68	740.2 ± 2.7
A_{143}^{dust}	0.977	0.96 ± 0.18	r_{drag}	147.333	147.37 ± 0.27	χ_{simall}^2	396.13	397.3 ± 2.0
A_{217}^{dust}	0.968	0.97 ± 0.10	k_D	0.140593	0.14055 ± 0.00034	χ_{lowl}^2	22.83	23.3 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	0.998	1.02 ± 0.16	$100\theta_D$	0.160829	0.16083 ± 0.00020	χ_{CamSpec}^2	11499.5	11514.5 ± 5.8
c_{100}	0.99760	0.9975 ± 0.0011	z_{eq}	3382.3	3379 ± 24	$\chi_{6\text{DF}}^2$	0.0289	0.050 ± 0.061
c_{217}	1.00137	1.0012 ± 0.0016	k_{eq}	0.010323	0.010313 ± 0.000072	χ_{MGS}^2	1.217	1.32 ± 0.44
c_{TE}	0.99650	0.9965 ± 0.0049	$100\theta_{\text{eq}}$	0.81685	0.8174 ± 0.0044	χ_{DR12BAO}^2	4.40	4.7 ± 1.4
c_{EE}	0.99208	0.9923 ± 0.0049	$100\theta_{s,\text{eq}}$	0.45125	0.4516 ± 0.0023	χ_{prior}^2	2.36	9.5 ± 3.8
H_0	67.639	67.67 ± 0.45	$H(0.15)$	72.913	72.94 ± 0.39	χ_{BAO}^2	5.64	6.1 ± 1.1
Ω_Λ	0.6892	0.6898 ± 0.0061	$D_M(0.15)$	640.99	640.7 ± 3.9	χ_{CMB}^2	12654.2	12675.4 ± 6.4
Ω_m	0.3108	0.3102 ± 0.0061	$H(0.38)$	83.013	83.03 ± 0.29			
$\Omega_m h^2$	0.14218	0.14205 ± 0.00099	$D_M(0.38)$	1528.9	1528.4 ± 7.7			

Best-fit $\chi_{\text{eff}}^2 = 12662.16$; $\bar{\chi}_{\text{eff}}^2 = 12690.95$; $R - 1 = 0.00720$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.40 CMB - BK15_dust: 735.68 simall_100x143_offlike5_EE_Aplanck_B: 396.13 commander_dx12_v3_2_29: 22.83 CamSpec like_10.7HM_1400_unified: 11499.52

15.51 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022287	0.02230 ± 0.00016	$\Omega_m h^2$	0.14282	0.1428 ± 0.0012	$H(0.38)$	82.799	82.83 ± 0.34
$\Omega_c h^2$	0.11988	0.1198 ± 0.0012	$\Omega_m h^3$	0.096114	0.09613 ± 0.00033	$D_M(0.38)$	1534.8	1534.1 ± 9.3
$100\theta_{MC}$	1.040837	1.04085 ± 0.00030	σ_8	0.8099	0.8101 ± 0.0060	$H(0.51)$	89.554	89.58 ± 0.27
τ	0.0536	$0.0547^{+0.0069}_{-0.0078}$	S_8	0.8303	0.830 ± 0.013	$D_M(0.51)$	1987.5	1987 ± 11
$\ln(10^{10} A_s)$	3.0420	3.044 ± 0.015	$\sigma_8 \Omega_m^{0.5}$	0.4548	0.4546 ± 0.0070	$H(0.61)$	95.203	95.22 ± 0.22
n_s	0.96525	0.9652 ± 0.0045	$\sigma_8 \Omega_m^{0.25}$	0.6069	0.6069 ± 0.0064	$D_M(0.61)$	2312.3	2311 ± 12
$dn_s/d \ln k$	-0.0018	-0.0030 ± 0.0069	$\sigma_8/h^{0.5}$	0.9872	0.9873 ± 0.0091	$H(2.33)$	236.39	236.36 ± 0.74
r	0.0215	$0.033^{+0.012}_{-0.028}$	$r_{\text{drag}} h$	99.07	99.14 ± 0.94	$D_M(2.33)$	5768.0	5767 ± 11
y_{cal}	1.00078	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4375	2.436 ± 0.023	$f\sigma_8(0.15)$	0.4591	0.4589 ± 0.0065
$A_{B,\text{dust}}$	4.62	$4.87^{+0.82}_{-1.2}$	z_{re}	7.62	7.71 ± 0.76	$\sigma_8(0.15)$	0.7480	0.7483 ± 0.0054
$A_{B,\text{sync}}$	1.42	$1.62^{+0.52}_{-1.3}$	$10^9 A_s$	2.0948	$2.099^{+0.029}_{-0.033}$	$f\sigma_8(0.38)$	0.4765	0.4765 ± 0.0052
$\alpha_{B,\text{dust}}$	-0.507	$-0.57^{+0.22}_{-0.32}$	$10^9 A_s e^{-2\tau}$	1.8820	1.882 ± 0.011	$\sigma_8(0.38)$	0.66264	0.6629 ± 0.0047
$\beta_{B,\text{dust}}$	1.583	1.600 ± 0.097	D_{40}	1231.2	1233 ± 19	$f\sigma_8(0.51)$	0.47467	0.4747 ± 0.0046
$\alpha_{B,\text{sync}}$	-0.38	—	D_{220}	5719.6	5718 ± 39	$\sigma_8(0.51)$	0.61994	0.6202 ± 0.0045
$\beta_{B,\text{sync}}$	-3.039	$-3.10^{+0.29}_{-0.26}$	D_{810}	2537.8	2537 ± 13	$f\sigma_8(0.61)$	0.46940	0.4694 ± 0.0042
$\epsilon_{\text{dust,sync}}$	-0.365	-0.36 ± 0.28	D_{1420}	816.0	815.5 ± 5.0	$\sigma_8(0.61)$	0.58978	0.5901 ± 0.0043
A_{100}^{PS}	237.0	242 ± 25	D_{2000}	230.20	230.0 ± 1.9	$f\sigma_8(2.33)$	0.29722	0.2974 ± 0.0022
A_{143}^{PS}	42.9	40 ± 8	$n_{s,0.002}$	0.9710	0.975 ± 0.021	$\sigma_8(2.33)$	0.30626	0.3065 ± 0.0024
A_{217}^{PS}	102.2	102 ± 10	Y_P	0.245362	$0.245365^{+0.000068}_{-0.000061}$	$r_{0.002}$	0.0196	$0.031^{+0.010}_{-0.027}$
A_{217}^{CIB}	43.6	40^{+7}_{-8}	Y_P^{BBN}	0.246688	$0.246691^{+0.000068}_{-0.000061}$	$r_{0.01}$	0.0205	$0.032^{+0.011}_{-0.027}$
A_{143}^{tSZ}	5.77	$3.8^{+1.8}_{-2.6}$	$10^5 D/H$	2.6013	2.599 ± 0.030	$\ln(10^{10} A_t)$	-0.80	$-0.65^{+0.99}_{-0.37}$
$r_{143 \times 217}^{\text{PS}}$	0.630	0.65 ± 0.13	Age/Gyr	13.8078	13.806 ± 0.024	r_{10}	0.0100	$0.0158^{+0.0051}_{-0.014}$
$r_{143 \times 217}^{\text{CIB}}$	0.772	$0.57^{+0.40}_{-0.15}$	z_*	1090.016	1089.99 ± 0.27	$10^9 A_t$	0.0450	$0.069^{+0.025}_{-0.059}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.31	—	r_*	144.525	144.53 ± 0.29	$10^9 A_t e^{-2\tau}$	0.0405	$0.062^{+0.022}_{-0.053}$
A^{kSZ}	1.29	4.9 ± 2.7	$100\theta_*$	1.041032	1.04104 ± 0.00030	f_{2000}^{143}	30.46	30.3 ± 3.3
A_{100}^{dust}	1.013	1.01 ± 0.20	$D_M(z_*)/\text{Gpc}$	13.8828	13.884 ± 0.027	f_{2000}^{217}	107.19	107.3 ± 2.2
A_{143}^{dust}	0.973	0.96 ± 0.18	z_{drag}	1059.742	1059.76 ± 0.34	$f_{2000}^{143 \times 217}$	32.49	32.6 ± 2.3
A_{217}^{dust}	0.970	0.97 ± 0.10	r_{drag}	147.214	147.22 ± 0.30	χ_{lensing}^2	8.899	9.39 ± 0.70
$A_{143 \times 217}^{\text{dust}}$	1.004	1.02 ± 0.16	k_D	0.140673	0.14068 ± 0.00035	χ_{BKPLANCK}^2	735.38	739.9 ± 2.7
c_{100}	0.99766	0.9975 ± 0.0011	$100\theta_D$	0.160865	0.16085 ± 0.00020	χ_{small}^2	396.03	397.2 ± 1.8
c_{217}	1.00131	1.0012 ± 0.0016	z_{eq}	3397.4	3396 ± 28	χ_{lowl}^2	23.34	23.7 ± 2.0
c_{TE}	0.99639	0.9963 ± 0.0049	k_{eq}	0.010369	0.010365 ± 0.000085	χ_{CamSpec}^2	11499.2	11514.2 ± 5.7
c_{EE}	0.99203	0.9920 ± 0.0049	$100\theta_{\text{eq}}$	0.8139	0.8142 ± 0.0052	χ_{prior}^2	2.29	9.5 ± 3.8
H_0	67.30	67.34 ± 0.54	$100\theta_{s,\text{eq}}$	0.44974	0.4499 ± 0.0027	χ_{CMB}^2	12662.8	12684.4 ± 6.5
Ω_Λ	0.6847	0.6851 ± 0.0075	$H(0.15)$	72.620	72.66 ± 0.47			
Ω_m	0.3153	0.3149 ± 0.0075	$D_M(0.15)$	643.91	643.6 ± 4.7			

Best-fit $\chi_{\text{eff}}^2 = 12665.09$; $\bar{\chi}_{\text{eff}}^2 = 12693.83$; $R - 1 = 0.00535$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.90 BK15_dust: 735.38 small_100x143_offlike5_EE_Aplanck_B: 396.03 commander_dx12_v3_2_29: 23.34
CamSpec like_10.7HM.1400_unified: 11499.17

15.52 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022335	0.02234 ± 0.00015	$\Omega_m h^3$	0.096118	0.09613 ± 0.00033	$H(0.51)$	89.703	89.71 ± 0.22
$\Omega_c h^2$	0.11917	0.11915 ± 0.00095	σ_8	0.8088	0.8093 ± 0.0060	$D_M(0.51)$	1981.2	1980.9 ± 8.6
$100\theta_{MC}$	1.040921	1.04093 ± 0.00029	S_8	0.8234	0.824 ± 0.011	$H(0.61)$	95.317	95.33 ± 0.19
τ	0.0558	$0.0564^{+0.0067}_{-0.0078}$	$\sigma_8 \Omega_m^{0.5}$	0.4510	0.4511 ± 0.0058	$D_M(0.61)$	2305.5	2305.1 ± 9.3
$\ln(10^{10} A_s)$	3.0452	$3.046^{+0.014}_{-0.016}$	$\sigma_8 \Omega_m^{0.25}$	0.6040	0.6042 ± 0.0057	$H(2.33)$	235.98	235.97 ± 0.60
n_s	0.96668	0.9668 ± 0.0041	$\sigma_8/h^{0.5}$	0.9836	0.9841 ± 0.0084	$D_M(2.33)$	5763.2	5762.7 ± 9.2
$dn_s/d \ln k$	-0.0031	-0.0028 ± 0.0069	$r_{drag} h$	99.64	99.66 ± 0.74	$f\sigma_8(0.15)$	0.4556	0.4558 ± 0.0055
r	0.0248	$0.034^{+0.012}_{-0.028}$	$\langle d^2 \rangle^{1/2}$	2.4278	2.429 ± 0.022	$\sigma_8(0.15)$	0.7475	0.7479 ± 0.0055
y_{cal}	1.00077	1.0009 ± 0.0025	z_{re}	7.83	7.87 ± 0.74	$f\sigma_8(0.38)$	0.47407	0.4743 ± 0.0046
$A_{B,dust}$	4.62	$4.87^{+0.82}_{-1.2}$	$10^9 A_s$	2.1015	$2.104^{+0.029}_{-0.033}$	$\sigma_8(0.38)$	0.66264	0.6630 ± 0.0048
$A_{B,sync}$	1.40	$1.62^{+0.52}_{-1.3}$	$10^9 A_s e^{-2\tau}$	1.8795	1.879 ± 0.011	$f\sigma_8(0.51)$	0.47274	0.4729 ± 0.0042
$\alpha_{B,dust}$	-0.519	$-0.56^{+0.22}_{-0.31}$	D_{40}	1226.4	1231 ± 18	$\sigma_8(0.51)$	0.62015	0.6205 ± 0.0045
$\beta_{B,dust}$	1.584	1.600 ± 0.097	D_{220}	5722.3	5723 ± 39	$f\sigma_8(0.61)$	0.46782	0.4680 ± 0.0039
$\alpha_{B,sync}$	-0.35	—	D_{810}	2537.6	2538 ± 13	$\sigma_8(0.61)$	0.59010	0.5905 ± 0.0043
$\beta_{B,sync}$	-3.044	$-3.10^{+0.29}_{-0.26}$	D_{1420}	816.08	816.2 ± 5.0	$f\sigma_8(2.33)$	0.29756	0.2977 ± 0.0022
$\epsilon_{dust,sync}$	-0.369	-0.36 ± 0.28	D_{2000}	230.19	230.3 ± 1.8	$\sigma_8(2.33)$	0.30679	$0.3070^{+0.0022}_{-0.0024}$
A_{100}^{PS}	235.9	241 ± 25	$n_{s,0.002}$	0.9768	0.976 ± 0.021	$r_{0.002}$	0.0229	$0.031^{+0.011}_{-0.027}$
A_{143}^{PS}	39.2	40 ± 8	Y_P	0.245382	$0.245382^{+0.000064}_{-0.000057}$	$r_{0.01}$	0.0238	$0.032^{+0.012}_{-0.028}$
A_{217}^{PS}	101.7	102 ± 10	Y_P^{BBN}	0.246708	$0.246708^{+0.000064}_{-0.000057}$	$\ln(10^{10} A_t)$	-0.65	$-0.63^{+0.99}_{-0.37}$
A_{217}^{CIB}	45.2	40^{+7}_{-8}	$10^5 D/H$	2.5920	2.591 ± 0.028	r_{10}	0.0117	$0.0162^{+0.0054}_{-0.014}$
A_{143}^{tSZ}	6.65	$3.8^{+1.9}_{-2.6}$	Age/Gyr	13.7974	13.796 ± 0.021	$10^9 A_t$	0.0522	$0.071^{+0.026}_{-0.060}$
$r_{143 \times 217}^{PS}$	0.577	0.65 ± 0.13	z_*	1089.890	1089.88 ± 0.23	$10^9 A_t e^{-2\tau}$	0.0467	$0.063^{+0.023}_{-0.053}$
$r_{143 \times 217}^{CIB}$	0.772	$0.57^{+0.40}_{-0.16}$	r_*	144.673	144.67 ± 0.24	f_{2000}^{143}	30.45	30.0 ± 3.2
$\xi^{tSZ \times CIB}$	0.02	—	$100\theta_*$	1.041111	1.04112 ± 0.00028	f_{2000}^{217}	107.22	107.1 ± 2.2
A^{kSZ}	0.00	$4.8^{+2.5}_{-3.8}$	$D_M(z_*)/Gpc$	13.8960	13.896 ± 0.023	$f_{2000}^{143 \times 217}$	32.47	32.4 ± 2.3
A_{100}^{dust}	1.010	1.01 ± 0.19	z_{drag}	1059.780	1059.81 ± 0.34	$\chi_{lensing}^2$	8.965	9.34 ± 0.71
A_{143}^{dust}	0.967	0.96 ± 0.18	r_{drag}	147.351	147.35 ± 0.26	$\chi_{BKPLANCK}^2$	735.57	740.1 ± 2.7
A_{217}^{dust}	0.967	0.97 ± 0.10	k_D	0.140567	0.14057 ± 0.00033	χ_{small}^2	396.36	397.4 ± 2.0
$A_{143 \times 217}^{dust}$	1.004	1.02 ± 0.16	$100\theta_D$	0.160834	0.16083 ± 0.00020	χ_{lowl}^2	22.82	23.5 ± 1.9
c_{100}	0.99771	0.9976 ± 0.0011	z_{eq}	3381.5	3381 ± 22	$\chi_{CamSpec}^2$	11499.5	11514.0 ± 5.7
c_{217}	1.00132	1.0012 ± 0.0016	k_{eq}	0.010321	0.010320 ± 0.000067	χ_{6DF}^2	0.0303	0.051 ± 0.059
c_{TE}	0.99641	0.9964 ± 0.0049	$100\theta_{eq}$	0.81691	0.8170 ± 0.0041	χ_{MGS}^2	1.217	1.27 ± 0.40
c_{EE}	0.99249	0.9923 ± 0.0049	$100\theta_{s,eq}$	0.45130	0.4513 ± 0.0021	$\chi_{DR12BAO}^2$	4.43	4.8 ± 1.3
H_0	67.618	67.63 ± 0.43	$H(0.15)$	72.892	72.91 ± 0.37	χ_{prior}^2	2.25	9.4 ± 3.8
Ω_Λ	0.6891	0.6892 ± 0.0057	$D_M(0.15)$	641.19	641.1 ± 3.7	χ_{CMB}^2	12663.2	12684.4 ± 6.5
Ω_m	0.3109	0.3108 ± 0.0057	$H(0.38)$	82.993	83.01 ± 0.28	χ_{BAO}^2	5.68	6.1 ± 1.0
$\Omega_m h^2$	0.14215	0.14214 ± 0.00092	$D_M(0.38)$	1529.3	1529.1 ± 7.4			

Best-fit $\chi_{eff}^2 = 12671.14$; $\bar{\chi}_{eff}^2 = 12699.90$; $R - 1 = 0.00769$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.96 BK15_dust: 735.57 simall_100x143_offlike5_EE_Aplanck_B: 396.36 commander_dx12_v3.2.29: 22.82 CamSpec like_10.7HM_1400.unified: 11499.49

15.53 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02230 ± 0.00016	Ω_{m}	0.3149 ± 0.0085	$H(0.15)$	72.66 ± 0.52
$\Omega_{\mathrm{c}}h^2$	0.1198 ± 0.0014	$\Omega_{\mathrm{m}}h^2$	0.1428 ± 0.0013	$D_{\mathrm{M}}(0.15)$	643.6 ± 5.2
$100\theta_{\mathrm{MC}}$	1.04085 ± 0.00031	$\Omega_{\mathrm{m}}h^3$	0.09614 ± 0.00033	$H(0.38)$	82.83 ± 0.37
τ	$0.0554^{+0.0050}_{-0.0088}$	σ_8	0.8106 ± 0.0071	$D_{\mathrm{M}}(0.38)$	1534 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.017}$	S_8	0.830 ± 0.016	$H(0.51)$	89.58 ± 0.30
n_{s}	0.9653 ± 0.0048	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4549 ± 0.0089	$D_{\mathrm{M}}(0.51)$	1987 ± 12
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0039 ± 0.0070	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6072 ± 0.0082	$H(0.61)$	95.23 ± 0.24
r	$0.034^{+0.013}_{-0.028}$	$\sigma_8/h^{0.5}$	0.988 ± 0.012	$D_{\mathrm{M}}(0.61)$	2311 ± 13
y_{cal}	1.0007 ± 0.0025	$r_{\mathrm{drag}}h$	99.1 ± 1.1	$H(2.33)$	236.37 ± 0.85
$A_{B,\mathrm{dust}}$	$4.86^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.436 ± 0.028	$D_{\mathrm{M}}(2.33)$	5767 ± 11
$A_{B,\mathrm{sync}}$	$1.62^{+0.52}_{-1.3}$	z_{re}	$7.79^{+0.57}_{-0.85}$	$f\sigma_8(0.15)$	0.4592 ± 0.0082
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.32}$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.026}_{-0.037}$	$\sigma_8(0.15)$	$0.7487^{+0.0057}_{-0.0066}$
$\beta_{B,\mathrm{dust}}$	1.601 ± 0.097	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.012	$f\sigma_8(0.38)$	0.4767 ± 0.0067
$\alpha_{B,\mathrm{sync}}$	—	D_{40}	1230 ± 19	$\sigma_8(0.38)$	$0.6633^{+0.0046}_{-0.0056}$
$\beta_{B,\mathrm{sync}}$	$-3.10^{+0.29}_{-0.26}$	D_{220}	5715 ± 39	$f\sigma_8(0.51)$	0.4749 ± 0.0059
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{810}	2537 ± 14	$\sigma_8(0.51)$	$0.6206^{+0.0041}_{-0.0052}$
A_{100}^{PS}	242 ± 25	D_{1420}	815.2 ± 5.0	$f\sigma_8(0.61)$	0.4697 ± 0.0053
A_{143}^{PS}	41 ± 8	D_{2000}	229.9 ± 1.9	$\sigma_8(0.61)$	$0.5904^{+0.0039}_{-0.0050}$
A_{217}^{PS}	102 ± 10	$n_{\mathrm{s},0.002}$	0.978 ± 0.021	$f\sigma_8(2.33)$	$0.2975^{+0.0019}_{-0.0025}$
A_{217}^{CIB}	40^{+7}_{-8}	Y_{P}	$0.245367^{+0.000068}_{-0.000061}$	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0027}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246693^{+0.000068}_{-0.000062}$	$r_{0.002}$	$0.032^{+0.011}_{-0.027}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$10^5 \mathrm{D}/\mathrm{H}$	2.599 ± 0.030	$r_{0.01}$	$0.033^{+0.012}_{-0.027}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15}$	$\mathrm{Age}/\mathrm{Gyr}$	13.805 ± 0.025	$\ln(10^{10}A_{\mathrm{t}})$	$-0.61^{+0.97}_{-0.36}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_*	1089.99 ± 0.28	r_{10}	$0.0164^{+0.0056}_{-0.014}$
A^{kSZ}	4.9 ± 2.7	r_*	144.53 ± 0.32	$10^9 A_{\mathrm{t}}$	$0.071^{+0.027}_{-0.058}$
A_{100}^{dust}	1.01 ± 0.20	$100\theta_*$	1.04104 ± 0.00030	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.064^{+0.024}_{-0.052}$
A_{143}^{dust}	0.96 ± 0.18	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.883 ± 0.030	f_{2000}^{143}	30.5 ± 3.3
A_{217}^{dust}	0.97 ± 0.10	z_{drag}	1059.77 ± 0.34	f_{2000}^{217}	107.4 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_{drag}	147.21 ± 0.33	$f_{2000}^{143 \times 217}$	32.7 ± 2.3
c_{100}	0.9975 ± 0.0011	k_{D}	0.14069 ± 0.00038	$\chi_{\mathrm{BKPLANCK}}^2$	739.9 ± 2.8
c_{217}	1.0012 ± 0.0016	$100\theta_{\mathrm{D}}$	0.16085 ± 0.00020	χ_{simall}^2	397.2 ± 1.9
c_{TE}	0.9962 ± 0.0049	z_{eq}	3396 ± 32	χ_{lowl}^2	23.5 ± 1.9
c_{EE}	0.9919 ± 0.0049	k_{eq}	0.010366 ± 0.000097	$\chi_{\mathrm{CamSpec}}^2$	11514.6 ± 5.9
H_0	67.34 ± 0.61	$100\theta_{\mathrm{eq}}$	0.8142 ± 0.0059	χ_{prior}^2	9.5 ± 3.8
Ω_{Λ}	0.6851 ± 0.0085	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4499 ± 0.0031	χ_{CMB}^2	12675.2 ± 6.5

$$\bar{\chi}_{\mathrm{eff}}^2 = 12684.69; R - 1 = 0.00378$$

15.54 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02235 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.09613 ± 0.00033	$H(0.51)$	89.74 ± 0.23
$\Omega_{\mathrm{c}}h^2$	0.1190 ± 0.0010	σ_8	$0.8085^{+0.0061}_{-0.0072}$	$D_{\mathrm{M}}(0.51)$	1980.0 ± 9.1
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00029	S_8	0.822 ± 0.013	$H(0.61)$	95.34 ± 0.19
τ	$0.0562^{+0.0053}_{-0.0086}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4503 ± 0.0069	$D_{\mathrm{M}}(0.61)$	2304.2 ± 9.8
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.018}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6033 ± 0.0068	$H(2.33)$	235.91 ± 0.64
n_{s}	0.9672 ± 0.0042	$\sigma_8/h^{0.5}$	0.983 ± 0.010	$D_{\mathrm{M}}(2.33)$	5762.1 ± 9.3
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0035 ± 0.0069	$r_{\mathrm{drag}}h$	99.74 ± 0.79	$f\sigma_8(0.15)$	0.4549 ± 0.0065
r	$0.035^{+0.013}_{-0.028}$	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.025	$\sigma_8(0.15)$	$0.7472^{+0.0054}_{-0.0065}$
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.85^{+0.59}_{-0.84}$	$f\sigma_8(0.38)$	0.4735 ± 0.0055
$A_{B,\mathrm{dust}}$	$4.87^{+0.83}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.026}_{-0.038}$	$\sigma_8(0.38)$	$0.6625^{+0.0045}_{-0.0057}$
$A_{B,\mathrm{sync}}$	$1.62^{+0.51}_{-1.3}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$f\sigma_8(0.51)$	0.4723 ± 0.0050
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.31}$	D_{40}	1228 ± 19	$\sigma_8(0.51)$	$0.6200^{+0.0041}_{-0.0053}$
$\beta_{B,\mathrm{dust}}$	1.600 ± 0.097	D_{220}	5719 ± 39	$f\sigma_8(0.61)$	0.4674 ± 0.0047
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2536 ± 14	$\sigma_8(0.61)$	$0.5900^{+0.0039}_{-0.0051}$
$\beta_{B,\mathrm{sync}}$	$-3.10^{+0.29}_{-0.26}$	D_{1420}	815.8 ± 5.0	$f\sigma_8(2.33)$	$0.2976^{+0.0019}_{-0.0026}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{2000}	230.1 ± 1.8	$\sigma_8(2.33)$	$0.3068^{+0.0020}_{-0.0027}$
A_{100}^{PS}	241 ± 25	$n_{\mathrm{s},0.002}$	0.978 ± 0.021	$r_{0.002}$	$0.033^{+0.012}_{-0.027}$
A_{143}^{PS}	40 ± 8	Y_{P}	$0.245384^{+0.000064}_{-0.000056}$	$r_{0.01}$	$0.033^{+0.012}_{-0.028}$
A_{217}^{PS}	102 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246710^{+0.000064}_{-0.000056}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.59^{+0.96}_{-0.36}$
A_{217}^{CIB}	40^{+7}_{-8}	$10^5 \mathrm{D}/\mathrm{H}$	2.591 ± 0.028	r_{10}	$0.0168^{+0.0059}_{-0.014}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$\mathrm{Age}/\mathrm{Gyr}$	13.795 ± 0.021	$10^9 A_{\mathrm{t}}$	$0.073^{+0.028}_{-0.059}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	z_*	1089.87 ± 0.23	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.065^{+0.025}_{-0.053}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15}$	r_*	144.70 ± 0.26	f_{2000}^{143}	30.2 ± 3.3
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$100\theta_*$	1.04113 ± 0.00029	f_{2000}^{217}	107.2 ± 2.2
A^{kSZ}	4.9 ± 2.7	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.898 ± 0.024	$f_{2000}^{143 \times 217}$	32.5 ± 2.3
A_{100}^{dust}	1.01 ± 0.19	z_{drag}	1059.81 ± 0.34	$\chi_{\mathrm{BKPLANCK}}^2$	740.2 ± 2.7
A_{143}^{dust}	0.96 ± 0.18	r_{drag}	147.37 ± 0.27	χ_{small}^2	397.3 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	k_{D}	0.14055 ± 0.00034	χ_{lowl}^2	23.3 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00020	$\chi_{\mathrm{CamSpec}}^2$	11514.4 ± 5.8
c_{100}	0.9975 ± 0.0011	z_{eq}	3379 ± 24	$\chi_{6\mathrm{DF}}^2$	0.049 ± 0.061
c_{217}	1.0012 ± 0.0016	k_{eq}	0.010313 ± 0.000072	χ_{MGS}^2	1.32 ± 0.44
c_{TE}	0.9964 ± 0.0049	$100\theta_{\mathrm{eq}}$	0.8175 ± 0.0044	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.3
c_{EE}	0.9923 ± 0.0049	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4516 ± 0.0023	χ_{prior}^2	9.5 ± 3.8
H_0	67.68 ± 0.45	$H(0.15)$	72.95 ± 0.39	χ_{BAO}^2	6.1 ± 1.1
Ω_{Λ}	0.6898 ± 0.0061	$D_{\mathrm{M}}(0.15)$	640.7 ± 3.8	χ_{CMB}^2	12675.2 ± 6.4
Ω_{m}	0.3102 ± 0.0061	$H(0.38)$	83.03 ± 0.29		
$\Omega_{\mathrm{m}}h^2$	0.14204 ± 0.00099	$D_{\mathrm{M}}(0.38)$	1528.3 ± 7.7		

$\bar{\chi}_{\mathrm{eff}}^2 = 12690.74$; $R - 1 = 0.00701$

15.55 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02230 ± 0.00016	$\Omega_{\mathrm{m}}h^2$	0.1427 ± 0.0011	$H(0.38)$	82.84 ± 0.34
$\Omega_{\mathrm{c}}h^2$	0.1198 ± 0.0012	$\Omega_{\mathrm{m}}h^3$	0.09613 ± 0.00033	$D_{\mathrm{M}}(0.38)$	1533.7 ± 9.2
$100\theta_{\mathrm{MC}}$	1.04085 ± 0.00030	σ_8	0.8106 ± 0.0057	$H(0.51)$	89.59 ± 0.27
τ	$0.0555^{+0.0053}_{-0.0082}$	S_8	0.830 ± 0.013	$D_{\mathrm{M}}(0.51)$	1986 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4546 ± 0.0070	$H(0.61)$	95.23 ± 0.22
n_{s}	0.9653 ± 0.0045	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6071 ± 0.0064	$D_{\mathrm{M}}(0.61)$	2311 ± 12
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0031 ± 0.0069	$\sigma_8/h^{0.5}$	0.9877 ± 0.0089	$H(2.33)$	236.33 ± 0.73
r	$0.033^{+0.012}_{-0.028}$	$r_{\mathrm{drag}}h$	99.18 ± 0.93	$D_{\mathrm{M}}(2.33)$	5767 ± 10
y_{cal}	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.023	$f\sigma_8(0.15)$	0.4590 ± 0.0065
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	z_{re}	$7.80^{+0.58}_{-0.78}$	$\sigma_8(0.15)$	$0.7487^{+0.0047}_{-0.0054}$
$A_{B,\mathrm{sync}}$	$1.63^{+0.52}_{-1.3}$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.024}_{-0.033}$	$f\sigma_8(0.38)$	0.4766 ± 0.0052
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.22}_{-0.32}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.881 ± 0.011	$\sigma_8(0.38)$	$0.6634^{+0.0039}_{-0.0048}$
$\beta_{B,\mathrm{dust}}$	1.601 ± 0.097	D_{40}	1232 ± 19	$f\sigma_8(0.51)$	0.4748 ± 0.0045
$\alpha_{B,\mathrm{sync}}$	—	D_{220}	5718 ± 39	$\sigma_8(0.51)$	$0.6207^{+0.0036}_{-0.0045}$
$\beta_{B,\mathrm{sync}}$	$-3.10^{+0.29}_{-0.26}$	D_{810}	2537 ± 13	$f\sigma_8(0.61)$	0.4696 ± 0.0041
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{1420}	815.5 ± 5.0	$\sigma_8(0.61)$	$0.5905^{+0.0035}_{-0.0044}$
A_{100}^{PS}	241 ± 25	D_{2000}	230.0 ± 1.9	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0023}$
A_{143}^{PS}	40 ± 8	$n_{\mathrm{s},0.002}$	0.975 ± 0.021	$\sigma_8(2.33)$	$0.3067^{+0.0019}_{-0.0025}$
A_{217}^{PS}	102 ± 10	Y_{P}	$0.245367^{+0.000067}_{-0.000060}$	$r_{0.002}$	$0.031^{+0.010}_{-0.027}$
A_{217}^{CIB}	40^{+7}_{-8}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246693^{+0.000068}_{-0.000061}$	$r_{0.01}$	$0.032^{+0.011}_{-0.027}$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$10^5 \mathrm{D}/\mathrm{H}$	2.599 ± 0.030	$\ln(10^{10}A_{\mathrm{t}})$	$-0.65^{+0.99}_{-0.37}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$\mathrm{Age}/\mathrm{Gyr}$	13.805 ± 0.024	r_{10}	$0.0158^{+0.0052}_{-0.014}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16}$	z_*	1089.98 ± 0.26	$10^9 A_{\mathrm{t}}$	$0.070^{+0.025}_{-0.059}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	r_*	144.54 ± 0.28	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.062^{+0.023}_{-0.053}$
A^{kSZ}	4.9 ± 2.7	$100\theta_*$	1.04104 ± 0.00030	f_{2000}^{143}	30.3 ± 3.3
A_{100}^{dust}	1.01 ± 0.20	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.885 ± 0.027	f_{2000}^{217}	107.3 ± 2.2
A_{143}^{dust}	0.96 ± 0.18	z_{drag}	1059.76 ± 0.34	$f_{2000}^{143 \times 217}$	32.6 ± 2.3
A_{217}^{dust}	0.97 ± 0.10	r_{drag}	147.23 ± 0.29	$\chi_{\mathrm{lensing}}^2$	9.37 ± 0.68
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	k_{D}	0.14067 ± 0.00035	$\chi_{\mathrm{BKPLANCK}}^2$	739.9 ± 2.7
c_{100}	0.9975 ± 0.0011	$100\theta_{\mathrm{D}}$	0.16085 ± 0.00020	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0012 ± 0.0016	z_{eq}	3395 ± 27	χ_{lowl}^2	23.7 ± 2.0
c_{TE}	0.9962 ± 0.0049	k_{eq}	0.010362 ± 0.000084	$\chi_{\mathrm{CamSpec}}^2$	11514.1 ± 5.7
c_{EE}	0.9920 ± 0.0049	$100\theta_{\mathrm{eq}}$	0.8144 ± 0.0051	χ_{prior}^2	9.5 ± 3.8
H_0	67.36 ± 0.54	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4500 ± 0.0026	χ_{CMB}^2	12684.2 ± 6.5
Ω_{Λ}	0.6854 ± 0.0074	$H(0.15)$	72.68 ± 0.46		
Ω_{m}	0.3146 ± 0.0074	$D_{\mathrm{M}}(0.15)$	643.4 ± 4.6		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12693.65; R - 1 = 0.00582$$

15.56 base_nrun_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.09613 ± 0.00033	$H(0.51)$	89.72 ± 0.22
$\Omega_{\mathrm{c}}h^2$	0.11913 ± 0.00095	σ_8	$0.8096^{+0.0053}_{-0.0061}$	$D_{\mathrm{M}}(0.51)$	1980.7 ± 8.6
$100\theta_{\mathrm{MC}}$	1.04093 ± 0.00029	S_8	0.824 ± 0.011	$H(0.61)$	95.33 ± 0.19
τ	$0.0569^{+0.0057}_{-0.0080}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512 ± 0.0058	$D_{\mathrm{M}}(0.61)$	2304.9 ± 9.3
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6044 ± 0.0056	$H(2.33)$	235.96 ± 0.59
n_{s}	0.9669 ± 0.0041	$\sigma_8/h^{0.5}$	0.9844 ± 0.0082	$D_{\mathrm{M}}(2.33)$	5762.6 ± 9.2
$\mathrm{d}n_{\mathrm{s}}/\mathrm{d}\ln k$	-0.0028 ± 0.0069	$r_{\mathrm{drag}}h$	99.67 ± 0.73	$f\sigma_8(0.15)$	0.4559 ± 0.0054
r	$0.034^{+0.013}_{-0.028}$	$\langle d^2 \rangle^{1/2}$	2.430 ± 0.022	$\sigma_8(0.15)$	$0.7482^{+0.0048}_{-0.0056}$
y_{cal}	1.0009 ± 0.0025	z_{re}	$7.92^{+0.61}_{-0.77}$	$f\sigma_8(0.38)$	0.4744 ± 0.0046
$A_{B,\mathrm{dust}}$	$4.88^{+0.83}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.026}_{-0.034}$	$\sigma_8(0.38)$	$0.6633^{+0.0041}_{-0.0050}$
$A_{B,\mathrm{sync}}$	$1.63^{+0.52}_{-1.3}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.879 ± 0.011	$f\sigma_8(0.51)$	0.4731 ± 0.0041
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.31}$	D_{40}	1230 ± 18	$\sigma_8(0.51)$	$0.6208^{+0.0038}_{-0.0047}$
$\beta_{B,\mathrm{dust}}$	1.600 ± 0.097	D_{220}	5723 ± 39	$f\sigma_8(0.61)$	0.4682 ± 0.0038
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2537 ± 13	$\sigma_8(0.61)$	$0.5907^{+0.0036}_{-0.0045}$
$\beta_{B,\mathrm{sync}}$	$-3.10^{+0.29}_{-0.26}$	D_{1420}	816.2 ± 5.0	$f\sigma_8(2.33)$	$0.2979^{+0.0019}_{-0.0023}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{2000}	230.3 ± 1.8	$\sigma_8(2.33)$	$0.3071^{+0.0020}_{-0.0025}$
A_{100}^{PS}	241 ± 25	$n_{\mathrm{s},0.002}$	0.976 ± 0.021	$r_{0.002}$	$0.031^{+0.011}_{-0.027}$
A_{143}^{PS}	40 ± 8	Y_{P}	$0.245383^{+0.000064}_{-0.000056}$	$r_{0.01}$	$0.032^{+0.012}_{-0.028}$
A_{217}^{PS}	102 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246709^{+0.000064}_{-0.000057}$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.63^{+0.98}_{-0.37}$
A_{217}^{CIB}	40^{+7}_{-8}	$10^5 \mathrm{D}/\mathrm{H}$	2.591 ± 0.028	r_{10}	$0.0162^{+0.0055}_{-0.014}$
A_{143}^{tSZ}	$3.8^{+1.9}_{-2.6}$	$\mathrm{Age}/\mathrm{Gyr}$	13.796 ± 0.021	$10^9 A_{\mathrm{t}}$	$0.071^{+0.026}_{-0.059}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	z_*	1089.88 ± 0.23	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.063^{+0.024}_{-0.053}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.40}_{-0.16}$	r_*	144.68 ± 0.24	f_{2000}^{143}	30.0 ± 3.2
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$100\theta_*$	1.04112 ± 0.00028	f_{2000}^{217}	107.1 ± 2.2
A^{kSZ}	$4.8^{+2.5}_{-3.8}$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.896 ± 0.023	$f_{2000}^{143 \times 217}$	32.4 ± 2.3
A_{100}^{dust}	1.01 ± 0.19	z_{drag}	1059.81 ± 0.34	$\chi_{\mathrm{lensing}}^2$	9.31 ± 0.66
A_{143}^{dust}	0.96 ± 0.18	r_{drag}	147.35 ± 0.26	$\chi_{\mathrm{BKPLANCK}}^2$	740.1 ± 2.7
A_{217}^{dust}	0.97 ± 0.10	k_{D}	0.14057 ± 0.00033	χ_{simall}^2	397.4 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.02 ± 0.16	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00020	χ_{lowl}^2	23.5 ± 1.9
c_{100}	0.9976 ± 0.0011	z_{eq}	3381 ± 22	$\chi_{\mathrm{CamSpec}}^2$	11514.0 ± 5.7
c_{217}	1.0012 ± 0.0016	k_{eq}	0.010319 ± 0.000067	$\chi_{6\mathrm{DF}}^2$	0.050 ± 0.058
c_{TE}	0.9963 ± 0.0049	$100\theta_{\mathrm{eq}}$	0.8171 ± 0.0041	χ_{MGS}^2	1.28 ± 0.40
c_{EE}	0.9923 ± 0.0049	$100\theta_{\mathrm{s,eq}}$	0.4514 ± 0.0021	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.3
H_0	67.64 ± 0.43	$H(0.15)$	72.91 ± 0.37	χ_{prior}^2	9.4 ± 3.8
Ω_{Λ}	0.6893 ± 0.0057	$D_{\mathrm{M}}(0.15)$	641.0 ± 3.6	χ_{CMB}^2	12684.3 ± 6.4
Ω_{m}	0.3107 ± 0.0057	$H(0.38)$	83.01 ± 0.27	χ_{BAO}^2	6.1 ± 1.0
$\Omega_{\mathrm{m}}h^2$	0.14212 ± 0.00091	$D_{\mathrm{M}}(0.38)$	1528.9 ± 7.3		

$\bar{\chi}_{\mathrm{eff}}^2 = 12699.77$; $R - 1 = 0.00794$

15.57 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022394	0.02240 ± 0.00015	Ω_Λ	0.6837	0.6837 ± 0.0074	$D_M(0.15)$	643.87	643.8 ± 4.6
$\Omega_c h^2$	0.12021	0.1202 ± 0.0012	Ω_m	0.3163	0.3163 ± 0.0074	$H(0.38)$	82.838	82.85 ± 0.34
$100\theta_{MC}$	1.040902	1.04090 ± 0.00030	$\Omega_m h^2$	0.14325	0.1432 ± 0.0011	$D_M(0.38)$	1534.4	1534.3 ± 9.3
τ	0.0551	0.0561 ± 0.0077	$\Omega_m h^3$	0.096398	0.09640 ± 0.00030	$H(0.51)$	89.610	89.62 ± 0.27
$\ln(10^{10} A_s)$	3.0470	3.050 ± 0.015	σ_8	0.8117	0.8123 ± 0.0059	$D_M(0.51)$	1987.0	1987 ± 11
n_s	0.96448	0.9639 ± 0.0044	S_8	0.8335	0.834 ± 0.013	$H(0.61)$	95.272	95.28 ± 0.22
$dn_s/d \ln k$	-0.0051	-0.0069 ± 0.0070	$\sigma_8 \Omega_m^{0.5}$	0.4565	0.4568 ± 0.0069	$D_M(0.61)$	2311.5	2311 ± 12
r	0.0194	$0.0300^{+0.0092}_{-0.028}$	$\sigma_8 \Omega_m^{0.25}$	0.6087	0.6091 ± 0.0063	$H(2.33)$	236.72	236.71 ± 0.72
y_{cal}	1.00035	1.0008 ± 0.0025	$\sigma_8/h^{0.5}$	0.9895	0.9902 ± 0.0089	$D_M(2.33)$	5763.3	5763 ± 10
$A_{B,dust}$	4.63	$4.86^{+0.80}_{-1.2}$	$r_{drag} h$	98.93	98.95 ± 0.93	$f\sigma_8(0.15)$	0.4607	0.4610 ± 0.0064
$A_{B,sync}$	1.41	$1.62^{+0.52}_{-1.3}$	$\langle d^2 \rangle^{1/2}$	2.4394	2.440 ± 0.023	$\sigma_8(0.15)$	0.7496	0.7502 ± 0.0053
$\alpha_{B,dust}$	-0.520	$-0.56^{+0.22}_{-0.32}$	z_{re}	7.76	7.85 ± 0.76	$f\sigma_8(0.38)$	0.4780	0.4783 ± 0.0051
$\beta_{B,dust}$	1.583	1.599 ± 0.096	$10^9 A_s$	2.1052	$2.112^{+0.030}_{-0.033}$	$\sigma_8(0.38)$	0.66392	0.6644 ± 0.0047
$\alpha_{B,sync}$	-0.39	—	$10^9 A_s e^{-2\tau}$	1.8855	1.887 ± 0.011	$f\sigma_8(0.51)$	0.47602	0.4763 ± 0.0045
$\beta_{B,sync}$	-3.043	-3.10 ± 0.27	D_{40}	1225.3	1227 ± 19	$\sigma_8(0.51)$	0.62110	0.6216 ± 0.0045
$\epsilon_{dust,sync}$	-0.361	-0.36 ± 0.28	D_{220}	5726.4	5731 ± 39	$f\sigma_8(0.61)$	0.47065	0.4710 ± 0.0041
A_{217}^{CIB}	50.0	48 ± 7	D_{810}	2540.4	2542 ± 13	$\sigma_8(0.61)$	0.59086	0.5913 ± 0.0043
$\xi^{tSZ \times CIB}$	0.09	—	D_{1420}	816.37	816.2 ± 5.0	$f\sigma_8(2.33)$	0.29772	0.2980 ± 0.0022
A_{143}^{tSZ}	7.33	5.2 ± 2.0	D_{2000}	230.30	230.1 ± 1.8	$\sigma_8(2.33)$	0.30673	0.3070 ± 0.0024
A_{100}^{PS}	256.0	263 ± 28	$n_{s,0.002}$	0.9809	0.986 ± 0.021	$r_{0.002}$	0.0179	$0.0283^{+0.0078}_{-0.027}$
A_{143}^{PS}	44.8	48 ± 8	Y_P	0.245405	$0.245404^{+0.000062}_{-0.000054}$	$r_{0.01}$	0.0185	$0.0289^{+0.0085}_{-0.027}$
$A_{143 \times 217}^{PS}$	39.8	43 ± 9	Y_P^{BBN}	0.246731	$0.246731^{+0.000062}_{-0.000055}$	$\ln(10^{10} A_t)$	-0.90	$-0.76^{+1.0}_{-0.40}$
A_{217}^{PS}	116.2	115 ± 10	$10^5 D/H$	2.5810	2.581 ± 0.028	r_{10}	0.0092	$0.0147^{+0.0039}_{-0.014}$
A^{kSZ}	0.00	< 4.93	Age/Gyr	13.7964	13.796 ± 0.023	$10^9 A_t$	0.0408	$0.063^{+0.019}_{-0.059}$
$A_{100}^{dust TT}$	8.89	8.9 ± 1.8	z_*	1089.908	1089.90 ± 0.26	$10^9 A_t e^{-2\tau}$	0.0366	$0.057^{+0.017}_{-0.052}$
$A_{143}^{dust TT}$	11.04	11.0 ± 1.8	r_*	144.360	144.36 ± 0.27	f_{2000}^{143}	30.24	$9.57^{+0.24}_{-0.85}$
$A_{143 \times 217}^{dust TT}$	19.37	18.7 ± 3.3	$100\theta_*$	1.041083	1.04108 ± 0.00030	$f_{2000}^{143 \times 217}$	32.94	$739.6^{+1.3}_{-3.1}$
$A_{217}^{dust TT}$	94.1	93.5 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.8663	13.867 ± 0.025	f_{2000}^{217}	107.52	$397.33^{+0.13}_{-1.6}$
$A_{100}^{dust TE}$	0.1139	0.115 ± 0.038	z_{drag}	1060.009	1060.01 ± 0.32	$\chi^2_{lensing}$	9.04	23.0 ± 1.7
$A_{100 \times 143}^{dust TE}$	0.1343	0.135 ± 0.029	r_{drag}	147.011	147.01 ± 0.27	$\chi^2_{BKPLANCK}$	735.3	2360.3 ± 5.8
$A_{100 \times 217}^{dust TE}$	0.477	0.481 ± 0.085	k_D	0.140971	0.14097 ± 0.00032	χ^2_{small}	396.20	13.2 ± 4.8
$A_{143}^{dust TE}$	0.224	0.226 ± 0.054	$100\theta_D$	0.160716	0.16071 ± 0.00018	χ^2_{lowl}	22.64	31.0 ± 3.1
$A_{143 \times 217}^{dust TE}$	0.664	0.665 ± 0.080	z_{eq}	3407.7	3407 ± 27	χ^2_{plik}	2344.94	33.3 ± 2.2
$A_{217}^{dust TE}$	2.078	2.08 ± 0.27	k_{eq}	0.010401	0.010400 ± 0.000083	χ^2_{prior}	1.94	107.9 ± 2.0
c_{100}	0.99968	0.99968 ± 0.00061	$100\theta_{eq}$	0.8124	0.8125 ± 0.0051	χ^2_{CMB}	3508.1	3529.8 ± 6.5
c_{217}	0.99820	0.99822 ± 0.00062	$100\theta_{s,eq}$	0.44888	0.4489 ± 0.0026			
H_0	67.30	67.31 ± 0.54	$H(0.15)$	72.632	72.64 ± 0.46			

Best-fit $\chi^2_{eff} = 3510.02$; $\bar{\chi}^2_{eff} = 3542.98$; $R - 1 = 0.00382$
 χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.04 BK15_dust: 735.27 small_100x143_offlike5_EE_Aplanck_B: 396.20 commander_dx12_v3.2.29: 22.64 plik_rd12_HM_v22b_TTTEE: 2344.94

15.58 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022461	0.02245 ± 0.00014	Ω_m	0.3106	0.3115 ± 0.0057	$D_M(0.38)$	1527.4	1528.5 ± 7.3
$\Omega_c h^2$	0.11930	0.11944 ± 0.00094	$\Omega_m h^2$	0.14240	0.14253 ± 0.00090	$H(0.51)$	89.807	89.78 ± 0.22
$100\theta_{MC}$	1.041023	1.04100 ± 0.00029	$\Omega_m h^3$	0.096421	0.09642 ± 0.00030	$D_M(0.51)$	1978.7	1980.0 ± 8.6
τ	0.0580	0.0583 ± 0.0075	σ_8	0.8116	0.8115 ± 0.0059	$H(0.61)$	95.425	95.40 ± 0.18
$\ln(10^{10} A_s)$	3.0514	3.053 ± 0.015	S_8	0.8258	0.827 ± 0.010	$D_M(0.61)$	2302.6	2304.0 ± 9.2
n_s	0.96772	0.9658 ± 0.0040	$\sigma_8 \Omega_m^{0.5}$	0.4523	0.4529 ± 0.0057	$H(2.33)$	236.20	236.28 ± 0.58
$dn_s/d \ln k$	-0.0034	-0.0066 ± 0.0070	$\sigma_8 \Omega_m^{0.25}$	0.6059	0.6062 ± 0.0056	$D_M(2.33)$	5756.8	5757.8 ± 8.9
r	0.0201	$0.031^{+0.010}_{-0.028}$	$\sigma_8/h^{0.5}$	0.9863	0.9866 ± 0.0082	$f\sigma_8(0.15)$	0.4570	0.4575 ± 0.0054
y_{cal}	1.00069	1.0009 ± 0.0025	$r_{drag}h$	99.65	99.54 ± 0.73	$\sigma_8(0.15)$	0.7500	0.7498 ± 0.0054
$A_{B,dust}$	4.60	$4.86^{+0.80}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4326	2.432 ± 0.022	$f\sigma_8(0.38)$	0.47555	0.4758 ± 0.0045
$A_{B,sync}$	1.43	$1.61^{+0.51}_{-1.3}$	z_{re}	8.02	8.04 ± 0.74	$\sigma_8(0.38)$	0.66494	0.6647 ± 0.0048
$\alpha_{B,dust}$	-0.509	$-0.56^{+0.22}_{-0.32}$	$10^9 A_s$	2.1144	2.118 ± 0.032	$f\sigma_8(0.51)$	0.47425	0.4744 ± 0.0041
$\beta_{B,dust}$	1.577	1.600 ± 0.096	$10^9 A_s e^{-2\tau}$	1.8829	1.885 ± 0.011	$\sigma_8(0.51)$	0.62231	0.6220 ± 0.0045
$\alpha_{B,sync}$	-0.32	—	D_{40}	1224.9	1225 ± 19	$f\sigma_8(0.61)$	0.46934	0.4695 ± 0.0038
$\beta_{B,sync}$	-3.042	-3.10 ± 0.27	D_{220}	5734.0	5737 ± 38	$\sigma_8(0.61)$	0.59217	0.5919 ± 0.0043
$\epsilon_{dust,sync}$	-0.352	-0.36 ± 0.29	D_{810}	2542.6	2543 ± 13	$f\sigma_8(2.33)$	0.29861	0.2984 ± 0.0022
A_{217}^{CIB}	46.7	48 ± 7	D_{1420}	818.66	817.1 ± 4.9	$\sigma_8(2.33)$	0.30789	0.3077 ± 0.0024
$\xi^{tSZ \times CIB}$	0.54	—	D_{2000}	231.28	230.5 ± 1.8	$r_{0.002}$	0.0186	$0.0292^{+0.0088}_{-0.027}$
A_{143}^{tSZ}	7.12	5.3 ± 2.0	$n_{s,0.002}$	0.9786	0.987 ± 0.022	$r_{0.01}$	0.0193	$0.0297^{+0.0094}_{-0.027}$
A_{100}^{PS}	250.0	262 ± 28	Y_P	0.245430	0.245425 ± 0.000054	$\ln(10^{10} A_t)$	-0.85	$-0.73^{+1.0}_{-0.40}$
A_{143}^{PS}	49.7	48 ± 8	Y_P^{BBN}	0.246757	0.246751 ± 0.000054	r_{10}	0.0095	$0.0151^{+0.0044}_{-0.014}$
$A_{143 \times 217}^{PS}$	50.7	43 ± 9	$10^5 D/H$	2.5687	2.571 ± 0.026	$10^9 A_t$	0.0426	$0.065^{+0.021}_{-0.059}$
A_{217}^{PS}	121.1	115 ± 10	Age/Gyr	13.7823	13.785 ± 0.020	$10^9 A_t e^{-2\tau}$	0.0379	$0.058^{+0.019}_{-0.052}$
A^{kSZ}	0.00	< 4.77	z_*	1089.744	1089.77 ± 0.22	f_{2000}^{143}	28.98	30.6 ± 3.1
A_{100}^{dustTT}	8.87	8.9 ± 1.8	r_*	144.543	144.52 ± 0.23	$f_{2000}^{143 \times 217}$	32.21	33.0 ± 2.1
A_{143}^{dustTT}	11.03	10.9 ± 1.8	$100\theta_*$	1.041196	1.04118 ± 0.00029	f_{2000}^{217}	106.79	107.7 ± 2.0
$A_{143 \times 217}^{dustTT}$	20.04	18.7 ± 3.3	$D_M(z_*)/Gpc$	13.8824	13.880 ± 0.022	$\chi^2_{lensing}$	8.834	9.32 ± 0.61
A_{217}^{dustTT}	95.4	93.6 ± 7.4	z_{drag}	1060.085	1060.08 ± 0.31	$\chi^2_{BKPLANCK}$	735.47	739.8 ± 2.6
A_{100}^{dustTE}	0.1137	0.115 ± 0.038	r_{drag}	147.177	147.15 ± 0.24	χ^2_{small}	396.79	397.7 ± 2.1
$A_{100 \times 143}^{dustTE}$	0.1349	0.135 ± 0.030	k_D	0.140848	0.14087 ± 0.00030	χ^2_{lowl}	22.64	22.8 ± 1.7
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085	$100\theta_D$	0.160670	0.16068 ± 0.00018	χ^2_{plik}	2345.2	2360.2 ± 5.8
A_{143}^{dustTE}	0.225	0.225 ± 0.054	z_{eq}	3387.6	3391 ± 22	χ^2_{6DF}	0.0292	0.060 ± 0.065
$A_{143 \times 217}^{dustTE}$	0.664	0.663 ± 0.080	k_{eq}	0.010339	0.010349 ± 0.000066	χ^2_{MGS}	1.217	1.21 ± 0.39
A_{217}^{dustTE}	2.077	2.07 ± 0.27	$100\theta_{eq}$	0.81624	0.8157 ± 0.0040	$\chi^2_{DR12BAO}$	4.43	5.0 ± 1.4
c_{100}	0.99972	0.99969 ± 0.00062	$100\theta_{s,eq}$	0.45085	0.4506 ± 0.0021	χ^2_{prior}	1.73	13.2 ± 4.9
c_{217}	0.99820	0.99822 ± 0.00062	$H(0.15)$	72.986	72.93 ± 0.37	χ^2_{CMB}	3508.9	3529.8 ± 6.4
H_0	67.709	67.65 ± 0.42	$D_M(0.15)$	640.34	640.9 ± 3.6	χ^2_{BAO}	5.68	6.2 ± 1.1
Ω_Λ	0.6894	0.6885 ± 0.0057	$H(0.38)$	83.092	83.05 ± 0.27			

Best-fit $\chi^2_{eff} = 3516.32$; $\bar{\chi}^2_{eff} = 3549.29$; $R - 1 = 0.00618$
 χ^2_{eff} : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.43 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.83 BK15_dust: 735.47 simall_100x143_offlike5_EE_Aplanck_B: 396.79 commander_dx12_v3_2_29: 22.64 plik_rd12_HM_v22b_TTTEE: 2345.18

15.59 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02240 ± 0.00015	Ω_Λ	0.6840 ± 0.0074	$D_M(0.15)$	643.7 ± 4.6
$\Omega_c h^2$	0.1202 ± 0.0012	Ω_m	0.3160 ± 0.0074	$H(0.38)$	82.86 ± 0.33
$100\theta_{MC}$	1.04091 ± 0.00030	$\Omega_m h^2$	0.1432 ± 0.0011	$D_M(0.38)$	1534.0 ± 9.2
τ	$0.0568^{+0.0059}_{-0.0081}$	$\Omega_m h^3$	0.09640 ± 0.00030	$H(0.51)$	89.63 ± 0.27
$\ln(10^{10} A_s)$	$3.051^{+0.012}_{-0.016}$	σ_8	0.8127 ± 0.0057	$D_M(0.51)$	1986 ± 11
n_s	0.9640 ± 0.0044	S_8	0.834 ± 0.013	$H(0.61)$	95.29 ± 0.22
$dn_s/d \ln k$	-0.0069 ± 0.0069	$\sigma_8 \Omega_m^{0.5}$	0.4568 ± 0.0069	$D_M(0.61)$	2311 ± 12
r	$0.0300^{+0.0093}_{-0.028}$	$\sigma_8 \Omega_m^{0.25}$	0.6093 ± 0.0063	$H(2.33)$	236.69 ± 0.71
y_{cal}	1.0008 ± 0.0025	$\sigma_8/h^{0.5}$	0.9905 ± 0.0088	$D_M(2.33)$	5763 ± 10
$A_{B,dust}$	$4.85^{+0.80}_{-1.2}$	$r_{drag} h$	98.98 ± 0.92	$f\sigma_8(0.15)$	0.4611 ± 0.0064
$A_{B,sync}$	$1.62^{+0.52}_{-1.3}$	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.023	$\sigma_8(0.15)$	$0.7505^{+0.0047}_{-0.0054}$
$\alpha_{B,dust}$	$-0.56^{+0.22}_{-0.32}$	z_{re}	$7.91^{+0.63}_{-0.77}$	$f\sigma_8(0.38)$	0.4784 ± 0.0051
$\beta_{B,dust}$	1.600 ± 0.096	$10^9 A_s$	$2.114^{+0.026}_{-0.034}$	$\sigma_8(0.38)$	$0.6648^{+0.0040}_{-0.0048}$
$\alpha_{B,sync}$	—	$10^9 A_s e^{-2\tau}$	1.887 ± 0.011	$f\sigma_8(0.51)$	0.4765 ± 0.0045
$\beta_{B,sync}$	-3.10 ± 0.27	D_{40}	1227 ± 19	$\sigma_8(0.51)$	$0.6219^{+0.0038}_{-0.0045}$
$\epsilon_{dust,sync}$	-0.36 ± 0.28	D_{220}	5731 ± 39	$f\sigma_8(0.61)$	0.4711 ± 0.0040
A_{217}^{CIB}	48 ± 7	D_{810}	2542 ± 13	$\sigma_8(0.61)$	$0.5917^{+0.0036}_{-0.0044}$
$\xi^{tSZ \times CIB}$	—	D_{1420}	816.2 ± 5.0	$f\sigma_8(2.33)$	$0.2981^{+0.0018}_{-0.0023}$
A_{143}^{tSZ}	5.2 ± 2.0	D_{2000}	230.1 ± 1.8	$\sigma_8(2.33)$	$0.3072^{+0.0020}_{-0.0025}$
A_{100}^{PS}	263 ± 28	$n_{s,0.002}$	0.986 ± 0.021	$r_{0.002}$	$0.0283^{+0.0079}_{-0.027}$
A_{143}^{PS}	48 ± 8	Y_P	$0.245405^{+0.000061}_{-0.000054}$	$r_{0.01}$	$0.0289^{+0.0086}_{-0.027}$
$A_{143 \times 217}^{PS}$	43 ± 9	Y_P^{BBN}	$0.246732^{+0.000061}_{-0.000054}$	$\ln(10^{10} A_t)$	$-0.76^{+1.0}_{-0.40}$
A_{217}^{PS}	115 ± 10	$10^5 D/H$	2.580 ± 0.028	r_{10}	$0.0147^{+0.0040}_{-0.014}$
A^{kSZ}	< 4.93	Age/Gyr	13.795 ± 0.023	$10^9 A_t$	$0.064^{+0.020}_{-0.059}$
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1089.90 ± 0.26	$10^9 A_t e^{-2\tau}$	$0.057^{+0.018}_{-0.052}$
A_{143}^{dustTT}	11.0 ± 1.8	r_*	144.37 ± 0.27	f_{2000}^{143}	$9.57^{+0.24}_{-0.86}$
$A_{143 \times 217}^{dustTT}$	18.7 ± 3.3	$100\theta_*$	1.04109 ± 0.00030	$f_{2000}^{143 \times 217}$	$739.6^{+1.3}_{-3.1}$
A_{217}^{dustTT}	93.5 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.867 ± 0.025	f_{2000}^{217}	$397.317^{+0.099}_{-1.6}$
A_{100}^{dustTE}	0.115 ± 0.038	z_{drag}	1060.02 ± 0.31	$\chi^2_{lensing}$	23.0 ± 1.7
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029	r_{drag}	147.02 ± 0.27	$\chi^2_{BKPLANCK}$	2360.2 ± 5.8
$A_{100 \times 217}^{dustTE}$	0.480 ± 0.085	k_D	0.14097 ± 0.00032	χ^2_{small}	13.2 ± 4.8
A_{143}^{dustTE}	0.225 ± 0.054	$100\theta_D$	0.16071 ± 0.00018	χ^2_{lowl}	31.0 ± 3.1
$A_{143 \times 217}^{dustTE}$	0.664 ± 0.080	z_{eq}	3407 ± 27	χ^2_{plik}	33.3 ± 2.2
A_{217}^{dustTE}	2.08 ± 0.27	k_{eq}	0.010397 ± 0.000082	χ^2_{prior}	107.9 ± 2.0
c_{100}	0.99968 ± 0.00061	$100\theta_{eq}$	0.8126 ± 0.0050	χ^2_{CMB}	3529.6 ± 6.5
c_{217}	0.99822 ± 0.00062	$100\theta_{s,eq}$	0.4490 ± 0.0026		
H_0	67.32 ± 0.53	$H(0.15)$	72.66 ± 0.46		

$\bar{\chi}^2_{eff} = 3542.82$; $R - 1 = 0.00386$

15.60 base_nrun_r_plikHM_TTTEE_lowl_lowE_BK15_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02245 ± 0.00014	Ω_m	0.3115 ± 0.0057	$D_M(0.38)$	1528.4 ± 7.2
$\Omega_c h^2$	0.11943 ± 0.00094	$\Omega_m h^2$	0.14252 ± 0.00090	$H(0.51)$	89.78 ± 0.22
$100\theta_{MC}$	1.04100 ± 0.00029	$\Omega_m h^3$	0.09642 ± 0.00030	$D_M(0.51)$	1979.9 ± 8.5
τ	$0.0586^{+0.0065}_{-0.0078}$	σ_8	$0.8117^{+0.0053}_{-0.0061}$	$H(0.61)$	95.40 ± 0.18
$\ln(10^{10} A_s)$	$3.054^{+0.013}_{-0.016}$	S_8	0.827 ± 0.010	$D_M(0.61)$	2303.9 ± 9.2
n_s	0.9658 ± 0.0040	$\sigma_8 \Omega_m^{0.5}$	0.4530 ± 0.0057	$H(2.33)$	236.27 ± 0.58
$dn_s/d \ln k$	-0.0067 ± 0.0070	$\sigma_8 \Omega_m^{0.25}$	0.6064 ± 0.0055	$D_M(2.33)$	5757.7 ± 8.9
r	$0.031^{+0.010}_{-0.028}$	$\sigma_8/h^{0.5}$	0.9869 ± 0.0081	$f\sigma_8(0.15)$	0.4576 ± 0.0053
y_{cal}	1.0009 ± 0.0025	$r_{drag} h$	99.55 ± 0.72	$\sigma_8(0.15)$	$0.7501^{+0.0048}_{-0.0055}$
$A_{B,dust}$	$4.86^{+0.80}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.021	$f\sigma_8(0.38)$	0.4760 ± 0.0045
$A_{B,sync}$	$1.61^{+0.51}_{-1.3}$	z_{re}	8.07 ± 0.70	$\sigma_8(0.38)$	$0.6649^{+0.0042}_{-0.0049}$
$\alpha_{B,dust}$	$-0.56^{+0.22}_{-0.32}$	$10^9 A_s$	$2.119^{+0.028}_{-0.034}$	$f\sigma_8(0.51)$	0.4746 ± 0.0040
$\beta_{B,dust}$	1.600 ± 0.096	$10^9 A_s e^{-2\tau}$	1.885 ± 0.011	$\sigma_8(0.51)$	$0.6222^{+0.0039}_{-0.0046}$
$\alpha_{B,sync}$	—	D_{40}	1225 ± 19	$f\sigma_8(0.61)$	0.4696 ± 0.0038
$\beta_{B,sync}$	-3.10 ± 0.27	D_{220}	5737 ± 38	$\sigma_8(0.61)$	$0.5921^{+0.0037}_{-0.0044}$
$\epsilon_{dust,sync}$	-0.36 ± 0.29	D_{810}	2543 ± 13	$f\sigma_8(2.33)$	$0.2985^{+0.0019}_{-0.0023}$
A_{217}^{CIB}	48 ± 7	D_{1420}	817.0 ± 4.9	$\sigma_8(2.33)$	$0.3078^{+0.0021}_{-0.0024}$
$\xi^{tSZ \times CIB}$	—	D_{2000}	230.5 ± 1.8	$r_{0.002}$	$0.0292^{+0.0088}_{-0.027}$
A_{143}^{tSZ}	5.3 ± 2.0	$n_{s,0.002}$	0.987 ± 0.022	$r_{0.01}$	$0.0297^{+0.0095}_{-0.027}$
A_{100}^{PS}	262 ± 28	Y_P	0.245425 ± 0.000054	$\ln(10^{10} A_t)$	$-0.73^{+1.0}_{-0.41}$
A_{143}^{PS}	48 ± 8	Y_P^{BBN}	0.246752 ± 0.000054	r_{10}	$0.0151^{+0.0044}_{-0.014}$
$A_{143 \times 217}^{PS}$	43 ± 9	$10^5 D/H$	2.571 ± 0.026	$10^9 A_t$	$0.065^{+0.021}_{-0.059}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.784 ± 0.020	$10^9 A_t e^{-2\tau}$	$0.058^{+0.019}_{-0.052}$
A^{kSZ}	< 4.77	z_*	1089.77 ± 0.22	f_{2000}^{143}	30.6 ± 3.1
A_{100}^{dustTT}	8.9 ± 1.8	r_*	144.52 ± 0.23	$f_{2000}^{143 \times 217}$	33.0 ± 2.1
A_{143}^{dustTT}	10.9 ± 1.8	$100\theta_*$	1.04118 ± 0.00029	f_{2000}^{217}	107.7 ± 2.0
$A_{143 \times 217}^{dustTT}$	18.7 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.880 ± 0.022	$\chi_{lensing}^2$	9.31 ± 0.59
A_{217}^{dustTT}	93.5 ± 7.4	z_{drag}	1060.08 ± 0.31	$\chi_{BKPLANCK}^2$	739.8 ± 2.6
A_{100}^{dustTE}	0.115 ± 0.038	r_{drag}	147.15 ± 0.24	χ_{small}^2	397.7 ± 2.1
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.030	k_D	0.14086 ± 0.00030	χ_{lowl}^2	22.8 ± 1.7
$A_{100 \times 217}^{dustTE}$	0.481 ± 0.085	$100\theta_D$	0.16068 ± 0.00018	χ_{plik}^2	2360.1 ± 5.8
A_{143}^{dustTE}	0.225 ± 0.054	z_{eq}	3390 ± 21	χ_{6DF}^2	0.059 ± 0.064
$A_{143 \times 217}^{dustTE}$	0.663 ± 0.079	k_{eq}	0.010348 ± 0.000065	χ_{MGS}^2	1.21 ± 0.39
A_{217}^{dustTE}	2.07 ± 0.27	$100\theta_{eq}$	0.8157 ± 0.0040	$\chi_{DR12BAO}^2$	5.0 ± 1.4
c_{100}	0.99968 ± 0.00062	$100\theta_{s,eq}$	0.4506 ± 0.0021	χ_{prior}^2	13.2 ± 4.9
c_{217}	0.99822 ± 0.00062	$H(0.15)$	72.94 ± 0.36	χ_{CMB}^2	3529.7 ± 6.4
H_0	67.65 ± 0.42	$D_M(0.15)$	640.8 ± 3.6	χ_{BAO}^2	6.2 ± 1.1
Ω_Λ	0.6885 ± 0.0057	$H(0.38)$	83.06 ± 0.27		

$$\bar{\chi}_{eff}^2 = 3549.18; R - 1 = 0.00588$$

16 omegak

16.1 base_omegak_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022613	0.02255 ± 0.00026 (+2.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.5525	0.552 ± 0.033 (+7.0 σ)	$100\theta_{s,eq}$	0.4557	0.4554 ± 0.0051 (+1.6 σ)
$\Omega_c h^2$	0.11712	0.1173 ± 0.0023 (-1.6 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6506	$0.649^{+0.016}_{-0.014}$ (+3.3 σ)	$H(0.15)$	58.15	58.4 ± 4.0 (-17.7 σ)
$100\theta_{MC}$	1.04130	1.04126 ± 0.00051 (+1.1 σ)	$\sigma_8/h^{0.5}$	1.0629	$1.061^{+0.025}_{-0.022}$ (+4.2 σ)	$D_M(0.15)$	819	820^{+55}_{-67} (+21.7 σ)
τ	0.0493	$0.0485^{+0.0087}_{-0.0077}$ (-0.5 σ)	$r_{drag}h$	76.7	77.1 ± 6.4 (-13.3 σ)	$H(0.38)$	69.65	$69.9^{+3.3}_{-3.8}$ (-22.4 σ)
Ω_K	-0.0549	$-0.056^{+0.028}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.678	2.679 ± 0.082 (+6.0 σ)	$D_M(0.38)$	1902	1902^{+120}_{-130} (+22.8 σ)
$\ln(10^{10} A_s)$	3.0275	$3.026^{+0.019}_{-0.016}$ (-0.9 σ)	z_{re}	6.91	$6.82^{+0.96}_{-0.75}$ (-0.8 σ)	$H(0.51)$	77.07	$77.3^{+3.1}_{-3.6}$ (-27.2 σ)
n_s	0.9744	0.9720 ± 0.0064 (+1.7 σ)	$10^9 A_s$	2.0645	$2.061^{+0.038}_{-0.033}$ (-0.9 σ)	$D_M(0.51)$	2432	2431^{+140}_{-160} (+23.6 σ)
y_{cal}	0.99993	1.0000 ± 0.0025 (-0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8706	1.871 ± 0.014 (-1.0 σ)	$H(0.61)$	83.18	$83.5^{+3.0}_{-3.4}$ (-32.8 σ)
A_{217}^{CIB}	42.4	45 ± 7 (-0.4 σ)	D_{40}	1197.5	1203 ± 17 (-2.0 σ)	$D_M(0.61)$	2805	2803^{+150}_{-170} (+24.3 σ)
$\xi^{tSZ \times CIB}$	0.999	> 0.414 (+0.2 σ)	D_{220}	5740.4	5745 ± 42 (+0.8 σ)	$H(2.33)$	227.33	227.6 ± 3.0 (-7.2 σ)
A_{143}^{tSZ}	6.81	$5.6^{+2.1}_{-1.8}$ (+0.2 σ)	D_{810}	2531.7	2529 ± 14 (-0.5 σ)	$D_M(2.33)$	6471	6463 ± 220 (+42.1 σ)
A_{100}^{PS}	236.1	250 ± 30 (-0.5 σ)	D_{1420}	815.7	813.7 ± 5.1 (-0.1 σ)	$f\sigma_8(0.15)$	0.5388	0.537 ± 0.024 (+6.1 σ)
A_{143}^{PS}	48.6	42 ± 8 (-0.9 σ)	D_{2000}	233.29	232.3 ± 2.0 (+1.6 σ)	$\sigma_8(0.15)$	0.6909	$0.690^{+0.024}_{-0.020}$ (-7.9 σ)
$A_{143 \times 217}^{PS}$	56.2	40 ± 9 (-0.4 σ)	$n_{s,0.002}$	0.9744	0.9720 ± 0.0064 (+1.7 σ)	$f\sigma_8(0.38)$	0.5139	$0.512^{+0.011}_{-0.0080}$ (+3.4 σ)
A_{217}^{PS}	122.6	114 ± 10 (-0.1 σ)	Y_P	0.245485	0.24546 ± 0.00011 (+1.8 σ)	$\sigma_8(0.38)$	0.5949	$0.594^{+0.026}_{-0.022}$ (-11.4 σ)
A^{kSZ}	0.00	< 3.46 (-0.4 σ)	Y_P^{BBN}	0.246811	0.24679 ± 0.00011 (+1.8 σ)	$f\sigma_8(0.51)$	0.4928	$0.4908^{+0.0071}_{-0.0062}$ (+1.7 σ)
A_{100}^{dustTT}	8.96	9.0 ± 1.8 (+0.0 σ)	$10^5 D/H$	2.5421	2.554 ± 0.048 (-1.9 σ)	$\sigma_8(0.51)$	0.5497	$0.550^{+0.026}_{-0.023}$ (-12.9 σ)
A_{143}^{dustTT}	10.62	10.5 ± 1.8 (-0.1 σ)	Age/Gyr	15.64	15.62 ± 0.60 (+49.1 σ)	$f\sigma_8(0.61)$	0.4753	$0.4735^{+0.0074}_{-0.0061}$ (+0.3 σ)
$A_{143 \times 217}^{dustTT}$	19.81	18.0 ± 3.2 (-0.1 σ)	z_*	1089.364	1089.46 ± 0.48 (-2.1 σ)	$\sigma_8(0.61)$	0.5188	$0.519^{+0.026}_{-0.023}$ (-13.9 σ)
A_{217}^{dustTT}	96.1	93.7 ± 7.3 (+0.1 σ)	r_*	144.996	145.00 ± 0.50 (+1.1 σ)	$f\sigma_8(2.33)$	0.2572	$0.257^{+0.014}_{-0.013}$ (-15.7 σ)
c_{100}	0.99971	0.99963 ± 0.00062 (+0.0 σ)	$100\theta_*$	1.041455	1.04143 ± 0.00049 (+1.0 σ)	$\sigma_8(2.33)$	0.2561	0.257 ± 0.016 (-18.5 σ)
c_{217}	0.99815	0.99818 ± 0.00062 (-0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9225	13.923 ± 0.046 (+1.0 σ)	f_{2000}^{143}	25.17	27 ± 3 (-1.5 σ)
H_0	51.94	52.2 ± 4.3 (-16.0 σ)	z_{drag}	1060.276	1060.16 ± 0.52 (+1.7 σ)	$f_{2000}^{143 \times 217}$	29.14	29.9 ± 2.3 (-1.8 σ)
Ω_Λ	0.535	$0.531^{+0.069}_{-0.049}$ (-11.4 σ)	r_{drag}	147.590	147.61 ± 0.49 (+0.8 σ)	f_{2000}^{217}	103.80	104.9 ± 2.2 (-1.7 σ)
Ω_m	0.520	$0.526^{+0.067}_{-0.096}$ (+15.7 σ)	k_D	0.14052	0.14045 ± 0.00051 (-0.2 σ)	χ_{small}^2	395.52	396.8 ± 1.7 (-0.1 σ)
$\Omega_m h^2$	0.14037	0.1405 ± 0.0021 (-1.5 σ)	$100\theta_D$	0.160580	0.16066 ± 0.00029 (-1.6 σ)	χ_{lowl}^2	20.969	21.39 ± 0.70 (-1.9 σ)
$\Omega_m h^3$	0.0729	0.0734 ± 0.0066 (-49.3 σ)	z_{eq}	3339	3342 ± 51 (-1.5 σ)	χ_{plik}^2	752.3	766.6 ± 5.4 (-0.9 σ)
σ_8	0.7660	$0.765^{+0.021}_{-0.017}$ (-5.2 σ)	k_{eq}	0.010191	0.01020 ± 0.00016 (-1.5 σ)	χ_{prior}^2	1.00	7.1 ± 3.5 (-0.1 σ)
S_8	1.009	1.008 ± 0.061 (+7.0 σ)	$100\theta_{eq}$	0.8257	0.825 ± 0.010 (+1.6 σ)	χ_{CMB}^2	1168.8	1184.8 ± 5.7 (-1.4 σ)

Best-fit $\chi_{eff}^2 = 1169.83$; $\Delta\chi_{eff}^2 = -9.74$; $\bar{\chi}_{eff}^2 = 1191.91$; $\Delta\bar{\chi}_{eff}^2 = -7.67$; $R - 1 = 0.01634$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.52 (Δ -0.35) commander_dx12_v3.2.29: 20.97 (Δ -2.63) plik_rd12_HM_v22.TT: 752.34 (Δ -6.41)

16.2 base_omegak_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02255 \pm 0.00026 \quad (+1.9\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.549 \pm 0.033 \quad (+6.8\sigma)$	$100\theta_{s,eq}$	$0.4555 \pm 0.0051 \quad (+1.5\sigma)$
$\Omega_c h^2$	$0.1173 \pm 0.0023 \quad (-1.6\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.650 \pm 0.015 \quad (+3.3\sigma)$	$H(0.15)$	$59.0 \pm 3.9 \quad (-17.1\sigma)$
$100\theta_{MC}$	$1.04126 \pm 0.00051 \quad (+1.0\sigma)$	$\sigma_8/h^{0.5}$	$1.062^{+0.025}_{-0.022} \quad (+4.3\sigma)$	$D_M(0.15)$	$811^{+54}_{-63} \quad (+20.7\sigma)$
τ	$0.0531^{+0.0033}_{-0.0069} \quad (-0.1\sigma)$	$r_{drag} h$	$77.9 \pm 6.2 \quad (-12.8\sigma)$	$H(0.38)$	$70.4^{+3.2}_{-3.7} \quad (-21.6\sigma)$
Ω_K	$-0.053^{+0.026}_{-0.017}$	$\langle d^2 \rangle^{1/2}$	$2.678 \pm 0.081 \quad (+6.0\sigma)$	$D_M(0.38)$	$1885 \pm 120 \quad (+21.8\sigma)$
$\ln(10^{10} A_s)$	$3.0350^{+0.0096}_{-0.014} \quad (-0.6\sigma)$	z_{re}	$< 7.52 \quad (-0.5\sigma)$	$H(0.51)$	$77.8^{+3.0}_{-3.5} \quad (-26.2\sigma)$
n_s	$0.9722 \pm 0.0065 \quad (+1.7\sigma)$	$10^9 A_s$	$2.080^{+0.020}_{-0.029} \quad (-0.6\sigma)$	$D_M(0.51)$	$2411 \pm 140 \quad (+22.6\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.871 \pm 0.014 \quad (-1.0\sigma)$	$H(0.61)$	$83.9^{+2.9}_{-3.4} \quad (-31.7\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.4\sigma)$	D_{40}	$1204 \pm 17 \quad (-2.0\sigma)$	$D_M(0.61)$	$2781 \pm 160 \quad (+23.2\sigma)$
$\xi^{tSZ \times CIB}$	$> 0.423 \quad (+0.2\sigma)$	D_{220}	$5744 \pm 42 \quad (+0.7\sigma)$	$H(2.33)$	$227.8 \pm 3.0 \quad (-7.0\sigma)$
A_{143}^{tSZ}	$5.6 \pm 1.9 \quad (+0.2\sigma)$	D_{810}	$2529 \pm 14 \quad (-0.5\sigma)$	$D_M(2.33)$	$6435 \pm 210 \quad (+40.3\sigma)$
A_{100}^{PS}	$250 \pm 30 \quad (-0.5\sigma)$	D_{1420}	$813.8 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.536 \pm 0.024 \quad (+5.9\sigma)$
A_{143}^{PS}	$42 \pm 8 \quad (-0.9\sigma)$	D_{2000}	$232.4 \pm 2.0 \quad (+1.5\sigma)$	$\sigma_8(0.15)$	$0.696^{+0.022}_{-0.019} \quad (-7.8\sigma)$
$A_{143 \times 217}^{PS}$	$40 \pm 9 \quad (-0.3\sigma)$	$n_{s,0.002}$	$0.9722 \pm 0.0065 \quad (+1.7\sigma)$	$f\sigma_8(0.38)$	$0.513^{+0.011}_{-0.0080} \quad (+3.4\sigma)$
A_{217}^{PS}	$114.1 \pm 9.9 \quad (-0.1\sigma)$	Y_P	$0.24546 \pm 0.00011 \quad (+1.8\sigma)$	$\sigma_8(0.38)$	$0.600 \pm 0.023 \quad (-11.7\sigma)$
A^{kSZ}	$< 3.45 \quad (-0.4\sigma)$	Y_P^{BBN}	$0.24679 \pm 0.00011 \quad (+1.8\sigma)$	$f\sigma_8(0.51)$	$0.4926 \pm 0.0063 \quad (+1.8\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.554 \pm 0.048 \quad (-1.9\sigma)$	$\sigma_8(0.51)$	$0.555 \pm 0.023 \quad (-13.5\sigma)$
A_{143}^{dustTT}	$10.5 \pm 1.8 \quad (-0.1\sigma)$	Age/Gyr	$15.55 \pm 0.58 \quad (+47.0\sigma)$	$f\sigma_8(0.61)$	$0.4757 \pm 0.0061 \quad (+0.5\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.0 \pm 3.2 \quad (-0.1\sigma)$	z_*	$1089.46 \pm 0.47 \quad (-2.0\sigma)$	$\sigma_8(0.61)$	$0.524 \pm 0.023 \quad (-14.6\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (+0.1\sigma)$	r_*	$145.01 \pm 0.50 \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.260 \pm 0.013 \quad (-16.9\sigma)$
c_{100}	$0.99963 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_*$	$1.04143 \pm 0.00050 \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.260 \pm 0.015 \quad (-20.1\sigma)$
c_{217}	$0.99817 \pm 0.00062 \quad (-0.1\sigma)$	$D_M(z_*)/Gpc$	$13.924 \pm 0.046 \quad (+1.0\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.5\sigma)$
H_0	$52.8 \pm 4.2 \quad (-15.4\sigma)$	z_{drag}	$1060.15 \pm 0.52 \quad (+1.6\sigma)$	$f_{2000}^{143 \times 217}$	$29.9 \pm 2.4 \quad (-1.8\sigma)$
Ω_Λ	$0.540^{+0.064}_{-0.048} \quad (-10.7\sigma)$	r_{drag}	$147.62 \pm 0.48 \quad (+0.8\sigma)$	f_{2000}^{217}	$104.9 \pm 2.2 \quad (-1.7\sigma)$
Ω_m	$0.513^{+0.065}_{-0.089} \quad (+14.8\sigma)$	k_D	$0.14044 \pm 0.00051 \quad (-0.2\sigma)$	χ_{small}^2	$396.4 \pm 1.3 \quad (-0.3\sigma)$
$\Omega_m h^2$	$0.1405 \pm 0.0021 \quad (-1.5\sigma)$	$100\theta_D$	$0.16066 \pm 0.00029 \quad (-1.5\sigma)$	χ_{lowl}^2	$21.39 \pm 0.73 \quad (-1.9\sigma)$
$\Omega_m h^3$	$0.0742 \pm 0.0064 \quad (-47.2\sigma)$	z_{eq}	$3341 \pm 51 \quad (-1.5\sigma)$	χ_{plik}^2	$766.6 \pm 5.5 \quad (-0.9\sigma)$
σ_8	$0.770^{+0.018}_{-0.016} \quad (-5.0\sigma)$	k_{eq}	$0.01020 \pm 0.00016 \quad (-1.5\sigma)$	χ_{prior}^2	$7.1 \pm 3.5 \quad (-0.1\sigma)$
S_8	$1.003 \pm 0.060 \quad (+6.8\sigma)$	$100\theta_{eq}$	$0.825 \pm 0.010 \quad (+1.6\sigma)$	χ_{CMB}^2	$1184.4 \pm 5.7 \quad (-1.4\sigma)$

$\bar{\chi}_{eff}^2 = 1191.43$; $\Delta\bar{\chi}_{eff}^2 = -7.88$; $R - 1 = 0.01578$

16.3 base_omegak_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022632	0.02260 ± 0.00017 (+1.6 σ)	$\Omega_{\text{m}}h^2$	0.14120	0.1413 ± 0.0014 (−1.5 σ)	k_{eq}	0.010251	0.01026 ± 0.00010 (−1.5 σ)
$\Omega_{\text{c}}h^2$	0.11792	0.1181 ± 0.0015 (−1.5 σ)	$\Omega_{\text{m}}h^3$	0.0764	$0.0769^{+0.0048}_{-0.0059}$ (−67.3 σ)	$100\theta_{\text{eq}}$	0.8221	0.8214 ± 0.0065 (+1.5 σ)
$100\theta_{\text{MC}}$	1.041187	1.04116 ± 0.00033 (+0.8 σ)	σ_8	0.7750	0.774 ± 0.015 (−5.1 σ)	$100\theta_{\text{s,eq}}$	0.45376	0.4534 ± 0.0033 (+1.5 σ)
τ	0.0495	0.0486 ± 0.0082 (−0.7 σ)	S_8	0.9830	0.981 ± 0.049 (+9.2 σ)	$H(0.15)$	60.17	$60.4^{+3.0}_{-3.7}$ (−23.6 σ)
Ω_K	−0.0438	$-0.044^{+0.018}_{-0.015}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.5384	0.537 ± 0.027 (+9.2 σ)	$D_{\text{M}}(0.15)$	789.0	788 ± 48 (+27.8 σ)
$\ln(10^{10}A_{\text{s}})$	3.0304	3.028 ± 0.017 (−1.0 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6460	$0.645^{+0.013}_{-0.011}$ (+4.4 σ)	$H(0.38)$	71.48	$71.8^{+2.6}_{-3.3}$ (−29.6 σ)
n_{s}	0.97235	0.9706 ± 0.0048 (+1.3 σ)	$\sigma_8/h^{0.5}$	1.0538	$1.051^{+0.021}_{-0.018}$ (+5.3 σ)	$D_{\text{M}}(0.38)$	1841	1838 ± 99 (+29.3 σ)
y_{cal}	1.00012	0.9999 ± 0.0025 (−0.2 σ)	$r_{\text{drag}}h$	79.7	$80.1^{+4.8}_{-5.8}$ (−17.9 σ)	$H(0.51)$	78.82	$79.1^{+2.5}_{-3.1}$ (−35.7 σ)
A_{217}^{CIB}	42.1	45 ± 7 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.646	2.643 ± 0.065 (+7.1 σ)	$D_{\text{M}}(0.51)$	2358	2355 ± 120 (+30.3 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.9999	> 0.440 (+0.2 σ)	z_{re}	6.96	$6.86^{+0.90}_{-0.75}$ (−1.0 σ)	$H(0.61)$	84.88	$85.2^{+2.4}_{-3.0}$ (−42.9 σ)
A_{143}^{tSZ}	6.82	$5.8^{+2.0}_{-1.8}$ (+0.1 σ)	$10^9 A_{\text{s}}$	2.0706	2.066 ± 0.036 (−1.0 σ)	$D_{\text{M}}(0.61)$	2723	2719 ± 130 (+31.2 σ)
A_{100}^{PS}	237.7	248 ± 30 (−0.4 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8754	1.875 ± 0.012 (−0.8 σ)	$H(2.33)$	228.92	$229.2^{+2.0}_{-2.4}$ (−9.2 σ)
A_{143}^{PS}	48.5	41 ± 8 (−0.6 σ)	D_{40}	1204.9	1208 ± 14 (−1.9 σ)	$D_{\text{M}}(2.33)$	6357	6346^{+190}_{-170} (+54.0 σ)
$A_{143 \times 217}^{\text{PS}}$	56.4	41 ± 9 (−0.1 σ)	D_{220}	5747.6	5748 ± 39 (+0.5 σ)	$f\sigma_8(0.15)$	0.5285	$0.527^{+0.022}_{-0.018}$ (+8.1 σ)
A_{217}^{PS}	123.6	115.5 ± 9.7 (+0.0 σ)	D_{810}	2535.4	2532 ± 14 (−0.5 σ)	$\sigma_8(0.15)$	0.7017	0.701 ± 0.018 (−7.5 σ)
A^{kSZ}	0.00	< 3.05 (−0.3 σ)	D_{1420}	816.95	815.2 ± 4.7 (−0.4 σ)	$f\sigma_8(0.38)$	0.5110	$0.5092^{+0.0098}_{-0.0068}$ (+4.7 σ)
A_{100}^{dustTT}	8.77	8.9 ± 1.8 (+0.0 σ)	D_{2000}	233.33	232.5 ± 1.7 (+1.0 σ)	$\sigma_8(0.38)$	0.6069	0.607 ± 0.020 (−10.4 σ)
A_{143}^{dustTT}	10.68	10.6 ± 1.8 (−0.1 σ)	$n_{\text{s},0.002}$	0.97235	0.9706 ± 0.0048 (+1.3 σ)	$f\sigma_8(0.51)$	0.4928	$0.4912^{+0.0057}_{-0.0047}$ (+2.6 σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.69	18.1 ± 3.2 (−0.1 σ)	Y_{P}	0.245491	$0.245481^{+0.000059}_{-0.000066}$ (+1.6 σ)	$\sigma_8(0.51)$	0.5619	0.562 ± 0.020 (−11.7 σ)
A_{217}^{dustTT}	95.6	93.6 ± 7.2 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246818	$0.246808^{+0.000059}_{-0.000066}$ (+1.6 σ)	$f\sigma_8(0.61)$	0.47707	$0.4757^{+0.0052}_{-0.0047}$ (+0.9 σ)
A_{100}^{dustTE}	0.1138	0.114 ± 0.038 (−0.0 σ)	10^5D/H	2.5387	2.545 ± 0.031 (−1.6 σ)	$\sigma_8(0.61)$	0.5309	0.531 ± 0.020 (−12.5 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1349	0.134 ± 0.030 (−0.0 σ)	Age/Gyr	15.331	15.31 ± 0.47 (+62.8 σ)	$f\sigma_8(2.33)$	0.2638	0.264 ± 0.011 (−13.9 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.479 ± 0.085 (−0.0 σ)	z_*	1089.411	1089.47 ± 0.31 (−1.8 σ)	$\sigma_8(2.33)$	0.2639	0.264 ± 0.013 (−16.6 σ)
A_{143}^{dustTE}	0.223	0.223 ± 0.053 (−0.1 σ)	r_*	144.771	144.75 ± 0.32 (+1.2 σ)	f_{2000}^{143}	25.11	26 ± 3 (−1.2 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.661 ± 0.079 (−0.1 σ)	$100\theta_*$	1.041338	1.04132 ± 0.00032 (+0.8 σ)	$f_{2000}^{143 \times 217}$	29.16	29.6 ± 2.1 (−1.4 σ)
A_{217}^{dustTE}	2.055	2.06 ± 0.27 (−0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9024	13.901 ± 0.029 (+1.1 σ)	f_{2000}^{217}	103.94	104.7 ± 1.9 (−1.3 σ)
c_{100}	0.99977	0.99970 ± 0.00061 (+0.1 σ)	z_{drag}	1060.390	1060.33 ± 0.33 (+1.3 σ)	χ_{small}^2	395.55	396.7 ± 1.6 (−0.2 σ)
c_{217}	0.99808	0.99812 ± 0.00062 (−0.1 σ)	r_{drag}	147.353	147.35 ± 0.30 (+1.0 σ)	χ_{lowl}^2	21.16	21.51 ± 0.63 (−2.1 σ)
H_0	54.09	$54.4^{+3.3}_{-4.0}$ (−21.4 σ)	k_{D}	0.140786	0.14077 ± 0.00031 (−0.4 σ)	χ_{plik}^2	2336.5	2353.2 ± 5.7 (−1.1 σ)
Ω_{Λ}	0.5611	$0.560^{+0.050}_{-0.043}$ (−14.7 σ)	$100\theta_{\text{D}}$	0.160509	0.16055 ± 0.00019 (−1.2 σ)	χ_{prior}^2	1.27	11.2 ± 4.4 (−0.1 σ)
Ω_{m}	0.483	$0.485^{+0.058}_{-0.068}$ (+19.9 σ)	z_{eq}	3358.8	3362 ± 33 (−1.5 σ)	χ_{CMB}^2	2753.2	2771.4 ± 5.9 (−1.5 σ)

Best-fit $\chi_{\text{eff}}^2 = 2754.51$; $\Delta\chi_{\text{eff}}^2 = -11.26$; $\bar{\chi}_{\text{eff}}^2 = 2782.60$; $\Delta\bar{\chi}_{\text{eff}}^2 = -9.17$; $R - 1 = 0.01257$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.55 (Δ -0.50) commander_dx12_v3.2.29: 21.16 (Δ -2.09) plik_rd12_HM_v22b_TTTEEE: 2336.53 (Δ -8.12)

16.4 base_omegak_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02260 \pm 0.00017 \quad (+1.6\sigma)$	$\Omega_{\text{m}}h^2$	$0.1413 \pm 0.0014 \quad (-1.5\sigma)$	k_{eq}	$0.01026 \pm 0.00010 \quad (-1.5\sigma)$
$\Omega_{\text{c}}h^2$	$0.1181 \pm 0.0015 \quad (-1.5\sigma)$	$\Omega_{\text{m}}h^3$	$0.0778^{+0.0046}_{-0.0060} \quad (-64.0\sigma)$	$100\theta_{\text{eq}}$	$0.8215 \pm 0.0065 \quad (+1.5\sigma)$
$100\theta_{\text{MC}}$	$1.04116 \pm 0.00033 \quad (+0.8\sigma)$	σ_8	$0.779 \pm 0.014 \quad (-4.8\sigma)$	$100\theta_{\text{s,eq}}$	$0.4535 \pm 0.0033 \quad (+1.5\sigma)$
τ	$0.0528^{+0.0029}_{-0.0069} \quad (-0.4\sigma)$	S_8	$0.974 \pm 0.048 \quad (+8.8\sigma)$	$H(0.15)$	$61.1^{+2.9}_{-3.7} \quad (-22.4\sigma)$
Ω_K	$-0.041^{+0.017}_{-0.015}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.534 \pm 0.026 \quad (+8.8\sigma)$	$D_{\text{M}}(0.15)$	$779 \pm 46 \quad (+26.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.0365^{+0.0094}_{-0.014} \quad (-0.7\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.645^{+0.013}_{-0.011} \quad (+4.4\sigma)$	$H(0.38)$	$72.3^{+2.5}_{-3.3} \quad (-28.2\sigma)$
n_{s}	$0.9708 \pm 0.0048 \quad (+1.3\sigma)$	$\sigma_8/h^{0.5}$	$1.051^{+0.021}_{-0.018} \quad (+5.4\sigma)$	$D_{\text{M}}(0.38)$	$1819 \pm 94 \quad (+27.6\sigma)$
y_{cal}	$0.99996 \pm 0.0025 \quad (-0.2\sigma)$	$r_{\text{drag}}h$	$81.1^{+4.6}_{-5.8} \quad (-17.0\sigma)$	$H(0.51)$	$79.6^{+2.4}_{-3.2} \quad (-34.0\sigma)$
A_{217}^{CIB}	$45 \pm 7 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.640 \pm 0.064 \quad (+7.1\sigma)$	$D_{\text{M}}(0.51)$	$2332 \pm 110 \quad (+28.6\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.441 \quad (+0.2\sigma)$	z_{re}	$< 7.52 \quad (-0.7\sigma)$	$H(0.61)$	$85.6^{+2.3}_{-3.0} \quad (-40.9\sigma)$
A_{143}^{tSZ}	$5.8^{+2.0}_{-1.8} \quad (+0.1\sigma)$	$10^9 A_{\text{s}}$	$2.083^{+0.019}_{-0.030} \quad (-0.7\sigma)$	$D_{\text{M}}(0.61)$	$2694 \pm 120 \quad (+29.4\sigma)$
A_{100}^{PS}	$248 \pm 30 \quad (-0.4\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.874 \pm 0.012 \quad (-0.8\sigma)$	$H(2.33)$	$229.5^{+2.0}_{-2.5} \quad (-8.8\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.6\sigma)$	D_{40}	$1209 \pm 14 \quad (-1.8\sigma)$	$D_{\text{M}}(2.33)$	$6314^{+190}_{-160} \quad (+51.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5748 \pm 39 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.525^{+0.022}_{-0.019} \quad (+7.9\sigma)$
A_{217}^{PS}	$115.5 \pm 9.7 \quad (+0.0\sigma)$	D_{810}	$2532 \pm 14 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.707 \pm 0.016 \quad (-7.3\sigma)$
A^{kSZ}	$< 2.99 \quad (-0.4\sigma)$	D_{1420}	$815.3 \pm 4.8 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.509^{+0.010}_{-0.0071} \quad (+4.8\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$232.6 \pm 1.7 \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.612 \pm 0.018 \quad (-10.4\sigma)$
A_{143}^{dustTT}	$10.6 \pm 1.8 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9708 \pm 0.0048 \quad (+1.3\sigma)$	$f\sigma_8(0.51)$	$0.4924^{+0.0055}_{-0.0044} \quad (+2.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.1 \pm 3.2 \quad (-0.2\sigma)$	Y_{P}	$0.245482 \pm 0.000066 \quad (+1.6\sigma)$	$\sigma_8(0.51)$	$0.567 \pm 0.019 \quad (-11.7\sigma)$
A_{217}^{dustTT}	$93.5 \pm 7.2 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246809 \pm 0.000066 \quad (+1.6\sigma)$	$f\sigma_8(0.61)$	$0.4774 \pm 0.0043 \quad (+1.2\sigma)$
A_{100}^{dustTE}	$0.113 \pm 0.038 \quad (-0.0\sigma)$	10^5D/H	$2.544 \pm 0.031 \quad (-1.6\sigma)$	$\sigma_8(0.61)$	$0.536 \pm 0.019 \quad (-12.5\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	Age/Gyr	$15.22^{+0.48}_{-0.43} \quad (+59.3\sigma)$	$f\sigma_8(2.33)$	$0.267 \pm 0.010 \quad (-14.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.479 \pm 0.085 \quad (-0.0\sigma)$	z_*	$1089.46 \pm 0.31 \quad (-1.8\sigma)$	$\sigma_8(2.33)$	$0.268^{+0.011}_{-0.013} \quad (-17.0\sigma)$
A_{143}^{dustTE}	$0.223 \pm 0.053 \quad (-0.1\sigma)$	r_*	$144.76 \pm 0.32 \quad (+1.2\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-1.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.660 \pm 0.079 \quad (-0.1\sigma)$	$100\theta_*$	$1.04132 \pm 0.00032 \quad (+0.8\sigma)$	$f_{2000}^{143 \times 217}$	$29.6 \pm 2.1 \quad (-1.4\sigma)$
A_{217}^{dustTE}	$2.06 \pm 0.27 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.901 \pm 0.029 \quad (+1.1\sigma)$	f_{2000}^{217}	$104.7 \pm 1.9 \quad (-1.3\sigma)$
c_{100}	$0.99970 \pm 0.00061 \quad (+0.1\sigma)$	z_{drag}	$1060.33 \pm 0.33 \quad (+1.3\sigma)$	χ_{small}^2	$396.3 \pm 1.3 \quad (-0.4\sigma)$
c_{217}	$0.99812 \pm 0.00062 \quad (-0.1\sigma)$	r_{drag}	$147.35 \pm 0.30 \quad (+1.0\sigma)$	χ_{lowl}^2	$21.53 \pm 0.67 \quad (-2.1\sigma)$
H_0	$55.1^{+3.1}_{-3.9} \quad (-20.3\sigma)$	k_{D}	$0.14077 \pm 0.00031 \quad (-0.4\sigma)$	χ_{plik}^2	$2353.2 \pm 5.7 \quad (-1.1\sigma)$
Ω_{Λ}	$0.569^{+0.046}_{-0.041} \quad (-13.6\sigma)$	$100\theta_{\text{D}}$	$0.16055 \pm 0.00019 \quad (-1.2\sigma)$	χ_{prior}^2	$11.2 \pm 4.4 \quad (-0.1\sigma)$
Ω_{m}	$0.472^{+0.056}_{-0.063} \quad (+18.5\sigma)$	z_{eq}	$3361 \pm 33 \quad (-1.5\sigma)$	χ_{CMB}^2	$2771.0 \pm 5.8 \quad (-1.6\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2782.22$; $\Delta\bar{\chi}_{\text{eff}}^2 = -9.31$; $R - 1 = 0.01621$

16.5 base_omegak_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022580	0.02258 ± 0.00028 (+2.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.5546	0.554 ± 0.035 (+7.2 σ)	$H(0.15)$	58.09	$58.2^{+3.7}_{-4.4}$ (−17.9 σ)
$\Omega_c h^2$	0.11749	0.1173 ± 0.0023 (−1.5 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6521	$0.650^{+0.017}_{-0.014}$ (+3.5 σ)	$D_M(0.15)$	820	823^{+59}_{-69} (+22.0 σ)
$100\theta_{MC}$	1.04131	1.04135 ± 0.00052 (+1.1 σ)	$\sigma_8/h^{0.5}$	1.0646	$1.062^{+0.027}_{-0.022}$ (+4.4 σ)	$H(0.38)$	69.62	$69.8^{+3.3}_{-4.0}$ (−22.6 σ)
τ	0.0492	0.0491 ± 0.0082 (−0.4 σ)	$r_{drag}h$	76.5	$76.7^{+6.0}_{-6.9}$ (−13.5 σ)	$D_M(0.38)$	1904	1909 ± 130 (+23.1 σ)
Ω_K	−0.0550	$-0.058^{+0.029}_{-0.019}$	$\langle d^2 \rangle^{1/2}$	2.682	2.682 ± 0.084 (+6.2 σ)	$H(0.51)$	77.06	$77.2^{+3.1}_{-3.7}$ (−27.4 σ)
$\ln(10^{10} A_s)$	3.0265	3.026 ± 0.017 (−0.8 σ)	z_{re}	6.91	$6.87^{+0.89}_{-0.76}$ (−0.8 σ)	$D_M(0.51)$	2435	2439 ± 150 (+23.9 σ)
n_s	0.9738	0.9732 ± 0.0066 (+1.6 σ)	$10^9 A_s$	2.0625	2.062 ± 0.035 (−0.8 σ)	$H(0.61)$	83.19	$83.3^{+3.0}_{-3.6}$ (−33.1 σ)
y_{cal}	0.99980	1.0000 ± 0.0025 (−0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8692	1.869 ± 0.014 (−1.0 σ)	$D_M(0.61)$	2807	2811 ± 170 (+24.6 σ)
A_{100}^{PS}	219.7	229 ± 30 (−0.5 σ)	D_{40}	1196.9	1199 ± 17 (−2.0 σ)	$H(2.33)$	227.59	227.5 ± 3.0 (−7.1 σ)
A_{143}^{PS}	39.7	33 ± 9 (−0.9 σ)	D_{220}	5727.5	5735 ± 43 (+0.7 σ)	$D_M(2.33)$	6470	6473 ± 230 (+42.7 σ)
A_{217}^{PS}	107.4	104^{+10}_{-10} (+0.2 σ)	D_{810}	2528.2	2527 ± 14 (−0.5 σ)	$f\sigma_8(0.15)$	0.5405	$0.539^{+0.027}_{-0.023}$ (+6.3 σ)
A_{217}^{CIB}	38.2	37^{+7}_{-8} (−0.6 σ)	D_{1420}	814.4	813.7 ± 5.1 (−0.1 σ)	$\sigma_8(0.15)$	0.6912	$0.689^{+0.024}_{-0.022}$ (−7.9 σ)
A_{143}^{tSZ}	6.27	$4.1^{+2.0}_{-2.3}$ (+0.2 σ)	D_{2000}	232.89	232.5 ± 2.1 (+1.6 σ)	$f\sigma_8(0.38)$	0.5149	$0.512^{+0.012}_{-0.0076}$ (+3.5 σ)
$r_{143 \times 217}^{PS}$	0.742	0.68 ± 0.14 (+0.2 σ)	$n_{s,0.002}$	0.9738	0.9732 ± 0.0066 (+1.6 σ)	$\sigma_8(0.38)$	0.5950	0.594 ± 0.025 (−11.5 σ)
$r_{143 \times 217}^{CIB}$	0.690	0.49 ± 0.26 (−0.3 σ)	Y_P	0.245473	$0.245473^{+0.000099}_{-0.00011}$ (+1.9 σ)	$f\sigma_8(0.51)$	0.4935	$0.4911^{+0.0071}_{-0.0059}$ (+1.8 σ)
$\xi^{tSZ \times CIB}$	0.65	—	Y_P^{BBN}	0.246800	$0.246800^{+0.000099}_{-0.00011}$ (+1.9 σ)	$\sigma_8(0.51)$	0.5497	0.549 ± 0.026 (−13.1 σ)
A^{kSZ}	0.01	< 5.28 (−0.4 σ)	$10^5 D/H$	2.5480	2.549 ± 0.050 (−2.0 σ)	$f\sigma_8(0.61)$	0.4758	$0.4735^{+0.0073}_{-0.0061}$ (+0.4 σ)
A_{100}^{dust}	0.999	1.01 ± 0.19 (+0.0 σ)	Age/Gyr	15.64	15.65 ± 0.62 (+50.0 σ)	$\sigma_8(0.61)$	0.5188	0.518 ± 0.025 (−14.1 σ)
A_{143}^{dust}	0.955	0.95 ± 0.17 (−0.1 σ)	z_*	1089.438	1089.43 ± 0.49 (−2.0 σ)	$f\sigma_8(2.33)$	0.2571	0.257 ± 0.014 (−16.0 σ)
A_{217}^{dust}	0.980	0.98 ± 0.10 (+0.2 σ)	r_*	144.923	144.98 ± 0.49 (+1.0 σ)	$\sigma_8(2.33)$	0.2560	0.256 ± 0.016 (−18.8 σ)
$A_{143 \times 217}^{dust}$	1.019	1.02 ± 0.16 (−0.0 σ)	$100\theta_*$	1.04147	1.04151 ± 0.00050 (+1.0 σ)	f_{2000}^{143}	25.54	26 ± 3 (−1.6 σ)
c_{100}	0.99778	0.9976 ± 0.0011 (+0.1 σ)	$D_M(z_*)/\text{Gpc}$	13.9152	13.920 ± 0.045 (+0.9 σ)	f_{2000}^{217}	103.47	104.1 ± 2.3 (−1.7 σ)
c_{217}	1.00072	1.0008 ± 0.0016 (−0.2 σ)	z_{drag}	1060.24	1060.21 ± 0.55 (+1.8 σ)	$f_{2000}^{143 \times 217}$	28.69	29.0 ± 2.5 (−1.8 σ)
H_0	51.85	$52.0^{+4.1}_{-4.7}$ (−16.2 σ)	r_{drag}	147.526	147.58 ± 0.48 (+0.7 σ)	χ_{small}^2	395.53	396.7 ± 1.5 (−0.1 σ)
Ω_Λ	0.532	$0.527^{+0.073}_{-0.053}$ (−11.7 σ)	k_D	0.14056	$0.14050^{+0.00053}_{-0.00048}$ (−0.1 σ)	χ_{lowl}^2	20.976	21.28 ± 0.63 (−1.8 σ)
Ω_m	0.523	$0.531^{+0.072}_{-0.10}$ (+16.1 σ)	$100\theta_D$	0.160614	0.16064 ± 0.00030 (−1.6 σ)	$\chi_{CamSpec}^2$	7045.3	7059.5 ± 5.3 (−0.7 σ)
$\Omega_m h^2$	0.14072	0.1405 ± 0.0021 (−1.4 σ)	z_{eq}	3347	3343 ± 50 (−1.4 σ)	χ_{prior}^2	1.47	7.1 ± 3.3 (−0.2 σ)
$\Omega_m h^3$	0.0730	$0.0731^{+0.0061}_{-0.0071}$ (−50.8 σ)	k_{eq}	0.010216	0.01020 ± 0.00015 (−1.4 σ)	χ_{CMB}^2	7461.8	7477.5 ± 5.5 (−1.2 σ)
σ_8	0.7666	$0.765^{+0.021}_{-0.019}$ (−5.2 σ)	$100\theta_{eq}$	0.8241	0.825 ± 0.010 (+1.5 σ)			
S_8	1.013	1.012 ± 0.063 (+7.2 σ)	$100\theta_{s,eq}$	0.4549	0.4554 ± 0.0051 (+1.5 σ)			

Best-fit $\chi_{eff}^2 = 7463.28$; $\Delta\chi_{eff}^2 = -8.46$; $\bar{\chi}_{eff}^2 = 7484.59$; $\Delta\bar{\chi}_{eff}^2 = -6.95$; $R - 1 = 0.03021$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.53 (Δ -0.30) commander_dx12.v3.2.29: 20.98 (Δ -2.42) CamSpec like_10.7HM: 7045.30 (Δ -5.04)

16.6 base_omegak_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02258 \pm 0.00027 \quad (+2.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.551 \pm 0.034 \quad (+7.0\sigma)$	$H(0.15)$	$58.8^{+3.7}_{-4.3} \quad (-17.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1173 \pm 0.0022 \quad (-1.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.651^{+0.016}_{-0.014} \quad (+3.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$814^{+57}_{-65} \quad (+21.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04137 \pm 0.00052 \quad (+1.1\sigma)$	$\sigma_8/h^{0.5}$	$1.063^{+0.026}_{-0.022} \quad (+4.5\sigma)$	$H(0.38)$	$70.2^{+3.2}_{-3.8} \quad (-21.9\sigma)$
τ	$0.0532^{+0.0035}_{-0.0069} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$77.6^{+5.8}_{-6.7} \quad (-13.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1891 \pm 120 \quad (+22.2\sigma)$
Ω_K	$-0.054^{+0.027}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.679 \pm 0.082 \quad (+6.1\sigma)$	$H(0.51)$	$77.6^{+3.1}_{-3.6} \quad (-26.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.034^{+0.010}_{-0.014} \quad (-0.6\sigma)$	z_{re}	$< 7.54 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$2418 \pm 150 \quad (+23.0\sigma)$
n_{s}	$0.9734 \pm 0.0065 \quad (+1.6\sigma)$	$10^9 A_{\mathrm{s}}$	$2.078^{+0.020}_{-0.029} \quad (-0.6\sigma)$	$H(0.61)$	$83.7^{+2.9}_{-3.5} \quad (-32.1\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.868 \pm 0.014 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2788 \pm 160 \quad (+23.6\sigma)$
A_{100}^{PS}	$229 \pm 30 \quad (-0.5\sigma)$	D_{40}	$1200 \pm 17 \quad (-1.9\sigma)$	$H(2.33)$	$227.7^{+2.8}_{-3.1} \quad (-7.0\sigma)$
A_{143}^{PS}	$33 \pm 9 \quad (-0.9\sigma)$	D_{220}	$5734 \pm 43 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$6444 \pm 220 \quad (+41.2\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.2\sigma)$	D_{810}	$2527 \pm 14 \quad (-0.5\sigma)$	$f\sigma_8(0.15)$	$0.537^{+0.027}_{-0.023} \quad (+6.1\sigma)$
A_{217}^{CIB}	$37^{+7}_{-8} \quad (-0.6\sigma)$	D_{1420}	$813.8 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.695^{+0.023}_{-0.020} \quad (-7.9\sigma)$
A_{143}^{tSZ}	$4.1^{+1.9}_{-2.3} \quad (+0.1\sigma)$	D_{2000}	$232.5 \pm 2.1 \quad (+1.6\sigma)$	$f\sigma_8(0.38)$	$0.513^{+0.012}_{-0.0076} \quad (+3.6\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.68 \pm 0.14 \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.9734 \pm 0.0065 \quad (+1.6\sigma)$	$\sigma_8(0.38)$	$0.599 \pm 0.024 \quad (-12.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.49 \pm 0.27 \quad (-0.4\sigma)$	Y_{P}	$0.245475^{+0.000096}_{-0.00011} \quad (+1.9\sigma)$	$f\sigma_8(0.51)$	$0.4926^{+0.0065}_{-0.0056} \quad (+1.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246802^{+0.000097}_{-0.00011} \quad (+1.9\sigma)$	$\sigma_8(0.51)$	$0.554 \pm 0.024 \quad (-13.9\sigma)$
A^{kSZ}	$< 5.32 \quad (-0.3\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.548 \pm 0.049 \quad (-1.9\sigma)$	$f\sigma_8(0.61)$	$0.4756 \pm 0.0061 \quad (+0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$15.57 \pm 0.59 \quad (+48.1\sigma)$	$\sigma_8(0.61)$	$0.523 \pm 0.024 \quad (-15.1\sigma)$
A_{143}^{dust}	$0.95 \pm 0.17 \quad (-0.1\sigma)$	z_*	$1089.42 \pm 0.48 \quad (-2.0\sigma)$	$f\sigma_8(2.33)$	$0.259 \pm 0.013 \quad (-17.5\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.2\sigma)$	r_*	$144.99 \pm 0.48 \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.259 \pm 0.015 \quad (-20.8\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04154 \pm 0.00050 \quad (+1.0\sigma)$	f_{2000}^{143}	$26 \pm 3 \quad (-1.5\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.921 \pm 0.044 \quad (+0.9\sigma)$	f_{2000}^{217}	$104.1 \pm 2.3 \quad (-1.7\sigma)$
c_{217}	$1.0008 \pm 0.0015 \quad (-0.2\sigma)$	z_{drag}	$1060.22 \pm 0.54 \quad (+1.7\sigma)$	$f_{2000}^{143 \times 217}$	$29.0 \pm 2.5 \quad (-1.8\sigma)$
H_0	$52.6^{+4.0}_{-4.6} \quad (-15.7\sigma)$	r_{drag}	$147.59 \pm 0.47 \quad (+0.7\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.3\sigma)$
Ω_{Λ}	$0.537^{+0.066}_{-0.051} \quad (-11.1\sigma)$	k_{D}	$0.14049 \pm 0.00051 \quad (-0.1\sigma)$	χ_{lowl}^2	$21.27 \pm 0.65 \quad (-1.8\sigma)$
Ω_{m}	$0.517^{+0.069}_{-0.093} \quad (+15.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16064 \pm 0.00029 \quad (-1.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7059.4 \pm 5.3 \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1405 \pm 0.0021 \quad (-1.4\sigma)$	z_{eq}	$3342 \pm 50 \quad (-1.4\sigma)$	χ_{prior}^2	$7.1 \pm 3.3 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0739^{+0.0060}_{-0.0069} \quad (-49.1\sigma)$	k_{eq}	$0.01020 \pm 0.00015 \quad (-1.4\sigma)$	χ_{CMB}^2	$7477.1 \pm 5.4 \quad (-1.2\sigma)$
σ_8	$0.769 \pm 0.018 \quad (-5.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8254 \pm 0.0098 \quad (+1.5\sigma)$		
S_8	$1.006 \pm 0.061 \quad (+7.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4555 \pm 0.0050 \quad (+1.4\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7484.13; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -7.13; R - 1 = 0.03650$$

16.7 base_omegak_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022535	0.02254 ± 0.00018 (+1.5 σ)	σ_8	0.7817	$0.777^{+0.016}_{-0.014}$ (−4.1 σ)	$100\theta_{\text{eq}}$	0.8226	0.8223 ± 0.0065 (+1.2 σ)
$\Omega_c h^2$	0.11783	0.1179 ± 0.0015 (−1.3 σ)	S_8	0.943	0.953 ± 0.053 (+7.8 σ)	$100\theta_{\text{s,eq}}$	0.45409	0.4540 ± 0.0033 (+1.2 σ)
$100\theta_{\text{MC}}$	1.041095	1.04111 ± 0.00032 (+0.7 σ)	$\sigma_8 \Omega_m^{0.5}$	0.5163	0.522 ± 0.029 (+7.8 σ)	$H(0.15)$	62.72	$62.1^{+3.4}_{-4.1}$ (−20.1 σ)
τ	0.0509	$0.0481^{+0.0084}_{-0.0069}$ (−0.6 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6353	$0.637^{+0.015}_{-0.013}$ (+3.8 σ)	$D_{\text{M}}(0.15)$	754	766 ± 51 (+23.3 σ)
Ω_K	−0.0320	$−0.037^{+0.019}_{-0.014}$	$\sigma_8/h^{0.5}$	1.0367	$1.039^{+0.024}_{-0.020}$ (+4.6 σ)	$H(0.38)$	73.73	$73.2^{+3.0}_{-3.7}$ (−25.2 σ)
$\ln(10^{10} A_s)$	3.0304	$3.025^{+0.018}_{-0.015}$ (−0.8 σ)	$r_{\text{drag}} h$	83.8	$82.8^{+5.4}_{-6.5}$ (−15.4 σ)	$D_{\text{M}}(0.38)$	1769	1793 ± 110 (+24.6 σ)
n_s	0.97187	0.9713 ± 0.0048 (+1.2 σ)	$\langle d^2 \rangle^{1/2}$	2.591	2.602 ± 0.071 (+6.0 σ)	$H(0.51)$	80.91	$80.4^{+2.8}_{-3.5}$ (−30.3 σ)
y_{cal}	0.99975	1.0000 ± 0.0025 (−0.2 σ)	z_{re}	7.15	$6.83^{+0.94}_{-0.70}$ (−0.8 σ)	$D_{\text{M}}(0.51)$	2272	2301 ± 130 (+25.5 σ)
A_{100}^{PS}	225.5	230 ± 25 (−0.4 σ)	$10^9 A_s$	2.0705	$2.060^{+0.036}_{-0.032}$ (−0.8 σ)	$H(0.61)$	86.86	$86.4^{+2.7}_{-3.4}$ (−36.2 σ)
A_{143}^{PS}	42.6	34 ± 8 (−0.6 σ)	$10^9 A_s e^{-2\tau}$	1.8700	1.871 ± 0.012 (−0.7 σ)	$D_{\text{M}}(0.61)$	2629	2660 ± 140 (+26.3 σ)
A_{217}^{PS}	106.3	104 ± 10 (+0.1 σ)	D_{40}	1204.1	1205 ± 14 (−1.7 σ)	$H(2.33)$	229.98	$229.8^{+2.2}_{-2.6}$ (−7.8 σ)
A_{217}^{CIB}	38.8	37^{+7}_{-8} (−0.4 σ)	D_{220}	5726.8	5733 ± 39 (+0.4 σ)	$D_{\text{M}}(2.33)$	6232	6269 ± 190 (+44.8 σ)
A_{143}^{tSZ}	5.71	$4.1^{+2.0}_{-2.3}$ (+0.1 σ)	D_{810}	2529.7	2529 ± 14 (−0.4 σ)	$f\sigma_8(0.15)$	0.5111	$0.515^{+0.024}_{-0.021}$ (+7.0 σ)
$r_{143 \times 217}^{\text{PS}}$	0.718	0.68 ± 0.14 (+0.2 σ)	D_{1420}	814.87	814.6 ± 4.8 (−0.2 σ)	$\sigma_8(0.15)$	0.7114	$0.706^{+0.019}_{-0.017}$ (−6.1 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.745	$0.52^{+0.34}_{-0.27}$ (−0.2 σ)	D_{2000}	232.05	231.9 ± 1.7 (+1.1 σ)	$f\sigma_8(0.38)$	0.5031	$0.503^{+0.012}_{-0.0083}$ (+4.2 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.73	—	$n_{\text{s},0.002}$	0.97187	0.9713 ± 0.0048 (+1.2 σ)	$\sigma_8(0.38)$	0.6188	0.613 ± 0.021 (−8.5 σ)
A^{kSZ}	0.86	< 5.22 (−0.3 σ)	Y_{P}	0.245457	0.245457 ± 0.000069 (+1.5 σ)	$f\sigma_8(0.51)$	0.4890	$0.4878^{+0.0066}_{-0.0054}$ (+2.4 σ)
A_{100}^{dust}	1.005	1.02 ± 0.20 (+0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246784	0.246784 ± 0.000069 (+1.5 σ)	$\sigma_8(0.51)$	0.5743	0.569 ± 0.021 (−9.6 σ)
A_{143}^{dust}	0.959	0.95 ± 0.17 (−0.1 σ)	$10^5 \text{D}/\text{H}$	2.5558	2.556 ± 0.032 (−1.5 σ)	$f\sigma_8(0.61)$	0.47572	0.4739 ± 0.0052 (+1.0 σ)
A_{217}^{dust}	0.981	0.98 ± 0.10 (+0.0 σ)	Age/Gyr	15.00	15.10 ± 0.51 (+51.8 σ)	$\sigma_8(0.61)$	0.5435	0.538 ± 0.021 (−10.2 σ)
$A_{143 \times 217}^{\text{dust}}$	1.002	1.01 ± 0.16 (−0.1 σ)	z_*	1089.526	1089.53 ± 0.32 (−1.6 σ)	$f\sigma_8(2.33)$	0.2710	0.268 ± 0.012 (−11.5 σ)
c_{100}	0.99779	0.9976 ± 0.0010 (+0.1 σ)	r_*	144.869	144.85 ± 0.33 (+0.9 σ)	$\sigma_8(2.33)$	0.2727	0.269 ± 0.014 (−13.9 σ)
c_{217}	1.00089	1.0008 ± 0.0016 (−0.2 σ)	$100\theta_*$	1.041266	1.04127 ± 0.00032 (+0.6 σ)	f_{2000}^{143}	26.87	27 ± 3 (−1.1 σ)
c_{TE}	0.9927	0.9923 ± 0.0051 (−0.9 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9128	13.911 ± 0.030 (+0.8 σ)	f_{2000}^{217}	104.33	104.6 ± 2.1 (−1.2 σ)
c_{EE}	0.98993	0.9897 ± 0.0049 (−0.5 σ)	z_{drag}	1060.162	1060.17 ± 0.36 (+1.3 σ)	$f_{2000}^{143 \times 217}$	29.52	29.6 ± 2.2 (−1.3 σ)
H_0	56.85	$56.1^{+3.7}_{-4.4}$ (−18.3 σ)	r_{drag}	147.485	147.47 ± 0.32 (+0.6 σ)	χ_{simall}^2	395.63	396.7 ± 1.7 (−0.1 σ)
Ω_Λ	0.5958	$0.582^{+0.052}_{-0.042}$ (−12.2 σ)	k_{D}	0.140575	0.14059 ± 0.00035 (−0.1 σ)	χ_{lowl}^2	21.16	21.40 ± 0.64 (−1.9 σ)
Ω_{m}	0.436	$0.455^{+0.056}_{-0.071}$ (+16.6 σ)	$100\theta_{\text{D}}$	0.160629	0.16063 ± 0.00021 (−1.3 σ)	χ_{CamSpec}^2	11495.3	11511.3 ± 5.5 (−0.6 σ)
$\Omega_{\text{m}} h^2$	0.14101	0.1411 ± 0.0014 (−1.1 σ)	z_{eq}	3354.2	3356 ± 33 (−1.1 σ)	χ_{prior}^2	1.90	7.7 ± 3.3 (−0.0 σ)
$\Omega_{\text{m}} h^3$	0.0802	$0.0792^{+0.0055}_{-0.0065}$ (−54.2 σ)	k_{eq}	0.010238	0.01024 ± 0.00010 (−1.1 σ)	χ_{CMB}^2	11912.1	11929.5 ± 5.8 (−0.9 σ)

Best-fit $\chi_{\text{eff}}^2 = 11914.02$; $\Delta\chi_{\text{eff}}^2 = -6.75$; $\bar{\chi}_{\text{eff}}^2 = 11937.16$; $\Delta\bar{\chi}_{\text{eff}}^2 = -5.30$; $R - 1 = 0.03285$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.63 (Δ -0.27) commander_dx12_v3_2_29: 21.16 (Δ -1.84) CamSpec like_10.7HM_1400_unified: 11495.33 (Δ -4.32)

16.8 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02253 \pm 0.00018 \quad (+1.5\sigma)$	σ_8	$0.782 \pm 0.013 \quad (-4.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8225 \pm 0.0065 \quad (+1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1179 \pm 0.0015 \quad (-1.2\sigma)$	S_8	$0.946 \pm 0.051 \quad (+7.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4540 \pm 0.0033 \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04111 \pm 0.00032 \quad (+0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.518 \pm 0.028 \quad (+7.4\sigma)$	$H(0.15)$	$62.8^{+3.3}_{-4.1} \quad (-19.0\sigma)$
τ	$0.0524^{+0.0031}_{-0.0064} \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.636^{+0.014}_{-0.013} \quad (+3.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$757 \pm 48 \quad (+21.6\sigma)$
Ω_K	$-0.034^{+0.018}_{-0.014}$	$\sigma_8/h^{0.5}$	$1.038^{+0.024}_{-0.021} \quad (+4.6\sigma)$	$H(0.38)$	$73.8^{+2.9}_{-3.7} \quad (-23.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.0337^{+0.0093}_{-0.014} \quad (-0.6\sigma)$	$r_{\mathrm{drag}}h$	$83.9^{+5.2}_{-6.3} \quad (-14.4\sigma)$	$D_{\mathrm{M}}(0.38)$	$1773 \pm 100 \quad (+22.9\sigma)$
n_{s}	$0.9715 \pm 0.0047 \quad (+1.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.598 \pm 0.070 \quad (+6.0\sigma)$	$H(0.51)$	$81.0^{+2.7}_{-3.5} \quad (-28.6\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.2\sigma)$	z_{re}	$7.30^{+0.21}_{-0.79} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$2277 \pm 120 \quad (+23.8\sigma)$
A_{100}^{PS}	$230 \pm 25 \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}}$	$2.077^{+0.019}_{-0.028} \quad (-0.6\sigma)$	$H(0.61)$	$86.9^{+2.6}_{-3.4} \quad (-34.2\sigma)$
A_{143}^{PS}	$34 \pm 8 \quad (-0.6\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.871 \pm 0.012 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2634 \pm 130 \quad (+24.5\sigma)$
A_{217}^{PS}	$104 \pm 10 \quad (+0.1\sigma)$	D_{40}	$1206 \pm 14 \quad (-1.6\sigma)$	$H(2.33)$	$230.1^{+2.2}_{-2.6} \quad (-7.4\sigma)$
A_{217}^{CIB}	$37^{+7}_{-8} \quad (-0.4\sigma)$	D_{220}	$5731 \pm 39 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$6236^{+190}_{-180} \quad (+42.0\sigma)$
A_{143}^{tSZ}	$4.1^{+2.0}_{-2.3} \quad (+0.1\sigma)$	D_{810}	$2529 \pm 14 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.512^{+0.024}_{-0.021} \quad (+6.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.67 \pm 0.14 \quad (+0.1\sigma)$	D_{1420}	$814.7 \pm 4.8 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.712 \pm 0.016 \quad (-6.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.52^{+0.34}_{-0.27} \quad (-0.2\sigma)$	D_{2000}	$231.9 \pm 1.7 \quad (+1.0\sigma)$	$f\sigma_8(0.38)$	$0.503^{+0.012}_{-0.0088} \quad (+4.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9715 \pm 0.0047 \quad (+1.2\sigma)$	$\sigma_8(0.38)$	$0.619 \pm 0.019 \quad (-8.8\sigma)$
A^{kSZ}	$< 5.24 \quad (-0.3\sigma)$	Y_{P}	$0.245456 \pm 0.000068 \quad (+1.4\sigma)$	$f\sigma_8(0.51)$	$0.4888^{+0.0069}_{-0.0052} \quad (+2.6\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246783 \pm 0.000068 \quad (+1.4\sigma)$	$\sigma_8(0.51)$	$0.574 \pm 0.019 \quad (-10.0\sigma)$
A_{143}^{dust}	$0.94 \pm 0.17 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.556 \pm 0.032 \quad (-1.5\sigma)$	$f\sigma_8(0.61)$	$0.4755 \pm 0.0046 \quad (+1.3\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$15.01 \pm 0.48 \quad (+48.4\sigma)$	$\sigma_8(0.61)$	$0.544 \pm 0.019 \quad (-10.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.01 \pm 0.16 \quad (-0.1\sigma)$	z_*	$1089.53 \pm 0.31 \quad (-1.6\sigma)$	$f\sigma_8(2.33)$	$0.271 \pm 0.011 \quad (-12.2\sigma)$
c_{100}	$0.9976 \pm 0.0010 \quad (+0.1\sigma)$	r_*	$144.86 \pm 0.33 \quad (+0.9\sigma)$	$\sigma_8(2.33)$	$0.273 \pm 0.013 \quad (-14.9\sigma)$
c_{217}	$1.0008 \pm 0.0016 \quad (-0.2\sigma)$	$100\theta_*$	$1.04128 \pm 0.00031 \quad (+0.6\sigma)$	f_{2000}^{143}	$27 \pm 3 \quad (-1.1\sigma)$
c_{TE}	$0.9924 \pm 0.0051 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912 \pm 0.030 \quad (+0.8\sigma)$	f_{2000}^{217}	$104.6 \pm 2.1 \quad (-1.2\sigma)$
c_{EE}	$0.9898 \pm 0.0049 \quad (-0.5\sigma)$	z_{drag}	$1060.16 \pm 0.36 \quad (+1.3\sigma)$	$f_{2000}^{143 \times 217}$	$29.6 \pm 2.2 \quad (-1.3\sigma)$
H_0	$56.9^{+3.5}_{-4.3} \quad (-17.2\sigma)$	r_{drag}	$147.48 \pm 0.32 \quad (+0.6\sigma)$	χ_{small}^2	$396.2 \pm 1.1 \quad (-0.4\sigma)$
Ω_{Λ}	$0.592^{+0.047}_{-0.040} \quad (-11.2\sigma)$	k_{D}	$0.14058 \pm 0.00035 \quad (-0.1\sigma)$	χ_{lowl}^2	$21.43 \pm 0.67 \quad (-1.8\sigma)$
Ω_{m}	$0.442^{+0.054}_{-0.065} \quad (+15.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16064 \pm 0.00020 \quad (-1.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11511.3 \pm 5.5 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0014 \quad (-1.1\sigma)$	z_{eq}	$3355 \pm 33 \quad (-1.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.3 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0802^{+0.0052}_{-0.0064} \quad (-50.7\sigma)$	k_{eq}	$0.01024 \pm 0.00010 \quad (-1.1\sigma)$	χ_{CMB}^2	$11929.0 \pm 5.7 \quad (-0.9\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11936.68; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -5.50; R - 1 = 0.03528$$

16.9 base_omegak_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022179	0.02216 ± 0.00023 (-0.3σ)	$\sigma_8/h^{0.5}$	0.9841	0.984 ± 0.013 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	1524.4	1525 ± 14 (-0.5σ)
$\Omega_{\mathrm{c}}h^2$	0.11988	0.1198 ± 0.0022 $(+0.7\sigma)$	$r_{\mathrm{drag}}h$	99.95	99.9 ± 1.0 $(+0.2\sigma)$	$H(0.51)$	89.99	89.95 ± 0.70 $(+1.0\sigma)$
$100\theta_{\mathrm{MC}}$	1.040904	1.04087 ± 0.00048 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4310	2.431 ± 0.029 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	1974.9	1976 ± 17 (-0.5σ)
τ	0.0527	0.0529 ± 0.0079 (-0.1σ)	z_{re}	7.56	7.56 ± 0.80 (-0.1σ)	$H(0.61)$	95.61	95.57 ± 0.72 $(+1.3\sigma)$
Ω_K	0.00125	0.0012 ± 0.0026	$10^9 A_{\mathrm{s}}$	2.0908	2.091 ± 0.034 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2298.2	2299 ± 19 (-0.6σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0401	3.040 ± 0.016 (-0.0σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8815	1.881 ± 0.014 $(+0.3\sigma)$	$H(2.33)$	236.58	236.5 ± 1.8 $(+1.0\sigma)$
n_{s}	0.9651	0.9647 ± 0.0060 (-0.4σ)	D_{40}	1228.2	1229 ± 16 $(+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	5748.0	5751 ± 38 (-1.3σ)
y_{cal}	1.00056	1.0006 ± 0.0025 $(+0.0\sigma)$	D_{220}	5714.0	5717 ± 41 (-0.1σ)	$f\sigma_8(0.15)$	0.4559	0.4558 ± 0.0084 $(+0.2\sigma)$
A_{217}^{CIB}	49.5	48 ± 7 (-0.0σ)	D_{810}	2538.1	2537 ± 14 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7492	0.7488 ± 0.0093 $(+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.19	—	D_{1420}	815.8	815.2 ± 5.1 (-0.0σ)	$f\sigma_8(0.38)$	0.4745	0.4743 ± 0.0074 $(+0.2\sigma)$
A_{143}^{tSZ}	7.11	5.1 ± 2.0 (-0.0σ)	D_{2000}	230.09	229.7 ± 1.9 (-0.1σ)	$\sigma_8(0.38)$	0.6643	0.6639 ± 0.0082 $(+0.4\sigma)$
A_{100}^{PS}	256.0	263 ± 28 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9651	0.9647 ± 0.0060 (-0.4σ)	$f\sigma_8(0.51)$	0.4733	0.4731 ± 0.0068 $(+0.3\sigma)$
A_{143}^{PS}	48.0	49 ± 8 $(+0.1\sigma)$	Y_{P}	0.245317	$0.24530^{+0.00011}_{-0.000087}$ (-0.3σ)	$\sigma_8(0.51)$	0.6217	0.6214 ± 0.0076 $(+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	43.7	44 ± 9 $(+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246644	$0.24663^{+0.00011}_{-0.000087}$ (-0.3σ)	$f\sigma_8(0.61)$	0.4684	0.4682 ± 0.0064 $(+0.3\sigma)$
A_{217}^{PS}	118.1	115 ± 10 $(+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.6219	2.626 ± 0.043 $(+0.3\sigma)$	$\sigma_8(0.61)$	0.5916	0.5914 ± 0.0073 $(+0.4\sigma)$
A^{kSZ}	0.00	< 4.80 (-0.0σ)	Age/Gyr	13.757	13.764 ± 0.098 (-1.5σ)	$f\sigma_8(2.33)$	0.29831	0.2982 ± 0.0036 $(+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.90	9.0 ± 1.8 $(+0.0\sigma)$	z_*	1090.152	1090.17 ± 0.43 $(+0.5\sigma)$	$\sigma_8(2.33)$	0.30779	0.3076 ± 0.0040 $(+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.77	10.7 ± 1.8 (-0.0σ)	r_*	144.608	144.65 ± 0.48 (-0.5σ)	f_{2000}^{143}	30.67	31.1 ± 3.0 $(+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.31	18.3 ± 3.3 $(+0.0\sigma)$	$100\theta_*$	1.041105	1.04108 ± 0.00047 (-0.3σ)	$f_{2000}^{143 \times 217}$	33.38	33.5 ± 2.1 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	94.5	93.4 ± 7.4 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8899	13.894 ± 0.045 (-0.5σ)	f_{2000}^{217}	107.87	108.1 ± 1.9 $(+0.1\sigma)$
c_{100}	0.99965	0.99961 ± 0.00061 $(+0.0\sigma)$	z_{drag}	1059.475	1059.43 ± 0.46 (-0.2σ)	χ_{small}^2	395.85	397.0 ± 1.7 (-0.1σ)
c_{217}	0.99827	0.99825 ± 0.00062 (-0.0σ)	r_{drag}	147.338	147.39 ± 0.48 (-0.4σ)	χ_{lowl}^2	23.34	23.6 ± 1.5 $(+0.5\sigma)$
H_0	67.84	67.81 ± 0.69 $(+0.4\sigma)$	k_{D}	0.14046	0.14039 ± 0.00051 $(+0.3\sigma)$	χ_{plik}^2	759.6	772.4 ± 5.4 $(+0.0\sigma)$
Ω_{Λ}	0.6887	0.6886 ± 0.0075 (-0.1σ)	$100\theta_{\mathrm{D}}$	0.161024	0.16106 ± 0.00027 $(+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0107	0.056 ± 0.076 (-0.0σ)
Ω_{m}	0.3101	0.3102 ± 0.0072 (-0.0σ)	z_{eq}	3394.7	3392 ± 49 $(+0.6\sigma)$	χ_{MGS}^2	1.41	1.48 ± 0.60 $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14270	0.1426 ± 0.0020 $(+0.6\sigma)$	k_{eq}	0.010361	0.01035 ± 0.00015 $(+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.66	4.6 ± 1.8 (-0.1σ)
$\Omega_{\mathrm{m}}h^3$	0.09681	0.0967 ± 0.0018 $(+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	0.8141	0.8146 ± 0.0092 (-0.7σ)	χ_{prior}^2	1.46	7.3 ± 3.7 (-0.0σ)
σ_8	0.8106	0.810 ± 0.010 $(+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44994	0.4502 ± 0.0047 (-0.6σ)	χ_{BAO}^2	5.08	6.1 ± 1.6 (-0.1σ)
S_8	0.8241	0.824 ± 0.016 $(+0.2\sigma)$	$H(0.15)$	73.13	73.10 ± 0.67 $(+0.5\sigma)$	χ_{CMB}^2	1178.8	1192.9 ± 5.5 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4514	0.4512 ± 0.0089 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	639.1	639.4 ± 6.2 (-0.4σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6049	0.6046 ± 0.0094 $(+0.3\sigma)$	$H(0.38)$	83.26	83.22 ± 0.68 $(+0.7\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 1185.37$; $\Delta\chi_{\mathrm{eff}}^2 = -0.38$; $\bar{\chi}_{\mathrm{eff}}^2 = 1206.26$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.24$; $R - 1 = 0.01197$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.66 (Δ -0.52) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.85 (Δ -0.04) commander_dx12_v3_2_29: 23.34 (Δ 0.52) plik_rd12_HM_v22_TT: 759.63 (Δ -0.47)

16.10 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022209	0.02217 ± 0.00022 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9849	0.9857 ± 0.0096 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1525.9	1526 ± 14 (-0.5σ)
$\Omega_{\mathrm{c}}h^2$	0.11978	0.1198 ± 0.0020 $(+0.6\sigma)$	$r_{\mathrm{drag}}h$	99.84	99.84 ± 0.96 $(+0.3\sigma)$	$H(0.51)$	89.92	89.91 ± 0.70 $(+1.1\sigma)$
$100\theta_{\mathrm{MC}}$	1.040876	1.04086 ± 0.00048 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4347	2.436 ± 0.022 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	1976.7	1977 ± 17 (-0.6σ)
τ	0.0539	0.0540 ± 0.0074 (-0.2σ)	z_{re}	7.68	7.68 ± 0.74 (-0.1σ)	$H(0.61)$	95.54	95.54 ± 0.72 $(+1.3\sigma)$
Ω_K	0.00100	0.0011 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.0952	2.097 ± 0.030 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2300.3	2301 ± 19 (-0.6σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0422	3.043 ± 0.014 (-0.1σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8811	1.882 ± 0.012 $(+0.3\sigma)$	$H(2.33)$	236.49	236.5 ± 1.7 $(+0.9\sigma)$
n_{s}	0.9649	0.9644 ± 0.0057 (-0.4σ)	D_{40}	1229.1	1231 ± 15 $(+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	5751.5	5752 ± 38 (-1.3σ)
y_{cal}	1.00045	1.0007 ± 0.0025 (-0.0σ)	D_{220}	5718.2	5721 ± 41 (-0.1σ)	$f\sigma_8(0.15)$	0.4564	0.4568 ± 0.0065 $(+0.1\sigma)$
A_{217}^{CIB}	49.4	48 ± 7 (-0.0σ)	D_{810}	2537.5	2538 ± 13 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7493	0.7498 ± 0.0078 $(+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.12	—	D_{1420}	815.6	815.4 ± 5.1 (-0.0σ)	$f\sigma_8(0.38)$	0.4749	0.4753 ± 0.0057 $(+0.2\sigma)$
A_{143}^{tSZ}	7.12	5.1 ± 2.0 (-0.0σ)	D_{2000}	230.07	229.8 ± 1.9 (-0.1σ)	$\sigma_8(0.38)$	0.6643	0.6647 ± 0.0070 $(+0.4\sigma)$
A_{100}^{PS}	257.2	263 ± 28 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.9649	0.9644 ± 0.0057 (-0.4σ)	$f\sigma_8(0.51)$	0.4736	0.4739 ± 0.0052 $(+0.2\sigma)$
A_{143}^{PS}	46.7	49 ± 8 $(+0.1\sigma)$	Y_{P}	0.245329	$0.24531^{+0.00010}_{-0.000085}$ (-0.2σ)	$\sigma_8(0.51)$	0.6217	0.6221 ± 0.0066 $(+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	41.4	44 ± 9 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246656	$0.24663^{+0.00010}_{-0.000086}$ (-0.2σ)	$f\sigma_8(0.61)$	0.46866	0.4690 ± 0.0049 $(+0.2\sigma)$
A_{217}^{PS}	117.7	115 ± 10 $(+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.6163	2.625 ± 0.042 $(+0.2\sigma)$	$\sigma_8(0.61)$	0.5916	0.5920 ± 0.0063 $(+0.4\sigma)$
A^{kSZ}	0.01	< 4.79 $(+0.0\sigma)$	Age/Gyr	13.766	13.768 ± 0.098 (-1.5σ)	$f\sigma_8(2.33)$	0.29829	0.2985 ± 0.0032 $(+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.81	8.9 ± 1.9 $(+0.0\sigma)$	z_*	1090.106	1090.17 ± 0.41 $(+0.4\sigma)$	$\sigma_8(2.33)$	0.30772	0.3079 ± 0.0036 $(+0.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.84	10.7 ± 1.8 $(+0.0\sigma)$	r_*	144.610	144.63 ± 0.44 (-0.5σ)	f_{2000}^{143}	30.60	31.1 ± 3.0 $(+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.32	18.3 ± 3.3 (-0.0σ)	$100\theta_*$	1.041073	1.04107 ± 0.00047 (-0.3σ)	$f_{2000}^{143 \times 217}$	33.17	33.5 ± 2.0 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	94.7	93.4 ± 7.3 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8905	13.893 ± 0.040 (-0.5σ)	f_{2000}^{217}	107.81	108.1 ± 1.9 $(+0.1\sigma)$
c_{100}	0.99966	0.99962 ± 0.00061 (-0.0σ)	z_{drag}	1059.551	1059.45 ± 0.46 (-0.1σ)	$\chi_{\mathrm{lensing}}^2$	8.876	9.34 ± 0.74 $(+0.1\sigma)$
c_{217}	0.99825	0.99825 ± 0.00062 (-0.0σ)	r_{drag}	147.328	147.36 ± 0.44 (-0.4σ)	χ_{simall}^2	396	295 ± 200 (-55.8σ)
H_0	67.77	67.75 ± 0.68 $(+0.4\sigma)$	k_{D}	0.140493	0.14042 ± 0.00048 $(+0.3\sigma)$	χ_{lowl}^2	23	125 ± 200 $(+117.3\sigma)$
Ω_{Λ}	0.6884	0.6881 ± 0.0066 (-0.1σ)	$100\theta_{\mathrm{D}}$	0.160982	0.16104 ± 0.00026 $(+0.1\sigma)$	χ_{plik}^2	759.40	771.7 ± 5.2 $(+0.0\sigma)$
Ω_{m}	0.3106	0.3109 ± 0.0065 (-0.1σ)	z_{eq}	3393.2	3393 ± 44 $(+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.016	0.43 ± 0.68 $(+5.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14264	0.1426 ± 0.0018 $(+0.6\sigma)$	k_{eq}	0.010356	0.01036 ± 0.00013 $(+0.6\sigma)$	χ_{MGS}^2	1.34	1.04 ± 0.77 (-0.5σ)
$\Omega_{\mathrm{m}}h^3$	0.09666	0.0966 ± 0.0018 $(+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	0.8144	0.8144 ± 0.0084 (-0.6σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.85	4.7 ± 1.9 (-0.1σ)
σ_8	0.8108	0.8113 ± 0.0084 $(+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45009	0.4501 ± 0.0043 (-0.6σ)	χ_{prior}^2	1.42	7.3 ± 3.7 (-0.0σ)
S_8	0.8249	0.826 ± 0.013 $(+0.1\sigma)$	$H(0.15)$	73.06	73.04 ± 0.67 $(+0.5\sigma)$	χ_{CMB}^2	1187.7	1201.7 ± 5.5 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518	0.4523 ± 0.0070 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	639.7	640.0 ± 6.1 (-0.5σ)	χ_{BAO}^2	5.21	6.1 ± 1.6 (-0.0σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6052	0.6058 ± 0.0073 $(+0.2\sigma)$	$H(0.38)$	83.19	83.18 ± 0.68 $(+0.8\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.36$; $\Delta\chi_{\mathrm{eff}}^2 = -0.33$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.14$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.41$; $R - 1 = 0.01348$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.85 (Δ -0.52) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.88 (Δ 0.00) simall_100x143_offlike5_EE_Aplanck
396.03 (Δ -0.07) commander_dx12_v3.2_29: 23.43 (Δ 0.47) plik_rd12_HM_v22.TT: 759.40 (Δ -0.40)

16.11 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9849 \pm 0.0095 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 13 \quad (-0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0019 \quad (+0.7\sigma)$	$r_{\mathrm{drag}}h$	$99.96 \pm 0.93 \quad (+0.3\sigma)$	$H(0.51)$	$89.94 \pm 0.69 \quad (+1.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00047 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 17 \quad (-0.6\sigma)$
τ	$0.0543 \pm 0.0074 \quad (-0.2\sigma)$	z_{re}	$7.71 \pm 0.74 \quad (-0.1\sigma)$	$H(0.61)$	$95.56 \pm 0.72 \quad (+1.3\sigma)$
Ω_K	0.0011 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.098 \pm 0.030 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2299 \pm 19 \quad (-0.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043 \pm 0.014 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$236.4 \pm 1.7 \quad (+1.0\sigma)$
n_{s}	$0.9648 \pm 0.0056 \quad (-0.4\sigma)$	D_{40}	$1230 \pm 15 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5751 \pm 38 \quad (-1.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5722 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4561 \pm 0.0064 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7496 \pm 0.0078 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.6 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4747 \pm 0.0056 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6647 \pm 0.0070 \quad (+0.4\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9648 \pm 0.0056 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4735 \pm 0.0052 \quad (+0.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000084} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6221 \pm 0.0066 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000085} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0049 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.622 \pm 0.042 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5920 \pm 0.0063 \quad (+0.4\sigma)$
A^{kSZ}	$< 4.75 \quad (+0.0\sigma)$	Age/Gyr	$13.766 \pm 0.097 \quad (-1.5\sigma)$	$f\sigma_8(2.33)$	$0.2985 \pm 0.0032 \quad (+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.40 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3080 \pm 0.0036 \quad (+0.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.43 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00047 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.040 \quad (-0.5\sigma)$	f_{2000}^{217}	$108.1 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.47 \pm 0.46 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.34 \pm 0.75 \quad (+0.1\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.39 \pm 0.43 \quad (-0.4\sigma)$	χ_{small}^2	$294 \pm 200 \quad (-55.1\sigma)$
H_0	$67.82 \pm 0.66 \quad (+0.4\sigma)$	k_{D}	$0.14040 \pm 0.00048 \quad (+0.3\sigma)$	χ_{lowl}^2	$127 \pm 200 \quad (+120.5\sigma)$
Ω_{Λ}	$0.6890 \pm 0.0063 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{plik}^2	$771.8 \pm 5.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3099 \pm 0.0062 \quad (-0.1\sigma)$	z_{eq}	$3390 \pm 44 \quad (+0.6\sigma)$	χ_{JLA}^2	$1035.08 \pm 0.30 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0018 \quad (+0.6\sigma)$	k_{eq}	$0.01035 \pm 0.00013 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.45 \pm 0.71 \quad (+6.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0966 \pm 0.0018 \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8150 \pm 0.0083 \quad (-0.7\sigma)$	χ_{MGS}^2	$1.08 \pm 0.80 \quad (-0.6\sigma)$
σ_8	$0.8110 \pm 0.0084 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0042 \quad (-0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.7 \quad (-0.1\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.1\sigma)$	$H(0.15)$	$73.10 \pm 0.66 \quad (+0.5\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4515 \pm 0.0068 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.4 \pm 6.0 \quad (-0.5\sigma)$	χ_{CMB}^2	$1201.7 \pm 5.5 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6051 \pm 0.0072 \quad (+0.2\sigma)$	$H(0.38)$	$83.22 \pm 0.67 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.0 \pm 1.5 \quad (+0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2250.15$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.37$; $R - 1 = 0.01337$

16.12 base_omegak_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00023 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.985 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 14 \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0022 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$99.9 \pm 1.0 \quad (+0.2\sigma)$	$H(0.51)$	$89.94 \pm 0.70 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00048 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.028 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 17 \quad (-0.5\sigma)$
τ	$0.0543^{+0.0050}_{-0.0081} \quad (-0.1\sigma)$	z_{re}	$7.71^{+0.55}_{-0.81} \quad (-0.1\sigma)$	$H(0.61)$	$95.56 \pm 0.73 \quad (+1.2\sigma)$
Ω_K	0.0011 ± 0.0026	$10^9 A_{\mathrm{s}}$	$2.097^{+0.025}_{-0.034} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2300 \pm 19 \quad (-0.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.014 \quad (+0.3\sigma)$	$H(2.33)$	$236.4 \pm 1.8 \quad (+0.9\sigma)$
n_{s}	$0.9649 \pm 0.0060 \quad (-0.4\sigma)$	D_{40}	$1229 \pm 16 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5751 \pm 38 \quad (-1.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5717 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0083 \quad (+0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7497 \pm 0.0091 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.2 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4748 \pm 0.0073 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6647 \pm 0.0079 \quad (+0.5\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9649 \pm 0.0060 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0066 \quad (+0.3\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.24531^{+0.00011}_{-0.000086} \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6221 \pm 0.0074 \quad (+0.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00011}_{-0.000087} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4687 \pm 0.0062 \quad (+0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.625 \pm 0.043 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5920 \pm 0.0070 \quad (+0.5\sigma)$
A^{kSZ}	$< 4.79 \quad (-0.0\sigma)$	Age/Gyr	$13.766 \pm 0.099 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2985 \pm 0.0034 \quad (+0.5\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.16 \pm 0.43 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3080 \pm 0.0039 \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.66 \pm 0.48 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00047 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.1 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.045 \quad (-0.5\sigma)$	f_{2000}^{217}	$108.1 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (+0.0\sigma)$	z_{drag}	$1059.44 \pm 0.46 \quad (-0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.48 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.6 \pm 1.5 \quad (+0.5\sigma)$
H_0	$67.81 \pm 0.69 \quad (+0.3\sigma)$	k_{D}	$0.14039 \pm 0.00051 \quad (+0.2\sigma)$	χ_{plik}^2	$772.2 \pm 5.4 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6888 \pm 0.0075 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16105 \pm 0.00027 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.076 \quad (-0.0\sigma)$
Ω_{m}	$0.3101 \pm 0.0072 \quad (-0.0\sigma)$	z_{eq}	$3391 \pm 49 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.48 \pm 0.61 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0020 \quad (+0.6\sigma)$	k_{eq}	$0.01035 \pm 0.00015 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.9 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0967 \pm 0.0018 \quad (+1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8149 \pm 0.0092 \quad (-0.6\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.811 \pm 0.010 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0047 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.1 \pm 1.6 \quad (-0.0\sigma)$
S_8	$0.825 \pm 0.016 \quad (+0.2\sigma)$	$H(0.15)$	$73.09 \pm 0.68 \quad (+0.4\sigma)$	χ_{CMB}^2	$1192.6 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4517 \pm 0.0089 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.5 \pm 6.2 \quad (-0.4\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6052 \pm 0.0093 \quad (+0.3\sigma)$	$H(0.38)$	$83.21 \pm 0.68 \quad (+0.7\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.04$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.28$; $R - 1 = 0.01397$

16.13 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9861 \pm 0.0095 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526 \pm 14 \quad (-0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0019 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$99.85 \pm 0.96 \quad (+0.2\sigma)$	$H(0.51)$	$89.90 \pm 0.70 \quad (+1.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00048 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977 \pm 17 \quad (-0.6\sigma)$
τ	$0.0549^{+0.0054}_{-0.0078} \quad (-0.1\sigma)$	z_{re}	$7.77^{+0.58}_{-0.76} \quad (-0.1\sigma)$	$H(0.61)$	$95.52 \pm 0.72 \quad (+1.2\sigma)$
Ω_K	0.00099 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.100^{+0.023}_{-0.031} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 19 \quad (-0.6\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.011}_{-0.014} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$236.4 \pm 1.7 \quad (+0.9\sigma)$
n_{s}	$0.9646 \pm 0.0056 \quad (-0.3\sigma)$	D_{40}	$1230 \pm 15 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5753 \pm 38 \quad (-1.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5721 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4569 \pm 0.0065 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7501 \pm 0.0077 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.4 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4754 \pm 0.0056 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6650 \pm 0.0069 \quad (+0.4\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9646 \pm 0.0056 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4741 \pm 0.0052 \quad (+0.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000084} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6224 \pm 0.0065 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000085} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4692 \pm 0.0049 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.623 \pm 0.042 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5923 \pm 0.0062 \quad (+0.4\sigma)$
A^{kSZ}	$< 4.79 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.771 \pm 0.097 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2986 \pm 0.0031 \quad (+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	z_*	$1090.15 \pm 0.40 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3081 \pm 0.0036 \quad (+0.5\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.65 \pm 0.43 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00047 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.894 \pm 0.040 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.1 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.46 \pm 0.46 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.29 \pm 0.69 \quad (+0.1\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.38 \pm 0.43 \quad (-0.4\sigma)$	χ_{small}^2	$296 \pm 200 \quad (-54.8\sigma)$
H_0	$67.75 \pm 0.68 \quad (+0.4\sigma)$	k_{D}	$0.14041 \pm 0.00047 \quad (+0.3\sigma)$	χ_{lowl}^2	$125 \pm 200 \quad (+116.2\sigma)$
Ω_{Λ}	$0.6884 \pm 0.0065 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00026 \quad (+0.1\sigma)$	χ_{plik}^2	$771.6 \pm 5.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3106 \pm 0.0064 \quad (-0.1\sigma)$	z_{eq}	$3391 \pm 43 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.43 \pm 0.68 \quad (+5.5\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0018 \quad (+0.6\sigma)$	k_{eq}	$0.01035 \pm 0.00013 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.04 \pm 0.78 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0966 \pm 0.0018 \quad (+1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8147 \pm 0.0082 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.9 \quad (-0.1\sigma)$
σ_8	$0.8117 \pm 0.0083 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4503 \pm 0.0042 \quad (-0.6\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.826 \pm 0.013 \quad (+0.1\sigma)$	$H(0.15)$	$73.04 \pm 0.67 \quad (+0.5\sigma)$	χ_{CMB}^2	$1201.5 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4524 \pm 0.0069 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.9 \pm 6.1 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.2 \pm 1.6 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6059 \pm 0.0073 \quad (+0.2\sigma)$	$H(0.38)$	$83.17 \pm 0.68 \quad (+0.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1214.95$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.38$; $R - 1 = 0.01494$

16.14 base_omegak_plikHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9853 \pm 0.0094 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 13 \quad (-0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0019 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$99.97 \pm 0.93 \quad (+0.2\sigma)$	$H(0.51)$	$89.93 \pm 0.69 \quad (+1.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00047 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 17 \quad (-0.6\sigma)$
τ	$0.0552^{+0.0055}_{-0.0078} \quad (-0.2\sigma)$	z_{re}	$7.80^{+0.59}_{-0.76} \quad (-0.1\sigma)$	$H(0.61)$	$95.55 \pm 0.72 \quad (+1.2\sigma)$
Ω_K	0.00099 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.101^{+0.024}_{-0.031} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2300 \pm 19 \quad (-0.6\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.011}_{-0.015} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.012 \quad (+0.3\sigma)$	$H(2.33)$	$236.3 \pm 1.7 \quad (+0.9\sigma)$
n_{s}	$0.9650 \pm 0.0056 \quad (-0.3\sigma)$	D_{40}	$1230 \pm 15 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5752 \pm 38 \quad (-1.3\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5722 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0064 \quad (+0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7500 \pm 0.0077 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.6 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4749 \pm 0.0055 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6650 \pm 0.0069 \quad (+0.4\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9650 \pm 0.0056 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4737 \pm 0.0051 \quad (+0.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.24532^{+0.00010}_{-0.000084} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6224 \pm 0.0065 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000084} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4688 \pm 0.0049 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.621 \pm 0.042 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5923 \pm 0.0062 \quad (+0.4\sigma)$
A^{kSZ}	$< 4.76 \quad (+0.0\sigma)$	Age/Gyr	$13.768 \pm 0.097 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2987 \pm 0.0031 \quad (+0.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	z_*	$1090.12 \pm 0.40 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3082 \pm 0.0036 \quad (+0.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.68 \pm 0.43 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 3.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00047 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.897 \pm 0.040 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.48 \pm 0.46 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.29 \pm 0.70 \quad (+0.1\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.41 \pm 0.43 \quad (-0.4\sigma)$	χ_{small}^2	$294 \pm 200 \quad (-54.1\sigma)$
H_0	$67.82 \pm 0.66 \quad (+0.4\sigma)$	k_{D}	$0.14039 \pm 0.00047 \quad (+0.3\sigma)$	χ_{lowl}^2	$126 \pm 200 \quad (+119.5\sigma)$
Ω_{Λ}	$0.6893 \pm 0.0063 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{plik}^2	$771.7 \pm 5.2 \quad (+0.0\sigma)$
Ω_{m}	$0.3097 \pm 0.0062 \quad (-0.1\sigma)$	z_{eq}	$3388 \pm 43 \quad (+0.6\sigma)$	χ_{JLA}^2	$1035.07 \pm 0.30 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0018 \quad (+0.6\sigma)$	k_{eq}	$0.01034 \pm 0.00013 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.45 \pm 0.71 \quad (+6.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0966 \pm 0.0018 \quad (+1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8153 \pm 0.0082 \quad (-0.6\sigma)$	χ_{MGS}^2	$1.08 \pm 0.80 \quad (-0.6\sigma)$
σ_8	$0.8114 \pm 0.0083 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0042 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.7 \quad (-0.1\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.1\sigma)$	$H(0.15)$	$73.10 \pm 0.66 \quad (+0.5\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4516 \pm 0.0068 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.4 \pm 6.0 \quad (-0.5\sigma)$	χ_{CMB}^2	$1201.5 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6053 \pm 0.0072 \quad (+0.2\sigma)$	$H(0.38)$	$83.21 \pm 0.67 \quad (+0.8\sigma)$	χ_{BAO}^2	$6.0 \pm 1.5 \quad (+0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 2249.97$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.34$; $R - 1 = 0.01495$

16.15 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022396	0.02239 ± 0.00015 (-0.2σ)	σ_8	0.8109	0.8109 ± 0.0084 $(+0.1\sigma)$	$D_M(0.15)$	638.9	638.8 ± 6.0 (-0.5σ)
$\Omega_c h^2$	0.11972	0.1197 ± 0.0014 $(+0.4\sigma)$	S_8	0.8242	0.824 ± 0.013 (-0.0σ)	$H(0.38)$	83.28	83.29 ± 0.62 $(+0.8\sigma)$
$100\theta_{MC}$	1.040949	1.04095 ± 0.00031 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4515	0.4514 ± 0.0070 (-0.0σ)	$D_M(0.38)$	1523.9	1524 ± 13 (-0.6σ)
τ	0.0544	0.0548 ± 0.0078 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6051	0.6050 ± 0.0073 $(+0.0\sigma)$	$H(0.51)$	90.00	90.01 ± 0.61 $(+1.1\sigma)$
Ω_K	0.00079	0.0008 ± 0.0019	$\sigma_8/h^{0.5}$	0.9843	0.984 ± 0.010 (-0.0σ)	$D_M(0.51)$	1974.3	1974 ± 16 (-0.6σ)
$\ln(10^{10} A_s)$	3.0441	3.044 ± 0.016 (-0.1σ)	$r_{drag} h$	99.86	99.89 ± 0.99 $(+0.4\sigma)$	$H(0.61)$	95.63	95.64 ± 0.61 $(+1.3\sigma)$
n_s	0.96638	0.9659 ± 0.0045 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4336	2.434 ± 0.025 (-0.1σ)	$D_M(0.61)$	2297.5	2297 ± 18 (-0.7σ)
y_{cal}	1.00064	1.0006 ± 0.0025 $(+0.0\sigma)$	z_{re}	7.69	7.71 ± 0.79 (-0.1σ)	$H(2.33)$	236.59	236.6 ± 1.2 $(+0.7\sigma)$
A_{217}^{CIB}	47.4	47 ± 7 $(+0.0\sigma)$	$10^9 A_s$	2.0991	2.100 ± 0.034 (-0.1σ)	$D_M(2.33)$	5746.4	5746 ± 31 (-1.4σ)
$\xi^{tSZ \times CIB}$	0.43	—	$10^9 A_s e^{-2\tau}$	1.8827	1.882 ± 0.012 $(+0.2\sigma)$	$f\sigma_8(0.15)$	0.4561	0.4560 ± 0.0066 (-0.0σ)
A_{143}^{tSZ}	7.16	$5.4_{-1.9}^{+2.1}$ (-0.1σ)	D_{40}	1228.1	1229 ± 13 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7495	0.7495 ± 0.0077 $(+0.2\sigma)$
A_{100}^{PS}	251.1	259 ± 28 $(+0.0\sigma)$	D_{220}	5732.8	5734 ± 39 (-0.0σ)	$f\sigma_8(0.38)$	0.4747	0.4747 ± 0.0058 (-0.0σ)
A_{143}^{PS}	48.1	46 ± 8 $(+0.1\sigma)$	D_{810}	2541.2	2539 ± 14 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6646	0.6646 ± 0.0069 $(+0.2\sigma)$
$A_{143 \times 217}^{PS}$	47.6	42 ± 9 $(+0.0\sigma)$	D_{1420}	818.24	817.5 ± 4.8 (-0.1σ)	$f\sigma_8(0.51)$	0.4735	0.4735 ± 0.0053 $(+0.0\sigma)$
A_{217}^{PS}	119.5	115 ± 10 (-0.0σ)	D_{2000}	231.28	230.9 ± 1.6 (-0.1σ)	$\sigma_8(0.51)$	0.6220	0.6221 ± 0.0065 $(+0.2\sigma)$
A^{kSZ}	0.00	< 4.39 $(+0.1\sigma)$	$n_{s,0.002}$	0.96638	0.9659 ± 0.0045 (-0.3σ)	$f\sigma_8(0.61)$	0.4686	0.4686 ± 0.0051 $(+0.0\sigma)$
A_{100}^{dustTT}	8.79	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245406	$0.245400_{-0.000055}^{+0.000063}$ (-0.3σ)	$\sigma_8(0.61)$	0.5919	0.5920 ± 0.0062 $(+0.2\sigma)$
A_{143}^{dustTT}	11.01	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246732	$0.246726_{-0.000055}^{+0.000063}$ (-0.3σ)	$f\sigma_8(2.33)$	0.29846	0.2985 ± 0.0032 $(+0.2\sigma)$
$A_{143 \times 217}^{dustTT}$	19.80	18.6 ± 3.3 (-0.0σ)	$10^5 D/H$	2.5806	2.583 ± 0.028 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.30789	0.3080 ± 0.0035 $(+0.3\sigma)$
A_{217}^{dustTT}	94.9	93.7 ± 7.3 (-0.0σ)	Age/Gyr	13.755	13.755 ± 0.080 (-1.6σ)	f_{2000}^{143}	29.06	29.5 ± 2.8 $(+0.1\sigma)$
A_{100}^{dustTE}	0.1141	0.115 ± 0.039 $(+0.0\sigma)$	z_*	1089.862	1089.88 ± 0.28 $(+0.3\sigma)$	$f_{2000}^{143 \times 217}$	32.10	32.2 ± 1.9 $(+0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1352	0.135 ± 0.030 $(+0.0\sigma)$	r_*	144.483	144.50 ± 0.31 (-0.3σ)	f_{2000}^{217}	106.68	107.0 ± 1.8 $(+0.1\sigma)$
$A_{100 \times 217}^{dustTE}$	0.482	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041130	1.04113 ± 0.00031 (-0.2σ)	χ_{small}^2	396.06	397.2 ± 1.9 (-0.1σ)
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8775	13.879 ± 0.029 (-0.3σ)	χ_{lowl}^2	23.21	23.4 ± 1.1 $(+0.3\sigma)$
$A_{143 \times 217}^{dustTE}$	0.666	0.665 ± 0.080 $(+0.0\sigma)$	z_{drag}	1059.971	1059.95 ± 0.31 (-0.2σ)	χ_{plik}^2	2345.1	2360.2 ± 5.8 $(+0.1\sigma)$
A_{217}^{dustTE}	2.082	2.08 ± 0.27 (-0.0σ)	r_{drag}	147.137	147.15 ± 0.31 (-0.3σ)	χ_{6DF}^2	0.0157	0.057 ± 0.079 $(+0.0\sigma)$
c_{100}	0.99969	0.99969 ± 0.00062 $(+0.0\sigma)$	k_D	0.140840	0.14081 ± 0.00033 $(+0.2\sigma)$	χ_{MGS}^2	1.34	1.44 ± 0.59 $(+0.4\sigma)$
c_{217}	0.99817	0.99822 ± 0.00062 $(+0.1\sigma)$	$100\theta_D$	0.160736	0.16075 ± 0.00018 $(+0.2\sigma)$	$\chi_{DR12BAO}^2$	3.92	4.7 ± 1.9 (-0.1σ)
H_0	67.87	67.88 ± 0.68 $(+0.5\sigma)$	z_{eq}	3396.2	3396 ± 32 $(+0.4\sigma)$	χ_{prior}^2	1.75	11.6 ± 4.5 $(+0.0\sigma)$
Ω_Λ	0.6893	0.6894 ± 0.0061 $(+0.1\sigma)$	k_{eq}	0.010365	0.010364 ± 0.000097 $(+0.4\sigma)$	χ_{BAO}^2	5.28	6.2 ± 1.7 $(+0.0\sigma)$
Ω_m	0.3099	0.3098 ± 0.0066 (-0.2σ)	$100\theta_{eq}$	0.8145	0.8146 ± 0.0060 (-0.4σ)	χ_{CMB}^2	2764.4	2780.7 ± 5.8 $(+0.1\sigma)$
$\Omega_m h^2$	0.14276	0.1427 ± 0.0013 $(+0.4\sigma)$	$100\theta_{s,eq}$	0.44998	0.4501 ± 0.0031 (-0.4σ)			
$\Omega_m h^3$	0.09689	0.0969 ± 0.0014 $(+2.0\sigma)$	$H(0.15)$	73.15	73.17 ± 0.65 $(+0.6\sigma)$			

Best-fit $\chi_{eff}^2 = 2771.38$; $\Delta\chi_{eff}^2 = -0.53$; $\bar{\chi}_{eff}^2 = 2798.58$; $\Delta\bar{\chi}_{eff}^2 = 0.67$; $R - 1 = 0.01668$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.92 (Δ -0.50) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ -0.14) commander_dx12.v3.2.29: 23.21 (Δ 0.34) plik_rd12_HM_v22b_TTTEEE: 2345.09 (Δ -0.42)

16.16 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022412	0.02239 ± 0.00015 (-0.2σ)	σ_8	0.8118	0.8115 ± 0.0072 $(+0.2\sigma)$	$D_M(0.15)$	638.8	639.0 ± 5.8 (-0.5σ)
$\Omega_c h^2$	0.11970	0.1197 ± 0.0014 $(+0.4\sigma)$	S_8	0.8250	0.825 ± 0.011 (-0.0σ)	$H(0.38)$	83.28	83.27 ± 0.61 $(+0.8\sigma)$
$100\theta_{MC}$	1.040988	1.04095 ± 0.00032 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4519	0.4518 ± 0.0058 (-0.0σ)	$D_M(0.38)$	1523.8	1524 ± 13 (-0.6σ)
τ	0.0556	0.0556 ± 0.0073 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6057	0.6055 ± 0.0060 $(+0.1\sigma)$	$H(0.51)$	90.00	89.99 ± 0.60 $(+1.0\sigma)$
Ω_K	0.00073	0.0007 ± 0.0019	$\sigma_8/h^{0.5}$	0.9854	0.9851 ± 0.0085 $(+0.0\sigma)$	$D_M(0.51)$	1974.2	1975 ± 16 (-0.6σ)
$\ln(10^{10} A_s)$	3.0462	3.046 ± 0.014 (-0.0σ)	$r_{drag} h$	99.86	99.86 ± 0.95 $(+0.3\sigma)$	$H(0.61)$	95.63	95.61 ± 0.60 $(+1.2\sigma)$
n_s	0.96694	0.9658 ± 0.0044 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4351	2.437 ± 0.020 (-0.1σ)	$D_M(0.61)$	2297.4	2298 ± 18 (-0.6σ)
y_{cal}	1.00049	1.0007 ± 0.0025 (-0.0σ)	z_{re}	7.80	7.78 ± 0.73 (-0.1σ)	$H(2.33)$	236.58	236.6 ± 1.2 $(+0.7\sigma)$
A_{217}^{CIB}	46.8	47 ± 7 (-0.0σ)	$10^9 A_s$	2.1036	2.104 ± 0.030 (-0.0σ)	$D_M(2.33)$	5746.3	5747 ± 31 (-1.3σ)
$\xi^{tSZ \times CIB}$	0.47	—	$10^9 A_s e^{-2\tau}$	1.8821	1.882 ± 0.011 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4565	0.4564 ± 0.0055 (-0.0σ)
A_{143}^{tSZ}	7.20	$5.4_{-1.9}^{+2.1}$ (-0.0σ)	D_{40}	1226.9	1230 ± 13 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7503	0.7501 ± 0.0068 $(+0.2\sigma)$
A_{100}^{PS}	249.1	259 ± 28 $(+0.0\sigma)$	D_{220}	5730.0	5737 ± 39 (-0.1σ)	$f\sigma_8(0.38)$	0.47523	0.4751 ± 0.0047 $(+0.0\sigma)$
A_{143}^{PS}	47.7	46 ± 8 $(+0.0\sigma)$	D_{810}	2540.9	2540 ± 13 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6653	0.6651 ± 0.0062 $(+0.3\sigma)$
$A_{143 \times 217}^{PS}$	48.3	42 ± 9 (-0.0σ)	D_{1420}	818.43	817.7 ± 4.7 (-0.0σ)	$f\sigma_8(0.51)$	0.47401	0.4739 ± 0.0044 $(+0.1\sigma)$
A_{217}^{PS}	120.2	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.41	231.0 ± 1.6 (-0.1σ)	$\sigma_8(0.51)$	0.6227	0.6225 ± 0.0059 $(+0.3\sigma)$
A^{kSZ}	0.00	< 4.24 (-0.0σ)	$n_{s,0.002}$	0.96694	0.9658 ± 0.0044 (-0.2σ)	$f\sigma_8(0.61)$	0.46915	0.4690 ± 0.0041 $(+0.1\sigma)$
A_{100}^{dustTT}	8.83	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245412	$0.245403_{-0.000055}^{+0.000061}$ (-0.2σ)	$\sigma_8(0.61)$	0.5926	0.5923 ± 0.0057 $(+0.3\sigma)$
A_{143}^{dustTT}	11.00	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.246738	$0.246729_{-0.000055}^{+0.000061}$ (-0.2σ)	$f\sigma_8(2.33)$	0.29880	0.2987 ± 0.0029 $(+0.3\sigma)$
$A_{143 \times 217}^{dustTT}$	19.80	18.6 ± 3.3 $(+0.0\sigma)$	$10^5 D/H$	2.5777	2.582 ± 0.028 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.30823	0.3081 ± 0.0033 $(+0.4\sigma)$
A_{217}^{dustTT}	95.1	93.7 ± 7.4 $(+0.0\sigma)$	Age/Gyr	13.755	13.758 ± 0.079 (-1.5σ)	f_{2000}^{143}	28.62	29.5 ± 2.8 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1142	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.840	1089.86 ± 0.28 $(+0.3\sigma)$	$f_{2000}^{143 \times 217}$	31.86	32.2 ± 1.9 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1335	0.135 ± 0.029 (-0.0σ)	r_*	144.478	144.50 ± 0.30 (-0.3σ)	f_{2000}^{217}	106.50	107.0 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.480	0.483 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041163	1.04113 ± 0.00031 (-0.2σ)	$\chi_{lensing}^2$	8.786	9.13 ± 0.58 $(+0.1\sigma)$
A_{143}^{dustTE}	0.223	0.225 ± 0.055 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8766	13.879 ± 0.028 (-0.3σ)	χ_{simall}^2	396	291 ± 200 (-57.3σ)
$A_{143 \times 217}^{dustTE}$	0.665	0.664 ± 0.080 (-0.0σ)	z_{drag}	1060.009	1059.97 ± 0.30 (-0.1σ)	χ_{lowl}^2	23	129 ± 200 $(+129.4\sigma)$
A_{217}^{dustTE}	2.091	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	147.126	147.15 ± 0.29 (-0.3σ)	χ_{plik}^2	2345.0	2359.8 ± 5.8 $(+0.0\sigma)$
c_{100}	0.99971	0.99969 ± 0.00061 $(+0.0\sigma)$	k_D	0.140863	0.14082 ± 0.00031 $(+0.2\sigma)$	χ_{6DF}^2	0.016	0.44 ± 0.69 $(+6.5\sigma)$
c_{217}	0.99818	0.99821 ± 0.00061 $(+0.0\sigma)$	$100\theta_D$	0.160720	0.16074 ± 0.00017 $(+0.1\sigma)$	χ_{MGS}^2	1.34	1.03 ± 0.77 (-0.6σ)
H_0	67.87	67.86 ± 0.65 $(+0.5\sigma)$	z_{eq}	3395.9	3395 ± 31 $(+0.4\sigma)$	$\chi_{DR12BAO}^2$	3.93	4.7 ± 1.9 (-0.1σ)
Ω_Λ	0.6894	0.6893 ± 0.0058 $(+0.1\sigma)$	k_{eq}	0.010365	0.010362 ± 0.000093 $(+0.4\sigma)$	χ_{prior}^2	1.70	11.5 ± 4.4 (-0.0σ)
Ω_m	0.3099	0.3100 ± 0.0063 (-0.2σ)	$100\theta_{eq}$	0.8146	0.8147 ± 0.0058 (-0.4σ)	χ_{CMB}^2	2773.2	2789.5 ± 5.9 $(+0.1\sigma)$
$\Omega_m h^2$	0.14275	0.1427 ± 0.0013 $(+0.4\sigma)$	$100\theta_{s,eq}$	0.45003	0.4501 ± 0.0030 (-0.4σ)	χ_{BAO}^2	5.29	6.2 ± 1.6 $(+0.1\sigma)$
$\Omega_m h^3$	0.09689	0.0969 ± 0.0014 $(+1.7\sigma)$	$H(0.15)$	73.16	73.15 ± 0.63 $(+0.6\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 2780.16$; $\Delta\chi_{\text{eff}}^2 = -0.54$; $\bar{\chi}_{\text{eff}}^2 = 2807.21$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.36$; $R - 1 = 0.02276$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.13) DR12BAO: 3.93 (Δ -0.49) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.79 (Δ 0.06) simall_100x143_offlike5_EE_Aplanck
396.28 (Δ -0.24) commander_dx12_v3.2_29: 23.14 (Δ 0.24) plik_rd12_HM_v22b.TTTEEE: 2344.96 (Δ -0.36)

16.17 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022420	0.02240 ± 0.00015 (-0.2σ)	σ_8	0.8117	0.8115 ± 0.0072 $(+0.3\sigma)$	$D_M(0.15)$	638.2	638.4 ± 5.7 (-0.6σ)
$\Omega_c h^2$	0.11956	0.1196 ± 0.0014 $(+0.4\sigma)$	S_8	0.8238	0.824 ± 0.010 (-0.0σ)	$H(0.38)$	83.32	83.32 ± 0.60 $(+0.9\sigma)$
$100\theta_{MC}$	1.040974	1.04096 ± 0.00032 (-0.2σ)	$\sigma_8 \Omega_m^{0.5}$	0.4512	0.4512 ± 0.0057 (-0.0σ)	$D_M(0.38)$	1522.7	1523 ± 12 (-0.6σ)
τ	0.0559	0.0559 ± 0.0073 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6052	0.6051 ± 0.0059 $(+0.1\sigma)$	$H(0.51)$	90.04	90.03 ± 0.60 $(+1.1\sigma)$
Ω_K	0.00077	0.0008 ± 0.0019	$\sigma_8/h^{0.5}$	0.9848	0.9846 ± 0.0084 $(+0.0\sigma)$	$D_M(0.51)$	1972.9	1973 ± 15 (-0.7σ)
$\ln(10^{10} A_s)$	3.0470	3.047 ± 0.014 (-0.0σ)	$r_{drag} h$	99.98	99.97 ± 0.92 $(+0.4\sigma)$	$H(0.61)$	95.66	95.65 ± 0.60 $(+1.4\sigma)$
n_s	0.96722	$0.9660^{+0.0042}_{-0.0047}$ (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4339	2.436 ± 0.020 (-0.1σ)	$D_M(0.61)$	2296.0	2296 ± 17 (-0.7σ)
y_{cal}	1.00076	1.0007 ± 0.0025 (-0.0σ)	z_{re}	7.83	7.81 ± 0.72 (-0.0σ)	$H(2.33)$	236.51	236.5 ± 1.2 $(+0.8\sigma)$
A_{217}^{CIB}	46.4	47 ± 7 (-0.0σ)	$10^9 A_s$	2.1052	2.105 ± 0.030 (-0.0σ)	$D_M(2.33)$	5745.2	5745 ± 31 (-1.4σ)
$\xi^{tSZ \times CIB}$	0.61	—	$10^9 A_s e^{-2\tau}$	1.8825	1.882 ± 0.011 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4559	0.4559 ± 0.0054 $(+0.0\sigma)$
A_{143}^{tSZ}	7.10	$5.4^{+2.1}_{-1.9}$ (-0.0σ)	D_{40}	1227.0	1229 ± 13 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7503	0.7501 ± 0.0068 $(+0.3\sigma)$
A_{100}^{PS}	249.2	259 ± 28 $(+0.0\sigma)$	D_{220}	5734.0	5738 ± 39 (-0.1σ)	$f\sigma_8(0.38)$	0.47481	0.4748 ± 0.0047 $(+0.1\sigma)$
A_{143}^{PS}	49.9	46 ± 8 $(+0.0\sigma)$	D_{810}	2542.2	2540 ± 13 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6654	0.6652 ± 0.0062 $(+0.3\sigma)$
$A_{143 \times 217}^{PS}$	51.9	42 ± 9 (-0.0σ)	D_{1420}	818.91	817.8 ± 4.7 (-0.0σ)	$f\sigma_8(0.51)$	0.47369	0.4736 ± 0.0043 $(+0.1\sigma)$
A_{217}^{PS}	121.2	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.57	231.1 ± 1.6 (-0.1σ)	$\sigma_8(0.51)$	0.6228	0.6227 ± 0.0059 $(+0.3\sigma)$
A^{kSZ}	0.00	< 4.22 (-0.0σ)	$n_{s,0.002}$	0.96722	$0.9660^{+0.0042}_{-0.0047}$ (-0.2σ)	$f\sigma_8(0.61)$	0.46890	0.4688 ± 0.0041 $(+0.1\sigma)$
A_{100}^{dustTT}	8.84	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245415	$0.245405^{+0.000061}_{-0.000054}$ (-0.2σ)	$\sigma_8(0.61)$	0.5927	0.5925 ± 0.0057 $(+0.3\sigma)$
A_{143}^{dustTT}	11.07	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.246742	$0.246732^{+0.000061}_{-0.000055}$ (-0.2σ)	$f\sigma_8(2.33)$	0.29891	0.2988 ± 0.0029 $(+0.3\sigma)$
$A_{143 \times 217}^{dustTT}$	20.13	18.6 ± 3.3 $(+0.0\sigma)$	$10^5 D/H$	2.5761	2.580 ± 0.028 $(+0.2\sigma)$	$\sigma_8(2.33)$	0.30839	0.3083 ± 0.0033 $(+0.4\sigma)$
A_{217}^{dustTT}	95.4	93.7 ± 7.4 $(+0.0\sigma)$	Age/Gyr	13.752	13.753 ± 0.079 (-1.6σ)	f_{2000}^{143}	28.63	29.5 ± 2.8 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1137	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.818	1089.85 ± 0.28 $(+0.3\sigma)$	$f_{2000}^{143 \times 217}$	31.97	32.1 ± 1.9 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1340	0.135 ± 0.029 (-0.0σ)	r_*	144.506	144.51 ± 0.30 (-0.4σ)	f_{2000}^{217}	106.52	107.0 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.482	0.483 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041150	1.04114 ± 0.00031 (-0.2σ)	$\chi_{lensing}^2$	8.771	9.13 ± 0.58 $(+0.0\sigma)$
A_{143}^{dustTE}	0.226	0.224 ± 0.055 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8794	13.880 ± 0.028 (-0.3σ)	χ_{small}^2	396	291 ± 200 (-56.1σ)
$A_{143 \times 217}^{dustTE}$	0.668	0.664 ± 0.080 (-0.0σ)	z_{drag}	1060.009	1059.98 ± 0.30 (-0.1σ)	χ_{lowl}^2	23	129 ± 200 $(+130.7\sigma)$
A_{217}^{dustTE}	2.094	2.08 ± 0.27 $(+0.0\sigma)$	r_{drag}	147.152	147.16 ± 0.29 (-0.3σ)	χ_{plik}^2	2345.1	2359.9 ± 5.8 $(+0.0\sigma)$
c_{100}	0.99972	0.99969 ± 0.00061 $(+0.0\sigma)$	k_D	0.140842	0.14081 ± 0.00031 $(+0.2\sigma)$	χ_{JLA}^2	1034.957	1035.03 ± 0.27 (-0.1σ)
c_{217}	0.99819	0.99821 ± 0.00061 $(+0.0\sigma)$	$100\theta_D$	0.160711	0.16074 ± 0.00017 $(+0.1\sigma)$	χ_{6DF}^2	0.010	0.46 ± 0.72 $(+7.8\sigma)$
H_0	67.94	67.93 ± 0.64 $(+0.5\sigma)$	z_{eq}	3393.0	3393 ± 30 $(+0.4\sigma)$	χ_{MGS}^2	1.41	1.07 ± 0.79 (-0.6σ)
Ω_Λ	0.6902	0.6900 ± 0.0056 $(+0.1\sigma)$	k_{eq}	0.010356	0.010357 ± 0.000093 $(+0.4\sigma)$	$\chi_{DR12BAO}^2$	3.79	4.5 ± 1.7 (-0.1σ)
Ω_m	0.3090	0.3092 ± 0.0060 (-0.2σ)	$100\theta_{eq}$	0.8151	0.8150 ± 0.0058 (-0.4σ)	χ_{prior}^2	1.68	11.5 ± 4.5 (-0.0σ)
$\Omega_m h^2$	0.14263	0.1426 ± 0.0013 $(+0.4\sigma)$	$100\theta_{s,eq}$	0.45030	0.4503 ± 0.0030 (-0.4σ)	χ_{CMB}^2	2773.3	2789.6 ± 5.9 $(+0.1\sigma)$
$\Omega_m h^3$	0.09690	0.0969 ± 0.0014 $(+1.9\sigma)$	$H(0.15)$	73.22	73.21 ± 0.62 $(+0.6\sigma)$	χ_{BAO}^2	5.20	6.1 ± 1.4 $(+0.1\sigma)$

Best-fit $\chi_{eff}^2 = 3815.13$; $\Delta\chi_{eff}^2 = -0.54$; $\bar{\chi}_{eff}^2 = 3842.20$; $\Delta\bar{\chi}_{eff}^2 = 0.34$; $R - 1 = 0.02228$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ -0.01) MGS: 1.41 (Δ 0.13) DR12BAO: 3.79 (Δ -0.46) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 (Δ 0.05) small_100x143_offlike5_EE_Aplanck 396.34 (Δ -0.18) commander_dx12_v3.2_29: 23.10 (Δ 0.21) plik_rd12_HM_v22b.TTTEEE: 2345.08 (Δ -0.18) SN - JLA Pantheon18: 1034.96 (Δ -0.02)

16.18 base_omegak_plikHM_TTTEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00015 \quad (-0.2\sigma)$	σ_8	$0.8117^{+0.0073}_{-0.0084} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$638.7 \pm 6.0 \quad (-0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0014 \quad (+0.4\sigma)$	S_8	$0.825 \pm 0.013 \quad (-0.0\sigma)$	$H(0.38)$	$83.29 \pm 0.62 \quad (+0.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00031 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4517 \pm 0.0069 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 13 \quad (-0.6\sigma)$
τ	$0.0558^{+0.0057}_{-0.0081} \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6055 \pm 0.0071 \quad (+0.0\sigma)$	$H(0.51)$	$90.02 \pm 0.61 \quad (+1.1\sigma)$
Ω_K	0.0008 ± 0.0019	$\sigma_8/h^{0.5}$	$0.9851^{+0.0094}_{-0.010} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1974 \pm 16 \quad (-0.6\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.016} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.91 \pm 0.99 \quad (+0.4\sigma)$	$H(0.61)$	$95.64 \pm 0.61 \quad (+1.3\sigma)$
n_{s}	$0.9660 \pm 0.0044 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436^{+0.022}_{-0.025} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2297 \pm 18 \quad (-0.7\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.81^{+0.62}_{-0.80} \quad (-0.1\sigma)$	$H(2.33)$	$236.6 \pm 1.2 \quad (+0.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.026}_{-0.035} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5746 \pm 31 \quad (-1.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.012 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4563 \pm 0.0065 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9} \quad (-0.1\sigma)$	D_{40}	$1229 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7502^{+0.0067}_{-0.0077} \quad (+0.2\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5734 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4751 \pm 0.0056 \quad (+0.0\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2539 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6652^{+0.0060}_{-0.0069} \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$817.5 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4739 \pm 0.0052 \quad (+0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.9 \pm 1.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6227^{+0.0057}_{-0.0065} \quad (+0.3\sigma)$
A^{kSZ}	$< 4.38 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9660 \pm 0.0044 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4690 \pm 0.0048 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245400^{+0.000063}_{-0.000055} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5925^{+0.0054}_{-0.0062} \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246727^{+0.000063}_{-0.000055} \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2988^{+0.0027}_{-0.0031} \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.583 \pm 0.028 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3083^{+0.0031}_{-0.0035} \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.755 \pm 0.080 \quad (-1.6\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.039 \quad (+0.0\sigma)$	z_*	$1089.87 \pm 0.28 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.9 \quad (+0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	r_*	$144.50 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00031 \quad (-0.2\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.879 \pm 0.029 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.4 \pm 1.1 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.665 \pm 0.080 \quad (+0.0\sigma)$	z_{drag}	$1059.95 \pm 0.31 \quad (-0.2\sigma)$	χ_{plik}^2	$2360.0 \pm 5.8 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.16 \pm 0.31 \quad (-0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.078 \quad (+0.0\sigma)$
c_{100}	$0.99968 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14081 \pm 0.00033 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.45 \pm 0.59 \quad (+0.4\sigma)$
c_{217}	$0.99822 \pm 0.00062 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00018 \quad (+0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.9 \quad (-0.1\sigma)$
H_0	$67.89 \pm 0.67 \quad (+0.5\sigma)$	z_{eq}	$3395 \pm 32 \quad (+0.4\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6895 \pm 0.0061 \quad (+0.1\sigma)$	k_{eq}	$0.010362 \pm 0.000097 \quad (+0.4\sigma)$	χ_{BAO}^2	$6.2 \pm 1.7 \quad (+0.0\sigma)$
Ω_{m}	$0.3097 \pm 0.0066 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8147 \pm 0.0060 \quad (-0.4\sigma)$	χ_{CMB}^2	$2780.5 \pm 5.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1427 \pm 0.0013 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4501 \pm 0.0031 \quad (-0.4\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.0969 \pm 0.0014 \quad (+2.0\sigma)$	$H(0.15)$	$73.18 \pm 0.65 \quad (+0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2798.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.62$; $R - 1 = 0.01378$

16.19 base_omegak_plikHM_TTTEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02240 \pm 0.00015 \quad (-0.2\sigma)$	σ_8	$0.8119 \pm 0.0070 \quad (+0.2\sigma)$	$D_M(0.15)$	$638.9 \pm 5.8 \quad (-0.5\sigma)$
$\Omega_c h^2$	$0.1197 \pm 0.0014 \quad (+0.4\sigma)$	S_8	$0.825 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$83.27 \pm 0.61 \quad (+0.8\sigma)$
$100\theta_{MC}$	$1.04096 \pm 0.00032 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4519 \pm 0.0058 \quad (-0.0\sigma)$	$D_M(0.38)$	$1524 \pm 13 \quad (-0.6\sigma)$
τ	$0.0562^{+0.0060}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6057 \pm 0.0059 \quad (+0.1\sigma)$	$H(0.51)$	$90.00 \pm 0.60 \quad (+1.0\sigma)$
Ω_K	0.0007 ± 0.0019	$\sigma_8/h^{0.5}$	$0.9855 \pm 0.0083 \quad (+0.0\sigma)$	$D_M(0.51)$	$1974 \pm 16 \quad (-0.6\sigma)$
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$r_{drag} h$	$99.88 \pm 0.95 \quad (+0.4\sigma)$	$H(0.61)$	$95.62 \pm 0.60 \quad (+1.2\sigma)$
n_s	$0.9659^{+0.0042}_{-0.0047} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.020 \quad (-0.1\sigma)$	$D_M(0.61)$	$2298 \pm 18 \quad (-0.7\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.85^{+0.64}_{-0.74} \quad (-0.0\sigma)$	$H(2.33)$	$236.5 \pm 1.2 \quad (+0.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.106^{+0.026}_{-0.031} \quad (-0.0\sigma)$	$D_M(2.33)$	$5747 \pm 31 \quad (-1.3\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4565 \pm 0.0055 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.4^{+2.1}_{-1.9} \quad (-0.0\sigma)$	D_{40}	$1229 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7504^{+0.0062}_{-0.0069} \quad (+0.3\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5737 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0047 \quad (+0.0\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6654^{+0.0056}_{-0.0063} \quad (+0.3\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.7 \pm 4.7 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4740 \pm 0.0043 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6228^{+0.0053}_{-0.0060} \quad (+0.3\sigma)$
A^{kSZ}	$< 4.22 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9659^{+0.0042}_{-0.0047} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4692 \pm 0.0041 \quad (+0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245403^{+0.000061}_{-0.000055} \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5927^{+0.0051}_{-0.0058} \quad (+0.3\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246730^{+0.000062}_{-0.000055} \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2989^{+0.0026}_{-0.0030} \quad (+0.3\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.3 \quad (+0.0\sigma)$	$10^5 D/H$	$2.581 \pm 0.028 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3083^{+0.0030}_{-0.0034} \quad (+0.4\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.4 \quad (+0.0\sigma)$	Age/Gyr	$13.757 \pm 0.079 \quad (-1.5\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (+0.0\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.86 \pm 0.28 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.9 \quad (+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.50 \pm 0.30 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00031 \quad (-0.2\sigma)$	$\chi_{lensing}^2$	$9.11 \pm 0.55 \quad (+0.1\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.879 \pm 0.028 \quad (-0.3\sigma)$	χ_{small}^2	$291 \pm 200 \quad (-57.1\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.97 \pm 0.30 \quad (-0.1\sigma)$	χ_{lowl}^2	$130 \pm 200 \quad (+130.5\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.26 \quad (+0.0\sigma)$	r_{drag}	$147.16 \pm 0.29 \quad (-0.3\sigma)$	χ_{plik}^2	$2359.7 \pm 5.8 \quad (+0.0\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14082 \pm 0.00031 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.45 \pm 0.70 \quad (+6.8\sigma)$
c_{217}	$0.99821 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_D$	$0.16074 \pm 0.00018 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.03 \pm 0.78 \quad (-0.6\sigma)$
H_0	$67.87 \pm 0.65 \quad (+0.5\sigma)$	z_{eq}	$3395 \pm 30 \quad (+0.4\sigma)$	$\chi_{DR12BAO}^2$	$4.7 \pm 1.9 \quad (-0.1\sigma)$
Ω_Λ	$0.6894 \pm 0.0057 \quad (+0.1\sigma)$	k_{eq}	$0.010360 \pm 0.000093 \quad (+0.4\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_m	$0.3098 \pm 0.0062 \quad (-0.2\sigma)$	$100\theta_{eq}$	$0.8148 \pm 0.0058 \quad (-0.4\sigma)$	χ_{CMB}^2	$2789.4 \pm 5.9 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.1427 \pm 0.0013 \quad (+0.4\sigma)$	$100\theta_{s,eq}$	$0.4502 \pm 0.0030 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.2 \pm 1.6 \quad (+0.1\sigma)$
$\Omega_m h^3$	$0.0969 \pm 0.0014 \quad (+1.7\sigma)$	$H(0.15)$	$73.16 \pm 0.63 \quad (+0.6\sigma)$		

$\bar{\chi}_{eff}^2 = 2807.05$; $\Delta\bar{\chi}_{eff}^2 = 0.33$; $R - 1 = 0.02354$

16.20 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02240 \pm 0.00015 \quad (-0.2\sigma)$	σ_8	$0.8119 \pm 0.0070 \quad (+0.3\sigma)$	$D_M(0.15)$	$638.3 \pm 5.7 \quad (-0.6\sigma)$
$\Omega_c h^2$	$0.1196 \pm 0.0014 \quad (+0.4\sigma)$	S_8	$0.824 \pm 0.010 \quad (-0.0\sigma)$	$H(0.38)$	$83.32 \pm 0.60 \quad (+0.9\sigma)$
$100\theta_{MC}$	$1.04096 \pm 0.00032 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4513 \pm 0.0057 \quad (-0.0\sigma)$	$D_M(0.38)$	$1523 \pm 12 \quad (-0.7\sigma)$
τ	$0.0564^{+0.0060}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6053 \pm 0.0058 \quad (+0.1\sigma)$	$H(0.51)$	$90.04 \pm 0.60 \quad (+1.1\sigma)$
Ω_K	0.0008 ± 0.0019	$\sigma_8/h^{0.5}$	$0.9850 \pm 0.0082 \quad (+0.0\sigma)$	$D_M(0.51)$	$1973 \pm 15 \quad (-0.7\sigma)$
$\ln(10^{10} A_s)$	$3.048^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$r_{drag} h$	$99.99 \pm 0.92 \quad (+0.4\sigma)$	$H(0.61)$	$95.66 \pm 0.60 \quad (+1.4\sigma)$
n_s	$0.9661^{+0.0042}_{-0.0047} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.020 \quad (-0.1\sigma)$	$D_M(0.61)$	$2296 \pm 17 \quad (-0.7\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.87^{+0.64}_{-0.74} \quad (-0.0\sigma)$	$H(2.33)$	$236.5 \pm 1.2 \quad (+0.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.107^{+0.026}_{-0.031} \quad (-0.0\sigma)$	$D_M(2.33)$	$5745 \pm 31 \quad (-1.4\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4560 \pm 0.0053 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$5.4^{+2.1}_{-1.9} \quad (-0.0\sigma)$	D_{40}	$1229 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7505^{+0.0062}_{-0.0069} \quad (+0.3\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5738 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4749 \pm 0.0046 \quad (+0.1\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6655^{+0.0056}_{-0.0063} \quad (+0.3\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.8 \pm 4.7 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4738 \pm 0.0043 \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.1 \pm 1.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6229^{+0.0053}_{-0.0061} \quad (+0.4\sigma)$
A^{kSZ}	$< 4.20 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9661^{+0.0042}_{-0.0047} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4690 \pm 0.0041 \quad (+0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245406^{+0.000061}_{-0.000054} \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5928^{+0.0051}_{-0.0058} \quad (+0.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246733^{+0.000061}_{-0.000055} \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2990^{+0.0026}_{-0.0030} \quad (+0.4\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.5 \pm 3.4 \quad (+0.0\sigma)$	$10^5 D/H$	$2.580 \pm 0.028 \quad (+0.2\sigma)$	$\sigma_8(2.33)$	$0.3085^{+0.0030}_{-0.0034} \quad (+0.4\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.4 \quad (+0.0\sigma)$	Age/Gyr	$13.753 \pm 0.079 \quad (-1.6\sigma)$	f_{2000}^{143}	$29.4 \pm 2.8 \quad (+0.0\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.84 \pm 0.28 \quad (+0.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.9 \quad (+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.52 \pm 0.30 \quad (-0.3\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00031 \quad (-0.2\sigma)$	$\chi_{lensing}^2$	$9.10 \pm 0.55 \quad (+0.0\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.055 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.881 \pm 0.027 \quad (-0.3\sigma)$	χ_{small}^2	$291 \pm 200 \quad (-56.0\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.98 \pm 0.30 \quad (-0.1\sigma)$	χ_{lowl}^2	$130 \pm 200 \quad (+131.8\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.26 \quad (+0.0\sigma)$	r_{drag}	$147.17 \pm 0.29 \quad (-0.3\sigma)$	χ_{plik}^2	$2359.8 \pm 5.8 \quad (+0.0\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14081 \pm 0.00031 \quad (+0.2\sigma)$	χ_{JLA}^2	$1035.03 \pm 0.26 \quad (-0.1\sigma)$
c_{217}	$0.99821 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_D$	$0.16074 \pm 0.00018 \quad (+0.1\sigma)$	χ_{6DF}^2	$0.46 \pm 0.72 \quad (+8.1\sigma)$
H_0	$67.94 \pm 0.64 \quad (+0.5\sigma)$	z_{eq}	$3393 \pm 30 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.07 \pm 0.80 \quad (-0.6\sigma)$
Ω_Λ	$0.6902 \pm 0.0055 \quad (+0.1\sigma)$	k_{eq}	$0.010355 \pm 0.000093 \quad (+0.4\sigma)$	$\chi_{DR12BAO}^2$	$4.5 \pm 1.7 \quad (-0.1\sigma)$
Ω_m	$0.3090 \pm 0.0060 \quad (-0.2\sigma)$	$100\theta_{eq}$	$0.8151 \pm 0.0058 \quad (-0.4\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1426 \pm 0.0013 \quad (+0.4\sigma)$	$100\theta_{s,eq}$	$0.4503 \pm 0.0029 \quad (-0.4\sigma)$	χ_{CMB}^2	$2789.5 \pm 5.9 \quad (+0.1\sigma)$
$\Omega_m h^3$	$0.0969 \pm 0.0014 \quad (+1.9\sigma)$	$H(0.15)$	$73.22 \pm 0.62 \quad (+0.6\sigma)$	χ_{BAO}^2	$6.0 \pm 1.4 \quad (+0.1\sigma)$

$$\bar{\chi}_{eff}^2 = 3842.05; \Delta \bar{\chi}_{eff}^2 = 0.31; R - 1 = 0.02292$$

16.21 base_omegak_CamSpecHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022178	0.02217 ± 0.00023 (-0.3σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6036	0.6036 ± 0.0097 $(+0.2\sigma)$	$H(0.38)$	83.23	83.26 ± 0.66 $(+0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11972	0.1197 ± 0.0022 $(+0.6\sigma)$	$\sigma_8/h^{0.5}$	0.9824	0.982 ± 0.013 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1524.9	1524 ± 13 (-0.5σ)
$100\theta_{\mathrm{MC}}$	1.040934	1.04094 ± 0.00049 (-0.3σ)	$r_{\mathrm{drag}}h$	99.96	100.0 ± 1.0 $(+0.2\sigma)$	$H(0.51)$	89.95	89.98 ± 0.69 $(+1.0\sigma)$
τ	0.0528	0.0527 ± 0.0082 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4276	2.425 ± 0.030 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	1975.5	1975 ± 17 (-0.5σ)
Ω_K	0.00108	0.0011 ± 0.0025	z_{re}	7.57	7.53 ± 0.84 (-0.1σ)	$H(0.61)$	95.57	95.60 ± 0.71 $(+1.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0378	3.038 ± 0.017 (-0.0σ)	10^9A_{s}	2.0859	2.086 ± 0.035 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2299.0	2298 ± 19 (-0.6σ)
n_{s}	0.9652	0.9657 ± 0.0060 (-0.4σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8769	1.877 ± 0.014 $(+0.2\sigma)$	$H(2.33)$	236.44	236.4 ± 1.8 $(+0.9\sigma)$
y_{cal}	1.00027	1.0004 ± 0.0025 (-0.1σ)	D_{40}	1225.3	1224 ± 16 $(+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	5750.3	5749 ± 38 (-1.3σ)
A_{100}^{PS}	242.6	242 ± 25 $(+0.1\sigma)$	D_{220}	5702.9	5703 ± 41 (-0.2σ)	$f\sigma_8(0.15)$	0.4550	0.4548 ± 0.0086 $(+0.2\sigma)$
A_{143}^{PS}	37.7	41 ± 8 $(+0.1\sigma)$	D_{810}	2532.5	2533 ± 14 (-0.1σ)	$\sigma_8(0.15)$	0.7478	0.7480 ± 0.0095 $(+0.3\sigma)$
A_{217}^{PS}	100.4	101 ± 10 (-0.0σ)	D_{1420}	814.0	814.5 ± 5.1 (-0.1σ)	$f\sigma_8(0.38)$	0.4736	0.4735 ± 0.0075 $(+0.2\sigma)$
A_{217}^{CIB}	43.3	41 ± 7 $(+0.0\sigma)$	D_{2000}	229.53	229.6 ± 1.9 (-0.2σ)	$\sigma_8(0.38)$	0.6631	0.6633 ± 0.0083 $(+0.4\sigma)$
A_{143}^{tSZ}	4.78	$3.7_{-2.6}^{+1.8}$ (-0.1σ)	$n_{\mathrm{s},0.002}$	0.9652	0.9657 ± 0.0060 (-0.4σ)	$f\sigma_8(0.51)$	0.4724	0.4723 ± 0.0069 $(+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	0.594	0.65 ± 0.13 (-0.0σ)	Y_{P}	0.245317	$0.24531_{-0.000087}^{+0.00011}$ (-0.3σ)	$\sigma_8(0.51)$	0.6206	0.6208 ± 0.0078 $(+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.599	> 0.460 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246643	$0.24664_{-0.000088}^{+0.00011}$ (-0.3σ)	$f\sigma_8(0.61)$	0.4675	0.4675 ± 0.0065 $(+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.01	—	$10^5\mathrm{D}/\mathrm{H}$	2.6222	2.623 ± 0.043 $(+0.3\sigma)$	$\sigma_8(0.61)$	0.5906	0.5908 ± 0.0074 $(+0.4\sigma)$
A^{kSZ}	3.1	—	Age/Gyr	13.764	13.762 ± 0.097 (-1.5σ)	$f\sigma_8(2.33)$	0.29779	0.2979 ± 0.0036 $(+0.4\sigma)$
A_{100}^{dust}	1.006	1.01 ± 0.19 $(+0.0\sigma)$	z_*	1090.141	1090.14 ± 0.43 $(+0.5\sigma)$	$\sigma_8(2.33)$	0.30725	0.3074 ± 0.0040 $(+0.4\sigma)$
A_{143}^{dust}	0.971	0.98 ± 0.17 $(+0.0\sigma)$	r_*	144.649	144.66 ± 0.50 (-0.5σ)	f_{2000}^{143}	30.95	30.7 ± 3.1 $(+0.1\sigma)$
A_{217}^{dust}	0.961	0.97 ± 0.10 $(+0.0\sigma)$	$100\theta_*$	1.041141	1.04114 ± 0.00048 (-0.3σ)	f_{2000}^{217}	107.63	107.5 ± 2.0 $(+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	1.040	1.03 ± 0.16 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8933	13.894 ± 0.045 (-0.5σ)	$f_{2000}^{143 \times 217}$	33.15	32.9 ± 2.2 $(+0.1\sigma)$
c_{100}	0.99748	0.9975 ± 0.0011 (-0.0σ)	z_{drag}	1059.475	1059.46 ± 0.46 (-0.1σ)	χ_{small}^2	395.87	397.0 ± 1.8 (-0.0σ)
c_{217}	1.00125	1.0012 ± 0.0016 $(+0.0\sigma)$	r_{drag}	147.379	147.39 ± 0.49 (-0.4σ)	χ_{lowl}^2	23.19	23.2 ± 1.4 $(+0.5\sigma)$
H_0	67.82	67.86 ± 0.68 $(+0.4\sigma)$	k_{D}	0.14042	0.14040 ± 0.00051 $(+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	7051.1	7064.3 ± 5.4 $(+0.1\sigma)$
Ω_{Λ}	0.6890	0.6893 ± 0.0078 (-0.1σ)	$100\theta_{\mathrm{D}}$	0.161037	0.16105 ± 0.00026 $(+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0105	0.053 ± 0.073 (-0.0σ)
Ω_{m}	0.3099	0.3095 ± 0.0073 (-0.0σ)	z_{eq}	3391	3390 ± 50 $(+0.6\sigma)$	χ_{MGS}^2	1.41	1.52 ± 0.60 $(+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14255	0.1425 ± 0.0021 $(+0.6\sigma)$	k_{eq}	0.010350	0.01035 ± 0.00015 $(+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.68	4.5 ± 1.8 (-0.1σ)
$\Omega_{\mathrm{m}}h^3$	0.09668	$0.0967_{-0.0019}^{+0.0017}$ $(+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	0.8148	0.8150 ± 0.0095 (-0.6σ)	χ_{prior}^2	2.25	7.5 ± 3.3 (-0.0σ)
σ_8	0.8091	0.809 ± 0.011 $(+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45030	0.4504 ± 0.0049 (-0.6σ)	χ_{BAO}^2	5.10	6.1 ± 1.5 (-0.0σ)
S_8	0.8223	0.822 ± 0.017 $(+0.2\sigma)$	$H(0.15)$	73.11	73.14 ± 0.66 $(+0.5\sigma)$	χ_{CMB}^2	7470.1	7484.5 ± 5.5 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4504	0.4502 ± 0.0091 $(+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	639.3	639.0 ± 6.1 (-0.4σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7477.49$; $\bar{\chi}_{\mathrm{eff}}^2 = 7498.13$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.57$; $R - 1 = 0.00836$

χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.41 DR12BAO: 3.69 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2_29: 23.19 CamSpec like_10.7HM: 7051.07

16.22 base_omegak_CamSpecHM_TT_lowl_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6057 \pm 0.0074 \quad (+0.2\sigma)$	$H(0.38)$	$83.22 \pm 0.67 \quad (+0.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0020 \quad (+0.7\sigma)$	$\sigma_8/h^{0.5}$	$0.9855 \pm 0.0097 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 13 \quad (-0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00048 \quad (-0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.88 \pm 0.96 \quad (+0.3\sigma)$	$H(0.51)$	$89.95 \pm 0.69 \quad (+1.1\sigma)$
τ	$0.0543 \pm 0.0079 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 17 \quad (-0.6\sigma)$
Ω_K	0.0011 ± 0.0025	z_{re}	$7.71 \pm 0.78 \quad (-0.1\sigma)$	$H(0.61)$	$95.57 \pm 0.71 \quad (+1.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042 \pm 0.015 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095 \pm 0.031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2300 \pm 19 \quad (-0.7\sigma)$
n_{s}	$0.9651 \pm 0.0056 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.2\sigma)$	$H(2.33)$	$236.6 \pm 1.7 \quad (+1.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 15 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 37 \quad (-1.4\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{220}	$5708 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0066 \quad (+0.1\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7499 \pm 0.0078 \quad (+0.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$814.7 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0057 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6648 \pm 0.0070 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9651 \pm 0.0056 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4739 \pm 0.0053 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6222 \pm 0.0066 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.459 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000088} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4690 \pm 0.0050 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.623 \pm 0.042 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5921 \pm 0.0063 \quad (+0.4\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.763 \pm 0.096 \quad (-1.6\sigma)$	$f\sigma_8(2.33)$	$0.2985 \pm 0.0032 \quad (+0.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1090.16 \pm 0.41 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3080 \pm 0.0036 \quad (+0.5\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	r_*	$144.61 \pm 0.44 \quad (-0.5\sigma)$	f_{2000}^{143}	$30.6 \pm 3.1 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00047 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.890 \pm 0.041 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.9 \pm 2.2 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.47 \pm 0.46 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.49 \pm 0.83 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.34 \pm 0.44 \quad (-0.4\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.0\sigma)$
H_0	$67.79 \pm 0.67 \quad (+0.4\sigma)$	k_{D}	$0.14045 \pm 0.00048 \quad (+0.3\sigma)$	χ_{lowl}^2	$23.4 \pm 1.3 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6883 \pm 0.0068 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00026 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.5 \pm 5.2 \quad (+0.1\sigma)$
Ω_{m}	$0.3106 \pm 0.0066 \quad (-0.1\sigma)$	z_{eq}	$3395 \pm 45 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.074 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1427 \pm 0.0019 \quad (+0.6\sigma)$	k_{eq}	$0.01036 \pm 0.00014 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.44 \pm 0.57 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0967 \pm 0.0017 \quad (+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8142 \pm 0.0085 \quad (-0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.8 \quad (-0.2\sigma)$
σ_8	$0.8114 \pm 0.0085 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4500 \pm 0.0044 \quad (-0.7\sigma)$	χ_{prior}^2	$7.6 \pm 3.3 \quad (-0.0\sigma)$
S_8	$0.826 \pm 0.013 \quad (+0.1\sigma)$	$H(0.15)$	$73.08 \pm 0.66 \quad (+0.6\sigma)$	χ_{CMB}^2	$7493.5 \pm 5.5 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4522 \pm 0.0071 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.6 \pm 6.0 \quad (-0.5\sigma)$	χ_{BAO}^2	$6.1 \pm 1.6 \quad (-0.1\sigma)$

 $\bar{\chi}_{\mathrm{eff}}^2 = 7507.17; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.69; R - 1 = 0.01378$

16.23 base_omegak_CamSpecHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9846 \pm 0.0096 \quad (+0.1\sigma)$	$H(0.51)$	$89.97 \pm 0.68 \quad (+1.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0020 \quad (+0.7\sigma)$	$r_{\mathrm{drag}}h$	$100.00 \pm 0.93 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1975 \pm 17 \quad (-0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00048 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.022 \quad (+0.0\sigma)$	$H(0.61)$	$95.60 \pm 0.71 \quad (+1.4\sigma)$
τ	$0.0548 \pm 0.0079 \quad (-0.1\sigma)$	z_{re}	$7.75 \pm 0.78 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2298 \pm 19 \quad (-0.7\sigma)$
Ω_K	0.0011 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.096^{+0.029}_{-0.032} \quad (-0.1\sigma)$	$H(2.33)$	$236.4 \pm 1.7 \quad (+1.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043 \pm 0.015 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 37 \quad (-1.4\sigma)$
n_{s}	$0.9655 \pm 0.0056 \quad (-0.3\sigma)$	D_{40}	$1226 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4559 \pm 0.0064 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5710 \pm 41 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7497 \pm 0.0078 \quad (+0.4\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4746 \pm 0.0056 \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6648 \pm 0.0070 \quad (+0.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4734 \pm 0.0052 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9655 \pm 0.0056 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6222 \pm 0.0066 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	Y_{P}	$0.24532^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0049 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5921 \pm 0.0063 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.42}_{-0.13} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.620 \pm 0.042 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2986 \pm 0.0032 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.761 \pm 0.096 \quad (-1.6\sigma)$	$\sigma_8(2.33)$	$0.3081 \pm 0.0036 \quad (+0.5\sigma)$
A^{kSZ}	—	z_*	$1090.13 \pm 0.41 \quad (+0.4\sigma)$	f_{2000}^{143}	$30.6 \pm 3.1 \quad (+0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	r_*	$144.65 \pm 0.44 \quad (-0.5\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00047 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.2 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.893 \pm 0.040 \quad (-0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.50 \pm 0.86 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.49 \pm 0.46 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 2.0 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.37 \pm 0.44 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.3 \pm 1.3 \quad (+0.4\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14043 \pm 0.00048 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.6 \pm 5.2 \quad (+0.1\sigma)$
H_0	$67.86 \pm 0.66 \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.07 \pm 0.31 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6893 \pm 0.0066 \quad (-0.1\sigma)$	z_{eq}	$3391 \pm 44 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.065 \quad (-0.0\sigma)$
Ω_{m}	$0.3096 \pm 0.0064 \quad (-0.1\sigma)$	k_{eq}	$0.01035 \pm 0.00014 \quad (+0.7\sigma)$	χ_{MGS}^2	$1.51 \pm 0.56 \quad (+0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0019 \quad (+0.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8149 \pm 0.0084 \quad (-0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0967^{+0.0017}_{-0.0018} \quad (+1.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0043 \quad (-0.7\sigma)$	χ_{prior}^2	$7.6 \pm 3.3 \quad (-0.0\sigma)$
σ_8	$0.8111 \pm 0.0085 \quad (+0.4\sigma)$	$H(0.15)$	$73.14 \pm 0.65 \quad (+0.6\sigma)$	χ_{CMB}^2	$7493.6 \pm 5.4 \quad (+0.1\sigma)$
S_8	$0.824 \pm 0.013 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.0 \pm 5.9 \quad (-0.5\sigma)$	χ_{BAO}^2	$6.0 \pm 1.4 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4513 \pm 0.0069 \quad (+0.1\sigma)$	$H(0.38)$	$83.26 \pm 0.66 \quad (+0.9\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6050 \pm 0.0072 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 13 \quad (-0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8542.21; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.71; R - 1 = 0.01384$$

16.24 base_omegak_CamSpecHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02218 \pm 0.00023 \quad (-0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6043 \pm 0.0095 \quad (+0.2\sigma)$	$H(0.38)$	$83.26 \pm 0.66 \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1196 \pm 0.0022 \quad (+0.6\sigma)$	$\sigma_8 / h^{0.5}$	$0.984 \pm 0.013 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 13 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00049 \quad (-0.3\sigma)$	$r_{\mathrm{drag}} h$	$100.0 \pm 1.0 \quad (+0.2\sigma)$	$H(0.51)$	$89.97 \pm 0.69 \quad (+1.0\sigma)$
τ	$0.0543^{+0.0049}_{-0.0083} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.429 \pm 0.029 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1975 \pm 17 \quad (-0.5\sigma)$
Ω_K	0.0011 ± 0.0025	z_{re}	$7.71^{+0.53}_{-0.84} \quad (-0.1\sigma)$	$H(0.61)$	$95.59 \pm 0.71 \quad (+1.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.017} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.025}_{-0.035} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2298 \pm 19 \quad (-0.6\sigma)$
n_{s}	$0.9659 \pm 0.0061 \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.014 \quad (+0.2\sigma)$	$H(2.33)$	$236.4 \pm 1.9 \quad (+0.9\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1224 \pm 16 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 38 \quad (-1.3\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{220}	$5703 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4554 \pm 0.0086 \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7490 \pm 0.0092 \quad (+0.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$814.4 \pm 5.2 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4741 \pm 0.0074 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.6 \pm 1.9 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6642 \pm 0.0080 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9659 \pm 0.0061 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4729 \pm 0.0068 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.24531^{+0.00011}_{-0.000087} \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6217 \pm 0.0074 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.457 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00011}_{-0.000087} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4681 \pm 0.0064 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.622 \pm 0.043 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5916 \pm 0.0071 \quad (+0.4\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.763 \pm 0.097 \quad (-1.5\sigma)$	$f\sigma_8(2.33)$	$0.2983^{+0.0032}_{-0.0036} \quad (+0.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1090.13 \pm 0.43 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3078^{+0.0036}_{-0.0040} \quad (+0.5\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.67 \pm 0.50 \quad (-0.5\sigma)$	f_{2000}^{143}	$30.6 \pm 3.1 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00048 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.046 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.2 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.47 \pm 0.46 \quad (-0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.40 \pm 0.49 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.2 \pm 1.4 \quad (+0.5\sigma)$
H_0	$67.87 \pm 0.68 \quad (+0.4\sigma)$	k_{D}	$0.14040 \pm 0.00052 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.1 \pm 5.4 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6895 \pm 0.0078 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00026 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.052 \pm 0.073 \quad (-0.0\sigma)$
Ω_{m}	$0.3094 \pm 0.0073 \quad (-0.0\sigma)$	z_{eq}	$3389 \pm 50 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.53 \pm 0.60 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1425 \pm 0.0021 \quad (+0.6\sigma)$	k_{eq}	$0.01034 \pm 0.00015 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0967^{+0.0017}_{-0.0019} \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8152 \pm 0.0095 \quad (-0.6\sigma)$	χ_{prior}^2	$7.5 \pm 3.3 \quad (-0.0\sigma)$
σ_8	$0.810 \pm 0.010 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0049 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.1 \pm 1.5 \quad (-0.0\sigma)$
S_8	$0.823 \pm 0.017 \quad (+0.2\sigma)$	$H(0.15)$	$73.15 \pm 0.66 \quad (+0.5\sigma)$	χ_{CMB}^2	$7484.3 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4507 \pm 0.0091 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.0 \pm 6.1 \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7497.90$; $\Delta \bar{\chi}_{\mathrm{eff}}^2 = 0.58$; $R - 1 = 0.01053$

16.25 base_omegak_CamSpecHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6059 \pm 0.0073 \quad (+0.2\sigma)$	$H(0.38)$	$83.21 \pm 0.67 \quad (+0.8\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1198 \pm 0.0020 \quad (+0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.9859 \pm 0.0096 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 13 \quad (-0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00048 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.90 \pm 0.96 \quad (+0.3\sigma)$	$H(0.51)$	$89.94 \pm 0.69 \quad (+1.0\sigma)$
τ	$0.0553^{+0.0057}_{-0.0080} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.022 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 17 \quad (-0.6\sigma)$
Ω_K	0.0011 ± 0.0025	z_{re}	$7.81^{+0.59}_{-0.79} \quad (-0.1\sigma)$	$H(0.61)$	$95.56 \pm 0.71 \quad (+1.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.024}_{-0.032} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2300 \pm 19 \quad (-0.6\sigma)$
n_{s}	$0.9653 \pm 0.0056 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.2\sigma)$	$H(2.33)$	$236.5 \pm 1.7 \quad (+0.9\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 15 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5751 \pm 37 \quad (-1.3\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{220}	$5708 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4568 \pm 0.0066 \quad (+0.1\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7503 \pm 0.0077 \quad (+0.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$814.7 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4754 \pm 0.0057 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{2000}	$229.7 \pm 1.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6652 \pm 0.0069 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9653 \pm 0.0056 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4741 \pm 0.0052 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6226 \pm 0.0065 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.460 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000088} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4692 \pm 0.0049 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.622 \pm 0.042 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5925 \pm 0.0062 \quad (+0.5\sigma)$
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.765 \pm 0.096 \quad (-1.5\sigma)$	$f\sigma_8(2.33)$	$0.2987 \pm 0.0031 \quad (+0.4\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.41 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3082 \pm 0.0036 \quad (+0.5\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	r_*	$144.63 \pm 0.44 \quad (-0.5\sigma)$	f_{2000}^{143}	$30.6 \pm 3.1 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.1\sigma)$	$100\theta_*$	$1.04112 \pm 0.00047 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.040 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.2 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.48 \pm 0.46 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.43 \pm 0.77 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.36 \pm 0.44 \quad (-0.4\sigma)$	χ_{small}^2	$397.1 \pm 1.9 \quad (-0.1\sigma)$
H_0	$67.79 \pm 0.67 \quad (+0.4\sigma)$	k_{D}	$0.14044 \pm 0.00048 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.4 \pm 1.3 \quad (+0.4\sigma)$
Ω_{Λ}	$0.6886 \pm 0.0068 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.4 \pm 5.1 \quad (+0.1\sigma)$
Ω_{m}	$0.3104 \pm 0.0066 \quad (-0.1\sigma)$	z_{eq}	$3393 \pm 44 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.072 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0019 \quad (+0.6\sigma)$	k_{eq}	$0.01035 \pm 0.00014 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.45 \pm 0.57 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0967^{+0.0016}_{-0.0018} \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8146 \pm 0.0084 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.8 \quad (-0.1\sigma)$
σ_8	$0.8118 \pm 0.0083 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4502 \pm 0.0043 \quad (-0.6\sigma)$	χ_{prior}^2	$7.6 \pm 3.3 \quad (-0.0\sigma)$
S_8	$0.826 \pm 0.013 \quad (+0.1\sigma)$	$H(0.15)$	$73.08 \pm 0.66 \quad (+0.5\sigma)$	χ_{CMB}^2	$7493.3 \pm 5.4 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4522 \pm 0.0071 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.6 \pm 6.1 \quad (-0.5\sigma)$	χ_{BAO}^2	$6.1 \pm 1.6 \quad (-0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7506.97$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.65$; $R - 1 = 0.01641$

16.26 **base_omegak_CamSpecHM_TT_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00022 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9851 \pm 0.0095 \quad (+0.1\sigma)$	$H(0.51)$	$89.97 \pm 0.68 \quad (+1.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0019 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$100.02 \pm 0.93 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1975 \pm 17 \quad (-0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00048 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.022 \quad (+0.0\sigma)$	$H(0.61)$	$95.58 \pm 0.71 \quad (+1.3\sigma)$
τ	$0.0557^{+0.0057}_{-0.0080} \quad (-0.1\sigma)$	z_{re}	$7.84^{+0.60}_{-0.79} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2298 \pm 19 \quad (-0.7\sigma)$
Ω_K	0.0010 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.100^{+0.024}_{-0.032} \quad (-0.0\sigma)$	$H(2.33)$	$236.4 \pm 1.7 \quad (+0.9\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.012 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 37 \quad (-1.3\sigma)$
n_{s}	$0.9657 \pm 0.0056 \quad (-0.3\sigma)$	D_{40}	$1226 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4560 \pm 0.0064 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5710 \pm 41 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7501 \pm 0.0077 \quad (+0.4\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4748 \pm 0.0056 \quad (+0.2\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6651 \pm 0.0069 \quad (+0.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0052 \quad (+0.2\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9657 \pm 0.0056 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6226 \pm 0.0065 \quad (+0.4\sigma)$
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.7} \quad (-0.0\sigma)$	Y_{P}	$0.24532^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4688 \pm 0.0049 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24665^{+0.00010}_{-0.000087} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5925 \pm 0.0062 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.457 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.042 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2988 \pm 0.0031 \quad (+0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.763 \pm 0.096 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3083 \pm 0.0036 \quad (+0.5\sigma)$
A^{kSZ}	—	z_*	$1090.11 \pm 0.40 \quad (+0.4\sigma)$	f_{2000}^{143}	$30.5 \pm 3.1 \quad (+0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.44 \quad (-0.5\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04115 \pm 0.00047 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.2 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.040 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.44 \pm 0.80 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.50 \pm 0.46 \quad (-0.1\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.39 \pm 0.43 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.3 \pm 1.3 \quad (+0.4\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14042 \pm 0.00048 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.5 \pm 5.1 \quad (+0.1\sigma)$
H_0	$67.86 \pm 0.66 \quad (+0.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00026 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.06 \pm 0.30 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6895 \pm 0.0065 \quad (-0.1\sigma)$	z_{eq}	$3389 \pm 44 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.064 \quad (+0.0\sigma)$
Ω_{m}	$0.3094 \pm 0.0063 \quad (-0.1\sigma)$	k_{eq}	$0.01034 \pm 0.00013 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.51 \pm 0.56 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0018 \quad (+0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8153 \pm 0.0084 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.6 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0967^{+0.0016}_{-0.0018} \quad (+1.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0043 \quad (-0.6\sigma)$	χ_{prior}^2	$7.6 \pm 3.3 \quad (+0.0\sigma)$
σ_8	$0.8115 \pm 0.0083 \quad (+0.4\sigma)$	$H(0.15)$	$73.14 \pm 0.65 \quad (+0.6\sigma)$	χ_{CMB}^2	$7493.4 \pm 5.4 \quad (+0.1\sigma)$
S_8	$0.824 \pm 0.013 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.0 \pm 5.9 \quad (-0.5\sigma)$	χ_{BAO}^2	$6.0 \pm 1.4 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4514 \pm 0.0069 \quad (+0.1\sigma)$	$H(0.38)$	$83.25 \pm 0.66 \quad (+0.8\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6052 \pm 0.0072 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 13 \quad (-0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8542.02$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.67$; $R - 1 = 0.01706$

16.27 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022328	0.02232 ± 0.00016 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4488	0.4485 ± 0.0071 (-0.0σ)	$H(0.38)$	83.29	83.22 ± 0.61 $(+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11934	0.1192 ± 0.0015 $(+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6022	0.6017 ± 0.0074 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	1523.0	1525 ± 13 (-0.4σ)
$100\theta_{\mathrm{MC}}$	1.040927	1.04092 ± 0.00032 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9805	0.980 ± 0.011 (-0.0σ)	$H(0.51)$	89.99	89.92 ± 0.61 $(+0.7\sigma)$
τ	0.0531	0.0532 ± 0.0079 (-0.1σ)	$r_{\mathrm{drag}}h$	100.08	100.01 ± 0.99 $(+0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	1973.4	1975 ± 16 (-0.4σ)
Ω_K	0.00079	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	2.4229	2.423 ± 0.025 (-0.1σ)	$H(0.61)$	95.60	95.53 ± 0.61 $(+0.9\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	3.0392	3.038 ± 0.016 (-0.1σ)	z_{re}	7.56	7.55 ± 0.81 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2296.7	2299 ± 18 (-0.5σ)
n_{s}	0.96722	0.9668 ± 0.0046 (-0.1σ)	10^9A_{s}	2.0889	2.088 ± 0.034 (-0.1σ)	$H(2.33)$	236.27	236.1 ± 1.2 $(+0.4\sigma)$
y_{cal}	1.00054	1.0004 ± 0.0025 (-0.0σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8784	1.877 ± 0.012 $(+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	5748.8	5753 ± 32 (-1.0σ)
A_{100}^{PS}	234.6	240 ± 24 $(+0.0\sigma)$	D_{40}	1223.3	1223 ± 13 (-0.0σ)	$f\sigma_8(0.15)$	0.4535	0.4533 ± 0.0067 (-0.0σ)
A_{143}^{PS}	49.2	39 ± 8 $(+0.0\sigma)$	D_{220}	5718.7	5720 ± 39 (-0.1σ)	$\sigma_8(0.15)$	0.7471	0.7462 ± 0.0077 $(+0.1\sigma)$
A_{217}^{PS}	105.6	102 ± 10 (-0.0σ)	D_{810}	2537.3	2534 ± 13 (-0.0σ)	$f\sigma_8(0.38)$	0.4725	0.4721 ± 0.0059 (-0.0σ)
A_{217}^{CIB}	39.9	40 ± 7 $(+0.0\sigma)$	D_{1420}	816.89	815.8 ± 4.8 (-0.1σ)	$\sigma_8(0.38)$	0.6626	0.6618 ± 0.0069 $(+0.1\sigma)$
A_{143}^{tSZ}	4.97	$3.8_{-2.6}^{+1.8}$ (-0.0σ)	D_{2000}	230.71	230.3 ± 1.6 (-0.1σ)	$f\sigma_8(0.51)$	0.4714	0.4710 ± 0.0054 (-0.0σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.758	0.66 ± 0.13 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.96722	0.9668 ± 0.0046 (-0.1σ)	$\sigma_8(0.51)$	0.6203	0.6195 ± 0.0065 $(+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.711	$0.56_{-0.18}^{+0.39}$ $(+0.0\sigma)$	Y_{P}	0.245378	$0.245375_{-0.000060}^{+0.000070}$ (-0.1σ)	$f\sigma_8(0.61)$	0.4667	0.4663 ± 0.0051 $(+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.95	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246705	$0.246701_{-0.000060}^{+0.000070}$ (-0.1σ)	$\sigma_8(0.61)$	0.5903	0.5895 ± 0.0062 $(+0.1\sigma)$
A^{kSZ}	2.55	$4.8_{-4.0}^{+2.3}$ $(+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	2.5935	2.595 ± 0.031 $(+0.1\sigma)$	$f\sigma_8(2.33)$	0.29772	0.2973 ± 0.0031 $(+0.2\sigma)$
A_{100}^{dust}	1.008	1.01 ± 0.20 $(+0.0\sigma)$	Age/Gyr	13.761	13.772 ± 0.081 (-1.1σ)	$\sigma_8(2.33)$	0.30720	0.3067 ± 0.0035 $(+0.2\sigma)$
A_{143}^{dust}	0.952	0.97 ± 0.18 $(+0.0\sigma)$	z_*	1089.916	1089.91 ± 0.30 $(+0.2\sigma)$	f_{2000}^{143}	29.71	29.8 ± 2.9 $(+0.1\sigma)$
A_{217}^{dust}	0.966	0.97 ± 0.10 (-0.0σ)	r_*	144.635	144.67 ± 0.32 (-0.2σ)	f_{2000}^{217}	106.35	106.8 ± 1.9 $(+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	1.019	1.03 ± 0.16 (-0.0σ)	$100\theta_*$	1.041111	1.04111 ± 0.00031 (-0.2σ)	$f_{2000}^{143 \times 217}$	32.07	32.1 ± 2.0 $(+0.1\sigma)$
c_{100}	0.99785	0.9975 ± 0.0011 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8923	13.896 ± 0.030 (-0.2σ)	χ_{small}^2	395.85	396.9 ± 1.7 (-0.0σ)
c_{217}	1.00095	1.0011 ± 0.0016 (-0.0σ)	z_{drag}	1059.780	1059.77 ± 0.33 (-0.0σ)	χ_{lowl}^2	22.88	23.0 ± 1.0 $(+0.2\sigma)$
c_{TE}	0.99693	0.9966 ± 0.0049 (-0.1σ)	r_{drag}	147.315	147.35 ± 0.32 (-0.2σ)	$\chi_{\mathrm{CamSpec}}^2$	11500.8	11514.9 ± 5.6 $(+0.1\sigma)$
c_{EE}	0.99225	0.9921 ± 0.0049 (-0.1σ)	k_{D}	0.140600	0.14056 ± 0.00034 $(+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0063	0.052 ± 0.071 $(+0.1\sigma)$
H_0	67.94	67.87 ± 0.67 $(+0.3\sigma)$	$100\theta_{\mathrm{D}}$	0.160838	0.16085 ± 0.00019 $(+0.0\sigma)$	χ_{MGS}^2	1.47	1.50 ± 0.59 $(+0.3\sigma)$
Ω_{Λ}	0.6909	0.6907 ± 0.0061 $(+0.1\sigma)$	z_{eq}	3385.4	3382 ± 33 $(+0.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.65	4.6 ± 1.8 $(+0.0\sigma)$
Ω_{m}	0.3083	0.3087 ± 0.0066 (-0.1σ)	k_{eq}	0.010333	0.01032 ± 0.00010 $(+0.2\sigma)$	χ_{prior}^2	1.81	7.8 ± 3.4 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14231	0.1422 ± 0.0014 $(+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	0.8162	0.8168 ± 0.0063 (-0.2σ)	χ_{BAO}^2	5.13	6.2 ± 1.5 $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09668	0.0965 ± 0.0014 $(+1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45093	0.4512 ± 0.0032 (-0.2σ)	χ_{CMB}^2	11919.5	11934.9 ± 5.8 $(+0.1\sigma)$
σ_8	0.8082	0.8072 ± 0.0084 $(+0.1\sigma)$	$H(0.15)$	73.20	73.13 ± 0.64 $(+0.4\sigma)$			
S_8	0.8193	0.819 ± 0.013 (-0.0σ)	$D_{\mathrm{M}}(0.15)$	638.3	639.0 ± 5.9 (-0.4σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 11926.45$; $\bar{\chi}_{\mathrm{eff}}^2 = 11948.83$; $\Delta\chi_{\mathrm{eff}}^2 = 0.54$; $R - 1 = 0.01869$
 χ_{eff}^2 : BAO - 6DF: 0.01 MGS: 1.47 DR12BAO: 3.65 CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3_2_29: 22.88 CamSpec like_10.7HM_1400_unified: 11500.78

16.28 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02233 \pm 0.00016 \quad (-0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4504 \pm 0.0059 \quad (+0.0\sigma)$	$H(0.38)$	$83.16 \pm 0.61 \quad (+0.5\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1193 \pm 0.0014 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6037 \pm 0.0061 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526 \pm 13 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00031 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9830 \pm 0.0086 \quad (+0.0\sigma)$	$H(0.51)$	$89.87 \pm 0.61 \quad (+0.7\sigma)$
τ	$0.0551 \pm 0.0074 \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.87 \pm 0.95 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977 \pm 16 \quad (-0.4\sigma)$
Ω_K	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.020 \quad (+0.0\sigma)$	$H(0.61)$	$95.48 \pm 0.61 \quad (+0.8\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043 \pm 0.014 \quad (+0.0\sigma)$	z_{re}	$7.74 \pm 0.74 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 18 \quad (-0.4\sigma)$
n_{s}	$0.9665 \pm 0.0045 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.097 \pm 0.030 \quad (+0.0\sigma)$	$H(2.33)$	$236.2 \pm 1.2 \quad (+0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 32 \quad (-0.8\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4551 \pm 0.0056 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7480 \pm 0.0068 \quad (+0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4737 \pm 0.0048 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$816.1 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6633 \pm 0.0062 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$3.9_{-2.6}^{+1.8} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0044 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9665 \pm 0.0045 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6208 \pm 0.0059 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56_{-0.19}^{+0.38} \quad (+0.0\sigma)$	Y_{P}	$0.245376_{-0.000060}^{+0.000068} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0042 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246702_{-0.000060}^{+0.000069} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5908 \pm 0.0057 \quad (+0.2\sigma)$
A^{kSZ}	$4.7_{-4.5}^{+1.7} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.594 \pm 0.030 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2979 \pm 0.0029 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.777 \pm 0.081 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3073 \pm 0.0033 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.92 \pm 0.29 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.64 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.893 \pm 0.029 \quad (-0.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.31 \pm 0.77 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.79 \pm 0.33 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.31 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.1 \pm 1.0 \quad (+0.2\sigma)$
c_{EE}	$0.9921 \pm 0.0048 \quad (-0.0\sigma)$	k_{D}	$0.14059 \pm 0.00034 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.4 \pm 5.6 \quad (+0.0\sigma)$
H_0	$67.79 \pm 0.65 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.056 \pm 0.074 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6898 \pm 0.0058 \quad (+0.0\sigma)$	z_{eq}	$3385 \pm 31 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.42 \pm 0.56 \quad (+0.3\sigma)$
Ω_{m}	$0.3097 \pm 0.0063 \quad (-0.1\sigma)$	k_{eq}	$0.010332 \pm 0.000096 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.9 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1423 \pm 0.0013 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8163 \pm 0.0060 \quad (-0.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0965 \pm 0.0014 \quad (+1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0031 \quad (-0.3\sigma)$	χ_{CMB}^2	$11943.9 \pm 5.9 \quad (+0.1\sigma)$
σ_8	$0.8093 \pm 0.0073 \quad (+0.2\sigma)$	$H(0.15)$	$73.06 \pm 0.63 \quad (+0.4\sigma)$	χ_{BAO}^2	$6.2 \pm 1.6 \quad (+0.2\sigma)$
S_8	$0.822 \pm 0.011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.7 \pm 5.8 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.96; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.56; R - 1 = 0.03026$$

16.29 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02233 \pm 0.00016 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4498 \pm 0.0058 \quad (+0.0\sigma)$	$H(0.38)$	$83.21 \pm 0.60 \quad (+0.6\sigma)$
$\Omega_{\text{c}}h^2$	$0.1192 \pm 0.0014 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6033 \pm 0.0060 \quad (+0.1\sigma)$	$D_{\text{M}}(0.38)$	$1525 \pm 13 \quad (-0.4\sigma)$
$100\theta_{\text{MC}}$	$1.04092 \pm 0.00031 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.9825 \pm 0.0085 \quad (+0.0\sigma)$	$H(0.51)$	$89.91 \pm 0.60 \quad (+0.8\sigma)$
τ	$0.0554 \pm 0.0074 \quad (-0.0\sigma)$	$r_{\text{drag}}h$	$99.97 \pm 0.92 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1976 \pm 16 \quad (-0.4\sigma)$
Ω_K	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.020 \quad (+0.0\sigma)$	$H(0.61)$	$95.52 \pm 0.61 \quad (+0.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.043 \pm 0.014 \quad (+0.0\sigma)$	z_{re}	$7.77 \pm 0.74 \quad (-0.0\sigma)$	$D_{\text{M}}(0.61)$	$2299 \pm 18 \quad (-0.5\sigma)$
n_{s}	$0.9667 \pm 0.0045 \quad (-0.2\sigma)$	$10^9 A_{\text{s}}$	$2.098 \pm 0.030 \quad (+0.0\sigma)$	$H(2.33)$	$236.2 \pm 1.2 \quad (+0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5753 \pm 31 \quad (-1.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4545 \pm 0.0054 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5725 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7481 \pm 0.0068 \quad (+0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4734 \pm 0.0047 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$816.2 \pm 4.7 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6634 \pm 0.0062 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4723 \pm 0.0044 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9667 \pm 0.0045 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6210 \pm 0.0059 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.38}_{-0.19} \quad (+0.0\sigma)$	Y_{P}	$0.245379^{+0.000067}_{-0.000060} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4675 \pm 0.0042 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246705^{+0.000067}_{-0.000060} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5910 \pm 0.0057 \quad (+0.2\sigma)$
A^{kSZ}	$4.7^{+1.6}_{-4.6} \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.593 \pm 0.030 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2980 \pm 0.0029 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.772 \pm 0.080 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3075 \pm 0.0033 \quad (+0.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.29 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.894 \pm 0.028 \quad (-0.3\sigma)$	χ_{lensing}^2	$9.33 \pm 0.80 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.80 \pm 0.33 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.33 \pm 0.31 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.1 \pm 1.0 \quad (+0.2\sigma)$
c_{EE}	$0.9921 \pm 0.0048 \quad (-0.0\sigma)$	k_{D}	$0.14058 \pm 0.00033 \quad (+0.2\sigma)$	χ_{CamSpec}^2	$11514.4 \pm 5.6 \quad (+0.0\sigma)$
H_0	$67.86 \pm 0.64 \quad (+0.3\sigma)$	$100\theta_{\text{D}}$	$0.16083 \pm 0.00019 \quad (-0.0\sigma)$	χ_{JLA}^2	$1035.02 \pm 0.26 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6905 \pm 0.0056 \quad (+0.0\sigma)$	z_{eq}	$3383 \pm 31 \quad (+0.3\sigma)$	$\chi_{6\text{DF}}^2$	$0.048 \pm 0.066 \quad (+0.2\sigma)$
Ω_{m}	$0.3090 \pm 0.0060 \quad (-0.1\sigma)$	k_{eq}	$0.010326 \pm 0.000095 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.48 \pm 0.55 \quad (+0.3\sigma)$
$\Omega_{\text{m}}h^2$	$0.1422 \pm 0.0013 \quad (+0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8166 \pm 0.0059 \quad (-0.3\sigma)$	χ_{DR12BAO}^2	$4.6 \pm 1.8 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.0965 \pm 0.0014 \quad (+1.3\sigma)$	$100\theta_{\text{s,eq}}$	$0.4511 \pm 0.0030 \quad (-0.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (-0.0\sigma)$
σ_8	$0.8093 \pm 0.0073 \quad (+0.2\sigma)$	$H(0.15)$	$73.12 \pm 0.62 \quad (+0.4\sigma)$	χ_{CMB}^2	$11944.0 \pm 5.8 \quad (+0.1\sigma)$
S_8	$0.821 \pm 0.011 \quad (+0.0\sigma)$	$D_{\text{M}}(0.15)$	$639.1 \pm 5.7 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.1 \pm 1.5 \quad (+0.3\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 12992.90; \Delta\bar{\chi}_{\text{eff}}^2 = 0.51; R - 1 = 0.03012$$

16.30 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02233 \pm 0.00016 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4490 \pm 0.0069 \quad (-0.0\sigma)$	$H(0.38)$	$83.22 \pm 0.62 \quad (+0.6\sigma)$
$\Omega_{\text{c}}h^2$	$0.1192 \pm 0.0015 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6024 \pm 0.0071 \quad (+0.0\sigma)$	$D_{\text{M}}(0.38)$	$1524 \pm 13 \quad (-0.4\sigma)$
$100\theta_{\text{MC}}$	$1.04092 \pm 0.00032 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.981 \pm 0.010 \quad (-0.0\sigma)$	$H(0.51)$	$89.92 \pm 0.61 \quad (+0.7\sigma)$
τ	$0.0547_{-0.0081}^{+0.0052} \quad (-0.1\sigma)$	$r_{\text{drag}}h$	$100.02 \pm 0.99 \quad (+0.2\sigma)$	$D_{\text{M}}(0.51)$	$1975 \pm 16 \quad (-0.4\sigma)$
Ω_K	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.023 \quad (-0.1\sigma)$	$H(0.61)$	$95.53 \pm 0.62 \quad (+0.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.041_{-0.016}^{+0.012} \quad (-0.1\sigma)$	z_{re}	$7.70_{-0.81}^{+0.56} \quad (-0.1\sigma)$	$D_{\text{M}}(0.61)$	$2299 \pm 18 \quad (-0.5\sigma)$
n_{s}	$0.9669 \pm 0.0046 \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.093_{-0.034}^{+0.025} \quad (-0.1\sigma)$	$H(2.33)$	$236.1 \pm 1.2 \quad (+0.4\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.876_{-0.012}^{+0.011} \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5753 \pm 32 \quad (-0.9\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (+0.0\sigma)$	D_{40}	$1223 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0065 \quad (-0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7472 \pm 0.0072 \quad (+0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4727 \pm 0.0056 \quad (-0.0\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$815.8 \pm 4.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6627_{-0.0067}^{+0.0060} \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.8_{-2.6}^{+1.8} \quad (-0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4716 \pm 0.0052 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9669 \pm 0.0046 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6203 \pm 0.0061 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56_{-0.18}^{+0.39} \quad (+0.0\sigma)$	Y_{P}	$0.245377_{-0.000060}^{+0.000069} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4669 \pm 0.0048 \quad (+0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$Y_{\text{P}}^{\text{BBN}}$	$0.246703_{-0.000060}^{+0.000069} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5903 \pm 0.0058 \quad (+0.2\sigma)$
A^{kSZ}	$4.7_{-4.1}^{+2.2} \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.594 \pm 0.030 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2977 \pm 0.0029 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.772 \pm 0.081 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3072 \pm 0.0033 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.30 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.7 \pm 2.8 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.68 \pm 0.32 \quad (-0.2\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00031 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.0 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.896 \pm 0.030 \quad (-0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.78 \pm 0.33 \quad (-0.0\sigma)$	χ_{lowl}^2	$23.0 \pm 1.0 \quad (+0.2\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.36 \pm 0.32 \quad (-0.2\sigma)$	χ_{CamSpec}^2	$11514.7 \pm 5.6 \quad (+0.1\sigma)$
c_{EE}	$0.9921 \pm 0.0048 \quad (-0.1\sigma)$	k_{D}	$0.14056 \pm 0.00034 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.052 \pm 0.071 \quad (+0.1\sigma)$
H_0	$67.88 \pm 0.67 \quad (+0.3\sigma)$	$100\theta_{\text{D}}$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.51 \pm 0.59 \quad (+0.3\sigma)$
Ω_{Λ}	$0.6908 \pm 0.0061 \quad (+0.1\sigma)$	z_{eq}	$3382 \pm 33 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$4.6 \pm 1.8 \quad (+0.1\sigma)$
Ω_{m}	$0.3086 \pm 0.0066 \quad (-0.1\sigma)$	k_{eq}	$0.01032 \pm 0.00010 \quad (+0.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (+0.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1422 \pm 0.0014 \quad (+0.2\sigma)$	$100\theta_{\text{eq}}$	$0.8169 \pm 0.0062 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.2 \pm 1.6 \quad (+0.2\sigma)$
$\Omega_{\text{m}}h^3$	$0.0965 \pm 0.0014 \quad (+1.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4513 \pm 0.0032 \quad (-0.2\sigma)$	χ_{CMB}^2	$11934.6 \pm 5.7 \quad (+0.1\sigma)$
σ_8	$0.8083 \pm 0.0079 \quad (+0.1\sigma)$	$H(0.15)$	$73.14 \pm 0.64 \quad (+0.4\sigma)$		
S_8	$0.820 \pm 0.013 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$638.9 \pm 6.0 \quad (-0.4\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11948.57; \Delta\bar{\chi}_{\text{eff}}^2 = 0.58; R - 1 = 0.01907$$

16.31 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02233 \pm 0.00016 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4505 \pm 0.0059 \quad (+0.0\sigma)$	$H(0.38)$	$83.16 \pm 0.61 \quad (+0.5\sigma)$
$\Omega_c h^2$	$0.1193 \pm 0.0014 \quad (+0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6040 \pm 0.0060 \quad (+0.1\sigma)$	$D_M(0.38)$	$1526 \pm 13 \quad (-0.4\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00031 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9835 \pm 0.0083 \quad (+0.0\sigma)$	$H(0.51)$	$89.87 \pm 0.61 \quad (+0.6\sigma)$
τ	$0.0558^{+0.0058}_{-0.0077} \quad (-0.0\sigma)$	$r_{\text{drag}} h$	$99.88 \pm 0.95 \quad (+0.2\sigma)$	$D_M(0.51)$	$1977 \pm 16 \quad (-0.4\sigma)$
Ω_K	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.020 \quad (+0.0\sigma)$	$H(0.61)$	$95.48 \pm 0.61 \quad (+0.8\sigma)$
$\ln(10^{10} A_s)$	$3.044^{+0.012}_{-0.015} \quad (+0.0\sigma)$	z_{re}	$7.82^{+0.62}_{-0.75} \quad (+0.0\sigma)$	$D_M(0.61)$	$2301 \pm 18 \quad (-0.4\sigma)$
n_s	$0.9666 \pm 0.0045 \quad (-0.1\sigma)$	$10^9 A_s$	$2.100^{+0.025}_{-0.031} \quad (+0.0\sigma)$	$H(2.33)$	$236.2 \pm 1.2 \quad (+0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.878^{+0.010}_{-0.012} \quad (+0.1\sigma)$	$D_M(2.33)$	$5755 \pm 32 \quad (-0.8\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4552 \pm 0.0055 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7485 \pm 0.0066 \quad (+0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4739 \pm 0.0047 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$816.1 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6637 \pm 0.0060 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4728 \pm 0.0043 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9666 \pm 0.0045 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6212 \pm 0.0057 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.38}_{-0.18} \quad (+0.0\sigma)$	Y_P	$0.245377^{+0.000068}_{-0.000060} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4679 \pm 0.0041 \quad (+0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.246704^{+0.000068}_{-0.000060} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5911 \pm 0.0055 \quad (+0.2\sigma)$
A^{kSZ}	$4.7^{+1.6}_{-4.6} \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.594 \pm 0.030 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2981 \pm 0.0028 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.777 \pm 0.081 \quad (-0.9\sigma)$	$\sigma_8(2.33)$	$0.3075 \pm 0.0032 \quad (+0.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.91 \pm 0.29 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.65 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.894 \pm 0.029 \quad (-0.2\sigma)$	χ_{lensing}^2	$9.26 \pm 0.70 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.79 \pm 0.33 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9964 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.31 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.1 \pm 1.0 \quad (+0.2\sigma)$
c_{EE}	$0.9920 \pm 0.0048 \quad (-0.0\sigma)$	k_D	$0.14059 \pm 0.00034 \quad (+0.2\sigma)$	χ_{CamSpec}^2	$11514.3 \pm 5.6 \quad (+0.0\sigma)$
H_0	$67.80 \pm 0.65 \quad (+0.3\sigma)$	$100\theta_D$	$0.16084 \pm 0.00019 \quad (-0.0\sigma)$	$\chi_{6\text{DF}}^2$	$0.055 \pm 0.073 \quad (+0.2\sigma)$
Ω_Λ	$0.6900 \pm 0.0057 \quad (+0.0\sigma)$	z_{eq}	$3384 \pm 31 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.43 \pm 0.56 \quad (+0.3\sigma)$
Ω_m	$0.3096 \pm 0.0062 \quad (-0.1\sigma)$	k_{eq}	$0.010329 \pm 0.000095 \quad (+0.3\sigma)$	χ_{DR12BAO}^2	$4.8 \pm 1.9 \quad (+0.1\sigma)$
$\Omega_m h^2$	$0.1423 \pm 0.0013 \quad (+0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8164 \pm 0.0059 \quad (-0.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.0965 \pm 0.0014 \quad (+1.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4510 \pm 0.0030 \quad (-0.3\sigma)$	χ_{CMB}^2	$11943.7 \pm 5.8 \quad (+0.0\sigma)$
σ_8	$0.8098 \pm 0.0071 \quad (+0.2\sigma)$	$H(0.15)$	$73.07 \pm 0.63 \quad (+0.4\sigma)$	χ_{BAO}^2	$6.2 \pm 1.6 \quad (+0.3\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.0\sigma)$	$D_M(0.15)$	$639.6 \pm 5.8 \quad (-0.3\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11957.78; \Delta\bar{\chi}_{\text{eff}}^2 = 0.52; R - 1 = 0.03337$$

16.32 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_lensing_Pantheon18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02234 \pm 0.00016 \quad (-0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4499 \pm 0.0057 \quad (+0.0\sigma)$	$H(0.38)$	$83.21 \pm 0.60 \quad (+0.6\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1192 \pm 0.0014 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6036 \pm 0.0059 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1525 \pm 13 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00031 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9829 \pm 0.0083 \quad (+0.1\sigma)$	$H(0.51)$	$89.91 \pm 0.60 \quad (+0.7\sigma)$
τ	$0.0561^{+0.0059}_{-0.0077} \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.99 \pm 0.92 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1975 \pm 16 \quad (-0.4\sigma)$
Ω_K	0.0005 ± 0.0020	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.019 \quad (+0.0\sigma)$	$H(0.61)$	$95.52 \pm 0.61 \quad (+0.9\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.045^{+0.012}_{-0.015} \quad (+0.0\sigma)$	z_{re}	$7.84^{+0.62}_{-0.75} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2299 \pm 18 \quad (-0.5\sigma)$
n_{s}	$0.9667 \pm 0.0045 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.025}_{-0.031} \quad (+0.0\sigma)$	$H(2.33)$	$236.1 \pm 1.2 \quad (+0.5\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5753 \pm 31 \quad (-1.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.0\sigma)$	D_{40}	$1225 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4547 \pm 0.0054 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7485 \pm 0.0066 \quad (+0.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4736 \pm 0.0047 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$816.2 \pm 4.7 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6638 \pm 0.0060 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4725 \pm 0.0043 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9667 \pm 0.0045 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6213 \pm 0.0057 \quad (+0.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.38}_{-0.18} \quad (+0.0\sigma)$	Y_{P}	$0.245380^{+0.000066}_{-0.000060} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4677 \pm 0.0041 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246706^{+0.000067}_{-0.000060} \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5913 \pm 0.0055 \quad (+0.3\sigma)$
A^{kSZ}	$< 6.21 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.592 \pm 0.030 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2982 \pm 0.0028 \quad (+0.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.772 \pm 0.080 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3077 \pm 0.0032 \quad (+0.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.29 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.31 \quad (-0.3\sigma)$	f_{2000}^{217}	$106.7 \pm 2.0 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.028 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.27 \pm 0.72 \quad (+0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.80 \pm 0.33 \quad (-0.0\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{TE}	$0.9964 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.34 \pm 0.30 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.1 \pm 1.0 \quad (+0.2\sigma)$
c_{EE}	$0.9921 \pm 0.0048 \quad (-0.0\sigma)$	k_{D}	$0.14058 \pm 0.00034 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.3 \pm 5.6 \quad (+0.0\sigma)$
H_0	$67.86 \pm 0.64 \quad (+0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083 \pm 0.00019 \quad (-0.0\sigma)$	χ_{JLA}^2	$1035.01 \pm 0.26 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6907 \pm 0.0055 \quad (+0.0\sigma)$	z_{eq}	$3383 \pm 31 \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.048 \pm 0.065 \quad (+0.2\sigma)$
Ω_{m}	$0.3088 \pm 0.0060 \quad (-0.1\sigma)$	k_{eq}	$0.010324 \pm 0.000094 \quad (+0.3\sigma)$	χ_{MGS}^2	$1.48 \pm 0.55 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1422 \pm 0.0013 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8168 \pm 0.0059 \quad (-0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0965 \pm 0.0014 \quad (+1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4512 \pm 0.0030 \quad (-0.3\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8097 \pm 0.0071 \quad (+0.2\sigma)$	$H(0.15)$	$73.13 \pm 0.62 \quad (+0.4\sigma)$	χ_{CMB}^2	$11943.8 \pm 5.8 \quad (+0.0\sigma)$
S_8	$0.821 \pm 0.010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.0 \pm 5.7 \quad (-0.4\sigma)$	χ_{BAO}^2	$6.1 \pm 1.5 \quad (+0.3\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.73; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.47; R - 1 = 0.03308$$

16.33 base_omegak_plikHM_TT_lowl_lowE_BAO_Riess18_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022173	0.02217 ± 0.00023	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6030	0.6023 ± 0.0095	$D_{\text{M}}(0.38)$	1508.4	1508 ± 13
$\Omega_{\text{c}}h^2$	0.12004	0.1201 ± 0.0022	$\sigma_8/h^{0.5}$	0.9808	0.980 ± 0.013	$H(0.51)$	90.70	90.75 ± 0.68
$100\theta_{\text{MC}}$	1.040866	1.04086 ± 0.00047	$r_{\text{drag}}h$	101.16	101.22 ± 0.95	$D_{\text{M}}(0.51)$	1955.2	1954 ± 16
τ	0.0540	0.0527 ± 0.0081	$\langle d^2 \rangle^{1/2}$	2.4220	2.420 ± 0.029	$H(0.61)$	96.31	96.36 ± 0.72
Ω_K	0.00305	0.0032 ± 0.0025	z_{re}	7.70	$7.56^{+0.83}_{-0.75}$	$D_{\text{M}}(0.61)$	2276.2	2275 ± 18
$\ln(10^{10}A_{\text{s}})$	3.0422	3.040 ± 0.017	10^9A_{s}	2.0952	2.092 ± 0.035	$H(2.33)$	237.12	237.2 ± 1.9
n_{s}	0.9645	0.9639 ± 0.0060	$10^9A_{\text{s}}e^{-2\tau}$	1.8809	1.882 ± 0.014	$D_{\text{M}}(2.33)$	5713.7	5712 ± 37
α_{JLA}	0.1412	0.1412 ± 0.0065	D_{40}	1229.6	1231 ± 16	$f\sigma_8(0.15)$	0.4523	0.4517 ± 0.0083
β_{JLA}	3.101	3.103 ± 0.081	D_{220}	5710.1	5717 ± 43	$\sigma_8(0.15)$	0.7519	0.7513 ± 0.0095
y_{cal}	1.00022	1.0004 ± 0.0026	D_{810}	2536.4	2537 ± 14	$f\sigma_8(0.38)$	0.4724	0.4719 ± 0.0074
A_{217}^{CIB}	50.0	48 ± 7	D_{1420}	815.2	815.2 ± 5.2	$\sigma_8(0.38)$	0.6676	0.6670 ± 0.0083
$\xi^{\text{tSZ} \times \text{CIB}}$	0.11	—	D_{2000}	229.80	229.7 ± 1.9	$f\sigma_8(0.51)$	0.4720	0.4714 ± 0.0069
A_{143}^{tSZ}	7.14	5.1 ± 2.0	$n_{\text{s},0.002}$	0.9645	0.9639 ± 0.0060	$\sigma_8(0.51)$	0.6252	0.6247 ± 0.0078
A_{100}^{PS}	256.0	264 ± 28	Y_{P}	0.245315	$0.24531^{+0.00011}_{-0.000084}$	$f\sigma_8(0.61)$	0.4677	0.4672 ± 0.0065
A_{143}^{PS}	46.9	49 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.246641	$0.24664^{+0.00011}_{-0.000085}$	$\sigma_8(0.61)$	0.5952	0.5947 ± 0.0074
$A_{143 \times 217}^{\text{PS}}$	41.7	43 ± 9	$10^5\text{D}/\text{H}$	2.6231	2.624 ± 0.044	$f\sigma_8(2.33)$	0.30029	0.3001 ± 0.0036
A_{217}^{PS}	117.2	115 ± 10	Age/Gyr	13.672	13.666 ± 0.097	$\sigma_8(2.33)$	0.31045	0.3103 ± 0.0040
A^{kSZ}	0.02	< 4.96	z_*	1090.173	1090.18 ± 0.44	f_{2000}^{143}	30.79	31.2 ± 2.9
A_{100}^{dustTT}	8.98	8.9 ± 1.8	r_*	144.57	144.56 ± 0.50	$f_{2000}^{143 \times 217}$	33.49	33.6 ± 2.0
A_{143}^{dustTT}	10.69	10.7 ± 1.8	$100\theta_*$	1.041070	1.04107 ± 0.00046	f_{2000}^{217}	107.97	108.1 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	19.10	18.3 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8869	13.886 ± 0.046	χ_{small}^2	396.06	397.0 ± 1.7
A_{217}^{dustTT}	94.3	93.4 ± 7.3	z_{drag}	1059.475	1059.48 ± 0.47	χ_{lowl}^2	23.66	23.9 ± 1.5
c_{100}	0.99961	0.99961 ± 0.00061	r_{drag}	147.30	147.29 ± 0.50	χ_{plik}^2	760.0	773.0 ± 5.4
c_{217}	0.99827	0.99826 ± 0.00062	k_{D}	0.14049	0.14050 ± 0.00053	χ_{H073p45}^2	8.28	8.3 ± 2.2
H_0	68.67	68.72 ± 0.65	$100\theta_{\text{D}}$	0.161024	0.16103 ± 0.00027	χ_{JLA}^2	695.12	697.2 ± 2.0
Ω_{Λ}	0.6940	0.6942 ± 0.0073	z_{eq}	3398	3400 ± 51	$\chi_{6\text{DF}}^2$	0.0229	0.067 ± 0.086
Ω_{m}	0.3029	0.3026 ± 0.0067	k_{eq}	0.010372	0.01038 ± 0.00015	χ_{MGS}^2	2.19	2.30 ± 0.65
$\Omega_{\text{m}}h^2$	0.14285	0.1429 ± 0.0021	$100\theta_{\text{eq}}$	0.8134	0.8133 ± 0.0095	χ_{DR12BAO}^2	3.30	4.1 ± 1.3
$\Omega_{\text{m}}h^3$	0.09810	0.0982 ± 0.0019	$100\theta_{\text{s,eq}}$	0.44958	0.4495 ± 0.0049	χ_{prior}^2	1.57	7.4 ± 3.7
σ_8	0.8128	0.812 ± 0.011	$H(0.15)$	73.93	73.98 ± 0.64	χ_{BAO}^2	5.52	6.5 ± 1.9
S_8	0.8167	0.816 ± 0.016	$D_{\text{M}}(0.15)$	631.8	631.4 ± 5.7	χ_{CMB}^2	1179.7	1194.0 ± 5.6
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4473	0.4467 ± 0.0088	$H(0.38)$	84.00	84.05 ± 0.65			

Best-fit $\chi_{\text{eff}}^2 = 1890.21$; $\bar{\chi}_{\text{eff}}^2 = 1913.25$; $R - 1 = 0.01616$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 2.19 DR12BAO: 3.30 CMB - small-100x143.offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3.2.29: 23.66 plik_rd12_HM_v22.TT: 760.01
Hubble - H073p45: 8.28 SN - JLA December_2013: 695.12

16.34 base_omegak_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022181	0.02217 ± 0.00023 (-0.8σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6052	0.6050 ± 0.0075 $(+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	1507.3	1508 ± 13 (-1.7σ)
$\Omega_{\mathrm{c}}h^2$	0.12037	0.1204 ± 0.0020 $(+2.1\sigma)$	$\sigma_8/h^{0.5}$	0.9839	0.9835 ± 0.0098 $(+0.5\sigma)$	$H(0.51)$	90.79	90.74 ± 0.68 $(+3.3\sigma)$
$100\theta_{\mathrm{MC}}$	1.040810	1.04084 ± 0.00046 (-0.8σ)	$r_{\mathrm{drag}}h$	101.15	101.08 ± 0.91 $(+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	1953.7	1955 ± 16 (-1.8σ)
τ	0.0551	0.0547 ± 0.0077 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4287	2.430 ± 0.022 $(+0.2\sigma)$	$H(0.61)$	96.40	96.36 ± 0.71 $(+4.0\sigma)$
Ω_K	0.00339	0.0033 ± 0.0025	z_{re}	7.82	7.76 ± 0.76 (-0.4σ)	$D_{\mathrm{M}}(0.61)$	2274.4	2276 ± 18 (-2.0σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0464	3.046 ± 0.015 (-0.2σ)	10^9A_{s}	2.1040	2.102 ± 0.031 (-0.2σ)	$H(2.33)$	237.43	237.4 ± 1.7 $(+3.0\sigma)$
n_{s}	0.9640	0.9631 ± 0.0056 (-1.3σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8846	1.884 ± 0.013 $(+0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	5708.4	5711 ± 37 (-4.2σ)
y_{cal}	1.00056	1.0006 ± 0.0026 (-0.2σ)	D_{40}	1232.8	1235 ± 15 $(+0.9\sigma)$	$f\sigma_8(0.15)$	0.4541	0.4540 ± 0.0066 $(+0.5\sigma)$
α_{JLA}	0.1413	0.1411 ± 0.0065	D_{220}	5716.5	5722 ± 43 (-0.3σ)	$\sigma_8(0.15)$	0.7545	0.7538 ± 0.0079 $(+1.2\sigma)$
β_{JLA}	3.099	3.104 ± 0.080	D_{810}	2539.8	2538 ± 14 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4742	0.4740 ± 0.0058 $(+0.6\sigma)$
A_{217}^{CIB}	48.9	48 ± 7 $(+0.0\sigma)$	D_{1420}	816.3	815.5 ± 5.2 (-0.3σ)	$\sigma_8(0.38)$	0.6698	0.6691 ± 0.0070 $(+1.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.31	—	D_{2000}	230.17	229.8 ± 1.9 (-0.5σ)	$f\sigma_8(0.51)$	0.4737	0.4734 ± 0.0054 $(+0.7\sigma)$
A_{143}^{tSZ}	6.96	5.1 ± 2.0 (-0.1σ)	$n_{\mathrm{s},0.002}$	0.9640	0.9631 ± 0.0056 (-1.3σ)	$\sigma_8(0.51)$	0.6272	0.6266 ± 0.0066 $(+1.2\sigma)$
A_{100}^{PS}	255.0	263 ± 28 $(+0.1\sigma)$	Y_{P}	0.245318	$0.24531^{+0.00011}_{-0.000085}$ (-0.8σ)	$f\sigma_8(0.61)$	0.4693	0.4690 ± 0.0051 $(+0.8\sigma)$
A_{143}^{PS}	49.5	49 ± 8 $(+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246644	$0.24664^{+0.00011}_{-0.000085}$ (-0.8σ)	$\sigma_8(0.61)$	0.5971	0.5965 ± 0.0063 $(+1.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	46.8	44 ± 9 $(+0.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	2.6216	2.623 ± 0.043 $(+0.8\sigma)$	$f\sigma_8(2.33)$	0.30125	0.3009 ± 0.0032 $(+1.1\sigma)$
A_{217}^{PS}	119.2	115 ± 10 $(+0.1\sigma)$	Age/Gyr	13.658	13.664 ± 0.095 (-4.8σ)	$\sigma_8(2.33)$	0.31146	0.3111 ± 0.0036 $(+1.3\sigma)$
A^{kSZ}	0.02	< 4.83 $(+0.1\sigma)$	z_*	1090.191	1090.21 ± 0.42 $(+1.4\sigma)$	f_{2000}^{143}	30.35	31.1 ± 2.9 $(+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.85	8.8 ± 1.8 (-0.0σ)	r_*	144.480	144.49 ± 0.45 (-1.6σ)	$f_{2000}^{143 \times 217}$	33.25	33.5 ± 2.0 $(+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.82	10.7 ± 1.8 $(+0.0\sigma)$	$100\theta_*$	1.041019	1.04104 ± 0.00045 (-0.7σ)	f_{2000}^{217}	107.71	108.1 ± 1.9 $(+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.35	18.3 ± 3.3 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8787	13.879 ± 0.042 (-1.5σ)	$\chi_{\mathrm{lensing}}^2$	9.04	9.53 ± 0.88 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	94.4	93.5 ± 7.3 $(+0.0\sigma)$	z_{drag}	1059.513	1059.50 ± 0.47 (-0.4σ)	χ_{small}^2	396.29	397.2 ± 1.9 (-0.2σ)
c_{100}	0.99967	0.99961 ± 0.00063 (-0.1σ)	r_{drag}	147.206	147.22 ± 0.45 (-1.4σ)	χ_{lowl}^2	23.89	24.2 ± 1.4 $(+1.6\sigma)$
c_{217}	0.99825	$0.99827^{+0.00065}_{-0.00059}$ $(+0.0\sigma)$	k_{D}	0.140601	0.14058 ± 0.00049 $(+0.8\sigma)$	χ_{plik}^2	760.03	772.1 ± 5.2 (-0.1σ)
H_0	68.71	68.66 ± 0.64 $(+1.3\sigma)$	$100\theta_{\mathrm{D}}$	0.160995	0.16101 ± 0.00027 $(+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	8.14	8.5 ± 2.2 (-1.2σ)
Ω_{Λ}	0.6933	0.6929 ± 0.0065 (-0.4σ)	z_{eq}	3406.5	3406 ± 46 $(+2.0\sigma)$	χ_{JLA}^2	695.13	697.2 ± 2.0 (-78.9σ)
Ω_{m}	0.3033	0.3038 ± 0.0061 (-0.2σ)	k_{eq}	0.010397	0.01040 ± 0.00014 $(+2.0\sigma)$	χ_{6DF}^2	0.0226	0.055 ± 0.073 $(+0.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14319	0.1432 ± 0.0019 $(+2.0\sigma)$	$100\theta_{\mathrm{eq}}$	0.8119	0.8121 ± 0.0086 (-2.1σ)	χ_{MGS}^2	2.19	2.21 ± 0.62 $(+0.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09839	0.0983 ± 0.0018 $(+5.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44881	0.4489 ± 0.0044 (-2.0σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.29	4.0 ± 1.2 $(+0.1\sigma)$
σ_8	0.8156	0.8149 ± 0.0086 $(+1.1\sigma)$	$H(0.15)$	73.98	73.93 ± 0.63 $(+1.6\sigma)$	χ_{prior}^2	1.31	7.4 ± 3.8 (-0.0σ)
S_8	0.8200	0.820 ± 0.013 $(+0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	631.4	631.9 ± 5.6 (-1.4σ)	χ_{CMB}^2	1189.2	1203.0 ± 5.5 $(+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4491	0.4491 ± 0.0070 $(+0.5\sigma)$	$H(0.38)$	84.07	84.03 ± 0.65 $(+2.5\sigma)$	χ_{BAO}^2	5.51	6.2 ± 1.7 $(+0.7\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 1899.34$; $\Delta\chi_{\mathrm{eff}}^2 = -13.47$; $\bar{\chi}_{\mathrm{eff}}^2 = 1922.24$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -10.80$; $R - 1 = 0.02517$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.02) MGS: 2.19 (Δ 0.52) DR12BAO: 3.29 (Δ -0.21) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p-teb_consext8: 9.04 (Δ 0.09) small_100x143_offlike5_EE_Aplanck: 396.29 (Δ -0.54) commander_dx12_v3.2_29: 23.89 (Δ 1.30) plik_rd12_HM_v22.TT: 760.03 (Δ -0.80) Hubble - H073p45: 8.14 (Δ -2.45) SN - JLA December_2013: 695.13 (Δ -11.46)

16.35 base_omegak_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02218 ± 0.00023	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6029 ± 0.0093	$D_{\text{M}}(0.38)$	1508 ± 13
$\Omega_{\text{c}}h^2$	0.1200 ± 0.0022	$\sigma_8/h^{0.5}$	0.981 ± 0.012	$H(0.51)$	90.74 ± 0.68
$100\theta_{\text{MC}}$	1.04087 ± 0.00047	$r_{\text{drag}}h$	101.23 ± 0.95	$D_{\text{M}}(0.51)$	1954 ± 16
τ	$0.0543^{+0.0053}_{-0.0079}$	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.028	$H(0.61)$	96.34 ± 0.71
Ω_K	0.0031 ± 0.0025	z_{re}	$7.72^{+0.57}_{-0.80}$	$D_{\text{M}}(0.61)$	2275 ± 18
$\ln(10^{10}A_{\text{s}})$	$3.043^{+0.012}_{-0.016}$	$10^9 A_{\text{s}}$	$2.098^{+0.026}_{-0.033}$	$H(2.33)$	237.1 ± 1.9
n_{s}	0.9642 ± 0.0059	$10^9 A_{\text{s}}e^{-2\tau}$	1.882 ± 0.014	$D_{\text{M}}(2.33)$	5712 ± 37
α_{JLA}	0.1412 ± 0.0065	D_{40}	1231 ± 16	$f\sigma_8(0.15)$	0.4522 ± 0.0082
β_{JLA}	3.103 ± 0.081	D_{220}	5717 ± 43	$\sigma_8(0.15)$	0.7522 ± 0.0092
y_{cal}	1.0004 ± 0.0026	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.4724 ± 0.0072
A_{217}^{CIB}	48 ± 7	D_{1420}	815.2 ± 5.2	$\sigma_8(0.38)$	0.6678 ± 0.0080
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	229.7 ± 1.9	$f\sigma_8(0.51)$	0.4720 ± 0.0067
A_{143}^{tSZ}	5.1 ± 2.0	$n_{\text{s},0.002}$	0.9642 ± 0.0059	$\sigma_8(0.51)$	0.6255 ± 0.0074
A_{100}^{PS}	264 ± 28	Y_{P}	$0.24531^{+0.00011}_{-0.000083}$	$f\sigma_8(0.61)$	0.4677 ± 0.0063
A_{143}^{PS}	49 ± 8	$Y_{\text{P}}^{\text{BBN}}$	$0.24664^{+0.00011}_{-0.000083}$	$\sigma_8(0.61)$	0.5954 ± 0.0071
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$10^5 \text{D}/\text{H}$	2.622 ± 0.043	$f\sigma_8(2.33)$	0.3005 ± 0.0035
A_{217}^{PS}	115 ± 10	Age/Gyr	13.668 ± 0.096	$\sigma_8(2.33)$	0.3107 ± 0.0039
A^{kSZ}	< 4.90	z_*	1090.17 ± 0.43	f_{2000}^{143}	31.1 ± 2.9
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	r_*	144.58 ± 0.50	$f_{2000}^{143 \times 217}$	33.5 ± 2.0
$A_{143}^{\text{dust}TT}$	10.7 ± 1.8	$100\theta_*$	1.04108 ± 0.00046	f_{2000}^{217}	108.1 ± 1.9
$A_{143 \times 217}^{\text{dust}TT}$	18.3 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.887 ± 0.046	χ_{simall}^2	396.9 ± 1.7
$A_{217}^{\text{dust}TT}$	93.4 ± 7.3	z_{drag}	1059.49 ± 0.46	χ_{lowl}^2	23.9 ± 1.5
c_{100}	0.99961 ± 0.00061	r_{drag}	147.30 ± 0.49	χ_{plik}^2	772.8 ± 5.4
c_{217}	0.99826 ± 0.00062	k_{D}	0.14049 ± 0.00053	χ_{H073p45}^2	8.3 ± 2.2
H_0	68.73 ± 0.65	$100\theta_{\text{D}}$	0.16102 ± 0.00027	χ_{JLA}^2	697.1 ± 2.0
Ω_{Λ}	0.6944 ± 0.0072	z_{eq}	3398 ± 50	$\chi_{6\text{DF}}^2$	0.068 ± 0.087
Ω_{m}	0.3025 ± 0.0066	k_{eq}	0.01037 ± 0.00015	χ_{MGS}^2	2.31 ± 0.65
$\Omega_{\text{m}}h^2$	0.1428 ± 0.0021	$100\theta_{\text{eq}}$	0.8136 ± 0.0094	χ_{DR12BAO}^2	4.1 ± 1.3
$\Omega_{\text{m}}h^3$	0.0982 ± 0.0018	$100\theta_{\text{s,eq}}$	0.4497 ± 0.0048	χ_{prior}^2	7.4 ± 3.7
σ_8	0.813 ± 0.010	$H(0.15)$	73.98 ± 0.64	χ_{BAO}^2	6.5 ± 1.9
S_8	0.816 ± 0.016	$D_{\text{M}}(0.15)$	631.4 ± 5.7	χ_{CMB}^2	1193.6 ± 5.4
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4471 ± 0.0087	$H(0.38)$	84.04 ± 0.65		

$$\bar{\chi}_{\text{eff}}^2 = 1912.92; R - 1 = 0.02011$$

16.36 base_omegak_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00023 \quad (-0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6051 \pm 0.0075 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1508 \pm 13 \quad (-1.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1203 \pm 0.0020 \quad (+2.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9838 \pm 0.0097 \quad (+0.5\sigma)$	$H(0.51)$	$90.73 \pm 0.68 \quad (+3.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00046 \quad (-0.8\sigma)$	$r_{\mathrm{drag}}h$	$101.09 \pm 0.90 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1955 \pm 16 \quad (-1.8\sigma)$
τ	$0.0555^{+0.0059}_{-0.0077} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.022 \quad (+0.3\sigma)$	$H(0.61)$	$96.35 \pm 0.70 \quad (+3.9\sigma)$
Ω_K	0.0032 ± 0.0024	z_{re}	$7.85^{+0.63}_{-0.76} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2276 \pm 18 \quad (-2.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.015} \quad (-0.1\sigma)$	10^9A_{s}	$2.105^{+0.025}_{-0.031} \quad (-0.1\sigma)$	$H(2.33)$	$237.3 \pm 1.7 \quad (+3.0\sigma)$
n_{s}	$0.9634 \pm 0.0055 \quad (-1.3\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.884 \pm 0.013 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(2.33)$	$5712 \pm 37 \quad (-4.1\sigma)$
y_{cal}	$1.0006 \pm 0.0026 \quad (-0.2\sigma)$	D_{40}	$1234 \pm 14 \quad (+0.8\sigma)$	$f\sigma_8(0.15)$	$0.4541 \pm 0.0066 \quad (+0.5\sigma)$
α_{JLA}	0.1411 ± 0.0065	D_{220}	$5721 \pm 42 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.7541 \pm 0.0078 \quad (+1.2\sigma)$
β_{JLA}	3.104 ± 0.080	D_{810}	$2538 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4741 \pm 0.0058 \quad (+0.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$815.5 \pm 5.2 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6694 \pm 0.0069 \quad (+1.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.8 \pm 1.9 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0053 \quad (+0.7\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9634 \pm 0.0055 \quad (-1.3\sigma)$	$\sigma_8(0.51)$	$0.6269 \pm 0.0065 \quad (+1.3\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.1\sigma)$	Y_{P}	$0.24531^{+0.00011}_{-0.000084} \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4692 \pm 0.0050 \quad (+0.8\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00011}_{-0.000084} \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.5968 \pm 0.0063 \quad (+1.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.622 \pm 0.043 \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.3011 \pm 0.0031 \quad (+1.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.666 \pm 0.094 \quad (-4.7\sigma)$	$\sigma_8(2.33)$	$0.3113 \pm 0.0035 \quad (+1.4\sigma)$
A^{kSZ}	$< 4.81 \quad (+0.1\sigma)$	z_*	$1090.19 \pm 0.41 \quad (+1.4\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.8 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.50 \pm 0.45 \quad (-1.6\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.0 \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00045 \quad (-0.7\sigma)$	f_{2000}^{217}	$108.1 \pm 1.9 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.881 \pm 0.041 \quad (-1.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.48 \pm 0.83 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	z_{drag}	$1059.51 \pm 0.46 \quad (-0.4\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (-0.2\sigma)$
c_{100}	$0.99961 \pm 0.00063 \quad (-0.1\sigma)$	r_{drag}	$147.23 \pm 0.44 \quad (-1.3\sigma)$	χ_{lowl}^2	$24.1 \pm 1.4 \quad (+1.6\sigma)$
c_{217}	$0.99827^{+0.00065}_{-0.00059} \quad (+0.0\sigma)$	k_{D}	$0.14057 \pm 0.00049 \quad (+0.8\sigma)$	χ_{plik}^2	$772.0 \pm 5.1 \quad (-0.1\sigma)$
H_0	$68.66 \pm 0.64 \quad (+1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00027 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$8.5 \pm 2.2 \quad (-1.2\sigma)$
Ω_{Λ}	$0.6932 \pm 0.0064 \quad (-0.4\sigma)$	z_{eq}	$3405 \pm 45 \quad (+2.0\sigma)$	χ_{JLA}^2	$697.1 \pm 2.0 \quad (-80.1\sigma)$
Ω_{m}	$0.3036 \pm 0.0060 \quad (-0.2\sigma)$	k_{eq}	$0.01039 \pm 0.00014 \quad (+2.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.073 \quad (+0.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1431 \pm 0.0019 \quad (+2.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8124 \pm 0.0085 \quad (-2.0\sigma)$	χ_{MGS}^2	$2.21 \pm 0.62 \quad (+0.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0983 \pm 0.0018 \quad (+5.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4490 \pm 0.0044 \quad (-2.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.0 \pm 1.2 \quad (+0.1\sigma)$
σ_8	$0.8152 \pm 0.0085 \quad (+1.2\sigma)$	$H(0.15)$	$73.93 \pm 0.63 \quad (+1.6\sigma)$	χ_{prior}^2	$7.4 \pm 3.8 \quad (+0.0\sigma)$
S_8	$0.820 \pm 0.013 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$631.9 \pm 5.6 \quad (-1.4\sigma)$	χ_{CMB}^2	$1202.8 \pm 5.4 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4492 \pm 0.0070 \quad (+0.5\sigma)$	$H(0.38)$	$84.02 \pm 0.65 \quad (+2.5\sigma)$	χ_{BAO}^2	$6.2 \pm 1.7 \quad (+0.8\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1922.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -10.90; R - 1 = 0.02915$$

16.37 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	$0.0982^{+0.0013}_{-0.0015}$	$D_{\mathrm{M}}(0.15)$	631.3 ± 5.6
$\Omega_{\mathrm{c}}h^2$	0.1198 ± 0.0014	σ_8	0.8129 ± 0.0083	$H(0.38)$	84.04 ± 0.60
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00032	S_8	0.816 ± 0.012	$D_{\mathrm{M}}(0.38)$	1508 ± 12
τ	$0.0556^{+0.0071}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4470 ± 0.0067	$H(0.51)$	90.73 ± 0.60
Ω_K	$0.0025^{+0.0018}_{-0.0020}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6028 ± 0.0071	$D_{\mathrm{M}}(0.51)$	1954 ± 15
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.016	$\sigma_8/h^{0.5}$	0.981 ± 0.010	$H(0.61)$	96.33 ± 0.61
n_{s}	0.9660 ± 0.0045	$r_{\mathrm{drag}}h$	101.12 ± 0.95	$D_{\mathrm{M}}(0.61)$	2275 ± 17
α_{JLA}	0.1412 ± 0.0066	$\langle d^2 \rangle^{1/2}$	2.423 ± 0.024	$H(2.33)$	237.1 ± 1.2
β_{JLA}	3.104 ± 0.080	z_{re}	7.79 ± 0.78	$D_{\mathrm{M}}(2.33)$	5712 ± 31
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.104^{+0.031}_{-0.035}$	$f\sigma_8(0.15)$	0.4521 ± 0.0063
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	0.7521 ± 0.0077
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	1230 ± 13	$f\sigma_8(0.38)$	0.4723 ± 0.0056
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{220}	5734 ± 39	$\sigma_8(0.38)$	0.6678 ± 0.0069
A_{100}^{PS}	258 ± 27	D_{810}	2540 ± 14	$f\sigma_8(0.51)$	0.4720 ± 0.0052
A_{143}^{PS}	46 ± 8	D_{1420}	818.1 ± 4.8	$\sigma_8(0.51)$	0.6254 ± 0.0065
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{2000}	231.1 ± 1.6	$f\sigma_8(0.61)$	0.4677 ± 0.0050
A_{217}^{PS}	115 ± 10	$n_{\mathrm{s},0.002}$	0.9660 ± 0.0045	$\sigma_8(0.61)$	0.5954 ± 0.0062
A^{kSZ}	< 4.08	Y_{P}	$0.245405^{+0.000063}_{-0.000055}$	$f\sigma_8(2.33)$	0.3005 ± 0.0031
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246731^{+0.000064}_{-0.000055}$	$\sigma_8(2.33)$	0.3106 ± 0.0035
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$10^5 \mathrm{D}/\mathrm{H}$	2.581 ± 0.028	f_{2000}^{143}	29.4 ± 2.8
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$\mathrm{Age}/\mathrm{Gyr}$	13.670 ± 0.078	$f_{2000}^{143 \times 217}$	32.1 ± 1.9
$A_{217}^{\mathrm{dust}TT}$	93.9 ± 7.3	z_*	1089.86 ± 0.29	f_{2000}^{217}	107.0 ± 1.8
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.039	r_*	144.47 ± 0.31	χ_{small}^2	397.3 ± 2.1
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.030	$100\theta_*$	1.04113 ± 0.00031	χ_{lowl}^2	23.5 ± 1.1
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.482 ± 0.085	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.029	χ_{plik}^2	2361.1 ± 5.8
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	z_{drag}	1059.99 ± 0.30	$\chi_{\mathrm{H073p45}}^2$	8.2 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.081	r_{drag}	147.12 ± 0.30	χ_{JLA}^2	697.1 ± 2.0
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14086 ± 0.00032	$\chi_{6\mathrm{DF}}^2$	0.059 ± 0.079
c_{100}	0.99967 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16073 ± 0.00018	χ_{MGS}^2	2.22 ± 0.65
c_{217}	0.99821 ± 0.00062	z_{eq}	3398 ± 32	$\chi_{\mathrm{DR12BAO}}^2$	4.1 ± 1.2
H_0	68.74 ± 0.65	k_{eq}	0.010370 ± 0.000098	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.6951 ± 0.0057	$100\theta_{\mathrm{eq}}$	0.8143 ± 0.0061	χ_{BAO}^2	6.3 ± 1.7
Ω_{m}	0.3024 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4499 ± 0.0031	χ_{CMB}^2	2781.9 ± 5.8
$\Omega_{\mathrm{m}}h^2$	0.1428 ± 0.0013	$H(0.15)$	73.98 ± 0.62		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3505.21; R - 1 = 0.02028$$

16.38 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022418	0.02240 ± 0.00015 (-0.7σ)	$\Omega_m h^3$	0.09813	0.0981 ± 0.0014 $(+5.9\sigma)$	$D_M(0.15)$	631.5	631.9 ± 5.5 (-1.7σ)
$\Omega_c h^2$	0.11977	0.1198 ± 0.0014 $(+1.4\sigma)$	σ_8	0.8146	0.8145 ± 0.0072 $(+0.9\sigma)$	$H(0.38)$	84.01	83.99 ± 0.59 $(+2.7\sigma)$
$100\theta_{MC}$	1.040971	1.04095 ± 0.00032 (-0.6σ)	S_8	0.8181	0.819 ± 0.010 $(+0.1\sigma)$	$D_M(0.38)$	1508.0	1509 ± 12 (-1.9σ)
τ	0.0574	$0.0571^{+0.0068}_{-0.0076}$ (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4481	0.4484 ± 0.0057 $(+0.1\sigma)$	$H(0.51)$	90.70	90.68 ± 0.59 $(+3.4\sigma)$
Ω_K	0.00244	0.0024 ± 0.0019	$\sigma_8 \Omega_m^{0.25}$	0.6042	0.6043 ± 0.0059 $(+0.4\sigma)$	$D_M(0.51)$	1954.7	1956 ± 15 (-2.1σ)
$\ln(10^{10} A_s)$	3.0505	3.050 ± 0.014 $(+0.1\sigma)$	$\sigma_8/h^{0.5}$	0.9828	0.9829 ± 0.0083 $(+0.2\sigma)$	$H(0.61)$	96.30	96.29 ± 0.60 $(+4.2\sigma)$
n_s	0.96656	0.9657 ± 0.0045 (-0.7σ)	$r_{drag} h$	101.06	101.01 ± 0.92 $(+1.1\sigma)$	$D_M(0.61)$	2275.7	2277 ± 17 (-2.2σ)
y_{cal}	1.00063	1.0009 ± 0.0025 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4282	2.430 ± 0.020 $(+0.0\sigma)$	$H(2.33)$	237.06	237.1 ± 1.2 $(+2.4\sigma)$
α_{JLA}	0.1412	0.1412 ± 0.0066	z_{re}	7.99	7.95 ± 0.72 (-0.1σ)	$D_M(2.33)$	5713.1	5714 ± 31 (-4.5σ)
β_{JLA}	3.101	3.102 ± 0.080	$10^9 A_s$	2.1126	$2.112^{+0.029}_{-0.032}$ $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4532	0.4535 ± 0.0053 $(+0.1\sigma)$
A_{217}^{CIB}	46.9	47 ± 7 (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8834	1.884 ± 0.011 $(+0.5\sigma)$	$\sigma_8(0.15)$	0.7536	0.7535 ± 0.0068 $(+1.0\sigma)$
$\xi^{tSZ \times CIB}$	0.48	—	D_{40}	1229.7	1231 ± 13 $(+0.4\sigma)$	$f\sigma_8(0.38)$	0.47345	0.4736 ± 0.0047 $(+0.3\sigma)$
A_{143}^{tSZ}	7.19	5.4 ± 1.9 (-0.0σ)	D_{220}	5734.5	5738 ± 39 (-0.2σ)	$\sigma_8(0.38)$	0.6691	0.6689 ± 0.0062 $(+1.1\sigma)$
A_{100}^{PS}	248.5	258 ± 27 (-0.0σ)	D_{810}	2542.2	2541 ± 13 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.47305	0.4731 ± 0.0043 $(+0.4\sigma)$
A_{143}^{PS}	48.0	46 ± 8 $(+0.1\sigma)$	D_{1420}	818.85	818.3 ± 4.8 (-0.1σ)	$\sigma_8(0.51)$	0.6266	0.6264 ± 0.0059 $(+1.1\sigma)$
$A_{143 \times 217}^{PS}$	48.7	42 ± 9 $(+0.0\sigma)$	D_{2000}	231.47	231.2 ± 1.6 (-0.2σ)	$f\sigma_8(0.61)$	0.46877	0.4688 ± 0.0041 $(+0.5\sigma)$
A_{217}^{PS}	120.1	115 ± 10 $(+0.1\sigma)$	$n_{s,0.002}$	0.96656	0.9657 ± 0.0045 (-0.7σ)	$\sigma_8(0.61)$	0.5965	0.5964 ± 0.0057 $(+1.2\sigma)$
A^{kSZ}	0.01	< 4.10 (-0.0σ)	Y_P	0.245414	$0.245405^{+0.000063}_{-0.000056}$ (-0.7σ)	$f\sigma_8(2.33)$	0.30102	0.3009 ± 0.0029 $(+1.2\sigma)$
A_{100}^{dustTT}	8.78	8.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246741	$0.246732^{+0.000063}_{-0.000056}$ (-0.7σ)	$\sigma_8(2.33)$	0.31112	0.3110 ± 0.0033 $(+1.4\sigma)$
A_{143}^{dustTT}	10.89	10.9 ± 1.7 (-0.0σ)	$10^5 D/H$	2.5766	2.580 ± 0.028 $(+0.7\sigma)$	f_{2000}^{143}	28.63	29.3 ± 2.8 $(+0.1\sigma)$
$A_{143 \times 217}^{dustTT}$	19.80	18.6 ± 3.4 $(+0.0\sigma)$	Age/Gyr	13.672	13.674 ± 0.078 (-5.1σ)	$f_{2000}^{143 \times 217}$	31.87	32.1 ± 1.9 $(+0.2\sigma)$
A_{217}^{dustTT}	95.1	93.9 ± 7.4 $(+0.1\sigma)$	z_*	1089.838	1089.87 ± 0.28 $(+1.1\sigma)$	f_{2000}^{217}	106.49	107.0 ± 1.8 $(+0.2\sigma)$
A_{100}^{dustTE}	0.1149	0.114 ± 0.039 $(+0.0\sigma)$	r_*	144.454	144.45 ± 0.30 (-1.2σ)	$\chi_{lensing}^2$	8.866	9.25 ± 0.69 $(+0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1355	0.135 ± 0.030 (-0.0σ)	$100\theta_*$	1.041155	1.04113 ± 0.00031 (-0.6σ)	χ_{simall}^2	397	295 ± 200 (-48.0σ)
$A_{100 \times 217}^{dustTE}$	0.482	0.483 ± 0.086 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8744	13.874 ± 0.028 (-1.1σ)	χ_{lowl}^2	23.44	23.7 ± 1.1 $(+0.9\sigma)$
A_{143}^{dustTE}	0.225	0.224 ± 0.054 (-0.0σ)	z_{drag}	1060.047	1060.00 ± 0.30 (-0.5σ)	χ_{plik}^2	2345.5	2360.5 ± 5.7 (-0.0σ)
$A_{143 \times 217}^{dustTE}$	0.665	0.666 ± 0.081 (-0.0σ)	r_{drag}	147.097	147.10 ± 0.29 (-1.0σ)	$\chi_{H073p45}^2$	8	110 ± 200 $(+63.0\sigma)$
A_{217}^{dustTE}	2.080	2.09 ± 0.27 $(+0.1\sigma)$	k_D	0.140896	0.14088 ± 0.00031 $(+0.6\sigma)$	χ_{JLA}^2	695.12	697.2 ± 2.0 (-83.6σ)
c_{100}	0.99973	0.99968 ± 0.00061 (-0.0σ)	$100\theta_D$	0.160709	0.16073 ± 0.00018 $(+0.4\sigma)$	χ_{6DF}^2	0.0165	0.051 ± 0.069 $(+0.9\sigma)$
c_{217}	0.99820	0.99821 ± 0.00062 $(+0.1\sigma)$	z_{eq}	3397.8	3399 ± 31 $(+1.4\sigma)$	χ_{MGS}^2	2.12	2.14 ± 0.62 $(+1.3\sigma)$
H_0	68.71	68.67 ± 0.63 $(+1.6\sigma)$	k_{eq}	0.010371	0.010375 ± 0.000095 $(+1.4\sigma)$	$\chi_{DR12BAO}^2$	3.256	4.0 ± 1.1 (-0.1σ)
Ω_Λ	0.6950	0.6944 ± 0.0054 $(+0.1\sigma)$	$100\theta_{eq}$	0.8143	0.8140 ± 0.0059 (-1.4σ)	χ_{prior}^2	1.69	11.6 ± 4.7 $(+0.0\sigma)$
Ω_m	0.3026	0.3031 ± 0.0058 (-0.6σ)	$100\theta_{s,eq}$	0.44985	0.4497 ± 0.0030 (-1.4σ)	χ_{CMB}^2	2775	2689 ± 170 (-16.8σ)
$\Omega_m h^2$	0.14283	0.1429 ± 0.0013 $(+1.4\sigma)$	$H(0.15)$	73.95	73.92 ± 0.61 $(+1.9\sigma)$	χ_{BAO}^2	5.39	6.1 ± 1.5 $(+1.0\sigma)$

Best-fit $\chi_{eff}^2 = 3484.92$; $\Delta\chi_{eff}^2 = -13.68$; $\bar{\chi}_{eff}^2 = 3514.30$; $\Delta\bar{\chi}_{eff}^2 = -10.57$; $R - 1 = 0.02289$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.01) MGS: 2.12 (Δ 0.51) DR12BAO: 3.26 (Δ -0.35) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 (Δ 0.11) simall_100x143_offlike5_EE_Aplanck: 396.72 (Δ -0.22) commander_dx12_v3.2_29: 23.44 (Δ 0.81) plik_rd12_HM_v22b_TTTEEE: 2345.53 (Δ -0.84) Hubble - H073p45: 8.17 (Δ -2.23) SN - JLA December_2013: 695.12 (Δ -11.48)

16.39 base_omegak_plikHM_TTTEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	$0.0982^{+0.0013}_{-0.0015}$	$D_{\mathrm{M}}(0.15)$	631.3 ± 5.6
$\Omega_{\mathrm{c}}h^2$	0.1198 ± 0.0014	σ_8	0.8135 ± 0.0080	$H(0.38)$	84.04 ± 0.60
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00032	S_8	0.817 ± 0.012	$D_{\mathrm{M}}(0.38)$	1507 ± 12
τ	$0.0564^{+0.0056}_{-0.0083}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4473 ± 0.0065	$H(0.51)$	90.73 ± 0.60
Ω_K	0.0025 ± 0.0019	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6032 ± 0.0069	$D_{\mathrm{M}}(0.51)$	1954 ± 15
$\ln(10^{10}A_{\mathrm{s}})$	$3.048^{+0.013}_{-0.017}$	$\sigma_8/h^{0.5}$	0.9812 ± 0.0097	$H(0.61)$	96.33 ± 0.60
n_{s}	0.9661 ± 0.0045	$r_{\mathrm{drag}}h$	101.13 ± 0.94	$D_{\mathrm{M}}(0.61)$	2275 ± 17
α_{JLA}	0.1412 ± 0.0066	$\langle d^2 \rangle^{1/2}$	2.425 ± 0.023	$H(2.33)$	237.1 ± 1.2
β_{JLA}	3.104 ± 0.080	z_{re}	$7.87^{+0.61}_{-0.81}$	$D_{\mathrm{M}}(2.33)$	5712 ± 31
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.107^{+0.026}_{-0.035}$	$f\sigma_8(0.15)$	0.4524 ± 0.0062
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.012	$\sigma_8(0.15)$	0.7527 ± 0.0073
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	1230 ± 13	$f\sigma_8(0.38)$	0.4727 ± 0.0055
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{220}	5734 ± 39	$\sigma_8(0.38)$	0.6683 ± 0.0066
A_{100}^{PS}	258 ± 27	D_{810}	2540 ± 14	$f\sigma_8(0.51)$	0.4723 ± 0.0051
A_{143}^{PS}	46 ± 8	D_{1420}	818.1 ± 4.8	$\sigma_8(0.51)$	0.6259 ± 0.0062
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{2000}	231.1 ± 1.6	$f\sigma_8(0.61)$	0.4680 ± 0.0048
A_{217}^{PS}	115 ± 10	$n_{\mathrm{s},0.002}$	0.9661 ± 0.0045	$\sigma_8(0.61)$	0.5958 ± 0.0059
A^{kSZ}	< 4.06	Y_{P}	$0.245405^{+0.000063}_{-0.000055}$	$f\sigma_8(2.33)$	0.3007 ± 0.0030
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246732^{+0.000063}_{-0.000056}$	$\sigma_8(2.33)$	0.3108 ± 0.0034
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$10^5 \mathrm{D}/\mathrm{H}$	2.580 ± 0.028	f_{2000}^{143}	29.3 ± 2.8
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$\mathrm{Age}/\mathrm{Gyr}$	13.670 ± 0.078	$f_{2000}^{143 \times 217}$	32.1 ± 1.9
$A_{217}^{\mathrm{dust}TT}$	93.9 ± 7.3	z_*	1089.86 ± 0.29	f_{2000}^{217}	107.0 ± 1.8
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	r_*	144.47 ± 0.31	χ_{small}^2	397.3 ± 2.1
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.030	$100\theta_*$	1.04113 ± 0.00031	χ_{lowl}^2	23.5 ± 1.1
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483 ± 0.085	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.029	χ_{plik}^2	2360.9 ± 5.8
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	z_{drag}	1059.99 ± 0.30	$\chi_{\mathrm{H073p45}}^2$	8.2 ± 2.2
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.081	r_{drag}	147.12 ± 0.30	χ_{JLA}^2	697.1 ± 2.0
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14086 ± 0.00032	$\chi_{6\mathrm{DF}}^2$	0.059 ± 0.079
c_{100}	0.99967 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16073 ± 0.00018	χ_{MGS}^2	2.22 ± 0.64
c_{217}	0.99821 ± 0.00063	z_{eq}	3397 ± 32	$\chi_{\mathrm{DR12BAO}}^2$	4.0 ± 1.2
H_0	68.74 ± 0.64	k_{eq}	0.010369 ± 0.000098	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.6952 ± 0.0057	$100\theta_{\mathrm{eq}}$	0.8143 ± 0.0061	χ_{BAO}^2	6.3 ± 1.7
Ω_{m}	0.3023 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4499 ± 0.0031	χ_{CMB}^2	2781.7 ± 5.7
$\Omega_{\mathrm{m}}h^2$	0.1428 ± 0.0013	$H(0.15)$	73.98 ± 0.62		

$\bar{\chi}_{\mathrm{eff}}^2 = 3505.05$; $R - 1 = 0.01737$

16.40 base_omegak_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02240 \pm 0.00015 \quad (-0.7\sigma)$	$\Omega_m h^3$	$0.0981 \pm 0.0014 \quad (+5.9\sigma)$	$D_M(0.15)$	$631.8 \pm 5.5 \quad (-1.7\sigma)$
$\Omega_c h^2$	$0.1198 \pm 0.0014 \quad (+1.4\sigma)$	σ_8	$0.8147 \pm 0.0071 \quad (+0.9\sigma)$	$H(0.38)$	$83.99 \pm 0.59 \quad (+2.7\sigma)$
$100\theta_{MC}$	$1.04095 \pm 0.00032 \quad (-0.6\sigma)$	S_8	$0.819 \pm 0.010 \quad (+0.1\sigma)$	$D_M(0.38)$	$1509 \pm 12 \quad (-1.9\sigma)$
τ	$0.0575^{+0.0060}_{-0.0077} \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4485 \pm 0.0056 \quad (+0.1\sigma)$	$H(0.51)$	$90.68 \pm 0.59 \quad (+3.4\sigma)$
Ω_K	0.0024 ± 0.0019	$\sigma_8 \Omega_m^{0.25}$	$0.6045 \pm 0.0058 \quad (+0.4\sigma)$	$D_M(0.51)$	$1956 \pm 15 \quad (-2.1\sigma)$
$\ln(10^{10} A_s)$	$3.051^{+0.013}_{-0.015} \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9832 \pm 0.0082 \quad (+0.3\sigma)$	$H(0.61)$	$96.28 \pm 0.60 \quad (+4.2\sigma)$
n_s	$0.9658 \pm 0.0045 \quad (-0.7\sigma)$	$r_{\text{drag}} h$	$101.02 \pm 0.91 \quad (+1.1\sigma)$	$D_M(0.61)$	$2277 \pm 17 \quad (-2.2\sigma)$
y_{cal}	$1.0008 \pm 0.0025 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.020 \quad (+0.0\sigma)$	$H(2.33)$	$237.1 \pm 1.2 \quad (+2.4\sigma)$
α_{JLA}	0.1411 ± 0.0066	z_{re}	$7.99^{+0.64}_{-0.73} \quad (-0.0\sigma)$	$D_M(2.33)$	$5714 \pm 30 \quad (-4.5\sigma)$
β_{JLA}	3.102 ± 0.080	$10^9 A_s$	$2.113^{+0.026}_{-0.032} \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4535 \pm 0.0053 \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.884 \pm 0.011 \quad (+0.5\sigma)$	$\sigma_8(0.15)$	$0.7537 \pm 0.0066 \quad (+1.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	$1231 \pm 13 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.4737 \pm 0.0046 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.4 \pm 1.9 \quad (-0.0\sigma)$	D_{220}	$5738 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6691 \pm 0.0060 \quad (+1.1\sigma)$
A_{100}^{PS}	$258 \pm 27 \quad (-0.0\sigma)$	D_{810}	$2541 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4733 \pm 0.0043 \quad (+0.4\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$818.3 \pm 4.8 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6266 \pm 0.0057 \quad (+1.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.2 \pm 1.6 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0041 \quad (+0.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$n_{s,0.002}$	$0.9658 \pm 0.0045 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.5965 \pm 0.0055 \quad (+1.2\sigma)$
A^{kSZ}	$< 4.09 \quad (-0.0\sigma)$	Y_P	$0.245406^{+0.000063}_{-0.000056} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3010 \pm 0.0028 \quad (+1.2\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246732^{+0.000063}_{-0.000056} \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3111 \pm 0.0032 \quad (+1.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.7 \quad (-0.0\sigma)$	10^5D/H	$2.580 \pm 0.028 \quad (+0.7\sigma)$	f_{2000}^{143}	$29.3 \pm 2.8 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.4 \quad (+0.0\sigma)$	Age/Gyr	$13.674 \pm 0.078 \quad (-5.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.9 \quad (+0.2\sigma)$
A_{217}^{dustTT}	$93.9 \pm 7.4 \quad (+0.1\sigma)$	z_*	$1089.87 \pm 0.28 \quad (+1.1\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.2\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.039 \quad (+0.0\sigma)$	r_*	$144.45 \pm 0.30 \quad (-1.2\sigma)$	χ_{lensing}^2	$9.23 \pm 0.65 \quad (+0.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00031 \quad (-0.6\sigma)$	χ_{simall}^2	$296 \pm 200 \quad (-47.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.483 \pm 0.086 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.874 \pm 0.028 \quad (-1.1\sigma)$	χ_{lowl}^2	$23.7 \pm 1.1 \quad (+0.9\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1060.00 \pm 0.30 \quad (-0.4\sigma)$	χ_{plik}^2	$2360.4 \pm 5.7 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.667 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$147.10 \pm 0.29 \quad (-1.0\sigma)$	χ_{H073p45}^2	$109 \pm 200 \quad (+62.6\sigma)$
A_{217}^{dustTE}	$2.09 \pm 0.27 \quad (+0.1\sigma)$	k_D	$0.14088 \pm 0.00031 \quad (+0.6\sigma)$	χ_{JLA}^2	$697.2 \pm 2.0 \quad (-84.2\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_D$	$0.16073 \pm 0.00018 \quad (+0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.051 \pm 0.069 \quad (+0.9\sigma)$
c_{217}	$0.99821 \pm 0.00062 \quad (+0.1\sigma)$	z_{eq}	$3399 \pm 31 \quad (+1.4\sigma)$	χ_{MGS}^2	$2.15 \pm 0.62 \quad (+1.3\sigma)$
H_0	$68.67 \pm 0.63 \quad (+1.6\sigma)$	k_{eq}	$0.010374 \pm 0.000095 \quad (+1.4\sigma)$	χ_{DR12BAO}^2	$4.0 \pm 1.1 \quad (-0.1\sigma)$
Ω_Λ	$0.6945 \pm 0.0054 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8140 \pm 0.0059 \quad (-1.4\sigma)$	χ_{prior}^2	$11.6 \pm 4.7 \quad (+0.0\sigma)$
Ω_m	$0.3030 \pm 0.0058 \quad (-0.6\sigma)$	$100\theta_{s,\text{eq}}$	$0.4497 \pm 0.0030 \quad (-1.4\sigma)$	χ_{CMB}^2	$2690 \pm 170 \quad (-16.7\sigma)$
$\Omega_m h^2$	$0.1429 \pm 0.0013 \quad (+1.4\sigma)$	$H(0.15)$	$73.92 \pm 0.61 \quad (+1.9\sigma)$	χ_{BAO}^2	$6.2 \pm 1.5 \quad (+1.0\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 3514.21; \Delta\bar{\chi}_{\text{eff}}^2 = -10.57; R - 1 = 0.02147$$

16.41 base_omegak_plikHM_TT_lowl_lowE.lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022317	0.02232 ± 0.00024 (+0.9 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6101	0.6099 ± 0.0074 (+0.2 σ)	$D_M(0.15)$	675.7	682 ± 24 (+6.0 σ)
$\Omega_c h^2$	0.11806	0.1178 ± 0.0021 (-1.5 σ)	$\sigma_8/h^{0.5}$	0.9955	0.996 ± 0.011 (+0.6 σ)	$H(0.38)$	79.71	79.2 ± 2.2 (-7.8 σ)
$100\theta_{MC}$	1.041071	1.04111 ± 0.00049 (+0.7 σ)	$r_{drag}h$	94.45	93.6 ± 3.4 (-4.3 σ)	$D_M(0.38)$	1604	1618 ± 53 (+6.6 σ)
τ	0.0510	0.0494 ± 0.0081 (-0.4 σ)	$\langle d^2 \rangle^{1/2}$	2.4687	2.473 ± 0.029 (+1.0 σ)	$H(0.51)$	86.54	$86.0^{+2.0}_{-2.2}$ (-9.4 σ)
Ω_K	-0.0092	-0.0114 ± 0.0075	z_{re}	7.29	$7.08^{+0.88}_{-0.74}$ (-0.6 σ)	$D_M(0.51)$	2073	2091 ± 65 (+6.9 σ)
$\ln(10^{10} A_s)$	3.0316	3.027 ± 0.017 (-0.8 σ)	$10^9 A_s$	2.0731	2.065 ± 0.035 (-0.8 σ)	$H(0.61)$	92.24	$91.8^{+2.0}_{-2.2}$ (-11.3 σ)
n_s	0.9696	0.9693 ± 0.0062 (+1.2 σ)	$10^9 A_s e^{-2\tau}$	1.8719	1.870 ± 0.014 (-1.1 σ)	$D_M(0.61)$	2409	2428 ± 72 (+7.2 σ)
y_{cal}	1.00010	0.99998 ± 0.0025 (-0.2 σ)	D_{40}	1213.4	1213 ± 17 (-1.5 σ)	$H(2.33)$	233.28	$232.8^{+2.3}_{-2.6}$ (-3.8 σ)
A_{217}^{CIB}	48.0	47 ± 7 (-0.1 σ)	D_{220}	5718.2	5723 ± 41 (+0.2 σ)	$D_M(2.33)$	5924	5953 ± 110 (+12.6 σ)
$\xi^{tSZ \times CIB}$	0.40	—	D_{810}	2533.1	2531 ± 14 (-0.4 σ)	$f\sigma_8(0.15)$	0.4700	0.471 ± 0.010 (+1.3 σ)
A_{143}^{tSZ}	7.01	5.2 ± 2.0 (+0.1 σ)	D_{1420}	815.3	814.3 ± 5.1 (-0.0 σ)	$\sigma_8(0.15)$	0.7325	0.729 ± 0.014 (-3.5 σ)
A_{100}^{PS}	252.1	261 ± 28 (-0.1 σ)	D_{2000}	230.62	230.3 ± 1.9 (+0.4 σ)	$f\sigma_8(0.38)$	0.4812	0.4812 ± 0.0062 (+0.5 σ)
A_{143}^{PS}	48.5	47 ± 8 (-0.3 σ)	$n_{s,0.002}$	0.9696	0.9693 ± 0.0062 (+1.2 σ)	$\sigma_8(0.38)$	0.6457	0.642 ± 0.014 (-4.3 σ)
$A_{143 \times 217}^{PS}$	47.1	42 ± 9 (-0.1 σ)	Y_P	0.245374	$0.245373^{+0.000099}_{-0.000086}$ (+0.9 σ)	$f\sigma_8(0.51)$	0.47615	0.4756 ± 0.0050 (-0.0 σ)
A_{217}^{PS}	118.8	114 ± 10 (-0.1 σ)	Y_P^{BBN}	0.246701	$0.24670^{+0.00010}_{-0.000087}$ (+0.9 σ)	$\sigma_8(0.51)$	0.6028	0.599 ± 0.014 (-4.6 σ)
A^{kSZ}	0.22	< 4.66 (-0.1 σ)	$10^5 D/H$	2.5954	2.595 ± 0.044 (-0.9 σ)	$f\sigma_8(0.61)$	0.46877	0.4678 ± 0.0047 (-0.5 σ)
A_{100}^{dustTT}	8.97	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	14.203	14.28 ± 0.29 (+14.2 σ)	$\sigma_8(0.61)$	0.5726	0.569 ± 0.014 (-4.7 σ)
A_{143}^{dustTT}	10.93	10.7 ± 1.8 (+0.0 σ)	z_*	1089.816	1089.79 ± 0.44 (-1.3 σ)	$f\sigma_8(2.33)$	0.2878	0.2856 ± 0.0075 (-4.8 σ)
$A_{143 \times 217}^{dustTT}$	19.50	18.3 ± 3.3 (+0.0 σ)	r_*	144.975	145.03 ± 0.47 (+1.3 σ)	$\sigma_8(2.33)$	0.2942	0.2917 ± 0.0093 (-5.5 σ)
A_{217}^{dustTT}	94.6	93.5 ± 7.4 (+0.0 σ)	$100\theta_*$	1.041264	1.04130 ± 0.00047 (+0.6 σ)	f_{2000}^{143}	29.55	30.1 ± 3.0 (-0.4 σ)
c_{100}	0.99963	0.99961 ± 0.00061 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9229	13.928 ± 0.043 (+1.2 σ)	$f_{2000}^{143 \times 217}$	32.50	32.6 ± 2.1 (-0.5 σ)
c_{217}	0.99822	0.99825 ± 0.00062 (-0.0 σ)	z_{drag}	1059.666	1059.67 ± 0.47 (+0.6 σ)	f_{2000}^{217}	106.95	107.2 ± 2.0 (-0.5 σ)
H_0	63.96	63.4 ± 2.4 (-5.3 σ)	r_{drag}	147.666	147.72 ± 0.46 (+1.1 σ)	$\chi_{lensing}^2$	9.44	10.4 ± 2.2 (+1.1 σ)
Ω_Λ	0.6645	$0.660^{+0.019}_{-0.017}$ (-2.3 σ)	k_D	0.140222	0.14016 ± 0.00048 (-0.7 σ)	χ_{small}^2	395.67	396.7 ± 1.5 (-0.1 σ)
Ω_m	0.3447	$0.352^{+0.023}_{-0.026}$ (+3.5 σ)	$100\theta_D$	0.160917	0.16093 ± 0.00027 (-0.5 σ)	χ_{lowl}^2	21.81	22.0 ± 1.2 (-1.6 σ)
$\Omega_m h^2$	0.14103	0.1408 ± 0.0020 (-1.5 σ)	z_{eq}	3354.7	3349 ± 48 (-1.5 σ)	χ_{plik}^2	757.9	770.7 ± 5.5 (-0.1 σ)
$\Omega_m h^3$	0.09020	$0.0893^{+0.0039}_{-0.0043}$ (-14.7 σ)	k_{eq}	0.010239	0.01022 ± 0.00015 (-1.5 σ)	χ_{prior}^2	1.44	7.3 ± 3.7 (-0.0 σ)
σ_8	0.7962	0.792 ± 0.013 (-2.8 σ)	$100\theta_{eq}$	0.8219	0.8230 ± 0.0094 (+1.6 σ)	χ_{CMB}^2	1184.8	1199.8 ± 5.6 (-0.2 σ)
S_8	0.8534	0.857 ± 0.022 (+1.4 σ)	$100\theta_{s,eq}$	0.45389	0.4545 ± 0.0048 (+1.5 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4675	0.470 ± 0.012 (+1.4 σ)	$H(0.15)$	69.39	68.8 ± 2.3 (-6.0 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1186.22$; $\Delta\chi_{\text{eff}}^2 = -2.35$; $\bar{\chi}_{\text{eff}}^2 = 1207.14$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.28$; $R - 1 = 0.01227$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.44 (Δ 0.54) simall_100x143_offlike5_EE_Aplanck.B: 395.67 (Δ -0.19) commander_dx12.v3.2.29: 21.81 (Δ -1.43) plik_rd12_HM_v22_TT: 757.86 (Δ -1.46)

16.42 base_omegak_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00024 \quad (+0.9\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6101 \pm 0.0074 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$679 \pm 23 \quad (+5.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1177^{+0.0020}_{-0.0022} \quad (-1.6\sigma)$	$\sigma_8/h^{0.5}$	$0.996 \pm 0.011 \quad (+0.6\sigma)$	$H(0.38)$	$79.5^{+2.0}_{-2.2} \quad (-7.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04113 \pm 0.00049 \quad (+0.7\sigma)$	$r_{\mathrm{drag}}h$	$94.2^{+3.1}_{-3.4} \quad (-4.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1610 \pm 50 \quad (+6.1\sigma)$
τ	$0.0525^{+0.0036}_{-0.0074} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.473 \pm 0.029 \quad (+1.0\sigma)$	$H(0.51)$	$86.3^{+1.9}_{-2.2} \quad (-8.9\sigma)$
Ω_K	$-0.0104^{+0.0076}_{-0.0068}$	z_{re}	$7.42^{+0.30}_{-0.84} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2081 \pm 62 \quad (+6.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.033^{+0.010}_{-0.015} \quad (-0.7\sigma)$	10^9A_{s}	$2.077^{+0.021}_{-0.031} \quad (-0.7\sigma)$	$H(0.61)$	$92.0^{+1.9}_{-2.1} \quad (-10.6\sigma)$
n_{s}	$0.9696 \pm 0.0062 \quad (+1.2\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.870 \pm 0.013 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2417 \pm 69 \quad (+6.7\sigma)$
y_{cal}	$0.99997 \pm 0.0025 \quad (-0.2\sigma)$	D_{40}	$1213 \pm 17 \quad (-1.5\sigma)$	$H(2.33)$	$232.9^{+2.3}_{-2.6} \quad (-3.7\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5723 \pm 41 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5938 \pm 110 \quad (+11.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2530 \pm 14 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.470 \pm 0.010 \quad (+1.2\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (+0.1\sigma)$	D_{1420}	$814.3 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.731 \pm 0.012 \quad (-3.4\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (-0.1\sigma)$	D_{2000}	$230.3 \pm 1.9 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.4812 \pm 0.0062 \quad (+0.5\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (-0.3\sigma)$	$n_{\mathrm{s},0.002}$	$0.9696 \pm 0.0062 \quad (+1.2\sigma)$	$\sigma_8(0.38)$	$0.645 \pm 0.013 \quad (-4.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	Y_{P}	$0.245376^{+0.000098}_{-0.000088} \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.4760 \pm 0.0049 \quad (+0.0\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246703^{+0.000099}_{-0.000089} \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.602 \pm 0.013 \quad (-4.6\sigma)$
A^{kSZ}	$< 4.62 \quad (-0.1\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.594 \pm 0.044 \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0045 \quad (-0.4\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.24 \pm 0.28 \quad (+13.3\sigma)$	$\sigma_8(0.61)$	$0.571 \pm 0.013 \quad (-4.8\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1089.77 \pm 0.44 \quad (-1.3\sigma)$	$f\sigma_8(2.33)$	$0.2872 \pm 0.0070 \quad (-4.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$145.05 \pm 0.47 \quad (+1.3\sigma)$	$\sigma_8(2.33)$	$0.2935 \pm 0.0087 \quad (-5.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$100\theta_*$	$1.04132 \pm 0.00048 \quad (+0.6\sigma)$	f_{2000}^{143}	$30.0 \pm 3.0 \quad (-0.4\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.930 \pm 0.043 \quad (+1.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 2.1 \quad (-0.5\sigma)$
c_{217}	$0.99825 \pm 0.00063 \quad (-0.0\sigma)$	z_{drag}	$1059.68 \pm 0.47 \quad (+0.6\sigma)$	f_{2000}^{217}	$107.1 \pm 2.0 \quad (-0.5\sigma)$
H_0	$63.8^{+2.2}_{-2.4} \quad (-4.9\sigma)$	r_{drag}	$147.74 \pm 0.46 \quad (+1.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.4 \pm 2.1 \quad (+1.1\sigma)$
Ω_{Λ}	$0.663 \pm 0.017 \quad (-2.1\sigma)$	k_{D}	$0.14015 \pm 0.00048 \quad (-0.7\sigma)$	χ_{small}^2	$396.4 \pm 1.1 \quad (-0.3\sigma)$
Ω_{m}	$0.347 \pm 0.023 \quad (+3.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16092 \pm 0.00027 \quad (-0.5\sigma)$	χ_{lowl}^2	$22.1 \pm 1.2 \quad (-1.6\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1407^{+0.0019}_{-0.0021} \quad (-1.5\sigma)$	z_{eq}	$3347^{+44}_{-50} \quad (-1.5\sigma)$	χ_{plik}^2	$770.6 \pm 5.5 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0897^{+0.0038}_{-0.0043} \quad (-13.6\sigma)$	k_{eq}	$0.01022^{+0.00014}_{-0.00015} \quad (-1.5\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.795 \pm 0.012 \quad (-2.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8234 \pm 0.0094 \quad (+1.6\sigma)$	χ_{CMB}^2	$1199.4 \pm 5.6 \quad (-0.3\sigma)$
S_8	$0.855 \pm 0.021 \quad (+1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4547 \pm 0.0048 \quad (+1.6\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.468 \pm 0.012 \quad (+1.3\sigma)$	$H(0.15)$	$69.2^{+2.1}_{-2.3} \quad (-5.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.71$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.45$; $R - 1 = 0.01427$

16.43 base_omegak_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022509	0.02249 ± 0.00016 (+0.8 σ)	$\Omega_{\text{m}}h^3$	0.09063	$0.0900^{+0.0033}_{-0.0038}$ (−21.1 σ)	$100\theta_{\text{s,eq}}$	0.45283	0.4527 ± 0.0033 (+1.3 σ)
$\Omega_{\text{c}}h^2$	0.11839	0.1185 ± 0.0015 (−1.3 σ)	σ_8	0.7974	0.795 ± 0.011 (−2.6 σ)	$H(0.15)$	69.47	$69.0^{+2.0}_{-2.2}$ (−7.9 σ)
$100\theta_{\text{MC}}$	1.041060	1.04107 ± 0.00032 (+0.5 σ)	S_8	0.8554	0.860 ± 0.021 (+2.3 σ)	$D_{\text{M}}(0.15)$	675.0	680 ± 22 (+8.0 σ)
τ	0.0515	$0.0497^{+0.0082}_{-0.0071}$ (−0.6 σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4685	0.471 ± 0.011 (+2.3 σ)	$H(0.38)$	79.82	$79.4^{+1.8}_{-2.1}$ (−10.2 σ)
Ω_K	−0.0092	$−0.0106 \pm 0.0065$	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6112	0.6121 ± 0.0066 (+0.7 σ)	$D_{\text{M}}(0.38)$	1602.4	1614 ± 48 (+8.7 σ)
$\ln(10^{10}A_{\text{s}})$	3.0336	$3.030^{+0.017}_{-0.015}$ (−1.0 σ)	$\sigma_8/h^{0.5}$	0.9965	0.998 ± 0.010 (+1.0 σ)	$H(0.51)$	86.67	$86.3^{+1.8}_{-2.0}$ (−12.3 σ)
n_{s}	0.96989	0.9688 ± 0.0047 (+0.9 σ)	$r_{\text{drag}}h$	94.36	$93.7^{+3.0}_{-3.4}$ (−5.9 σ)	$D_{\text{M}}(0.51)$	2071	2084 ± 59 (+9.1 σ)
y_{cal}	1.00002	0.99998 ± 0.0025 (−0.3 σ)	$\langle d^2 \rangle^{1/2}$	2.4720	2.478 ± 0.028 (+1.5 σ)	$H(0.61)$	92.38	$92.0^{+1.7}_{-2.0}$ (−14.7 σ)
A_{217}^{CIB}	46.8	46 ± 7 (−0.1 σ)	z_{re}	7.30	$7.09^{+0.90}_{-0.70}$ (−0.8 σ)	$D_{\text{M}}(0.61)$	2406	2420 ± 65 (+9.4 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.52	—	$10^9 A_{\text{s}}$	2.0772	$2.070^{+0.035}_{-0.032}$ (−1.0 σ)	$H(2.33)$	233.70	233.6 ± 1.9 (−4.3 σ)
A_{143}^{tSZ}	7.25	$5.5^{+2.1}_{-1.9}$ (+0.1 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8741	1.874 ± 0.012 (−0.9 σ)	$D_{\text{M}}(2.33)$	5915	5935 ± 100 (+16.6 σ)
A_{100}^{PS}	247.2	257 ± 28 (−0.1 σ)	D_{40}	1214.6	1216 ± 14 (−1.4 σ)	$f\sigma_8(0.15)$	0.4710	0.4731 ± 0.0098 (+2.1 σ)
A_{143}^{PS}	47.2	44 ± 8 (−0.2 σ)	D_{220}	5731.3	5735 ± 38 (−0.0 σ)	$\sigma_8(0.15)$	0.7335	0.731 ± 0.012 (−3.4 σ)
$A_{143 \times 217}^{\text{PS}}$	48.3	41 ± 9 (−0.1 σ)	D_{810}	2535.3	2534 ± 13 (−0.4 σ)	$f\sigma_8(0.38)$	0.4821	0.4829 ± 0.0057 (+1.1 σ)
A_{217}^{PS}	119.1	114 ± 10 (−0.1 σ)	D_{1420}	817.16	816.2 ± 4.7 (−0.2 σ)	$\sigma_8(0.38)$	0.6466	0.644 ± 0.013 (−4.2 σ)
A^{kSZ}	0.01	< 4.17 (−0.0 σ)	D_{2000}	231.60	231.2 ± 1.6 (+0.2 σ)	$f\sigma_8(0.51)$	0.47699	0.4771 ± 0.0044 (+0.4 σ)
A_{100}^{dustTT}	8.94	9.0 ± 1.8 (+0.1 σ)	$n_{\text{s},0.002}$	0.96989	0.9688 ± 0.0047 (+0.9 σ)	$\sigma_8(0.51)$	0.6035	0.601 ± 0.013 (−4.6 σ)
A_{143}^{dustTT}	11.10	10.9 ± 1.8 (+0.0 σ)	Y_{P}	0.245448	0.245438 ± 0.000060 (+0.8 σ)	$f\sigma_8(0.61)$	0.46955	0.4693 ± 0.0040 (−0.2 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.03	18.6 ± 3.3 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246774	0.246765 ± 0.000061 (+0.8 σ)	$\sigma_8(0.61)$	0.5733	0.571 ± 0.013 (−4.8 σ)
A_{217}^{dustTT}	95.1	93.6 ± 7.3 (+0.0 σ)	10^5D/H	2.5603	2.565 ± 0.029 (−0.8 σ)	$f\sigma_8(2.33)$	0.2881	0.2866 ± 0.0069 (−5.1 σ)
A_{100}^{dustTE}	0.1140	0.113 ± 0.038 (−0.0 σ)	Age/Gyr	14.182	14.23 ± 0.26 (+18.8 σ)	$\sigma_8(2.33)$	0.2946	0.2928 ± 0.0085 (−6.0 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.134 ± 0.030 (−0.0 σ)	z_*	1089.606	1089.64 ± 0.30 (−1.1 σ)	f_{2000}^{143}	28.11	28.8 ± 2.8 (−0.3 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.481 ± 0.085 (+0.0 σ)	r_*	144.741	144.73 ± 0.32 (+1.1 σ)	$f_{2000}^{143 \times 217}$	31.35	31.5 ± 1.9 (−0.4 σ)
A_{143}^{dustTE}	0.224	0.223 ± 0.053 (−0.0 σ)	$100\theta_*$	1.041231	1.04124 ± 0.00031 (+0.5 σ)	f_{2000}^{217}	105.88	106.3 ± 1.8 (−0.4 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.660	0.663 ± 0.081 (−0.1 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9010	13.900 ± 0.030 (+1.1 σ)	χ_{lensing}^2	9.78	10.9 ± 2.4 (+2.4 σ)
A_{217}^{dustTE}	2.072	2.07 ± 0.27 (−0.1 σ)	z_{drag}	1060.123	1060.10 ± 0.31 (+0.5 σ)	χ_{simall}^2	395.65	396.7 ± 1.5 (−0.2 σ)
c_{100}	0.99970	0.99968 ± 0.00060 (+0.0 σ)	r_{drag}	147.364	147.36 ± 0.31 (+1.0 σ)	χ_{lowl}^2	21.84	22.15 ± 0.98 (−1.5 σ)
c_{217}	0.99817	0.99818 ± 0.00062 (−0.0 σ)	k_{D}	0.140685	0.14067 ± 0.00032 (−0.7 σ)	χ_{plik}^2	2342.4	2357.5 ± 5.9 (−0.3 σ)
H_0	64.03	$63.6^{+2.1}_{-2.3}$ (−7.1 σ)	$100\theta_{\text{D}}$	0.160641	0.16067 ± 0.00018 (−0.5 σ)	χ_{prior}^2	1.76	11.5 ± 4.5 (−0.0 σ)
Ω_{Λ}	0.6639	0.659 ± 0.017 (−3.5 σ)	z_{eq}	3367.1	3369 ± 33 (−1.2 σ)	χ_{CMB}^2	2769.7	2787.2 ± 5.9 (−0.3 σ)
Ω_{m}	0.3453	0.352 ± 0.023 (+5.0 σ)	k_{eq}	0.010277	0.01028 ± 0.00010 (−1.2 σ)			
$\Omega_{\text{m}}h^2$	0.14155	0.1416 ± 0.0014 (−1.2 σ)	$100\theta_{\text{eq}}$	0.8201	0.8198 ± 0.0064 (+1.3 σ)			

Best-fit $\chi_{\text{eff}}^2 = 2771.41$; $\Delta\chi_{\text{eff}}^2 = -3.23$; $\bar{\chi}_{\text{eff}}^2 = 2798.70$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.99$; $R - 1 = 0.02587$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.79 (Δ 0.92) simall_100x143_offlike5_EE_Aplanck.B: 395.65 (Δ -0.40) commander_dx12_v3.2.29: 21.84 (Δ -1.41) plik_rd12_HM_v22b_TTTEEE: 2342.38 (Δ -2.55)

16.44 base_omegak_plikHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02249 \pm 0.00016 \quad (+0.8\sigma)$	$\Omega_{\text{m}}h^3$	$0.0906^{+0.0032}_{-0.0038} \quad (-19.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4527 \pm 0.0033 \quad (+1.3\sigma)$
$\Omega_{\text{c}}h^2$	$0.1185 \pm 0.0015 \quad (-1.3\sigma)$	σ_8	$0.7982^{+0.0093}_{-0.010} \quad (-2.4\sigma)$	$H(0.15)$	$69.4^{+1.9}_{-2.2} \quad (-7.3\sigma)$
$100\theta_{\text{MC}}$	$1.04107 \pm 0.00032 \quad (+0.5\sigma)$	S_8	$0.858 \pm 0.020 \quad (+2.1\sigma)$	$D_{\text{M}}(0.15)$	$676 \pm 21 \quad (+7.3\sigma)$
τ	$0.0528^{+0.0036}_{-0.0073} \quad (-0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.470 \pm 0.011 \quad (+2.1\sigma)$	$H(0.38)$	$79.8^{+1.8}_{-2.1} \quad (-9.3\sigma)$
Ω_K	-0.0096 ± 0.0061	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6124 \pm 0.0065 \quad (+0.7\sigma)$	$D_{\text{M}}(0.38)$	$1605 \pm 45 \quad (+7.9\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.0361^{+0.0099}_{-0.014} \quad (-0.8\sigma)$	$\sigma_8/h^{0.5}$	$0.998 \pm 0.010 \quad (+1.1\sigma)$	$H(0.51)$	$86.6^{+1.7}_{-2.0} \quad (-11.3\sigma)$
n_{s}	$0.9689 \pm 0.0047 \quad (+0.9\sigma)$	$r_{\text{drag}}h$	$94.2^{+2.8}_{-3.3} \quad (-5.4\sigma)$	$D_{\text{M}}(0.51)$	$2074 \pm 55 \quad (+8.3\sigma)$
y_{cal}	$0.99997 \pm 0.0025 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.478 \pm 0.028 \quad (+1.5\sigma)$	$H(0.61)$	$92.3^{+1.7}_{-1.9} \quad (-13.5\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	z_{re}	$7.42^{+0.32}_{-0.82} \quad (-0.5\sigma)$	$D_{\text{M}}(0.61)$	$2409 \pm 62 \quad (+8.6\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_{\text{s}}$	$2.083^{+0.020}_{-0.030} \quad (-0.8\sigma)$	$H(2.33)$	$233.7^{+1.8}_{-2.0} \quad (-4.0\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.874 \pm 0.012 \quad (-0.9\sigma)$	$D_{\text{M}}(2.33)$	$5919 \pm 96 \quad (+15.2\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	D_{40}	$1217 \pm 14 \quad (-1.3\sigma)$	$f\sigma_8(0.15)$	$0.4722 \pm 0.0097 \quad (+1.9\sigma)$
A_{143}^{PS}	$44 \pm 8 \quad (-0.2\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.734^{+0.010}_{-0.011} \quad (-3.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$41 \pm 9 \quad (-0.1\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.4\sigma)$	$f\sigma_8(0.38)$	$0.4829 \pm 0.0058 \quad (+1.1\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.2 \pm 4.7 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.647^{+0.011}_{-0.012} \quad (-3.9\sigma)$
A^{kSZ}	$< 4.10 \quad (-0.1\sigma)$	D_{2000}	$231.2 \pm 1.6 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4777 \pm 0.0043 \quad (+0.5\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9689 \pm 0.0047 \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.604^{+0.011}_{-0.012} \quad (-4.3\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245440 \pm 0.000060 \quad (+0.8\sigma)$	$f\sigma_8(0.61)$	$0.4701 \pm 0.0037 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246766 \pm 0.000061 \quad (+0.8\sigma)$	$\sigma_8(0.61)$	$0.574^{+0.011}_{-0.012} \quad (-4.5\sigma)$
A_{217}^{dustTT}	$93.6 \pm 7.3 \quad (+0.0\sigma)$	10^5D/H	$2.564 \pm 0.029 \quad (-0.8\sigma)$	$f\sigma_8(2.33)$	$0.2883^{+0.0058}_{-0.0067} \quad (-4.8\sigma)$
A_{100}^{dustTE}	$0.113 \pm 0.038 \quad (-0.0\sigma)$	Age/Gyr	$14.19 \pm 0.24 \quad (+17.2\sigma)$	$\sigma_8(2.33)$	$0.2947^{+0.0072}_{-0.0084} \quad (-5.7\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.64 \pm 0.30 \quad (-1.1\sigma)$	f_{2000}^{143}	$28.7 \pm 2.8 \quad (-0.3\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.480 \pm 0.085 \quad (-0.0\sigma)$	r_*	$144.74 \pm 0.32 \quad (+1.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.4 \pm 1.9 \quad (-0.4\sigma)$
A_{143}^{dustTE}	$0.222 \pm 0.054 \quad (-0.1\sigma)$	$100\theta_*$	$1.04124 \pm 0.00031 \quad (+0.4\sigma)$	f_{2000}^{217}	$106.3 \pm 1.8 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.663 \pm 0.081 \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.901 \pm 0.030 \quad (+1.1\sigma)$	χ_{lensing}^2	$10.8 \pm 2.4 \quad (+2.4\sigma)$
A_{217}^{dustTE}	$2.07 \pm 0.27 \quad (-0.1\sigma)$	z_{drag}	$1060.10 \pm 0.31 \quad (+0.5\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.3\sigma)$
c_{100}	$0.99968 \pm 0.00060 \quad (+0.0\sigma)$	r_{drag}	$147.37 \pm 0.31 \quad (+1.0\sigma)$	χ_{lowl}^2	$22.2 \pm 1.0 \quad (-1.5\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (-0.0\sigma)$	k_{D}	$0.14067 \pm 0.00032 \quad (-0.7\sigma)$	χ_{plik}^2	$2357.4 \pm 5.9 \quad (-0.3\sigma)$
H_0	$64.0^{+2.0}_{-2.3} \quad (-6.5\sigma)$	$100\theta_{\text{D}}$	$0.16067 \pm 0.00018 \quad (-0.5\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_{Λ}	$0.662 \pm 0.016 \quad (-3.1\sigma)$	z_{eq}	$3368 \pm 33 \quad (-1.2\sigma)$	χ_{CMB}^2	$2786.8 \pm 5.8 \quad (-0.4\sigma)$
Ω_{m}	$0.347 \pm 0.022 \quad (+4.5\sigma)$	k_{eq}	$0.01028 \pm 0.00010 \quad (-1.2\sigma)$		
$\Omega_{\text{m}}h^2$	$0.1416 \pm 0.0014 \quad (-1.2\sigma)$	$100\theta_{\text{eq}}$	$0.8199 \pm 0.0064 \quad (+1.3\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.28; \Delta\bar{\chi}_{\text{eff}}^2 = -2.23; R - 1 = 0.02761$$

16.45 base_omegak_CamSpecHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022289	0.02235 ± 0.00025 (+1.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4678	0.470 ± 0.012 (+1.4 σ)	$H(0.15)$	69.30	68.7 ± 2.3 (−6.2 σ)
$\Omega_c h^2$	0.11825	0.1177 ± 0.0022 (−1.7 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6099	0.6099 ± 0.0075 (+0.1 σ)	$D_M(0.15)$	676.6	684 ± 25 (+6.3 σ)
$100\theta_{MC}$	1.041032	1.04119 ± 0.00050 (+0.8 σ)	$\sigma_8/h^{0.5}$	0.9950	0.996 ± 0.011 (+0.6 σ)	$H(0.38)$	79.65	79.0 ± 2.2 (−8.1 σ)
τ	0.0498	0.0494 ± 0.0084 (−0.4 σ)	$r_{drag}h$	94.29	93.4 ± 3.5 (−4.4 σ)	$D_M(0.38)$	1606	1623 ± 53 (+6.8 σ)
Ω_K	−0.0093	$-0.0121^{+0.0084}_{-0.0069}$	$\langle d^2 \rangle^{1/2}$	2.4689	2.472 ± 0.030 (+1.0 σ)	$H(0.51)$	86.49	85.9 ± 2.1 (−9.9 σ)
$\ln(10^{10} A_s)$	3.0282	3.026 ± 0.017 (−0.9 σ)	z_{re}	7.17	$7.07^{+0.90}_{-0.74}$ (−0.6 σ)	$D_M(0.51)$	2076	2096 ± 66 (+7.2 σ)
n_s	0.9685	0.9705 ± 0.0064 (+1.3 σ)	$10^9 A_s$	2.0661	2.062 ± 0.035 (−0.9 σ)	$H(0.61)$	92.20	91.6 ± 2.1 (−11.8 σ)
y_{cal}	1.00026	1.0001 ± 0.0025 (−0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8701	1.868 ± 0.014 (−1.1 σ)	$D_M(0.61)$	2411	2434 ± 73 (+7.5 σ)
A_{100}^{PS}	241.9	240 ± 25 (−0.1 σ)	D_{40}	1213.8	1209 ± 17 (−1.6 σ)	$H(2.33)$	233.37	232.6 ± 2.6 (−4.1 σ)
A_{143}^{PS}	36.4	38 ± 9 (−0.3 σ)	D_{220}	5711.4	5715 ± 41 (+0.2 σ)	$D_M(2.33)$	5926	5962 ± 120 (+13.3 σ)
A_{217}^{PS}	98.4	101 ± 10 (−0.0 σ)	D_{810}	2529.2	2529 ± 14 (−0.3 σ)	$f\sigma_8(0.15)$	0.4702	0.472 ± 0.010 (+1.3 σ)
A_{217}^{CIB}	42.9	40 ± 7 (−0.1 σ)	D_{1420}	813.6	814.2 ± 5.0 (+0.0 σ)	$\sigma_8(0.15)$	0.7315	0.727 ± 0.014 (−3.7 σ)
A_{143}^{tSZ}	4.37	$3.8^{+1.8}_{-2.6}$ (+0.0 σ)	D_{2000}	230.02	230.3 ± 1.8 (+0.5 σ)	$f\sigma_8(0.38)$	0.4811	0.4813 ± 0.0062 (+0.5 σ)
$r_{143 \times 217}^{PS}$	0.565	0.65 ± 0.13 (+0.0 σ)	$n_{s,0.002}$	0.9685	0.9705 ± 0.0064 (+1.3 σ)	$\sigma_8(0.38)$	0.6446	0.640 ± 0.014 (−4.5 σ)
$r_{143 \times 217}^{CIB}$	0.648	$0.56^{+0.39}_{-0.17}$ (−0.1 σ)	Y_P	0.245363	$0.24538^{+0.00010}_{-0.000090}$ (+0.9 σ)	$f\sigma_8(0.51)$	0.4759	0.4755 ± 0.0050 (−0.1 σ)
$\xi^{tSZ \times CIB}$	0.07	—	Y_P^{BBN}	0.246689	$0.24671^{+0.00010}_{-0.000090}$ (+0.9 σ)	$\sigma_8(0.51)$	0.6017	0.598 ± 0.014 (−4.8 σ)
A^{kSZ}	3.8	—	$10^5 D/H$	2.6009	2.591 ± 0.045 (−1.0 σ)	$f\sigma_8(0.61)$	0.46843	0.4675 ± 0.0048 (−0.6 σ)
A_{100}^{dust}	1.010	1.01 ± 0.19 (+0.0 σ)	Age/Gyr	14.208	14.30 ± 0.30 (+15.0 σ)	$\sigma_8(0.61)$	0.5715	0.567 ± 0.014 (−5.0 σ)
A_{143}^{dust}	0.989	0.98 ± 0.18 (+0.0 σ)	z_*	1089.870	1089.75 ± 0.46 (−1.4 σ)	$f\sigma_8(2.33)$	0.2872	0.2850 ± 0.0076 (−5.1 σ)
A_{217}^{dust}	0.960	0.97 ± 0.10 (−0.0 σ)	r_*	144.95	145.06 ± 0.49 (+1.4 σ)	$\sigma_8(2.33)$	0.2936	0.2909 ± 0.0094 (−5.8 σ)
$A_{143 \times 217}^{dust}$	1.004	1.02 ± 0.16 (−0.0 σ)	$100\theta_*$	1.041227	1.04138 ± 0.00048 (+0.7 σ)	f_{2000}^{143}	30.33	29.5 ± 3.1 (−0.4 σ)
c_{100}	0.99735	0.9975 ± 0.0011 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9209	13.929 ± 0.045 (+1.3 σ)	f_{2000}^{217}	107.02	106.5 ± 2.2 (−0.5 σ)
c_{217}	1.00124	1.0011 ± 0.0016 (−0.1 σ)	z_{drag}	1059.628	1059.71 ± 0.48 (+0.6 σ)	$f_{2000}^{143 \times 217}$	32.32	31.9 ± 2.3 (−0.5 σ)
H_0	63.86	63.2 ± 2.4 (−5.5 σ)	r_{drag}	147.648	147.74 ± 0.48 (+1.2 σ)	$\chi_{lensing}^2$	9.19	10.3 ± 2.1 (+0.9 σ)
Ω_Λ	0.6631	0.659 ± 0.018 (−2.4 σ)	k_D	0.140219	0.14016 ± 0.00050 (−0.8 σ)	χ_{small}^2	395.64	396.8 ± 1.6 (−0.1 σ)
Ω_m	0.3461	$0.353^{+0.023}_{-0.026}$ (+3.6 σ)	$100\theta_D$	0.160944	0.16091 ± 0.00027 (−0.5 σ)	χ_{lowl}^2	21.85	21.8 ± 1.1 (−1.7 σ)
$\Omega_m h^2$	0.14118	0.1407 ± 0.0021 (−1.6 σ)	z_{eq}	3358	3346 ± 50 (−1.6 σ)	$\chi_{CamSpec}^2$	7049.2	7062.9 ± 5.5 (+0.0 σ)
$\Omega_m h^3$	0.09016	0.0889 ± 0.0042 (−15.9 σ)	k_{eq}	0.010250	0.01021 ± 0.00015 (−1.6 σ)	χ_{prior}^2	2.37	7.5 ± 3.4 (−0.0 σ)
σ_8	0.7952	0.791 ± 0.013 (−3.0 σ)	$100\theta_{eq}$	0.8211	0.8238 ± 0.0098 (+1.7 σ)	χ_{CMB}^2	7475.9	7491.7 ± 5.6 (−0.2 σ)
S_8	0.8542	0.858 ± 0.022 (+1.4 σ)	$100\theta_{s,eq}$	0.4535	0.4549 ± 0.0050 (+1.7 σ)			

Best-fit $\chi_{eff}^2 = 7478.30$; $\Delta\chi_{eff}^2 = -2.38$; $\bar{\chi}_{eff}^2 = 7499.29$; $\Delta\bar{\chi}_{eff}^2 = -0.96$; $R - 1 = 0.01550$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.19 (Δ 0.27) simall_100x143_offlike5_EE_Aplanck.B: 395.64 (Δ -0.23) commander_dx12.v3.2.29: 21.85 (Δ -1.57) CamSpec like_10.7HM: 7049.24 (Δ -0.94)

16.46 base_omegak_CamSpecHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02236 \pm 0.00025 \quad (+1.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.469 \pm 0.012 \quad (+1.3\sigma)$	$H(0.15)$	$69.0 \pm 2.3 \quad (-5.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1176 \pm 0.0022 \quad (-1.7\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6100 \pm 0.0076 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$680 \pm 24 \quad (+5.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04121 \pm 0.00050 \quad (+0.8\sigma)$	$\sigma_8/h^{0.5}$	$0.996 \pm 0.011 \quad (+0.6\sigma)$	$H(0.38)$	$79.4 \pm 2.2 \quad (-7.6\sigma)$
τ	$0.0528^{+0.0036}_{-0.0074} \quad (-0.2\sigma)$	$r_{\mathrm{drag}} h$	$94.0 \pm 3.4 \quad (-4.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1614 \pm 52 \quad (+6.3\sigma)$
Ω_K	$-0.0111^{+0.0083}_{-0.0066}$	$\langle d^2 \rangle^{1/2}$	$2.472 \pm 0.030 \quad (+1.0\sigma)$	$H(0.51)$	$86.2 \pm 2.1 \quad (-9.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.033^{+0.010}_{-0.015} \quad (-0.7\sigma)$	z_{re}	$7.43^{+0.31}_{-0.83} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$2085 \pm 64 \quad (+6.7\sigma)$
n_{s}	$0.9708 \pm 0.0063 \quad (+1.4\sigma)$	$10^9 A_{\mathrm{s}}$	$2.075^{+0.021}_{-0.031} \quad (-0.7\sigma)$	$H(0.61)$	$91.9 \pm 2.1 \quad (-11.1\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.867 \pm 0.014 \quad (-1.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2422 \pm 71 \quad (+7.0\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (-0.1\sigma)$	D_{40}	$1209 \pm 17 \quad (-1.6\sigma)$	$H(2.33)$	$232.7 \pm 2.6 \quad (-4.0\sigma)$
A_{143}^{PS}	$38 \pm 9 \quad (-0.3\sigma)$	D_{220}	$5714 \pm 42 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5946 \pm 110 \quad (+12.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2528 \pm 14 \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.471 \pm 0.010 \quad (+1.2\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.1\sigma)$	D_{1420}	$814.2 \pm 5.0 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.730 \pm 0.013 \quad (-3.5\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.8 \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.4812 \pm 0.0064 \quad (+0.5\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9708 \pm 0.0063 \quad (+1.4\sigma)$	$\sigma_8(0.38)$	$0.644 \pm 0.013 \quad (-4.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.17} \quad (-0.1\sigma)$	Y_{P}	$0.24539^{+0.00010}_{-0.000091} \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.4759 \pm 0.0050 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24671^{+0.00010}_{-0.000091} \quad (+0.9\sigma)$	$\sigma_8(0.51)$	$0.601 \pm 0.013 \quad (-4.7\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.589 \pm 0.046 \quad (-1.0\sigma)$	$f\sigma_8(0.61)$	$0.4683 \pm 0.0046 \quad (-0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.26 \pm 0.29 \quad (+14.0\sigma)$	$\sigma_8(0.61)$	$0.570 \pm 0.013 \quad (-4.9\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.73 \pm 0.46 \quad (-1.4\sigma)$	$f\sigma_8(2.33)$	$0.2867 \pm 0.0071 \quad (-5.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$145.08 \pm 0.49 \quad (+1.5\sigma)$	$\sigma_8(2.33)$	$0.2929 \pm 0.0088 \quad (-5.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04140 \pm 0.00049 \quad (+0.7\sigma)$	f_{2000}^{143}	$29.5 \pm 3.1 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.931 \pm 0.045 \quad (+1.4\sigma)$	f_{2000}^{217}	$106.5 \pm 2.1 \quad (-0.5\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.1\sigma)$	z_{drag}	$1059.72 \pm 0.49 \quad (+0.6\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.3 \quad (-0.5\sigma)$
H_0	$63.6 \pm 2.4 \quad (-5.1\sigma)$	r_{drag}	$147.76 \pm 0.48 \quad (+1.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.3 \pm 2.2 \quad (+0.9\sigma)$
Ω_{Λ}	$0.662 \pm 0.017 \quad (-2.1\sigma)$	k_{D}	$0.14015 \pm 0.00050 \quad (-0.8\sigma)$	χ_{small}^2	$396.4 \pm 1.3 \quad (-0.3\sigma)$
Ω_{m}	$0.349^{+0.022}_{-0.024} \quad (+3.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091 \pm 0.00028 \quad (-0.5\sigma)$	χ_{lowl}^2	$21.8 \pm 1.1 \quad (-1.7\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1406 \pm 0.0021 \quad (-1.6\sigma)$	z_{eq}	$3344 \pm 50 \quad (-1.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.0 \pm 5.5 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0894 \pm 0.0042 \quad (-14.7\sigma)$	k_{eq}	$0.01021 \pm 0.00015 \quad (-1.6\sigma)$	χ_{prior}^2	$7.5 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.794 \pm 0.012 \quad (-2.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8242 \pm 0.0098 \quad (+1.7\sigma)$	χ_{CMB}^2	$7491.5 \pm 5.6 \quad (-0.2\sigma)$
S_8	$0.856 \pm 0.022 \quad (+1.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4551 \pm 0.0050 \quad (+1.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7498.95; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.06; R - 1 = 0.01796$$

16.47 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022422	0.02242 ± 0.00017 (+0.8 σ)	S_8	0.8541	0.857 ± 0.021 (+2.2 σ)	$H(0.15)$	69.39	69.0 ± 2.1 (−7.9 σ)
$\Omega_{\mathrm{c}} h^2$	0.11833	0.1182 ± 0.0015 (−1.2 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4678	0.469 ± 0.012 (+2.2 σ)	$D_{\mathrm{M}}(0.15)$	675.7	680 ± 23 (+8.0 σ)
$100\theta_{\mathrm{MC}}$	1.041001	1.04101 ± 0.00033 (+0.5 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6101	0.6101 ± 0.0065 (+0.7 σ)	$H(0.38)$	79.74	79.4 ± 2.0 (−10.1 σ)
τ	0.0500	0.0488 ± 0.0082 (−0.6 σ)	$\sigma_8/h^{0.5}$	0.9949	0.995 ± 0.010 (+1.0 σ)	$D_{\mathrm{M}}(0.38)$	1604.1	1614 ± 48 (+8.6 σ)
Ω_K	−0.0092	$-0.0106^{+0.0072}_{-0.0059}$	$r_{\mathrm{drag}} h$	94.31	93.8 ± 3.2 (−5.8 σ)	$H(0.51)$	86.59	86.3 ± 1.9 (−12.2 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0294	3.027 ± 0.017 (−1.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4684	2.470 ± 0.028 (+1.5 σ)	$D_{\mathrm{M}}(0.51)$	2073	2085 ± 59 (+9.0 σ)
n_{s}	0.96930	0.9694 ± 0.0048 (+0.9 σ)	z_{re}	7.16	$7.01^{+0.90}_{-0.75}$ (−0.8 σ)	$H(0.61)$	92.30	92.0 ± 1.9 (−14.6 σ)
y_{cal}	0.99993	1.0001 ± 0.0024 (−0.2 σ)	$10^9 A_{\mathrm{s}}$	2.0685	2.063 ± 0.035 (−1.0 σ)	$D_{\mathrm{M}}(0.61)$	2408	2421 ± 66 (+9.4 σ)
A_{100}^{PS}	233.1	238 ± 25 (−0.1 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8717	1.871 ± 0.012 (−0.8 σ)	$H(2.33)$	233.57	233.3 ± 1.9 (−4.1 σ)
A_{143}^{PS}	46.5	37 ± 8 (−0.3 σ)	D_{40}	1213.6	1212 ± 14 (−1.3 σ)	$D_{\mathrm{M}}(2.33)$	5920	5939 ± 100 (+16.5 σ)
A_{217}^{PS}	104.8	102 ± 10 (−0.0 σ)	D_{220}	5721.4	5722 ± 38 (+0.1 σ)	$f\sigma_8(0.15)$	0.4702	0.4713 ± 0.0099 (+2.1 σ)
A_{217}^{CIB}	39.1	39^{+7}_{-8} (−0.1 σ)	D_{810}	2531.9	2530 ± 13 (−0.4 σ)	$\sigma_8(0.15)$	0.7319	0.729 ± 0.012 (−3.3 σ)
A_{143}^{tSZ}	4.82	$4.0^{+2.0}_{-2.5}$ (+0.1 σ)	D_{1420}	815.41	814.9 ± 4.8 (−0.2 σ)	$f\sigma_8(0.38)$	0.4812	$0.4813^{+0.0061}_{-0.0053}$ (+1.1 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.753	0.66 ± 0.13 (−0.0 σ)	D_{2000}	230.86	230.6 ± 1.6 (+0.2 σ)	$\sigma_8(0.38)$	0.6451	0.642 ± 0.013 (−4.2 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.684	$0.55^{+0.40}_{-0.19}$ (−0.0 σ)	$n_{\mathrm{s},0.002}$	0.96930	0.9694 ± 0.0048 (+0.9 σ)	$f\sigma_8(0.51)$	0.47606	0.4757 ± 0.0043 (+0.4 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.94	—	Y_{P}	0.245416	$0.245411^{+0.000068}_{-0.000060}$ (+0.8 σ)	$\sigma_8(0.51)$	0.6021	0.599 ± 0.013 (−4.5 σ)
A^{kSZ}	3.00	< 6.19 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246743	$0.246737^{+0.000068}_{-0.000061}$ (+0.8 σ)	$f\sigma_8(0.61)$	0.46860	0.4680 ± 0.0039 (−0.2 σ)
A_{100}^{dust}	1.009	1.01 ± 0.19 (+0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.5758	2.578 ± 0.031 (−0.8 σ)	$\sigma_8(0.61)$	0.5719	0.569 ± 0.013 (−4.7 σ)
A_{143}^{dust}	0.950	0.97 ± 0.18 (+0.1 σ)	Age/Gyr	14.193	14.24 ± 0.26 (+18.6 σ)	$f\sigma_8(2.33)$	0.2874	0.2860 ± 0.0069 (−5.0 σ)
A_{217}^{dust}	0.981	0.97 ± 0.10 (−0.0 σ)	z_*	1089.707	1089.71 ± 0.30 (−1.1 σ)	$\sigma_8(2.33)$	0.2938	0.2922 ± 0.0085 (−5.8 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.033	1.02 ± 0.16 (−0.0 σ)	r_*	144.825	144.87 ± 0.33 (+1.1 σ)	f_{2000}^{143}	28.93	28.8 ± 2.9 (−0.3 σ)
c_{100}	0.99785	0.9975 ± 0.0011 (+0.0 σ)	$100\theta_*$	1.041186	1.04119 ± 0.00032 (+0.4 σ)	f_{2000}^{217}	105.89	106.1 ± 2.0 (−0.4 σ)
c_{217}	1.00113	1.0010 ± 0.0016 (−0.1 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9096	13.914 ± 0.030 (+1.0 σ)	$f_{2000}^{143 \times 217}$	31.50	31.4 ± 2.1 (−0.4 σ)
c_{TE}	0.99567	0.9955 ± 0.0049 (−0.2 σ)	z_{drag}	1059.933	1059.91 ± 0.34 (+0.5 σ)	$\chi_{\mathrm{lensing}}^2$	9.39	10.2 ± 1.9 (+1.3 σ)
c_{EE}	0.99173	0.9914 ± 0.0049 (−0.1 σ)	r_{drag}	147.477	147.52 ± 0.32 (+0.9 σ)	χ_{small}^2	395.63	396.8 ± 1.5 (−0.1 σ)
H_0	63.95	63.6 ± 2.2 (−7.0 σ)	k_{D}	0.140499	0.14045 ± 0.00035 (−0.6 σ)	χ_{lowl}^2	21.83	21.93 ± 0.94 (−1.5 σ)
Ω_{Λ}	0.6635	0.660 ± 0.018 (−3.5 σ)	$100\theta_{\mathrm{D}}$	0.160754	0.16077 ± 0.00019 (−0.5 σ)	$\chi_{\mathrm{CamSpec}}^2$	11498.3	11513.1 ± 5.7 (−0.2 σ)
Ω_{m}	0.3457	$0.351^{+0.022}_{-0.025}$ (+4.9 σ)	z_{eq}	3363.5	3360 ± 33 (−1.2 σ)	χ_{prior}^2	1.96	7.7 ± 3.3 (−0.1 σ)
$\Omega_{\mathrm{m}} h^2$	0.14140	0.1413 ± 0.0014 (−1.2 σ)	k_{eq}	0.010266	0.01026 ± 0.00010 (−1.2 σ)	χ_{CMB}^2	11925.1	11942.0 ± 5.9 (−0.3 σ)
$\Omega_{\mathrm{m}} h^3$	0.09043	0.0898 ± 0.0036 (−20.2 σ)	$100\theta_{\mathrm{eq}}$	0.8205	0.8212 ± 0.0064 (+1.2 σ)			
σ_8	0.7956	0.793 ± 0.011 (−2.6 σ)	$100\theta_{\mathrm{s,eq}}$	0.45309	0.4535 ± 0.0033 (+1.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 11927.06$; $\Delta\chi_{\mathrm{eff}}^2 = -2.59$; $\bar{\chi}_{\mathrm{eff}}^2 = 11949.70$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.75$; $R - 1 = 0.01965$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 9.39 (Δ 0.56) small_100x143_offlike5_EE_Aplanck_B: 395.63 (Δ -0.24) commander_dx12.v3.2.29: 21.83 (Δ -1.39) CamSpec like_10.7HM_1400_unified: 11498.26 (Δ -1.40)

16.48 base_omegak_CamSpecHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02242 \pm 0.00017 \quad (+0.8\sigma)$	S_8	$0.854 \pm 0.020 \quad (+2.0\sigma)$	$H(0.15)$	$69.5 \pm 2.0 \quad (-7.1\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1181 \pm 0.0015 \quad (-1.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.468 \pm 0.011 \quad (+2.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$675 \pm 21 \quad (+7.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04102 \pm 0.00033 \quad (+0.5\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6103 \pm 0.0065 \quad (+0.7\sigma)$	$H(0.38)$	$79.8 \pm 1.9 \quad (-9.1\sigma)$
τ	$0.0523^{+0.0033}_{-0.0074} \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.996 \pm 0.010 \quad (+1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1603 \pm 45 \quad (+7.7\sigma)$
Ω_K	$-0.0094^{+0.0067}_{-0.0056}$	$r_{\mathrm{drag}} h$	$94.5 \pm 3.0 \quad (-5.2\sigma)$	$H(0.51)$	$86.7 \pm 1.8 \quad (-11.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.033^{+0.010}_{-0.015} \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.470 \pm 0.028 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$2072 \pm 55 \quad (+8.1\sigma)$
n_{s}	$0.9696 \pm 0.0048 \quad (+0.9\sigma)$	z_{re}	$< 7.62 \quad (-0.5\sigma)$	$H(0.61)$	$92.4 \pm 1.8 \quad (-13.1\sigma)$
y_{cal}	$1.0001 \pm 0.0024 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.077^{+0.020}_{-0.031} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2407 \pm 62 \quad (+8.4\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870 \pm 0.012 \quad (-0.8\sigma)$	$H(2.33)$	$233.5 \pm 1.9 \quad (-3.9\sigma)$
A_{143}^{PS}	$37 \pm 8 \quad (-0.3\sigma)$	D_{40}	$1213 \pm 14 \quad (-1.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5919 \pm 96 \quad (+14.7\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5721 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4701 \pm 0.0096 \quad (+1.9\sigma)$
A_{217}^{CIB}	$39^{+7}_{-8} \quad (-0.1\sigma)$	D_{810}	$2530 \pm 13 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.733 \pm 0.010 \quad (-3.0\sigma)$
A_{143}^{tSZ}	$4.0^{+2.0}_{-2.5} \quad (+0.1\sigma)$	D_{1420}	$815.0 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4812^{+0.0062}_{-0.0054} \quad (+1.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.646 \pm 0.011 \quad (-3.8\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.39}_{-0.20} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9696 \pm 0.0048 \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.4762 \pm 0.0043 \quad (+0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245411^{+0.000068}_{-0.000061} \quad (+0.7\sigma)$	$\sigma_8(0.51)$	$0.603 \pm 0.011 \quad (-4.1\sigma)$
A^{kSZ}	$< 6.16 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246738^{+0.000068}_{-0.000062} \quad (+0.7\sigma)$	$f\sigma_8(0.61)$	$0.4688 \pm 0.0037 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.577 \pm 0.031 \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.573 \pm 0.011 \quad (-4.3\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$14.19 \pm 0.24 \quad (+16.6\sigma)$	$f\sigma_8(2.33)$	$0.2880 \pm 0.0061 \quad (-4.6\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.70 \pm 0.31 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.2946 \pm 0.0076 \quad (-5.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.88 \pm 0.33 \quad (+1.1\sigma)$	f_{2000}^{143}	$28.8 \pm 2.9 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04120 \pm 0.00032 \quad (+0.4\sigma)$	f_{2000}^{217}	$106.1 \pm 2.0 \quad (-0.4\sigma)$
c_{217}	$1.0010 \pm 0.0016 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.914 \pm 0.030 \quad (+1.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.4 \pm 2.0 \quad (-0.4\sigma)$
c_{TE}	$0.9955 \pm 0.0049 \quad (-0.2\sigma)$	z_{drag}	$1059.91 \pm 0.34 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$10.1 \pm 1.8 \quad (+1.4\sigma)$
c_{EE}	$0.9915 \pm 0.0050 \quad (-0.1\sigma)$	r_{drag}	$147.53 \pm 0.32 \quad (+0.9\sigma)$	χ_{small}^2	$396.3 \pm 1.1 \quad (-0.3\sigma)$
H_0	$64.1 \pm 2.1 \quad (-6.3\sigma)$	k_{D}	$0.14044 \pm 0.00035 \quad (-0.6\sigma)$	χ_{lowl}^2	$21.99 \pm 0.96 \quad (-1.4\sigma)$
Ω_{Λ}	$0.664 \pm 0.016 \quad (-3.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00019 \quad (-0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.1 \pm 5.7 \quad (-0.2\sigma)$
Ω_{m}	$0.345 \pm 0.021 \quad (+4.3\sigma)$	z_{eq}	$3359 \pm 33 \quad (-1.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1412 \pm 0.0014 \quad (-1.2\sigma)$	k_{eq}	$0.01025 \pm 0.00010 \quad (-1.2\sigma)$	χ_{CMB}^2	$11941.6 \pm 5.8 \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0905 \pm 0.0035 \quad (-18.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8214 \pm 0.0064 \quad (+1.3\sigma)$		
σ_8	$0.7967^{+0.0090}_{-0.010} \quad (-2.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4535 \pm 0.0033 \quad (+1.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11949.31$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.94$; $R - 1 = 0.03090$

16.49 base_omegak_CleanedCamSpecHM_TT_lowl_lowE

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02253 \pm 0.00027 \quad (+2.0\sigma)$	$\sigma_8/h^{0.5}$	$1.059^{+0.026}_{-0.022} \quad (+4.3\sigma)$	$D_{\text{M}}(0.15)$	$820^{+58}_{-68} \quad (+22.0\sigma)$
$\Omega_{\text{c}}h^2$	$0.1172 \pm 0.0023 \quad (-1.5\sigma)$	$r_{\text{drag}}h$	$77.1^{+6.0}_{-6.9} \quad (-13.5\sigma)$	$H(0.38)$	$69.9^{+3.3}_{-3.9} \quad (-22.6\sigma)$
$100\theta_{\text{MC}}$	$1.04128 \pm 0.00050 \quad (+1.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.677 \pm 0.084 \quad (+6.0\sigma)$	$D_{\text{M}}(0.38)$	$1903^{+120}_{-140} \quad (+23.1\sigma)$
τ	$0.0484^{+0.0088}_{-0.0076} \quad (-0.4\sigma)$	z_{re}	$6.81^{+0.96}_{-0.75} \quad (-0.8\sigma)$	$H(0.51)$	$77.3^{+3.1}_{-3.7} \quad (-27.4\sigma)$
Ω_K	$-0.057^{+0.028}_{-0.018}$	$10^9 A_{\text{s}}$	$2.057^{+0.038}_{-0.033} \quad (-0.9\sigma)$	$D_{\text{M}}(0.51)$	$2433 \pm 160 \quad (+23.9\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.023^{+0.019}_{-0.016} \quad (-0.9\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.867 \pm 0.014 \quad (-1.0\sigma)$	$H(0.61)$	$83.4^{+3.0}_{-3.6} \quad (-33.1\sigma)$
n_{s}	$0.9716 \pm 0.0066 \quad (+1.6\sigma)$	D_{40}	$1201 \pm 17 \quad (-2.0\sigma)$	$D_{\text{M}}(0.61)$	$2804 \pm 170 \quad (+24.6\sigma)$
y_{cal}	$0.9998 \pm 0.0026 \quad (-0.2\sigma)$	D_{220}	$5734 \pm 43 \quad (+0.7\sigma)$	$H(2.33)$	$227.5 \pm 3.0 \quad (-7.2\sigma)$
A_{100}^{PS}	$240 \pm 30 \quad (-0.6\sigma)$	D_{810}	$2523 \pm 14 \quad (-0.6\sigma)$	$D_{\text{M}}(2.33)$	$6465 \pm 230 \quad (+42.6\sigma)$
A_{143}^{tSZ}	$4.5 \pm 2.1 \quad (+0.4\sigma)$	D_{1420}	$811.7 \pm 5.3 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.536^{+0.027}_{-0.024} \quad (+6.2\sigma)$
A^{kSZ}	$< 5.11 \quad (-0.5\sigma)$	D_{2000}	$231.6 \pm 2.1 \quad (+1.5\sigma)$	$\sigma_8(0.15)$	$0.689^{+0.024}_{-0.021} \quad (-7.8\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	$n_{\text{s},0.002}$	$0.9716 \pm 0.0066 \quad (+1.6\sigma)$	$f\sigma_8(0.38)$	$0.511^{+0.012}_{-0.0081} \quad (+3.4\sigma)$
A_{143}^{power}	$8.0^{+2.1}_{-2.3} \quad (-1.0\sigma)$	Y_{P}	$0.24545 \pm 0.00011 \quad (+1.8\sigma)$	$\sigma_8(0.38)$	$0.594^{+0.026}_{-0.023} \quad (-11.3\sigma)$
A_{217}^{power}	$6.5^{+1.2}_{-2.2} \quad (-0.7\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24678 \pm 0.00011 \quad (+1.8\sigma)$	$f\sigma_8(0.51)$	$0.4900^{+0.0073}_{-0.0062} \quad (+1.7\sigma)$
$A_{143 \times 217}^{\text{power}}$	$2.60^{+0.67}_{-2.6} \quad (-0.7\sigma)$	$10^5 \text{D}/\text{H}$	$2.558 \pm 0.050 \quad (-1.9\sigma)$	$\sigma_8(0.51)$	$0.549 \pm 0.026 \quad (-12.8\sigma)$
$\gamma_{143}^{\text{power}}$	$1.32^{+0.49}_{-0.61} \quad (-0.0\sigma)$	Age/Gyr	$15.63 \pm 0.61 \quad (+49.7\sigma)$	$f\sigma_8(0.61)$	$0.4727^{+0.0074}_{-0.0060} \quad (+0.3\sigma)$
$\gamma_{217}^{\text{power}}$	$> 1.27 \quad (+0.3\sigma)$	z_*	$1089.48 \pm 0.49 \quad (-2.0\sigma)$	$\sigma_8(0.61)$	$0.518 \pm 0.026 \quad (-13.8\sigma)$
$\gamma_{143 \times 217}^{\text{power}}$	$1.39^{+0.80}_{-0.57} \quad (+0.1\sigma)$	r_*	$145.03 \pm 0.49 \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.257 \pm 0.014 \quad (-15.7\sigma)$
c_{100}	$0.9979 \pm 0.0010 \quad (+0.1\sigma)$	$100\theta_*$	$1.04145 \pm 0.00049 \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.256 \pm 0.016 \quad (-18.6\sigma)$
c_{217}	$0.9992^{+0.0011}_{-0.0015} \quad (-0.1\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.926 \pm 0.046 \quad (+1.0\sigma)$	f_{2000}^{143}	$19.3 \pm 3.3 \quad (-1.4\sigma)$
H_0	$52.2^{+4.1}_{-4.7} \quad (-16.2\sigma)$	z_{drag}	$1060.10 \pm 0.54 \quad (+1.7\sigma)$	f_{2000}^{217}	$13.6 \pm 2.3 \quad (-1.6\sigma)$
Ω_{Λ}	$0.530^{+0.071}_{-0.051} \quad (-11.6\sigma)$	r_{drag}	$147.66 \pm 0.48 \quad (+0.8\sigma)$	$f_{2000}^{143 \times 217}$	$7.5 \pm 2.4 \quad (-1.7\sigma)$
Ω_{m}	$0.527^{+0.069}_{-0.099} \quad (+16.0\sigma)$	k_{D}	$0.14039 \pm 0.00052 \quad (-0.1\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.1\sigma)$
$\Omega_{\text{m}}h^2$	$0.1404 \pm 0.0021 \quad (-1.4\sigma)$	$100\theta_{\text{D}}$	$0.16069 \pm 0.00030 \quad (-1.6\sigma)$	χ_{lowl}^2	$21.39 \pm 0.71 \quad (-1.8\sigma)$
$\Omega_{\text{m}}h^3$	$0.0733^{+0.0061}_{-0.0070} \quad (-50.0\sigma)$	z_{eq}	$3340 \pm 51 \quad (-1.4\sigma)$	χ_{CamSpec}^2	$6712.6 \pm 5.3 \quad (-0.7\sigma)$
σ_8	$0.764^{+0.021}_{-0.017} \quad (-5.1\sigma)$	k_{eq}	$0.01019 \pm 0.00015 \quad (-1.4\sigma)$	χ_{prior}^2	$5.1 \pm 2.8 \quad (-0.1\sigma)$
S_8	$1.007 \pm 0.063 \quad (+7.1\sigma)$	$100\theta_{\text{eq}}$	$0.825 \pm 0.010 \quad (+1.5\sigma)$	χ_{CMB}^2	$7130.8 \pm 5.6 \quad (-1.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.551 \pm 0.035 \quad (+7.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4556 \pm 0.0051 \quad (+1.5\sigma)$		
$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.648^{+0.016}_{-0.014} \quad (+3.4\sigma)$	$H(0.15)$	$58.4^{+3.7}_{-4.4} \quad (-17.9\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 7135.85$; $\Delta\bar{\chi}_{\text{eff}}^2 = -6.36$; $R - 1 = 0.01609$

17 r

17.1 base_r_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022127	0.02213 ± 0.00022 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9947	0.990 ± 0.016 (-0.2 σ)	$D_M(0.38)$	1542.1	1540 ± 16 (-0.1 σ)
$\Omega_c h^2$	0.12064	0.1203 ± 0.0021 (-0.2 σ)	$r_{\text{drag}} h$	98.45	98.7 ± 1.6 (+0.2 σ)	$H(0.51)$	89.323	89.38 ± 0.44 (+0.1 σ)
$100\theta_{\text{MC}}$	1.040778	1.04082 ± 0.00047 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4556	2.446 ± 0.038 (-0.2 σ)	$D_M(0.51)$	1996.3	1994 ± 18 (-0.1 σ)
τ	0.0535	0.0518 ± 0.0080 (-0.0 σ)	z_{re}	7.66	7.46 ± 0.83 (-0.1 σ)	$H(0.61)$	95.008	95.05 ± 0.35 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0436	3.039 ± 0.017 (-0.1 σ)	$10^9 A_s$	2.0980	2.089 ± 0.034 (-0.1 σ)	$D_M(0.61)$	2321.8	2319 ± 20 (-0.1 σ)
n_s	0.9637	0.9639 ± 0.0057 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8853	1.883 ± 0.014 (-0.1 σ)	$H(2.33)$	236.73	236.5 ± 1.3 (-0.2 σ)
r	0.0001	< 0.0468	D_{40}	1231.7	1244^{+16}_{-19} (+0.7 σ)	$D_M(2.33)$	5777.4	5776 ± 16 (-0.1 σ)
y_{cal}	1.00047	1.0005 ± 0.0025 (+0.0 σ)	D_{220}	5710.6	5711 ± 41 (-0.1 σ)	$f\sigma_8(0.15)$	0.4644	0.462 ± 0.012 (-0.2 σ)
A_{217}^{CIB}	49.0	48 ± 7 (-0.0 σ)	D_{810}	2538.4	2537 ± 14 (+0.0 σ)	$\sigma_8(0.15)$	0.7508	0.7483 ± 0.0077 (-0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	D_{1420}	815.6	815.0 ± 5.1 (+0.1 σ)	$f\sigma_8(0.38)$	0.4808	0.4783 ± 0.0097 (-0.2 σ)
A_{143}^{tSZ}	7.00	5.1 ± 2.0 (+0.0 σ)	D_{2000}	230.00	229.7 ± 1.8 (+0.1 σ)	$\sigma_8(0.38)$	0.6645	0.6625 ± 0.0061 (-0.1 σ)
A_{100}^{PS}	254.7	263 ± 28 (-0.0 σ)	$n_{s,0.002}$	0.9637	0.9639 ± 0.0057 (+0.2 σ)	$f\sigma_8(0.51)$	0.4783	0.4760 ± 0.0083 (-0.2 σ)
A_{143}^{PS}	49.3	49 ± 8 (-0.0 σ)	Y_{P}	0.245295	$0.24529^{+0.00010}_{-0.000087}$ (+0.0 σ)	$\sigma_8(0.51)$	0.6215	0.6197 ± 0.0056 (-0.1 σ)
$A_{143 \times 217}^{\text{PS}}$	46.2	44 ± 9 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246621	$0.24662^{+0.00010}_{-0.000087}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4726	0.4705 ± 0.0074 (-0.2 σ)
A_{217}^{PS}	119.2	115 ± 10 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.6320	2.632 ± 0.042 (-0.0 σ)	$\sigma_8(0.61)$	0.5911	0.5895 ± 0.0052 (-0.1 σ)
A^{kSZ}	0.01	< 4.75 (-0.0 σ)	Age/Gyr	13.8290	13.826 ± 0.036 (-0.1 σ)	$f\sigma_8(2.33)$	0.29769	0.2969 ± 0.0026 (-0.1 σ)
A_{100}^{dustTT}	8.91	8.9 ± 1.8 (-0.0 σ)	z_*	1090.287	1090.26 ± 0.41 (-0.1 σ)	$\sigma_8(2.33)$	0.30652	0.3058 ± 0.0027 (-0.0 σ)
A_{143}^{dustTT}	10.76	10.7 ± 1.8 (-0.0 σ)	r_*	144.452	144.54 ± 0.48 (+0.2 σ)	$r_{0.002}$	0.0001	< 0.0424
$A_{143 \times 217}^{\text{dustTT}}$	19.30	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.040982	1.04102 ± 0.00046 (+0.1 σ)	$r_{0.01}$	0.0001	< 0.0446
A_{217}^{dustTT}	94.4	93.5 ± 7.3 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8765	13.884 ± 0.044 (+0.1 σ)	$\ln(10^{10} A_t)$	-6.27	$-0.72^{+1.4}_{-0.61}$
c_{100}	0.99965	0.99959 ± 0.00061 (-0.0 σ)	z_{drag}	1059.399	1059.39 ± 0.45 (+0.0 σ)	r_{10}	0.0000	< 0.0218
c_{217}	0.99828	0.99826 ± 0.00062 (+0.0 σ)	r_{drag}	147.196	147.28 ± 0.48 (+0.2 σ)	$10^9 A_t$	0.0002	< 0.0977
H_0	66.88	67.01 ± 0.92 (+0.1 σ)	k_{D}	0.14057	0.14048 ± 0.00051 (-0.1 σ)	$10^9 A_t e^{-2\tau}$	0.0002	< 0.0880
Ω_Λ	0.6794	0.681 ± 0.013 (+0.2 σ)	$100\theta_{\text{D}}$	0.161055	0.16108 ± 0.00026 (+0.0 σ)	f_{2000}^{143}	30.47	31.0 ± 2.9 (-0.1 σ)
Ω_{m}	0.3206	0.319 ± 0.013 (-0.2 σ)	z_{eq}	3411.6	3404 ± 47 (-0.2 σ)	$f_{2000}^{143 \times 217}$	33.32	33.5 ± 2.0 (-0.1 σ)
$\Omega_{\text{m}} h^2$	0.14341	0.1431 ± 0.0020 (-0.2 σ)	k_{eq}	0.010413	0.01039 ± 0.00014 (-0.2 σ)	f_{2000}^{217}	107.81	108.0 ± 1.9 (-0.1 σ)
$\Omega_{\text{m}} h^3$	0.095916	0.09588 ± 0.00045 (-0.0 σ)	$100\theta_{\text{eq}}$	0.8108	0.8123 ± 0.0089 (+0.2 σ)	χ_{small}^2	396.03	397.1 ± 1.7 (+0.1 σ)
σ_8	0.8135	0.8106 ± 0.0091 (-0.1 σ)	$100\theta_{\text{s,eq}}$	0.44827	0.4490 ± 0.0046 (+0.2 σ)	χ_{lowl}^2	23.61	25.0 ± 1.8 (+0.8 σ)
S_8	0.8409	0.836 ± 0.024 (-0.2 σ)	$H(0.15)$	72.26	72.37 ± 0.78 (+0.1 σ)	χ_{plik}^2	758.6	771.7 ± 5.4 (+0.0 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4606	0.458 ± 0.013 (-0.2 σ)	$D_M(0.15)$	647.5	646.5 ± 7.9 (-0.1 σ)	χ_{prior}^2	1.38	7.3 ± 3.7 (-0.0 σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6121	0.609 ± 0.012 (-0.2 σ)	$H(0.38)$	82.52	82.60 ± 0.57 (+0.1 σ)	χ_{CMB}^2	1178.2	1193.7 ± 5.7 (+0.3 σ)

Best-fit $\chi_{\text{eff}}^2 = 1179.62$; $\Delta\chi_{\text{eff}}^2 = 0.04$; $\bar{\chi}_{\text{eff}}^2 = 1201.03$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.45$; $R - 1 = 0.00654$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.03 (Δ 0.15) commander_dx12_v3.2.29: 23.61 (Δ 0.01) plik_rd12_HM_v22.TT: 758.60 (Δ -0.15)

17.2 base_r_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022246	0.02222 ± 0.00020 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4237	2.423 ± 0.028 (-0.2σ)	$D_M(0.61)$	2305.8	2305 ± 12 (-0.1σ)
$\Omega_c h^2$	0.11896	0.1188 ± 0.0012 (-0.1σ)	z_{re}	7.58	7.56 ± 0.81 (-0.1σ)	$H(2.33)$	235.76	235.65 ± 0.79 (-0.1σ)
$100\theta_{\text{MC}}$	1.040956	1.04101 ± 0.00041 $(+0.1\sigma)$	$10^9 A_s$	2.0870	2.088 ± 0.034 (-0.1σ)	$D_M(2.33)$	5766.0	5766 ± 12 (-0.1σ)
τ	0.0532	0.0532 ± 0.0079 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8761	1.877 ± 0.012 (-0.1σ)	$f\sigma_8(0.15)$	0.4539	0.4533 ± 0.0078 (-0.1σ)
$\ln(10^{10} A_s)$	3.0383	3.038 ± 0.016 (-0.1σ)	D_{40}	1222.0	1238_{-18}^{+14} $(+0.9\sigma)$	$\sigma_8(0.15)$	0.7455	0.7453 ± 0.0069 (-0.1σ)
n_s	0.96753	0.9673 ± 0.0042 $(+0.2\sigma)$	D_{220}	5713.6	5717 ± 41 (-0.1σ)	$f\sigma_8(0.38)$	0.4725	0.4720 ± 0.0066 (-0.1σ)
r	0.0001	< 0.0502	D_{810}	2535.0	2536 ± 14 $(+0.0\sigma)$	$\sigma_8(0.38)$	0.6610	0.6609 ± 0.0059 (-0.1σ)
y_{cal}	1.00014	1.0006 ± 0.0025 $(+0.0\sigma)$	D_{1420}	815.9	815.8 ± 5.0 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4712	0.4708 ± 0.0059 (-0.1σ)
A_{217}^{CIB}	48.9	48 ± 7 (-0.1σ)	D_{2000}	230.18	230.1 ± 1.8 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6186	0.6186 ± 0.0054 (-0.1σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	$n_{s,0.002}$	0.96753	0.9673 ± 0.0042 $(+0.2\sigma)$	$f\sigma_8(0.61)$	0.4664	0.4661 ± 0.0054 (-0.1σ)
A_{143}^{tSZ}	7.11	5.2 ± 2.0 $(+0.0\sigma)$	Y_P	0.245345	$0.245329_{-0.000075}^{+0.000088}$ $(+0.0\sigma)$	$\sigma_8(0.61)$	0.5887	0.5886 ± 0.0051 (-0.1σ)
A_{100}^{PS}	253.9	262 ± 28 (-0.1σ)	Y_P^{BBN}	0.246671	$0.246655_{-0.000075}^{+0.000089}$ $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29687	0.2969 ± 0.0026 (-0.1σ)
A_{143}^{PS}	48.1	48 ± 8 (-0.0σ)	10^5D/H	2.6091	2.615 ± 0.037 (-0.0σ)	$\sigma_8(2.33)$	0.30612	0.3062 ± 0.0026 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	45.5	43_{-10}^{+9} $(+0.0\sigma)$	Age/Gyr	13.8045	13.806 ± 0.028 (-0.0σ)	$r_{0.002}$	0.0001	< 0.0462
A_{217}^{PS}	118.4	115 ± 10 $(+0.0\sigma)$	z_*	1089.986	1090.02 ± 0.30 (-0.0σ)	$r_{0.01}$	0.0001	< 0.0481
A^{kSZ}	0.01	< 4.67 (-0.0σ)	r_*	144.795	144.85 ± 0.32 $(+0.1\sigma)$	$\ln(10^{10} A_t)$	-5.91	$-0.64_{-0.61}^{+1.4}$
A_{100}^{dustTT}	8.92	8.9 ± 1.9 (-0.0σ)	$100\theta_*$	1.041157	1.04121 ± 0.00040 $(+0.1\sigma)$	r_{10}	0.0001	< 0.0237
A_{143}^{dustTT}	10.83	10.7 ± 1.8 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.9071	13.912 ± 0.031 $(+0.1\sigma)$	$10^9 A_t$	0.000	< 0.105
$A_{143 \times 217}^{\text{dustTT}}$	19.37	18.3 ± 3.3 $(+0.0\sigma)$	z_{drag}	1059.589	1059.49 ± 0.44 (-0.0σ)	$10^9 A_t e^{-2\tau}$	0.0002	< 0.0941
A_{217}^{dustTT}	94.5	93.5 ± 7.4 $(+0.0\sigma)$	r_{drag}	147.503	147.57 ± 0.35 $(+0.1\sigma)$	f_{2000}^{143}	30.07	30.7 ± 2.9 (-0.1σ)
c_{100}	0.99964	0.99960 ± 0.00061 (-0.0σ)	k_D	0.140336	0.14024 ± 0.00045 (-0.1σ)	$f_{2000}^{143 \times 217}$	33.00	33.2 ± 2.0 (-0.1σ)
c_{217}	0.99827	0.99826 ± 0.00063 (-0.0σ)	$100\theta_D$	0.160969	0.16103 ± 0.00026 $(+0.0\sigma)$	f_{2000}^{217}	107.41	107.8 ± 1.9 (-0.1σ)
H_0	67.63	67.67 ± 0.54 $(+0.1\sigma)$	z_{eq}	3374.4	3371 ± 29 (-0.1σ)	χ_{simall}^2	395.88	397.2 ± 1.8 $(+0.0\sigma)$
Ω_Λ	0.6899	0.6905 ± 0.0073 $(+0.1\sigma)$	k_{eq}	0.010299	0.010288 ± 0.000088 (-0.1σ)	χ_{lowl}^2	22.78	24.3 ± 1.6 $(+1.3\sigma)$
Ω_m	0.3101	0.3095 ± 0.0073 (-0.1σ)	$100\theta_{\text{eq}}$	0.8180	0.8187 ± 0.0053 $(+0.1\sigma)$	χ_{plik}^2	760.2	772.4 ± 5.5 $(+0.0\sigma)$
$\Omega_m h^2$	0.14185	0.1417 ± 0.0012 (-0.1σ)	$100\theta_{s,\text{eq}}$	0.45192	0.4523 ± 0.0028 $(+0.1\sigma)$	$\chi_{6\text{DF}}^2$	0.0222	0.053 ± 0.072 (-0.1σ)
$\Omega_m h^3$	0.095935	0.09588 ± 0.00046 (-0.0σ)	$H(0.15)$	72.892	72.92 ± 0.47 $(+0.1\sigma)$	χ_{MGS}^2	1.28	1.41 ± 0.53 $(+0.1\sigma)$
σ_8	0.8066	0.8064 ± 0.0078 (-0.1σ)	$D_M(0.15)$	641.13	640.8 ± 4.6 (-0.1σ)	χ_{DR12BAO}^2	4.21	4.6 ± 1.5 (-0.1σ)
S_8	0.8202	0.819 ± 0.015 (-0.1σ)	$H(0.38)$	82.973	82.99 ± 0.35 $(+0.1\sigma)$	χ_{prior}^2	1.44	7.4 ± 3.7 (-0.0σ)
$\sigma_8 \Omega_m^{0.5}$	0.4492	0.4486 ± 0.0082 (-0.1σ)	$D_M(0.38)$	1529.4	1528.8 ± 9.4 (-0.1σ)	χ_{BAO}^2	5.51	6.1 ± 1.2 (-0.1σ)
$\sigma_8 \Omega_m^{0.25}$	0.6020	0.6015 ± 0.0081 (-0.1σ)	$H(0.51)$	89.672	89.68 ± 0.29 $(+0.1\sigma)$	χ_{CMB}^2	1178.8	1193.8 ± 5.7 $(+0.3\sigma)$
$\sigma_8/h^{0.5}$	0.9809	0.980 ± 0.012 (-0.1σ)	$D_M(0.51)$	1981.4	1981 ± 11 (-0.1σ)			
$r_{\text{drag}} h$	99.76	99.86 ± 0.94 $(+0.1\sigma)$	$H(0.61)$	95.276	95.28 ± 0.25 $(+0.1\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 1185.79$; $\Delta\chi_{\text{eff}}^2 = 0.05$; $\bar{\chi}_{\text{eff}}^2 = 1207.29$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.27$; $R - 1 = 0.01115$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ 0.00) MGS: 1.28 (Δ 0.00) DR12BAO: 4.21 (Δ 0.03) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.01) commander_dx12_v3_2_29: 22.79 (Δ -0.04) plik_rd12_HM_v22_TT: 760.17 (Δ 0.07)

17.3 base_r_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022389	0.02237 ± 0.00021 (-0.0σ)	$r_{\text{drag}} h$	101.15	101.3 ± 1.4 (-0.0σ)	$D_M(0.51)$	1965.2	1964 ± 15 $(+0.0\sigma)$
$\Omega_c h^2$	0.11728	0.1171 ± 0.0017 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4002	2.396 ± 0.034 (-0.1σ)	$H(0.61)$	95.599	95.61 ± 0.33 (-0.0σ)
$100\theta_{\text{MC}}$	1.041240	1.04126 ± 0.00044 (-0.0σ)	z_{re}	7.83	7.68 ± 0.84 (-0.1σ)	$D_M(0.61)$	2288.3	2287 ± 17 $(+0.0\sigma)$
τ	0.0562	$0.0550^{+0.0074}_{-0.0087}$ (-0.1σ)	$10^9 A_s$	2.0934	$2.087^{+0.033}_{-0.038}$ (-0.1σ)	$H(2.33)$	234.82	234.7 ± 1.0 $(+0.0\sigma)$
$\ln(10^{10} A_s)$	3.0414	$3.038^{+0.016}_{-0.018}$ (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8706	1.870 ± 0.013 $(+0.0\sigma)$	$D_M(2.33)$	5752.1	5752 ± 15 $(+0.0\sigma)$
n_s	0.9720	0.9715 ± 0.0051 $(+0.1\sigma)$	D_{40}	1214.1	1231^{+16}_{-19} $(+1.0\sigma)$	$f\sigma_8(0.15)$	0.4450	0.444 ± 0.010 (-0.0σ)
r	0.0000	< 0.0557	D_{220}	5726.1	5729 ± 41 (-0.1σ)	$\sigma_8(0.15)$	0.7433	0.7417 ± 0.0077 (-0.1σ)
y_{cal}	1.00044	1.0007 ± 0.0025 $(+0.1\sigma)$	D_{810}	2536.6	2536 ± 14 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4659	0.4645 ± 0.0085 (-0.0σ)
A_{217}^{CIB}	47.5	47 ± 6 (-0.0σ)	D_{1420}	818.0	817.3 ± 5.1 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6602	0.6588 ± 0.0064 (-0.1σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.48	—	D_{2000}	231.05	230.7 ± 1.8 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4659	0.4646 ± 0.0075 (-0.0σ)
A_{143}^{tSZ}	7.05	5.3 ± 2.0 $(+0.1\sigma)$	$n_{s,0.002}$	0.9720	0.9715 ± 0.0051 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6184	0.6172 ± 0.0058 (-0.1σ)
A_{100}^{PS}	250.7	260 ± 28 (-0.1σ)	Y_P	0.245403	0.245391 ± 0.000083 (-0.0σ)	$f\sigma_8(0.61)$	0.4619	0.4607 ± 0.0068 (-0.1σ)
A_{143}^{PS}	49.3	47 ± 8 (-0.0σ)	Y_P^{BBN}	0.246730	0.246717 ± 0.000084 (-0.0σ)	$\sigma_8(0.61)$	0.5888	0.5876 ± 0.0055 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	49.5	42 ± 9 (-0.0σ)	10^5D/H	2.5819	2.587 ± 0.039 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29734	$0.2968^{+0.0025}_{-0.0028}$ (-0.1σ)
A_{217}^{PS}	120.0	114 ± 10 $(+0.0\sigma)$	Age/Gyr	13.7744	13.775 ± 0.033 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.30708	$0.3066^{+0.0025}_{-0.0029}$ (-0.1σ)
A^{kSZ}	0.00	< 4.61 (-0.0σ)	z_*	1089.656	1089.68 ± 0.35 $(+0.0\sigma)$	$r_{0.002}$	0.0000	< 0.0516
A_{100}^{dustTT}	8.90	8.9 ± 1.8 (-0.1σ)	r_*	145.123	$145.18^{+0.45}_{-0.41}$ $(+0.0\sigma)$	$r_{0.01}$	0.0000	< 0.0536
A_{143}^{dustTT}	10.84	10.7 ± 1.7 $(+0.0\sigma)$	$100\theta_*$	1.041420	1.04145 ± 0.00043 (-0.0σ)	$\ln(10^{10} A_t)$	-7.17	$-0.53^{+1.3}_{-0.65}$
$A_{143 \times 217}^{\text{dustTT}}$	19.60	18.4 ± 3.4 $(+0.1\sigma)$	$D_M(z_*)/\text{Gpc}$	13.9352	$13.940^{+0.042}_{-0.038}$ $(+0.0\sigma)$	r_{10}	0.0000	< 0.0263
A_{217}^{dustTT}	94.9	93.7 ± 7.3 $(+0.1\sigma)$	z_{drag}	1059.780	1059.72 ± 0.45 (-0.0σ)	$10^9 A_t$	0.000	< 0.116
c_{100}	0.99968	0.99959 ± 0.00059 (-0.1σ)	r_{drag}	147.794	$147.86^{+0.45}_{-0.40}$ $(+0.0\sigma)$	$10^9 A_t e^{-2\tau}$	0.000	< 0.104
c_{217}	0.99826	0.99828 ± 0.00064 $(+0.0\sigma)$	k_D	0.140142	0.14005 ± 0.00048 (-0.0σ)	f_{2000}^{143}	29.19	30.2 ± 2.8 (-0.0σ)
H_0	68.44	68.49 ± 0.77 (-0.0σ)	$100\theta_D$	0.160868	0.16091 ± 0.00025 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	32.40	32.7 ± 1.9 (-0.1σ)
Ω_Λ	0.7004	$0.701^{+0.011}_{-0.0092}$ (-0.0σ)	z_{eq}	3337.7	3334 ± 39 $(+0.0\sigma)$	f_{2000}^{217}	106.87	107.4 ± 1.9 (-0.0σ)
Ω_m	0.2996	$0.2989^{+0.0092}_{-0.011}$ $(+0.0\sigma)$	k_{eq}	0.010187	0.01017 ± 0.00012 $(+0.0\sigma)$	χ_{simall}^2	396.24	397.4 ± 2.1 $(+0.0\sigma)$
$\Omega_m h^2$	0.14032	0.1401 ± 0.0016 $(+0.0\sigma)$	$100\theta_{\text{eq}}$	0.8253	0.8261 ± 0.0075 (-0.0σ)	χ_{lowl}^2	22.08	23.6 ± 1.6 $(+1.3\sigma)$
$\Omega_m h^3$	0.096032	0.09597 ± 0.00046 (-0.0σ)	$100\theta_{s,\text{eq}}$	0.45564	0.4561 ± 0.0039 (-0.0σ)	χ_{plik}^2	762.9	775.1 ± 6.2 (-0.1σ)
σ_8	0.8031	0.8013 ± 0.0089 (-0.1σ)	$H(0.15)$	73.59	73.63 ± 0.67 (-0.0σ)	χ_{H073p45}^2	9.11	9.1 ± 2.8 $(+0.0\sigma)$
S_8	0.8025	0.800 ± 0.020 (-0.0σ)	$D_M(0.15)$	634.3	633.9 ± 6.5 $(+0.0\sigma)$	χ_{prior}^2	1.31	7.4 ± 3.7 $(+0.0\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4396	0.438 ± 0.011 (-0.0σ)	$H(0.38)$	83.485	83.51 ± 0.49 (-0.0σ)	χ_{CMB}^2	1181.2	1196.1 ± 6.2 $(+0.1\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5942	0.592 ± 0.010 (-0.0σ)	$D_M(0.38)$	1515.6	1515 ± 13 $(+0.0\sigma)$			
$\sigma_8/h^{0.5}$	0.9708	0.968 ± 0.015 (-0.0σ)	$H(0.51)$	90.076	90.09 ± 0.40 (-0.0σ)			

Best-fit $\chi_{\text{eff}}^2 = 1191.61$; $\Delta\chi_{\text{eff}}^2 = 0.03$; $\bar{\chi}_{\text{eff}}^2 = 1212.59$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.51$; $R - 1 = 0.05992$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.24 (Δ 0.17) commander_dx12_v3.2.29: 22.08 (Δ -0.00) plik_rd12_HM_v22_TT: 762.86 (Δ -0.16) Hubble - H073p45: 9.11 (Δ 0.12)

17.4 base_r_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02213 \pm 0.00022 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.991 \pm 0.016 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1539 \pm 16 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1202 \pm 0.0021 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$98.8 \pm 1.6 \quad (+0.2\sigma)$	$H(0.51)$	$89.40 \pm 0.44 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04083 \pm 0.00046 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.449 \pm 0.037 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1993 \pm 18 \quad (-0.1\sigma)$
τ	$0.0536^{+0.0045}_{-0.0083} \quad (-0.0\sigma)$	z_{re}	$7.65^{+0.50}_{-0.84} \quad (-0.0\sigma)$	$H(0.61)$	$95.07 \pm 0.35 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.024}_{-0.034} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2318 \pm 20 \quad (-0.1\sigma)$
n_{s}	$0.9642 \pm 0.0056 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.883 \pm 0.014 \quad (-0.1\sigma)$	$H(2.33)$	$236.5 \pm 1.3 \quad (-0.2\sigma)$
r	< 0.0469	D_{40}	$1244^{+16}_{-19} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5775 \pm 16 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5711 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.462 \pm 0.012 \quad (-0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7494 \pm 0.0071 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.0 \pm 5.1 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4788 \pm 0.0096 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6636^{+0.0052}_{-0.0059} \quad (-0.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9642 \pm 0.0056 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4766 \pm 0.0082 \quad (-0.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (-0.0\sigma)$	Y_{P}	$0.24529^{+0.00010}_{-0.000085} \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6207^{+0.0045}_{-0.0053} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24662^{+0.00010}_{-0.000086} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4710 \pm 0.0072 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.631 \pm 0.041 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5904^{+0.0041}_{-0.0050} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.70 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.825 \pm 0.036 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0019}_{-0.0025} \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.24 \pm 0.40 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0026} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.55 \pm 0.47 \quad (+0.2\sigma)$	$r_{0.002}$	< 0.0425
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00046 \quad (+0.1\sigma)$	$r_{0.01}$	< 0.0447
$A_{217}^{\mathrm{dust}TT}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.885 \pm 0.044 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.72^{+1.4}_{-0.61}$
c_{100}	$0.99959 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.40 \pm 0.45 \quad (-0.0\sigma)$	r_{10}	< 0.0218
c_{217}	$0.99826 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.29 \pm 0.47 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.0981
H_0	$67.05 \pm 0.91 \quad (+0.2\sigma)$	k_{D}	$0.14047 \pm 0.00051 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0881
Ω_{Λ}	$0.682 \pm 0.013 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16107 \pm 0.00026 \quad (+0.0\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (-0.1\sigma)$
Ω_{m}	$0.318 \pm 0.013 \quad (-0.2\sigma)$	z_{eq}	$3402 \pm 47 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1430 \pm 0.0020 \quad (-0.2\sigma)$	k_{eq}	$0.01038 \pm 0.00014 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09588 \pm 0.00045 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8127 \pm 0.0088 \quad (+0.2\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (+0.1\sigma)$
σ_8	$0.8117 \pm 0.0086 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4492 \pm 0.0045 \quad (+0.2\sigma)$	χ_{lowl}^2	$25.0 \pm 1.8 \quad (+0.8\sigma)$
S_8	$0.836 \pm 0.024 \quad (-0.2\sigma)$	$H(0.15)$	$72.40 \pm 0.78 \quad (+0.2\sigma)$	χ_{plik}^2	$771.5 \pm 5.4 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.458 \pm 0.013 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.2 \pm 7.9 \quad (-0.2\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610 \pm 0.012 \quad (-0.2\sigma)$	$H(0.38)$	$82.62 \pm 0.56 \quad (+0.1\sigma)$	χ_{CMB}^2	$1193.4 \pm 5.6 \quad (+0.3\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.73$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.41$; $R - 1 = 0.00675$

17.5 base_r_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00020 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.027 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 12 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0012 \quad (-0.1\sigma)$	z_{re}	$7.72^{+0.53}_{-0.82} \quad (-0.1\sigma)$	$H(2.33)$	$235.63 \pm 0.79 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04101 \pm 0.00041 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.024}_{-0.035} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 12 \quad (-0.0\sigma)$
τ	$0.0546^{+0.0047}_{-0.0082} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.877 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4538 \pm 0.0077 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.017} \quad (-0.1\sigma)$	D_{40}	$1238^{+14}_{-18} \quad (+0.9\sigma)$	$\sigma_8(0.15)$	$0.7463^{+0.0057}_{-0.0068} \quad (-0.1\sigma)$
n_{s}	$0.9674 \pm 0.0042 \quad (+0.2\sigma)$	D_{220}	$5717 \pm 41 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4726 \pm 0.0064 \quad (-0.1\sigma)$
r	< 0.0502	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6618^{+0.0047}_{-0.0058} \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{1420}	$815.8 \pm 5.0 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4714 \pm 0.0057 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.1\sigma)$	D_{2000}	$230.1 \pm 1.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6194^{+0.0042}_{-0.0054} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9674 \pm 0.0042 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4666 \pm 0.0052 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (+0.0\sigma)$	Y_{P}	$0.245330^{+0.000088}_{-0.000075} \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5895^{+0.0040}_{-0.0051} \quad (-0.1\sigma)$
A_{100}^{PS}	$261 \pm 28 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246656^{+0.000089}_{-0.000075} \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0019}_{-0.0026} \quad (-0.1\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.615 \pm 0.037 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0027} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (+0.0\sigma)$	Age/Gyr	$13.805 \pm 0.028 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0463
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	z_*	$1090.01 \pm 0.30 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0481
A^{kSZ}	$< 4.64 \quad (-0.0\sigma)$	r_*	$144.86 \pm 0.32 \quad (+0.1\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.64^{+1.4}_{-0.61}$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00040 \quad (+0.1\sigma)$	r_{10}	< 0.0236
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912 \pm 0.031 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.105
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	z_{drag}	$1059.50 \pm 0.44 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.0941
$A_{217}^{\mathrm{dust}TT}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	r_{drag}	$147.58 \pm 0.35 \quad (+0.1\sigma)$	f_{2000}^{143}	$30.6 \pm 2.9 \quad (-0.1\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14024 \pm 0.00045 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (-0.1\sigma)$
c_{217}	$0.99826 \pm 0.00063 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00026 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (-0.0\sigma)$
H_0	$67.68 \pm 0.55 \quad (+0.1\sigma)$	z_{eq}	$3370 \pm 29 \quad (-0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6906 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010286 \pm 0.000088 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.3 \pm 1.6 \quad (+1.3\sigma)$
Ω_{m}	$0.3094 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8188 \pm 0.0053 \quad (+0.1\sigma)$	χ_{plik}^2	$772.2 \pm 5.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1417 \pm 0.0012 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4523 \pm 0.0028 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.071 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09588 \pm 0.00046 \quad (-0.0\sigma)$	$H(0.15)$	$72.93 \pm 0.47 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.42 \pm 0.53 \quad (+0.1\sigma)$
σ_8	$0.8074^{+0.0067}_{-0.0076} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.7 \pm 4.6 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.1\sigma)$
S_8	$0.820 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.00 \pm 0.35 \quad (+0.1\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4491 \pm 0.0082 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.6 \pm 9.4 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6022 \pm 0.0078 \quad (-0.1\sigma)$	$H(0.51)$	$89.69 \pm 0.29 \quad (+0.1\sigma)$	χ_{CMB}^2	$1193.6 \pm 5.6 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.982 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 11 \quad (-0.1\sigma)$		
$r_{\mathrm{drag}} h$	$99.88 \pm 0.94 \quad (+0.1\sigma)$	$H(0.61)$	$95.28 \pm 0.25 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1207.00; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.24; R - 1 = 0.01158$$

17.6 base_r_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00021 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$101.3 \pm 1.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1964 \pm 15 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1171 \pm 0.0017 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.399 \pm 0.033 \quad (-0.1\sigma)$	$H(0.61)$	$95.62 \pm 0.33 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04127 \pm 0.00044 \quad (+0.0\sigma)$	z_{re}	$7.81^{+0.55}_{-0.91} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2287 \pm 17 \quad (-0.0\sigma)$
τ	$0.0562^{+0.0054}_{-0.0087} \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.026}_{-0.037} \quad (-0.1\sigma)$	$H(2.33)$	$234.7 \pm 1.0 \quad (-0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.013}_{-0.018} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.870 \pm 0.013 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5752 \pm 15 \quad (+0.0\sigma)$
n_{s}	$0.9716 \pm 0.0051 \quad (+0.1\sigma)$	D_{40}	$1231^{+16}_{-19} \quad (+1.0\sigma)$	$f\sigma_8(0.15)$	$0.444 \pm 0.010 \quad (-0.0\sigma)$
r	< 0.0556	D_{220}	$5729 \pm 41 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7425 \pm 0.0072 \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4649 \pm 0.0084 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 6 \quad (-0.0\sigma)$	D_{1420}	$817.3 \pm 5.1 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6596^{+0.0055}_{-0.0062} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$230.7 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4650 \pm 0.0074 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.3 \pm 2.0 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9716 \pm 0.0051 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6178^{+0.0049}_{-0.0057} \quad (-0.1\sigma)$
A_{100}^{PS}	$260 \pm 28 \quad (-0.1\sigma)$	Y_{P}	$0.245392 \pm 0.000084 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4611 \pm 0.0066 \quad (-0.1\sigma)$
A_{143}^{PS}	$47 \pm 8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246718 \pm 0.000084 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5882^{+0.0045}_{-0.0054} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.586 \pm 0.039 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0021}_{-0.0027} \quad (-0.1\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.774 \pm 0.033 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3069^{+0.0020}_{-0.0028} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.61 \quad (-0.0\sigma)$	z_*	$1089.67 \pm 0.35 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0516
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.1\sigma)$	r_*	$145.19 \pm 0.40 \quad (+0.0\sigma)$	$r_{0.01}$	< 0.0537
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04145 \pm 0.00043 \quad (+0.0\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.53^{+1.3}_{-0.65}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.4 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.941^{+0.042}_{-0.038} \quad (+0.0\sigma)$	r_{10}	< 0.0263
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.2 \quad (+0.1\sigma)$	z_{drag}	$1059.73 \pm 0.45 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.116
c_{100}	$0.99959 \pm 0.00059 \quad (-0.1\sigma)$	r_{drag}	$147.87 \pm 0.42 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.104
c_{217}	$0.99829 \pm 0.00064 \quad (+0.0\sigma)$	k_{D}	$0.14005 \pm 0.00048 \quad (-0.0\sigma)$	f_{2000}^{143}	$30.1 \pm 2.8 \quad (-0.0\sigma)$
H_0	$68.51 \pm 0.77 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091 \pm 0.00025 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.6^{+1.8}_{-2.0} \quad (-0.0\sigma)$
Ω_{Λ}	$0.701^{+0.010}_{-0.0091} \quad (+0.0\sigma)$	z_{eq}	$3333 \pm 39 \quad (-0.0\sigma)$	f_{2000}^{217}	$107.4 \pm 1.9 \quad (-0.0\sigma)$
Ω_{m}	$0.2988^{+0.0091}_{-0.010} \quad (-0.0\sigma)$	k_{eq}	$0.01017 \pm 0.00012 \quad (-0.0\sigma)$	χ_{small}^2	$397.3 \pm 2.1 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1401 \pm 0.0016 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8262 \pm 0.0075 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.6 \pm 1.6 \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09598 \pm 0.00046 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4561 \pm 0.0038 \quad (+0.0\sigma)$	χ_{plik}^2	$774.9 \pm 6.1 \quad (-0.1\sigma)$
σ_8	$0.8021 \pm 0.0085 \quad (-0.1\sigma)$	$H(0.15)$	$73.65 \pm 0.66 \quad (+0.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$9.1 \pm 2.8 \quad (-0.0\sigma)$
S_8	$0.800 \pm 0.020 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$633.8 \pm 6.4 \quad (-0.0\sigma)$	χ_{prior}^2	$7.4 \pm 3.6 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.438 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$83.52 \pm 0.49 \quad (-0.0\sigma)$	χ_{CMB}^2	$1195.9 \pm 6.2 \quad (+0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.593 \pm 0.010 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1515 \pm 13 \quad (-0.0\sigma)$		
$\sigma_8/h^{0.5}$	$0.969 \pm 0.014 \quad (-0.1\sigma)$	$H(0.51)$	$90.10 \pm 0.40 \quad (-0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1212.36; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.55; R - 1 = 0.06373$$

17.7 base_r_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022376	0.02236 ± 0.00015 (+0.0 σ)	σ_8	0.8119	0.8112 ± 0.0074 (−0.1 σ)	$D_M(0.15)$	643.6	643.6 ± 5.2 (−0.1 σ)
$\Omega_c h^2$	0.12007	0.1200 ± 0.0014 (−0.1 σ)	S_8	0.8328	0.832 ± 0.016 (−0.1 σ)	$H(0.38)$	82.852	82.85 ± 0.37 (+0.1 σ)
$100\theta_{MC}$	1.040902	1.04091 ± 0.00031 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4562	0.4557 ± 0.0088 (−0.1 σ)	$D_M(0.38)$	1533.9	1534 ± 10 (−0.1 σ)
τ	0.0543	$0.0539^{+0.0069}_{-0.0078}$ (−0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6086	0.6080 ± 0.0083 (−0.1 σ)	$H(0.51)$	89.616	89.61 ± 0.29 (+0.1 σ)
$\ln(10^{10} A_s)$	3.0449	3.043 ± 0.016 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9895	0.989 ± 0.012 (−0.1 σ)	$D_M(0.51)$	1986.4	1986 ± 12 (−0.1 σ)
n_s	0.96606	0.9657 ± 0.0044 (+0.2 σ)	$r_{drag} h$	99.02	99.0 ± 1.1 (+0.1 σ)	$H(0.61)$	95.271	95.27 ± 0.24 (+0.1 σ)
r	0.0001	< 0.0522	$\langle d^2 \rangle^{1/2}$	2.4447	2.443 ± 0.028 (−0.2 σ)	$D_M(0.61)$	2310.9	2311 ± 13 (−0.1 σ)
y_{cal}	1.00059	1.0007 ± 0.0024 (+0.1 σ)	z_{re}	7.68	7.62 ± 0.77 (−0.1 σ)	$H(2.33)$	236.61	236.57 ± 0.82 (−0.1 σ)
A_{217}^{CIB}	46.5	47 ± 7 (+0.0 σ)	$10^9 A_s$	2.1008	2.098 ± 0.033 (−0.1 σ)	$D_M(2.33)$	5763.7	5764 ± 11 (−0.0 σ)
$\xi^{tSZ \times CIB}$	0.55	—	$10^9 A_s e^{-2\tau}$	1.8845	1.883 ± 0.012 (−0.0 σ)	$f\sigma_8(0.15)$	0.4604	0.4599 ± 0.0082 (−0.1 σ)
A_{143}^{tSZ}	7.14	$5.5^{+2.2}_{-1.9}$ (+0.0 σ)	D_{40}	1229.2	1244^{+14}_{-18} (+1.0 σ)	$\sigma_8(0.15)$	0.7499	0.7492 ± 0.0065 (−0.1 σ)
A_{100}^{PS}	248.2	258 ± 28 (−0.0 σ)	D_{220}	5731.2	5730 ± 38 (−0.0 σ)	$f\sigma_8(0.38)$	0.4779	0.4773 ± 0.0067 (−0.1 σ)
A_{143}^{PS}	49.3	46 ± 8 (−0.0 σ)	D_{810}	2541.7	2540 ± 13 (+0.1 σ)	$\sigma_8(0.38)$	0.6643	0.6636 ± 0.0055 (−0.1 σ)
$A_{143 \times 217}^{PS}$	50.7	42 ± 9 (+0.0 σ)	D_{1420}	818.53	817.8 ± 4.7 (+0.1 σ)	$f\sigma_8(0.51)$	0.4760	0.4755 ± 0.0059 (−0.1 σ)
A_{217}^{PS}	121.1	115 ± 10 (+0.0 σ)	D_{2000}	231.34	231.1 ± 1.5 (+0.1 σ)	$\sigma_8(0.51)$	0.62145	0.6209 ± 0.0051 (−0.1 σ)
A^{kSZ}	0.00	< 4.16 (−0.0 σ)	$n_{s,0.002}$	0.96606	0.9657 ± 0.0044 (+0.2 σ)	$f\sigma_8(0.61)$	0.4707	0.4701 ± 0.0054 (−0.1 σ)
A_{100}^{dustTT}	8.86	8.9 ± 1.8 (−0.0 σ)	Y_P	0.245398	$0.245390^{+0.000062}_{-0.000053}$ (+0.0 σ)	$\sigma_8(0.61)$	0.59121	0.5907 ± 0.0048 (−0.1 σ)
A_{143}^{dustTT}	10.99	10.9 ± 1.8 (+0.0 σ)	Y_P^{BBN}	0.246725	$0.246716^{+0.000062}_{-0.000053}$ (+0.0 σ)	$f\sigma_8(2.33)$	0.29793	0.2977 ± 0.0024 (−0.1 σ)
$A_{143 \times 217}^{dustTT}$	20.00	18.6 ± 3.3 (−0.0 σ)	$10^5 D/H$	2.5843	2.588 ± 0.027 (−0.0 σ)	$\sigma_8(2.33)$	0.30697	0.3067 ± 0.0025 (−0.0 σ)
A_{217}^{dustTT}	95.3	93.7 ± 7.4 (−0.0 σ)	Age/Gyr	13.7975	13.799 ± 0.024 (−0.0 σ)	$r_{0.002}$	0.0001	< 0.0477
A_{100}^{dustTE}	0.1152	0.115 ± 0.038 (+0.0 σ)	z_*	1089.918	1089.93 ± 0.27 (−0.1 σ)	$r_{0.01}$	0.0001	< 0.0499
$A_{100 \times 143}^{dustTE}$	0.1352	0.135 ± 0.030 (+0.0 σ)	r_*	144.409	144.43 ± 0.30 (+0.1 σ)	$\ln(10^{10} A_t)$	−6.12	$-0.58^{+1.3}_{-0.58}$
$A_{100 \times 217}^{dustTE}$	0.484	0.482 ± 0.084 (+0.0 σ)	$100\theta_*$	1.041090	1.04109 ± 0.00030 (+0.0 σ)	r_{10}	0.0000	< 0.0245
A_{143}^{dustTE}	0.225	0.226 ± 0.054 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8710	13.873 ± 0.028 (+0.1 σ)	$10^9 A_t$	0.000	< 0.110
$A_{143 \times 217}^{dustTE}$	0.667	0.666 ± 0.079 (−0.0 σ)	z_{drag}	1059.971	1059.92 ± 0.30 (−0.0 σ)	$10^9 A_t e^{-2\tau}$	0.0002	< 0.0981
A_{217}^{dustTE}	2.089	2.08 ± 0.27 (−0.0 σ)	r_{drag}	147.065	147.10 ± 0.30 (+0.1 σ)	f_{2000}^{143}	28.71	29.3 ± 2.7 (−0.1 σ)
c_{100}	0.99974	0.99965 ± 0.00061 (−0.0 σ)	k_D	0.140898	0.14086 ± 0.00032 (−0.1 σ)	$f_{2000}^{143 \times 217}$	31.98	32.1 ± 1.8 (−0.1 σ)
c_{217}	0.99817	0.99820 ± 0.00062 (+0.0 σ)	$100\theta_D$	0.160745	0.16077 ± 0.00017 (+0.0 σ)	f_{2000}^{217}	106.60	106.9 ± 1.8 (−0.0 σ)
H_0	67.33	67.34 ± 0.61 (+0.1 σ)	z_{eq}	3404.0	3403 ± 31 (−0.1 σ)	χ_{small}^2	396.05	397.2 ± 1.8 (+0.0 σ)
Ω_Λ	0.6844	0.6844 ± 0.0084 (+0.1 σ)	k_{eq}	0.010389	0.010385 ± 0.000094 (−0.1 σ)	χ_{lowl}^2	23.24	24.8 ± 1.6 (+1.3 σ)
Ω_m	0.3156	0.3156 ± 0.0084 (−0.1 σ)	$100\theta_{eq}$	0.8130	0.8132 ± 0.0058 (+0.1 σ)	χ_{plik}^2	2344.9	2359.6 ± 5.8 (+0.0 σ)
$\Omega_m h^2$	0.14309	0.1430 ± 0.0013 (−0.1 σ)	$100\theta_{s,eq}$	0.44922	0.4494 ± 0.0030 (+0.1 σ)	χ_{prior}^2	1.62	11.6 ± 4.5 (−0.0 σ)
$\Omega_m h^3$	0.096344	0.09631 ± 0.00029 (−0.1 σ)	$H(0.15)$	72.66	72.66 ± 0.52 (+0.1 σ)	χ_{CMB}^2	2764.1	2781.6 ± 6.0 (+0.3 σ)

Best-fit $\chi_{eff}^2 = 2765.76$; $\Delta\chi_{eff}^2 = -0.01$; $\bar{\chi}_{eff}^2 = 2793.18$; $\Delta\bar{\chi}_{eff}^2 = 1.41$; $R - 1 = 0.00988$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2.29: 23.24 (Δ -0.01) plik_rd12_HM_v22b_TTTEEE: 2344.85 (Δ 0.20)

17.8 base_r_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022440	0.02241 ± 0.00013 (-0.0σ)	$\sigma_8 \Omega_m^{0.5}$	0.4518	0.4509 ± 0.0068 (-0.1σ)	$D_M(0.51)$	1979.1	1979.3 ± 8.9 (-0.1σ)
$\Omega_c h^2$	0.11926	0.1192 ± 0.0010 (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6051	0.6040 ± 0.0069 (-0.1σ)	$H(0.61)$	95.406	95.39 ± 0.19 $(+0.0\sigma)$
$100\theta_{MC}$	1.040993	1.04100 ± 0.00029 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9852	0.983 ± 0.010 (-0.1σ)	$D_M(0.61)$	2303.0	2303.3 ± 9.6 (-0.1σ)
τ	0.0565	$0.0550^{+0.0070}_{-0.0078}$ (-0.1σ)	$r_{drag}h$	99.66	99.68 ± 0.77 $(+0.1\sigma)$	$H(2.33)$	236.15	236.10 ± 0.61 (-0.1σ)
$\ln(10^{10} A_s)$	3.0472	3.044 ± 0.016 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4350	2.431 ± 0.024 (-0.2σ)	$D_M(2.33)$	5757.9	5758.8 ± 8.8 $(+0.0\sigma)$
n_s	0.96802	0.9677 ± 0.0038 $(+0.2\sigma)$	z_{re}	7.88	7.72 ± 0.77 (-0.1σ)	$f\sigma_8(0.15)$	0.4564	0.4555 ± 0.0064 (-0.1σ)
r	0.0001	< 0.0561	$10^9 A_s$	2.1057	$2.099^{+0.031}_{-0.034}$ (-0.1σ)	$\sigma_8(0.15)$	0.7491	0.7478 ± 0.0063 (-0.1σ)
y_{cal}	1.00048	1.0008 ± 0.0024 $(+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	1.8806	1.880 ± 0.011 (-0.0σ)	$f\sigma_8(0.38)$	0.4750	0.4741 ± 0.0055 (-0.1σ)
A_{217}^{CIB}	46.1	47 ± 7 $(+0.0\sigma)$	D_{40}	1225.2	1241^{+13}_{-17} $(+1.2\sigma)$	$\sigma_8(0.38)$	0.6642	0.6630 ± 0.0055 (-0.1σ)
$\xi^{tSZ \times CIB}$	0.63	—	D_{220}	5733.7	5733 ± 37 (-0.1σ)	$f\sigma_8(0.51)$	0.4737	0.4728 ± 0.0051 (-0.1σ)
A_{143}^{tSZ}	7.12	$5.5^{+2.2}_{-1.9}$ (-0.0σ)	D_{810}	2540.4	2540 ± 13 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6216	0.6205 ± 0.0051 (-0.1σ)
A_{100}^{PS}	248.7	258 ± 28 (-0.0σ)	D_{1420}	818.81	818.3 ± 4.5 $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.46878	0.4679 ± 0.0047 (-0.1σ)
A_{143}^{PS}	49.9	45 ± 8 (-0.0σ)	D_{2000}	231.53	231.3 ± 1.5 $(+0.1\sigma)$	$\sigma_8(0.61)$	0.59147	0.5904 ± 0.0048 (-0.1σ)
$A_{143 \times 217}^{PS}$	52.3	42 ± 9 $(+0.0\sigma)$	$n_{s,0.002}$	0.96802	0.9677 ± 0.0038 $(+0.2\sigma)$	$f\sigma_8(2.33)$	0.29826	0.2977 ± 0.0024 (-0.1σ)
A_{217}^{PS}	121.3	115 ± 10 $(+0.0\sigma)$	Y_P	0.245422	$0.245411^{+0.000053}_{-0.000047}$ (-0.0σ)	$\sigma_8(2.33)$	0.30753	0.3070 ± 0.0025 (-0.1σ)
A^{kSZ}	0.01	< 4.11 (-0.0σ)	Y_P^{BBN}	0.246749	$0.246738^{+0.000053}_{-0.000048}$ (-0.0σ)	$r_{0.002}$	0.0001	< 0.0515
A_{100}^{dustTT}	8.83	8.9 ± 1.9 $(+0.0\sigma)$	$10^5 D/H$	2.5726	2.578 ± 0.024 $(+0.0\sigma)$	$r_{0.01}$	0.0001	< 0.0537
A_{143}^{dustTT}	11.02	10.9 ± 1.8 $(+0.0\sigma)$	Age/Gyr	13.7850	13.787 ± 0.020 $(+0.0\sigma)$	$\ln(10^{10} A_t)$	-6.22	$-0.52^{+1.3}_{-0.57}$
$A_{143 \times 217}^{dustTT}$	20.11	18.6 ± 3.4 $(+0.0\sigma)$	z_*	1089.767	1089.80 ± 0.22 (-0.0σ)	r_{10}	0.0000	< 0.0264
A_{217}^{dustTT}	95.4	93.8 ± 7.4 $(+0.0\sigma)$	r_*	144.570	144.60 ± 0.24 $(+0.1\sigma)$	$10^9 A_t$	0.000	< 0.117
A_{100}^{dustTE}	0.1147	0.115 ± 0.038 $(+0.1\sigma)$	$100\theta_*$	1.041176	1.04118 ± 0.00029 (-0.0σ)	$10^9 A_t e^{-2\tau}$	0.000	< 0.105
$A_{100 \times 143}^{dustTE}$	0.1346	0.136 ± 0.030 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8852	13.888 ± 0.023 $(+0.1\sigma)$	f_{2000}^{143}	28.46	29.1 ± 2.7 (-0.1σ)
$A_{100 \times 217}^{dustTE}$	0.480	0.482 ± 0.084 $(+0.0\sigma)$	z_{drag}	1060.047	1059.98 ± 0.29 (-0.1σ)	$f_{2000}^{143 \times 217}$	31.78	31.9 ± 1.8 (-0.0σ)
A_{143}^{dustTE}	0.224	0.226 ± 0.054 $(+0.0\sigma)$	r_{drag}	147.209	147.25 ± 0.24 $(+0.1\sigma)$	f_{2000}^{217}	106.28	106.8 ± 1.8 (-0.0σ)
$A_{143 \times 217}^{dustTE}$	0.662	0.665 ± 0.079 (-0.0σ)	k_D	0.140795	0.14073 ± 0.00029 (-0.1σ)	χ_{small}^2	396	1323 ± 1000 $(+419.6\sigma)$
A_{217}^{dustTE}	2.076	2.08 ± 0.26 (-0.0σ)	$100\theta_D$	0.160698	0.16074 ± 0.00017 $(+0.1\sigma)$	χ_{lowl}^2	22.92	24.5 ± 1.5 $(+1.7\sigma)$
c_{100}	0.99973	0.99966 ± 0.00061 (-0.0σ)	z_{eq}	3386.2	3385 ± 23 (-0.1σ)	χ_{plik}^2	2345	1435 ± 1000 (-158.8σ)
c_{217}	0.99818	0.99820 ± 0.00062 $(+0.0\sigma)$	k_{eq}	0.010335	0.010330 ± 0.000070 (-0.1σ)	χ_{6DF}^2	0.0289	0.052 ± 0.062 (-0.1σ)
H_0	67.698	67.70 ± 0.44 $(+0.1\sigma)$	$100\theta_{eq}$	0.81643	0.8167 ± 0.0043 $(+0.1\sigma)$	χ_{MGS}^2	1.217	1.29 ± 0.42 $(+0.1\sigma)$
Ω_Λ	0.6894	0.6895 ± 0.0060 $(+0.1\sigma)$	$100\theta_{s,eq}$	0.45097	0.4511 ± 0.0022 $(+0.1\sigma)$	$\chi_{DR12BAO}^2$	4.42	4.8 ± 1.4 (-0.1σ)
Ω_m	0.3106	0.3105 ± 0.0060 (-0.1σ)	$H(0.15)$	72.973	72.97 ± 0.38 $(+0.1\sigma)$	χ_{prior}^2	1.58	11.5 ± 4.5 (-0.0σ)
$\Omega_m h^2$	0.14234	0.14228 ± 0.00095 (-0.1σ)	$D_M(0.15)$	640.45	640.5 ± 3.8 (-0.1σ)	χ_{BAO}^2	5.67	6.1 ± 1.1 (-0.1σ)
$\Omega_m h^3$	0.096364	0.09631 ± 0.00029 (-0.1σ)	$H(0.38)$	83.077	83.07 ± 0.28 $(+0.0\sigma)$	χ_{CMB}^2	2764.7	2781.6 ± 5.9 $(+0.3\sigma)$
σ_8	0.8106	0.8091 ± 0.0071 (-0.1σ)	$D_M(0.38)$	1527.7	1527.8 ± 7.6 (-0.1σ)			
S_8	0.8248	0.823 ± 0.012 (-0.1σ)	$H(0.51)$	89.790	89.78 ± 0.22 $(+0.0\sigma)$			

Best-fit $\chi_{eff}^2 = 2771.96$; $\Delta\chi_{eff}^2 = 0.05$; $\bar{\chi}_{eff}^2 = 2799.17$; $\Delta\bar{\chi}_{eff}^2 = 1.27$; $R - 1 = 0.01744$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.42 (Δ 0.00) CMB - small_100x143.offlike5_EE_Aplanck_B: 396.48 (Δ 0.28) commander_dx12_v3_2_29: 22.92 (Δ 0.05) plik_rd12_HM_v22b_TTTEEE: 2345.31 (Δ -0.19)

17.9 base_r_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022506	0.02248 ± 0.00014 (-0.0σ)	σ_8	0.8085	0.8072 ± 0.0076 (-0.2σ)	$D_M(0.15)$	637.68	637.5 ± 4.8 (-0.1σ)
$\Omega_c h^2$	0.11860	0.1185 ± 0.0013 (-0.1σ)	S_8	0.8170	0.815 ± 0.015 (-0.2σ)	$H(0.38)$	83.285	83.29 ± 0.36 $(+0.1\sigma)$
$100\theta_{MC}$	1.041113	1.04110 ± 0.00030 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4475	0.4464 ± 0.0085 (-0.2σ)	$D_M(0.38)$	1522.1	1521.8 ± 9.7 (-0.1σ)
τ	0.0570	$0.0562^{+0.0071}_{-0.0081}$ (-0.1σ)	$\sigma_8 \Omega_m^{0.25}$	0.6015	0.6003 ± 0.0082 (-0.2σ)	$H(0.51)$	89.956	89.96 ± 0.28 $(+0.1\sigma)$
$\ln(10^{10} A_s)$	3.0466	3.045 ± 0.016 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9803	0.979 ± 0.012 (-0.2σ)	$D_M(0.51)$	1972.5	1972 ± 11 (-0.1σ)
n_s	0.96988	0.9695 ± 0.0042 $(+0.2\sigma)$	$r_{drag} h$	100.21	100.3 ± 1.0 $(+0.1\sigma)$	$H(0.61)$	95.540	$95.53^{+0.21}_{-0.24}$ $(+0.1\sigma)$
r	0.0005	< 0.0578	$\langle d^2 \rangle^{1/2}$	2.4233	2.420 ± 0.028 (-0.2σ)	$D_M(0.61)$	2295.9	2296 ± 12 (-0.1σ)
y_{cal}	1.00048	1.0008 ± 0.0024 $(+0.1\sigma)$	z_{re}	7.90	7.80 ± 0.77 (-0.1σ)	$H(2.33)$	235.79	235.68 ± 0.78 (-0.1σ)
A_{217}^{CIB}	46.1	46 ± 7 (-0.0σ)	$10^9 A_s$	2.1044	2.100 ± 0.034 (-0.1σ)	$D_M(2.33)$	5752.1	5753 ± 10 (-0.0σ)
$\xi^{tSZ \times CIB}$	0.59	—	$10^9 A_s e^{-2\tau}$	1.8777	1.877 ± 0.011 (-0.0σ)	$f\sigma_8(0.15)$	0.4525	0.4514 ± 0.0080 (-0.2σ)
A_{143}^{tSZ}	7.16	$5.6^{+2.2}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1221.4	1238^{+14}_{-18} $(+1.2\sigma)$	$\sigma_8(0.15)$	0.7476	0.7464 ± 0.0067 (-0.2σ)
A_{100}^{PS}	246.8	257 ± 27 $(+0.0\sigma)$	D_{220}	5736.8	5738 ± 38 (-0.1σ)	$f\sigma_8(0.38)$	0.4719	0.4709 ± 0.0067 (-0.2σ)
A_{143}^{PS}	48.3	45 ± 8 $(+0.0\sigma)$	D_{810}	2540.3	2539 ± 13 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6633	0.6623 ± 0.0057 (-0.1σ)
$A_{143 \times 217}^{PS}$	50.5	42 ± 9 $(+0.0\sigma)$	D_{1420}	819.51	818.9 ± 4.6 $(+0.1\sigma)$	$f\sigma_8(0.51)$	0.4711	0.4702 ± 0.0060 (-0.2σ)
A_{217}^{PS}	120.6	115.1 ± 9.9 $(+0.0\sigma)$	D_{2000}	231.83	231.6 ± 1.5 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6210	0.6200 ± 0.0052 (-0.1σ)
A^{kSZ}	0.00	< 4.00 (-0.0σ)	$n_{s,0.002}$	0.96988	0.9695 ± 0.0042 $(+0.2\sigma)$	$f\sigma_8(0.61)$	0.4666	0.4657 ± 0.0055 (-0.2σ)
A_{100}^{dustTT}	8.87	8.8 ± 1.9 (-0.0σ)	Y_P	0.245447	0.245437 ± 0.000054 (-0.0σ)	$\sigma_8(0.61)$	0.59100	0.5901 ± 0.0049 (-0.1σ)
A_{143}^{dustTT}	10.99	10.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246773	0.246764 ± 0.000054 (-0.0σ)	$f\sigma_8(2.33)$	0.29819	0.2978 ± 0.0025 (-0.1σ)
$A_{143 \times 217}^{dustTT}$	19.97	18.6 ± 3.3 $(+0.0\sigma)$	$10^5 D/H$	2.5609	2.565 ± 0.026 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.30765	0.3073 ± 0.0026 (-0.1σ)
A_{217}^{dustTT}	95.3	93.8 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.7721	13.774 ± 0.023 (-0.0σ)	$r_{0.002}$	0.0005	< 0.0539
A_{100}^{dustTE}	0.1123	0.115 ± 0.038 $(+0.1\sigma)$	z_*	1089.628	1089.64 ± 0.26 (-0.0σ)	$r_{0.01}$	0.0005	< 0.0557
$A_{100 \times 143}^{dustTE}$	0.1344	0.135 ± 0.030 $(+0.0\sigma)$	r_*	144.691	144.74 ± 0.29 $(+0.1\sigma)$	$\ln(10^{10} A_t)$	-4.52	$-0.48^{+1.3}_{-0.55}$
$A_{100 \times 217}^{dustTE}$	0.479	0.481 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041283	1.04127 ± 0.00030 $(+0.0\sigma)$	r_{10}	0.0002	< 0.0275
A_{143}^{dustTE}	0.224	0.224 ± 0.054 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8955	13.900 ± 0.028 $(+0.1\sigma)$	$10^9 A_t$	0.001	< 0.122
$A_{143 \times 217}^{dustTE}$	0.663	0.662 ± 0.079 (-0.0σ)	z_{drag}	1060.162	1060.09 ± 0.29 (-0.1σ)	$10^9 A_t e^{-2\tau}$	0.001	< 0.109
A_{217}^{dustTE}	2.064	2.06 ± 0.27 (-0.0σ)	r_{drag}	147.311	147.37 ± 0.29 $(+0.1\sigma)$	χ_{simall}^2	396	1327 ± 1000 $(+367.0\sigma)$
c_{100}	0.99971	0.99966 ± 0.00061 $(+0.0\sigma)$	k_D	0.140736	0.14066 ± 0.00032 (-0.2σ)	χ_{lowl}^2	22.59	24.2 ± 1.6 $(+1.6\sigma)$
c_{217}	0.99819	0.99818 ± 0.00061 $(+0.0\sigma)$	$100\theta_D$	0.160647	0.16068 ± 0.00017 $(+0.0\sigma)$	χ_{plik}^2	2346	1431 ± 1000 (-142.2σ)
H_0	68.02	68.05 ± 0.58 $(+0.1\sigma)$	z_{eq}	3371.9	3368 ± 29 (-0.1σ)	$\chi_{H073p45}^2$	10.68	10.7 ± 2.3 (-0.1σ)
Ω_Λ	0.6937	0.6941 ± 0.0077 $(+0.1\sigma)$	k_{eq}	0.010291	0.010281 ± 0.000090 (-0.1σ)	χ_{prior}^2	1.71	11.5 ± 4.5 (-0.0σ)
Ω_m	0.3063	0.3059 ± 0.0077 (-0.1σ)	$100\theta_{eq}$	0.8193	0.8199 ± 0.0056 $(+0.1\sigma)$	χ_{CMB}^2	2765.6	2782.9 ± 6.3 $(+0.2\sigma)$
$\Omega_m h^2$	0.14175	0.1416 ± 0.0012 (-0.1σ)	$100\theta_{s,eq}$	0.45241	0.4527 ± 0.0029 $(+0.1\sigma)$			
$\Omega_m h^3$	0.096423	0.09635 ± 0.00029 (-0.1σ)	$H(0.15)$	73.255	73.27 ± 0.49 $(+0.1\sigma)$			

Best-fit $\chi_{eff}^2 = 2777.94$; $\Delta\chi_{eff}^2 = 0.01$; $\bar{\chi}_{eff}^2 = 2805.11$; $\Delta\bar{\chi}_{eff}^2 = 0.94$; $R - 1 = 0.02628$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.48 (Δ 0.01) commander_dx12_v3_2_29: 22.59 (Δ 0.05) plik_rd12_HM_v22b_TTTEEE: 2346.48 (Δ -0.28) Hubble - H073p45: 10.68 (Δ 0.10)

17.10 base_r_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02236 \pm 0.00015 \quad (+0.0\sigma)$	σ_8	$0.8119 \pm 0.0070 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.4 \pm 5.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0014 \quad (-0.1\sigma)$	S_8	$0.832 \pm 0.016 \quad (-0.1\sigma)$	$H(0.38)$	$82.86 \pm 0.37 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00031 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4559 \pm 0.0088 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534 \pm 10 \quad (-0.1\sigma)$
τ	$0.0550^{+0.0049}_{-0.0082} \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6084 \pm 0.0081 \quad (-0.1\sigma)$	$H(0.51)$	$89.62 \pm 0.29 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.989 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986 \pm 12 \quad (-0.1\sigma)$
n_{s}	$0.9659 \pm 0.0044 \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.1 \pm 1.1 \quad (+0.1\sigma)$	$H(0.61)$	$95.27 \pm 0.24 \quad (+0.1\sigma)$
r	< 0.0520	$\langle d^2 \rangle^{1/2}$	$2.445 \pm 0.027 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311 \pm 13 \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.1\sigma)$	z_{re}	$7.73^{+0.54}_{-0.80} \quad (-0.1\sigma)$	$H(2.33)$	$236.55 \pm 0.82 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.024}_{-0.034} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 11 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.883 \pm 0.012 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4602 \pm 0.0082 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1244^{+14}_{-18} \quad (+1.0\sigma)$	$\sigma_8(0.15)$	$0.7499^{+0.0056}_{-0.0064} \quad (-0.1\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5730 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4777 \pm 0.0066 \quad (-0.1\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6643^{+0.0045}_{-0.0054} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$817.8 \pm 4.6 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4758 \pm 0.0058 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.1 \pm 1.5 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6215^{+0.0040}_{-0.0051} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.15 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9659 \pm 0.0044 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4705 \pm 0.0052 \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245391^{+0.000062}_{-0.000053} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5913^{+0.0037}_{-0.0048} \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246718^{+0.000062}_{-0.000053} \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0018}_{-0.0024} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.587 \pm 0.027 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0018}_{-0.0026} \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.4 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.798 \pm 0.024 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0475
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.93 \pm 0.27 \quad (-0.1\sigma)$	$r_{0.01}$	< 0.0497
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	r_*	$144.44 \pm 0.30 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.58^{+1.4}_{-0.58}$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.483 \pm 0.084 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00030 \quad (+0.0\sigma)$	r_{10}	< 0.0244
$A_{143}^{\mathrm{dustTE}}$	$0.226 \pm 0.054 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.874 \pm 0.028 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.109
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.665 \pm 0.079 \quad (-0.0\sigma)$	z_{drag}	$1059.92 \pm 0.30 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0979
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.10 \pm 0.30 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.3 \pm 2.7 \quad (-0.1\sigma)$
c_{100}	$0.99965 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14085 \pm 0.00032 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00017 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (-0.0\sigma)$
H_0	$67.35 \pm 0.60 \quad (+0.1\sigma)$	z_{eq}	$3402 \pm 31 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6846 \pm 0.0084 \quad (+0.1\sigma)$	k_{eq}	$0.010383 \pm 0.000094 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.8 \pm 1.6 \quad (+1.3\sigma)$
Ω_{m}	$0.3154 \pm 0.0084 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8134 \pm 0.0058 \quad (+0.1\sigma)$	χ_{plik}^2	$2359.4 \pm 5.8 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1430 \pm 0.0013 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4494 \pm 0.0030 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09631 \pm 0.00029 \quad (-0.1\sigma)$	$H(0.15)$	$72.68 \pm 0.52 \quad (+0.1\sigma)$	χ_{CMB}^2	$2781.4 \pm 5.9 \quad (+0.3\sigma)$
$\bar{\chi}_{\mathrm{eff}}^2 = 2792.94; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.40; R - 1 = 0.01114$					

17.11 base_r_plikHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02242 \pm 0.00013 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4512 \pm 0.0067 \quad (-0.1\sigma)$	$D_M(0.51)$	$1979.1 \pm 8.8 \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.1192 \pm 0.0010 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6044 \pm 0.0067 \quad (-0.1\sigma)$	$H(0.61)$	$95.40 \pm 0.19 \quad (+0.0\sigma)$
$100\theta_{MC}$	$1.04101 \pm 0.00029 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9842 \pm 0.0097 \quad (-0.1\sigma)$	$D_M(0.61)$	$2303.1 \pm 9.5 \quad (-0.1\sigma)$
τ	$0.0559^{+0.0054}_{-0.0080} \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$99.70 \pm 0.77 \quad (+0.1\sigma)$	$H(2.33)$	$236.09 \pm 0.61 \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433^{+0.022}_{-0.025} \quad (-0.2\sigma)$	$D_M(2.33)$	$5758.6 \pm 8.8 \quad (-0.0\sigma)$
n_s	$0.9678 \pm 0.0037 \quad (+0.2\sigma)$	z_{re}	$7.81^{+0.59}_{-0.79} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0064 \quad (-0.1\sigma)$
r	< 0.0557	$10^9 A_s$	$2.103^{+0.025}_{-0.034} \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7484^{+0.0053}_{-0.0064} \quad (-0.1\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.011 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4744 \pm 0.0054 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1241^{+13}_{-17} \quad (+1.2\sigma)$	$\sigma_8(0.38)$	$0.6635^{+0.0044}_{-0.0056} \quad (-0.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{220}	$5733 \pm 37 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4731 \pm 0.0049 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9} \quad (-0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6210^{+0.0041}_{-0.0052} \quad (-0.1\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{1420}	$818.3 \pm 4.5 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4682 \pm 0.0045 \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{2000}	$231.3 \pm 1.5 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5909^{+0.0038}_{-0.0049} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9678 \pm 0.0037 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0025} \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_{P}	$0.245412^{+0.000053}_{-0.000047} \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3073^{+0.0019}_{-0.0026} \quad (-0.1\sigma)$
A^{kSZ}	$< 4.10 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246738^{+0.000053}_{-0.000047} \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0513
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (+0.0\sigma)$	10^5D/H	$2.577 \pm 0.024 \quad (+0.0\sigma)$	$r_{0.01}$	< 0.0535
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.787 \pm 0.020 \quad (+0.0\sigma)$	$\ln(10^{10} A_t)$	$-0.53^{+1.3}_{-0.57}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.4 \quad (+0.0\sigma)$	z_*	$1089.79 \pm 0.22 \quad (-0.0\sigma)$	r_{10}	< 0.0263
A_{217}^{dustTT}	$93.8 \pm 7.4 \quad (+0.0\sigma)$	r_*	$144.60 \pm 0.24 \quad (+0.1\sigma)$	$10^9 A_t$	< 0.117
A_{100}^{dustTE}	$0.116 \pm 0.037 \quad (+0.1\sigma)$	$100\theta_*$	$1.04119 \pm 0.00029 \quad (-0.0\sigma)$	$10^9 A_t e^{-2\tau}$	< 0.105
$A_{100 \times 143}^{\text{dustTE}}$	$0.136 \pm 0.030 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.888 \pm 0.023 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.0 \pm 2.7 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.482 \pm 0.084 \quad (+0.0\sigma)$	z_{drag}	$1059.99 \pm 0.28 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 1.8 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.226 \pm 0.054 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.25 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.8 \pm 1.7 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.665 \pm 0.079 \quad (-0.0\sigma)$	k_{D}	$0.14073 \pm 0.00029 \quad (-0.1\sigma)$	χ_{small}^2	$1323 \pm 1000 \quad (+413.0\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.26 \quad (-0.0\sigma)$	$100\theta_{\text{D}}$	$0.16073 \pm 0.00017 \quad (+0.1\sigma)$	χ_{lowl}^2	$24.5 \pm 1.5 \quad (+1.7\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	z_{eq}	$3384 \pm 23 \quad (-0.1\sigma)$	χ_{plik}^2	$1434 \pm 1000 \quad (-161.6\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	k_{eq}	$0.010329 \pm 0.000070 \quad (-0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.051 \pm 0.062 \quad (-0.1\sigma)$
H_0	$67.70 \pm 0.44 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8168 \pm 0.0043 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.30 \pm 0.42 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6896 \pm 0.0060 \quad (+0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4512 \pm 0.0022 \quad (+0.1\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.4 \quad (-0.1\sigma)$
Ω_{m}	$0.3104 \pm 0.0060 \quad (-0.1\sigma)$	$H(0.15)$	$72.98 \pm 0.38 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^2$	$0.14226 \pm 0.00095 \quad (-0.1\sigma)$	$D_M(0.15)$	$640.4 \pm 3.8 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.1 \quad (-0.1\sigma)$
$\Omega_{\text{m}} h^3$	$0.09631 \pm 0.00029 \quad (-0.1\sigma)$	$H(0.38)$	$83.07 \pm 0.28 \quad (+0.1\sigma)$	χ_{CMB}^2	$2781.4 \pm 5.9 \quad (+0.3\sigma)$
σ_8	$0.8098^{+0.0060}_{-0.0071} \quad (-0.1\sigma)$	$D_M(0.38)$	$1527.6 \pm 7.5 \quad (-0.1\sigma)$		
S_8	$0.824 \pm 0.012 \quad (-0.1\sigma)$	$H(0.51)$	$89.78 \pm 0.22 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2798.95; \Delta\bar{\chi}_{\text{eff}}^2 = 1.23; R - 1 = 0.02065$$

17.12 base_r_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02249 \pm 0.00014 \quad (-0.0\sigma)$	S_8	$0.815 \pm 0.015 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521.6 \pm 9.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1185 \pm 0.0013 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4466 \pm 0.0084 \quad (-0.2\sigma)$	$H(0.51)$	$89.96 \pm 0.28 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04110 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6006 \pm 0.0081 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1972 \pm 11 \quad (-0.1\sigma)$
τ	$0.0569^{+0.0058}_{-0.0082} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.979 \pm 0.011 \quad (-0.2\sigma)$	$H(0.61)$	$95.54^{+0.21}_{-0.24} \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.016} \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$100.3 \pm 1.0 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2295 \pm 12 \quad (-0.1\sigma)$
n_{s}	$0.9696 \pm 0.0042 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.027 \quad (-0.2\sigma)$	$H(2.33)$	$235.67 \pm 0.78 \quad (-0.1\sigma)$
r	< 0.0577	z_{re}	$7.87^{+0.61}_{-0.82} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5753 \pm 10 \quad (-0.0\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.028}_{-0.035} \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4516 \pm 0.0079 \quad (-0.2\sigma)$
A_{217}^{CIB}	$46 \pm 6 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7469 \pm 0.0064 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1238^{+14}_{-18} \quad (+1.2\sigma)$	$f\sigma_8(0.38)$	$0.4712 \pm 0.0066 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$5.6^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{220}	$5738 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0050}_{-0.0056} \quad (-0.2\sigma)$
A_{100}^{PS}	$257 \pm 27 \quad (+0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4705 \pm 0.0059 \quad (-0.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$818.9 \pm 4.6 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6205^{+0.0045}_{-0.0052} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.6 \pm 1.5 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4660 \pm 0.0053 \quad (-0.2\sigma)$
A_{217}^{PS}	$115.1 \pm 9.9 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9696 \pm 0.0042 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5905^{+0.0042}_{-0.0050} \quad (-0.1\sigma)$
A^{kSZ}	$< 3.99 \quad (-0.0\sigma)$	Y_{P}	$0.245438 \pm 0.000053 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0020}_{-0.0026} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.8 \pm 1.9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246765 \pm 0.000054 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3075^{+0.0021}_{-0.0027} \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.7 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.565 \pm 0.026 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0538
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.774 \pm 0.023 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0557
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.64 \pm 0.25 \quad (-0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.48^{+1.4}_{-0.56}$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.037 \quad (+0.0\sigma)$	r_*	$144.75 \pm 0.29 \quad (+0.1\sigma)$	r_{10}	< 0.0275
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00030 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.122
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.084 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.028 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.109
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.053 \quad (+0.0\sigma)$	z_{drag}	$1060.09 \pm 0.29 \quad (-0.1\sigma)$	f_{2000}^{143}	$28.7 \pm 2.6 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.662 \pm 0.079 \quad (-0.0\sigma)$	r_{drag}	$147.37 \pm 0.29 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 1.8 \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.06 \pm 0.27 \quad (-0.0\sigma)$	k_{D}	$0.14065 \pm 0.00032 \quad (-0.2\sigma)$	f_{2000}^{217}	$106.5 \pm 1.7 \quad (-0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16068 \pm 0.00017 \quad (+0.0\sigma)$	χ_{small}^2	$1329 \pm 1000 \quad (+362.5\sigma)$
c_{217}	$0.99818 \pm 0.00061 \quad (+0.0\sigma)$	z_{eq}	$3368 \pm 29 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.2 \pm 1.6 \quad (+1.6\sigma)$
H_0	$68.06 \pm 0.57 \quad (+0.1\sigma)$	k_{eq}	$0.010279 \pm 0.000089 \quad (-0.1\sigma)$	χ_{plik}^2	$1430 \pm 1000 \quad (-144.8\sigma)$
Ω_{Λ}	$0.6942 \pm 0.0077 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8200 \pm 0.0056 \quad (+0.1\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$10.7 \pm 2.2 \quad (-0.1\sigma)$
Ω_{m}	$0.3058 \pm 0.0077 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4528 \pm 0.0029 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1416 \pm 0.0012 \quad (-0.1\sigma)$	$H(0.15)$	$73.28 \pm 0.49 \quad (+0.1\sigma)$	χ_{CMB}^2	$2782.7 \pm 6.2 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09635 \pm 0.00029 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.4 \pm 4.8 \quad (-0.1\sigma)$		
σ_8	$0.8077 \pm 0.0073 \quad (-0.2\sigma)$	$H(0.38)$	$83.30 \pm 0.36 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2804.92$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.03$; $R - 1 = 0.02655$

17.13 base_r_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022148	0.02214 ± 0.00022 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9893	0.989 ± 0.016 (−0.2 σ)	$H(0.51)$	89.435	89.43 ± 0.46 (+0.1 σ)
$\Omega_c h^2$	0.12010	0.1201 ± 0.0021 (−0.2 σ)	$r_{\text{drag}} h$	98.89	98.9 ± 1.7 (+0.2 σ)	$D_M(0.51)$	1991.4	1992 ± 19 (−0.1 σ)
$100\theta_{\text{MC}}$	1.040896	1.04087 ± 0.00048 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4429	2.440 ± 0.039 (−0.2 σ)	$H(0.61)$	95.094	95.09 ± 0.37 (+0.1 σ)
τ	0.0527	0.0520 ± 0.0080 (−0.0 σ)	z_{re}	7.56	7.47 ± 0.82 (−0.0 σ)	$D_M(0.61)$	2316.5	2317 ± 20 (−0.1 σ)
$\ln(10^{10} A_s)$	3.0397	3.038 ± 0.016 (−0.1 σ)	$10^9 A_s$	2.0899	2.086 ± 0.034 (−0.1 σ)	$H(2.33)$	236.40	236.4 ± 1.3 (−0.2 σ)
n_s	0.9648	0.9652 ± 0.0059 (+0.2 σ)	$10^9 A_s e^{-2\tau}$	1.8810	1.880 ± 0.014 (−0.2 σ)	$D_M(2.33)$	5773.7	5774 ± 17 (−0.1 σ)
r	0.0000	< 0.0497	D_{40}	1227.6	1240^{+17}_{-19} (+0.7 σ)	$f\sigma_8(0.15)$	0.4606	0.460 ± 0.012 (−0.2 σ)
y_{cal}	1.00069	1.0005 ± 0.0025 (−0.0 σ)	D_{220}	5706.3	5700 ± 42 (−0.1 σ)	$\sigma_8(0.15)$	0.7484	0.7476 ± 0.0076 (−0.1 σ)
A_{100}^{PS}	239.9	242 ± 25 (−0.0 σ)	D_{810}	2535.5	2534 ± 14 (−0.0 σ)	$f\sigma_8(0.38)$	0.4776	0.4773 ± 0.0098 (−0.2 σ)
A_{143}^{PS}	44.7	41 ± 8 (−0.0 σ)	D_{1420}	815.0	814.5 ± 5.2 (+0.0 σ)	$\sigma_8(0.38)$	0.6628	0.6621 ± 0.0060 (−0.1 σ)
A_{217}^{PS}	101.0	102 ± 10 (+0.0 σ)	D_{2000}	229.80	229.7 ± 1.8 (+0.0 σ)	$f\sigma_8(0.51)$	0.4756	0.4751 ± 0.0084 (−0.2 σ)
A_{217}^{CIB}	43.6	41 ± 7 (−0.0 σ)	$n_{s,0.002}$	0.9648	0.9652 ± 0.0059 (+0.2 σ)	$\sigma_8(0.51)$	0.6200	0.6193 ± 0.0055 (−0.1 σ)
A_{143}^{tSZ}	5.20	$3.8^{+1.8}_{-2.6}$ (+0.0 σ)	Y_P	0.245304	$0.24530^{+0.00010}_{-0.000088}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.4702	0.4697 ± 0.0074 (−0.2 σ)
$r_{143 \times 217}^{\text{PS}}$	0.633	0.65 ± 0.13 (+0.0 σ)	Y_P^{BBN}	0.246630	$0.24662^{+0.00010}_{-0.000088}$ (+0.0 σ)	$\sigma_8(0.61)$	0.5898	0.5891 ± 0.0051 (−0.1 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.787	$0.58^{+0.41}_{-0.14}$ (−0.0 σ)	10^5D/H	2.6280	2.629 ± 0.042 (−0.0 σ)	$f\sigma_8(2.33)$	0.29717	0.2968 ± 0.0025 (−0.1 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.41	—	Age/Gyr	13.8211	13.822 ± 0.037 (−0.1 σ)	$\sigma_8(2.33)$	0.30613	0.3058 ± 0.0026 (−0.0 σ)
A^{kSZ}	2.2	—	z_*	1090.211	1090.22 ± 0.42 (−0.1 σ)	$r_{0.002}$	0.0000	< 0.0453
A_{100}^{dust}	1.011	1.01 ± 0.20 (−0.0 σ)	r_*	144.575	144.57 ± 0.49 (+0.2 σ)	$r_{0.01}$	0.0000	< 0.0475
A_{143}^{dust}	0.987	0.98 ± 0.18 (−0.0 σ)	$100\theta_*$	1.041103	1.04108 ± 0.00047 (+0.1 σ)	$\ln(10^{10} A_t)$	−7.90	$−0.67^{+1.4}_{-0.60}$
A_{217}^{dust}	0.969	0.97 ± 0.10 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8867	13.887 ± 0.045 (+0.2 σ)	r_{10}	0.0000	< 0.0233
$A_{143 \times 217}^{\text{dust}}$	0.998	1.03 ± 0.16 (−0.0 σ)	z_{drag}	1059.437	1059.41 ± 0.46 (−0.0 σ)	$10^9 A_t$	0.000	< 0.104
c_{100}	0.99756	0.9974 ± 0.0011 (−0.0 σ)	r_{drag}	147.312	147.31 ± 0.49 (+0.2 σ)	$10^9 A_t e^{-2\tau}$	0.0000	< 0.0934
c_{217}	1.00143	1.0012 ± 0.0016 (−0.0 σ)	k_D	0.14046	0.14045 ± 0.00053 (−0.2 σ)	f_{2000}^{143}	31.13	30.6 ± 3.1 (−0.1 σ)
H_0	67.13	67.11 ± 0.95 (+0.1 σ)	$100\theta_D$	0.161063	0.16107 ± 0.00027 (+0.0 σ)	f_{2000}^{217}	107.56	107.5 ± 2.0 (−0.1 σ)
Ω_Λ	0.6829	$0.682^{+0.014}_{-0.013}$ (+0.2 σ)	z_{eq}	3399.3	3400 ± 49 (−0.2 σ)	$f_{2000}^{143 \times 217}$	32.96	32.8 ± 2.2 (−0.1 σ)
Ω_m	0.3171	0.318 ± 0.013 (−0.2 σ)	k_{eq}	0.010375	0.01038 ± 0.00015 (−0.2 σ)	χ_{simall}^2	395.88	397.1 ± 1.6 (+0.1 σ)
$\Omega_m h^2$	0.14289	0.1429 ± 0.0020 (−0.2 σ)	$100\theta_{\text{eq}}$	0.8132	0.8132 ± 0.0092 (+0.2 σ)	χ_{lowl}^2	23.22	24.7 ± 1.8 (+0.9 σ)
$\Omega_m h^3$	0.095920	0.09590 ± 0.00046 (−0.1 σ)	$100\theta_{s,\text{eq}}$	0.44948	0.4495 ± 0.0047 (+0.2 σ)	χ_{CamSpec}^2	7050.5	7063.7 ± 5.5 (+0.1 σ)
σ_8	0.8105	0.8097 ± 0.0090 (−0.1 σ)	$H(0.15)$	72.46	72.45 ± 0.81 (+0.1 σ)	χ_{prior}^2	2.23	7.6 ± 3.5 (−0.0 σ)
S_8	0.8333	0.833 ± 0.025 (−0.2 σ)	$D_M(0.15)$	645.4	645.6 ± 8.2 (−0.1 σ)	χ_{CMB}^2	7469.6	7485.5 ± 5.7 (+0.3 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4564	0.456 ± 0.013 (−0.2 σ)	$H(0.38)$	82.67	82.66 ± 0.58 (+0.1 σ)			
$\sigma_8 \Omega_m^{0.25}$	0.6082	0.608 ± 0.012 (−0.2 σ)	$D_M(0.38)$	1538.0	1538 ± 16 (−0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 7471.85$; $\Delta\chi_{\text{eff}}^2 = 0.12$; $\bar{\chi}_{\text{eff}}^2 = 7493.09$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.55$; $R - 1 = 0.00732$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ 0.05) commander_dx12_v3.2.29: 23.22 (Δ -0.18) CamSpec like_10.7HM: 7050.52 (Δ 0.19)

17.14 base_r_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02222 \pm 0.00020 \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$99.92 \pm 0.94 \quad (+0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.25 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1188 \pm 0.0012 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.419 \pm 0.028 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 12 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04105 \pm 0.00042 \quad (+0.0\sigma)$	z_{re}	$7.57 \pm 0.81 \quad (-0.0\sigma)$	$H(2.33)$	$235.63 \pm 0.79 \quad (-0.1\sigma)$
τ	$0.0533 \pm 0.0079 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.085 \pm 0.034 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 12 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.037 \pm 0.016 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.874 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4529 \pm 0.0077 \quad (-0.1\sigma)$
n_{s}	$0.9682 \pm 0.0044 \quad (+0.2\sigma)$	D_{40}	$1235^{+15}_{-19} \quad (+1.0\sigma)$	$\sigma_8(0.15)$	$0.7450 \pm 0.0068 \quad (-0.1\sigma)$
r	< 0.0532	D_{220}	$5704 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4716 \pm 0.0065 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6606 \pm 0.0058 \quad (-0.1\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (-0.0\sigma)$	D_{1420}	$815.2 \pm 5.2 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4705 \pm 0.0058 \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 1.8 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6184 \pm 0.0054 \quad (-0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9682 \pm 0.0044 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4657 \pm 0.0054 \quad (-0.1\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	Y_{P}	$0.245331 \pm 0.000083 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5884 \pm 0.0051 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246657 \pm 0.000084 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2968 \pm 0.0026 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.615 \pm 0.037 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3061 \pm 0.0026 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.39}_{-0.15} \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.804 \pm 0.028 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0491
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_*	$1090.01 \pm 0.30 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0512
A^{kSZ}	$4.9 \pm 2.7 \quad (-0.0\sigma)$	r_*	$144.86 \pm 0.32 \quad (+0.1\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.60^{+1.4}_{-0.59}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00042 \quad (+0.0\sigma)$	r_{10}	< 0.0251
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912 \pm 0.031 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.111
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	z_{drag}	$1059.50 \pm 0.45 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.0996
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_{drag}	$147.58 \pm 0.35 \quad (+0.1\sigma)$	f_{2000}^{143}	$30.4 \pm 3.0 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	k_{D}	$0.14023 \pm 0.00045 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.2 \quad (-0.0\sigma)$
H_0	$67.70 \pm 0.55 \quad (+0.1\sigma)$	z_{eq}	$3370 \pm 29 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.7 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6908 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010285 \pm 0.000087 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.1 \pm 1.6 \quad (+1.4\sigma)$
Ω_{m}	$0.3092 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8189 \pm 0.0053 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.2 \pm 5.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1417 \pm 0.0012 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4524 \pm 0.0027 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.051 \pm 0.069 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09590 \pm 0.00046 \quad (-0.1\sigma)$	$H(0.15)$	$72.95 \pm 0.47 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.44 \pm 0.54 \quad (+0.1\sigma)$
σ_8	$0.8060 \pm 0.0077 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6 \pm 4.7 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.1\sigma)$
S_8	$0.818 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.01 \pm 0.35 \quad (+0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4481 \pm 0.0081 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.3 \pm 9.4 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6010 \pm 0.0080 \quad (-0.1\sigma)$	$H(0.51)$	$89.70 \pm 0.29 \quad (+0.0\sigma)$	χ_{CMB}^2	$7485.4 \pm 5.6 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.980 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 11 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7499.09$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.54$; $R - 1 = 0.01122$

17.15 base_r_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02215 \pm 0.00022 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.989 \pm 0.016 \quad (-0.2\sigma)$	$H(0.51)$	$89.45 \pm 0.46 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0021 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$98.9 \pm 1.7 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 19 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00048 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.442 \pm 0.038 \quad (-0.2\sigma)$	$H(0.61)$	$95.11^{+0.34}_{-0.38} \quad (+0.1\sigma)$
τ	$0.0537^{+0.0045}_{-0.0083} \quad (-0.0\sigma)$	z_{re}	$7.65^{+0.52}_{-0.82} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316 \pm 20 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.024}_{-0.033} \quad (-0.1\sigma)$	$H(2.33)$	$236.4 \pm 1.3 \quad (-0.2\sigma)$
n_{s}	$0.9654 \pm 0.0059 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.014 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5773 \pm 17 \quad (-0.1\sigma)$
r	< 0.0495	D_{40}	$1240^{+17}_{-19} \quad (+0.7\sigma)$	$f\sigma_8(0.15)$	$0.461 \pm 0.012 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5700 \pm 42 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7486 \pm 0.0071 \quad (-0.1\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4776 \pm 0.0097 \quad (-0.2\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$814.6 \pm 5.2 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6630^{+0.0051}_{-0.0057} \quad (-0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4756 \pm 0.0083 \quad (-0.2\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9654 \pm 0.0059 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6202^{+0.0045}_{-0.0052} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	Y_{P}	$0.24530^{+0.00010}_{-0.000088} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4702 \pm 0.0073 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24663^{+0.00010}_{-0.000088} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5900^{+0.0041}_{-0.0049} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.40}_{-0.14} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.628 \pm 0.042 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0019}_{-0.0024} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.821 \pm 0.037 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0019}_{-0.0026} \quad (-0.0\sigma)$
A^{kSZ}	$4.9^{+2.8}_{-3.5} \quad (-0.0\sigma)$	z_*	$1090.21 \pm 0.41 \quad (-0.1\sigma)$	$r_{0.002}$	< 0.0451
A_{100}^{dust}	$1.00 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.59 \pm 0.49 \quad (+0.2\sigma)$	$r_{0.01}$	< 0.0473
A_{143}^{dust}	$0.98 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00047 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.67^{+1.4}_{-0.61}$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.045 \quad (+0.2\sigma)$	r_{10}	< 0.0232
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	z_{drag}	$1059.43 \pm 0.46 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.104
c_{100}	$0.9974 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.33 \pm 0.49 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0930
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	k_{D}	$0.14045 \pm 0.00053 \quad (-0.2\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (-0.1\sigma)$
H_0	$67.15 \pm 0.94 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16106 \pm 0.00026 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (-0.1\sigma)$
Ω_{Λ}	$0.683 \pm 0.013 \quad (+0.2\sigma)$	z_{eq}	$3398 \pm 49 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.2 \quad (-0.1\sigma)$
Ω_{m}	$0.317 \pm 0.013 \quad (-0.2\sigma)$	k_{eq}	$0.01037 \pm 0.00015 \quad (-0.2\sigma)$	χ_{small}^2	$397.0 \pm 1.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0020 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8135 \pm 0.0091 \quad (+0.2\sigma)$	χ_{lowl}^2	$24.6 \pm 1.8 \quad (+0.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09590 \pm 0.00046 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4497 \pm 0.0047 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.6 \pm 5.5 \quad (+0.1\sigma)$
σ_8	$0.8108 \pm 0.0086 \quad (-0.2\sigma)$	$H(0.15)$	$72.49 \pm 0.80 \quad (+0.1\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
S_8	$0.833 \pm 0.025 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.3 \pm 8.1 \quad (-0.1\sigma)$	χ_{CMB}^2	$7485.2 \pm 5.6 \quad (+0.3\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.456 \pm 0.013 \quad (-0.2\sigma)$	$H(0.38)$	$82.69 \pm 0.58 \quad (+0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.608 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1538 \pm 16 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7492.76$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.50$; $R - 1 = 0.00713$

17.16 base_r_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00020 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.93 \pm 0.94 \quad (+0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.25 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0012 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.026 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 12 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04105 \pm 0.00042 \quad (-0.0\sigma)$	z_{re}	$7.72^{+0.56}_{-0.82} \quad (-0.1\sigma)$	$H(2.33)$	$235.61 \pm 0.79 \quad (-0.1\sigma)$
τ	$0.0547^{+0.0050}_{-0.0082} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.090^{+0.025}_{-0.034} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 12 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.040^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.873 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4533 \pm 0.0075 \quad (-0.1\sigma)$
n_{s}	$0.9683 \pm 0.0043 \quad (+0.2\sigma)$	D_{40}	$1234^{+15}_{-19} \quad (+0.9\sigma)$	$\sigma_8(0.15)$	$0.7459^{+0.0057}_{-0.0066} \quad (-0.1\sigma)$
r	< 0.0529	D_{220}	$5704 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4722 \pm 0.0063 \quad (-0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6615^{+0.0047}_{-0.0057} \quad (-0.1\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (+0.0\sigma)$	D_{1420}	$815.2 \pm 5.2 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4710 \pm 0.0056 \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (-0.0\sigma)$	$\sigma_8(0.51)$	$0.6192^{+0.0042}_{-0.0053} \quad (-0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9683 \pm 0.0043 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4663 \pm 0.0051 \quad (-0.1\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	Y_{P}	$0.245332 \pm 0.000083 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5892^{+0.0040}_{-0.0050} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246658 \pm 0.000083 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0019}_{-0.0025} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.614 \pm 0.037 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0020}_{-0.0026} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.39}_{-0.16} \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.028 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0488
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_*	$1090.00 \pm 0.30 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0508
A^{kSZ}	$4.9 \pm 2.7 \quad (-0.0\sigma)$	r_*	$144.86 \pm 0.32 \quad (+0.1\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.61^{+1.4}_{-0.59}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00042 \quad (+0.0\sigma)$	r_{10}	< 0.0249
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.912 \pm 0.031 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.111
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	z_{drag}	$1059.50 \pm 0.45 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.0992
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_{drag}	$147.58 \pm 0.35 \quad (+0.1\sigma)$	f_{2000}^{143}	$30.3 \pm 3.0 \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	k_{D}	$0.14023 \pm 0.00045 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.2 \pm 2.0 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.2 \quad (-0.0\sigma)$
H_0	$67.71 \pm 0.54 \quad (+0.1\sigma)$	z_{eq}	$3369 \pm 29 \quad (-0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.7 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6910 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010283 \pm 0.000087 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.1 \pm 1.6 \quad (+1.4\sigma)$
Ω_{m}	$0.3090 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8190 \pm 0.0053 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.0 \pm 5.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1416 \pm 0.0012 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4524 \pm 0.0027 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.050 \pm 0.067 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09590 \pm 0.00046 \quad (-0.1\sigma)$	$H(0.15)$	$72.96 \pm 0.47 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.44 \pm 0.54 \quad (+0.1\sigma)$
σ_8	$0.8070^{+0.0066}_{-0.0075} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.5 \pm 4.6 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.5 \quad (-0.1\sigma)$
S_8	$0.819 \pm 0.015 \quad (-0.1\sigma)$	$H(0.38)$	$83.02 \pm 0.35 \quad (+0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4486 \pm 0.0080 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.1 \pm 9.4 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.2 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6017 \pm 0.0077 \quad (-0.1\sigma)$	$H(0.51)$	$89.71 \pm 0.29 \quad (+0.0\sigma)$	χ_{CMB}^2	$7485.2 \pm 5.6 \quad (+0.3\sigma)$
$\sigma_8/h^{0.5}$	$0.981 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 11 \quad (-0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7498.81$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.50$; $R - 1 = 0.01239$

17.17 base_r_CamSpecHM_TTTEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}} h^2$	0.022286	0.02230 ± 0.00016 (+0.0 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4524	0.4509 ± 0.0092 (−0.2 σ)	$H(0.38)$	82.863	82.93 ± 0.40 (+0.2 σ)
$\Omega_{\mathrm{c}} h^2$	0.11958	0.1193 ± 0.0014 (−0.2 σ)	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6046	0.6032 ± 0.0086 (−0.2 σ)	$D_{\mathrm{M}}(0.38)$	1532.8	1531 ± 11 (−0.2 σ)
$100\theta_{\mathrm{MC}}$	1.040880	1.04090 ± 0.00032 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9839	0.982 ± 0.012 (−0.2 σ)	$H(0.51)$	89.600	89.65 ± 0.31 (+0.2 σ)
τ	0.0524	0.0524 ± 0.0078 (−0.1 σ)	$r_{\mathrm{drag}} h$	99.30	99.5 ± 1.1 (+0.2 σ)	$D_{\mathrm{M}}(0.51)$	1985.3	1983 ± 13 (−0.2 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0375	3.037 ± 0.016 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4306	2.426 ± 0.029 (−0.3 σ)	$H(0.61)$	95.234	95.28 ± 0.25 (+0.1 σ)
n_{s}	0.96661	0.9673 ± 0.0047 (+0.3 σ)	z_{re}	7.49	7.47 ± 0.80 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2309.9	2308 ± 14 (−0.2 σ)
r	0.0103	< 0.0751	$10^9 A_{\mathrm{s}}$	2.0854	2.084 ± 0.033 (−0.1 σ)	$H(2.33)$	236.20	236.06 ± 0.85 (−0.2 σ)
y_{cal}	1.00042	1.0005 ± 0.0025 (+0.0 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8780	1.877 ± 0.012 (−0.2 σ)	$D_{\mathrm{M}}(2.33)$	5766.9	5765 ± 11 (−0.1 σ)
A_{100}^{PS}	234.2	239 ± 25 (−0.1 σ)	D_{40}	1227.1	1243^{+16}_{-20} (+1.3 σ)	$f\sigma_8(0.15)$	0.4568	0.4554 ± 0.0086 (−0.2 σ)
A_{143}^{PS}	39.9	39 ± 8 (−0.0 σ)	D_{220}	5712.4	5713 ± 39 (−0.1 σ)	$\sigma_8(0.15)$	0.7463	0.7456 ± 0.0067 (−0.2 σ)
A_{217}^{PS}	102.1	103 ± 10 (+0.0 σ)	D_{810}	2534.9	2535 ± 14 (−0.0 σ)	$f\sigma_8(0.38)$	0.4746	0.4735 ± 0.0070 (−0.2 σ)
A_{217}^{CIB}	44.4	39 ± 7 (−0.0 σ)	D_{1420}	815.98	816.1 ± 4.9 (+0.1 σ)	$\sigma_8(0.38)$	0.6613	0.6609 ± 0.0056 (−0.1 σ)
A_{143}^{tSZ}	6.41	$3.9^{+1.9}_{-2.5}$ (+0.0 σ)	D_{2000}	230.33	230.4 ± 1.7 (+0.1 σ)	$f\sigma_8(0.51)$	0.4730	0.4720 ± 0.0062 (−0.2 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.599	0.66 ± 0.13 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.96661	0.9673 ± 0.0047 (+0.3 σ)	$\sigma_8(0.51)$	0.6188	0.6184 ± 0.0052 (−0.1 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.770	$0.55^{+0.39}_{-0.19}$ (−0.0 σ)	Y_{P}	0.245362	0.245365 ± 0.000066 (+0.0 σ)	$f\sigma_8(0.61)$	0.4679	0.4670 ± 0.0056 (−0.2 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.11	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246688	0.246691 ± 0.000066 (+0.0 σ)	$\sigma_8(0.61)$	0.58874	0.5884 ± 0.0049 (−0.1 σ)
A^{kSZ}	0.14	$4.6^{+1.6}_{-4.5}$ (−0.0 σ)	$10^5 \mathrm{D}/\mathrm{H}$	2.6014	2.599 ± 0.031 (−0.0 σ)	$f\sigma_8(2.33)$	0.29677	0.2967 ± 0.0024 (−0.1 σ)
A_{100}^{dust}	1.014	1.00 ± 0.19 (−0.0 σ)	Age/Gyr	13.8056	13.802 ± 0.026 (−0.1 σ)	$\sigma_8(2.33)$	0.30586	0.3058 ± 0.0026 (−0.0 σ)
A_{143}^{dust}	0.973	0.96 ± 0.18 (−0.0 σ)	z_*	1089.991	1089.95 ± 0.29 (−0.1 σ)	$r_{0.002}$	0.0093	< 0.0696
A_{217}^{dust}	0.971	0.97 ± 0.10 (+0.0 σ)	r_*	144.603	144.66 ± 0.32 (+0.2 σ)	$r_{0.01}$	0.0098	< 0.0723
$A_{143 \times 217}^{\mathrm{dust}}$	1.008	1.03 ± 0.16 (−0.0 σ)	$100\theta_*$	1.041064	1.04109 ± 0.00032 (+0.1 σ)	$\ln(10^{10} A_{\mathrm{t}})$	−1.54	$-0.18^{+1.2}_{-0.46}$
c_{100}	0.99764	0.9975 ± 0.0010 (−0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8899	13.895 ± 0.030 (+0.2 σ)	r_{10}	0.0048	< 0.0358
c_{217}	1.00129	1.0011 ± 0.0016 (−0.0 σ)	z_{drag}	1059.704	1059.72 ± 0.34 (−0.0 σ)	$10^9 A_{\mathrm{t}}$	0.022	< 0.156
c_{TE}	0.99664	0.9968 ± 0.0049 (−0.0 σ)	r_{drag}	147.296	147.34 ± 0.32 (+0.2 σ)	$10^9 A_{\mathrm{t}} e^{-2\tau}$	0.019	< 0.141
c_{EE}	0.99215	0.9923 ± 0.0049 (+0.0 σ)	k_{D}	0.140589	0.14055 ± 0.00035 (−0.2 σ)	f_{2000}^{143}	29.94	29.5 ± 2.9 (−0.1 σ)
H_0	67.41	67.52 ± 0.63 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.160879	0.16088 ± 0.00020 (+0.0 σ)	f_{2000}^{217}	106.83	106.7 ± 1.9 (−0.1 σ)
Ω_{Λ}	0.6864	0.6878 ± 0.0087 (+0.2 σ)	z_{eq}	3390.3	3385 ± 32 (−0.2 σ)	$f_{2000}^{143 \times 217}$	32.08	32.0 ± 2.0 (−0.1 σ)
Ω_{m}	0.3136	0.3122 ± 0.0087 (−0.2 σ)	k_{eq}	0.010347	0.010331 ± 0.000098 (−0.2 σ)	χ_{simall}^2	395.84	397.1 ± 1.6 (+0.1 σ)
$\Omega_{\mathrm{m}} h^2$	0.14252	0.1423 ± 0.0013 (−0.2 σ)	$100\theta_{\mathrm{eq}}$	0.8152	0.8162 ± 0.0061 (+0.2 σ)	χ_{lowl}^2	23.19	24.9 ± 1.9 (+1.9 σ)
$\Omega_{\mathrm{m}} h^3$	0.096076	0.09607 ± 0.00032 (−0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.45042	0.4510 ± 0.0031 (+0.2 σ)	$\chi_{\mathrm{CamSpec}}^2$	11499.5	11513.6 ± 5.8 (−0.2 σ)
σ_8	0.8079	0.8070 ± 0.0076 (−0.2 σ)	$H(0.15)$	72.72	72.81 ± 0.54 (+0.2 σ)	χ_{prior}^2	2.16	7.8 ± 3.4 (−0.0 σ)
S_8	0.8260	0.823 ± 0.017 (−0.2 σ)	$D_{\mathrm{M}}(0.15)$	642.9	642.0 ± 5.4 (−0.2 σ)	χ_{CMB}^2	11918.6	11935.7 ± 5.9 (+0.2 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.72$; $\Delta\chi_{\mathrm{eff}}^2 = -0.04$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.49$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.03$; $R - 1 = 0.01020$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.84 (Δ -0.06) commander_dx12_v3.2.29: 23.20 (Δ 0.19) CamSpec like_10.7HM_1400_unified: 11499.52 (Δ -0.12)

17.18 base_r_CamSpecHM_TTTEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.978 \pm 0.010 \quad (-0.2\sigma)$	$H(0.61)$	$95.37 \pm 0.20 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1188 \pm 0.0010 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.94 \pm 0.81 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302 \pm 10 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04097 \pm 0.00030 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.418 \pm 0.025 \quad (-0.3\sigma)$	$H(2.33)$	$235.72 \pm 0.64 \quad (-0.2\sigma)$
τ	$0.0530 \pm 0.0078 \quad (-0.1\sigma)$	z_{re}	$7.52 \pm 0.79 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761.4 \pm 9.4 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.037 \pm 0.016 \quad (-0.1\sigma)$	10^9A_{s}	$2.085 \pm 0.033 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4522 \pm 0.0067 \quad (-0.2\sigma)$
n_{s}	$0.9686 \pm 0.0041 \quad (+0.3\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.875 \pm 0.011 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7446 \pm 0.0065 \quad (-0.2\sigma)$
r	< 0.0786	D_{40}	$1241^{+15}_{-20} \quad (+1.5\sigma)$	$f\sigma_8(0.38)$	$0.4711 \pm 0.0058 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5716 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6603 \pm 0.0056 \quad (-0.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4700 \pm 0.0053 \quad (-0.2\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	D_{1420}	$816.5 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6181 \pm 0.0052 \quad (-0.1\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$230.5 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4653 \pm 0.0049 \quad (-0.2\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9686 \pm 0.0041 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5882 \pm 0.0049 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.4} \quad (+0.0\sigma)$	Y_{P}	$0.245380 \pm 0.000059 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2967 \pm 0.0025 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707 \pm 0.000060 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3060 \pm 0.0025 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18} \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.028 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0735
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.794 \pm 0.021 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0760
A^{kSZ}	$< 6.05 \quad (-0.0\sigma)$	z_*	$1089.86 \pm 0.24 \quad (-0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.12^{+1.2}_{-0.45}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.77 \pm 0.25 \quad (+0.2\sigma)$	r_{10}	< 0.0377
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00030 \quad (+0.0\sigma)$	10^9A_{t}	< 0.163
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.024 \quad (+0.2\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.147
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	z_{drag}	$1059.77 \pm 0.32 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.3 \pm 2.9 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.45 \pm 0.26 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.6 \pm 1.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	k_{D}	$0.14046 \pm 0.00032 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.0 \quad (-0.1\sigma)$
c_{TE}	$0.9968 \pm 0.0049 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16085 \pm 0.00019 \quad (+0.0\sigma)$	χ_{simall}^2	$397.2 \pm 1.6 \quad (+0.1\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	z_{eq}	$3372 \pm 24 \quad (-0.2\sigma)$	χ_{lowl}^2	$24.7 \pm 1.8 \quad (+2.3\sigma)$
H_0	$67.78 \pm 0.47 \quad (+0.1\sigma)$	k_{eq}	$0.010292 \pm 0.000073 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.5 \pm 5.7 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6913 \pm 0.0063 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8187 \pm 0.0045 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.040 \pm 0.052 \quad (-0.1\sigma)$
Ω_{m}	$0.3087 \pm 0.0063 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522 \pm 0.0023 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.44 \pm 0.46 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0010 \quad (-0.2\sigma)$	$H(0.15)$	$73.03 \pm 0.40 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09608 \pm 0.00031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.9 \pm 4.0 \quad (-0.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.8054 \pm 0.0072 \quad (-0.2\sigma)$	$H(0.38)$	$83.09 \pm 0.30 \quad (+0.1\sigma)$	χ_{BAO}^2	$5.89 \pm 0.90 \quad (-0.1\sigma)$
S_8	$0.817 \pm 0.013 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.7 \pm 8.0 \quad (-0.1\sigma)$	χ_{CMB}^2	$11935.4 \pm 5.8 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4475 \pm 0.0071 \quad (-0.2\sigma)$	$H(0.51)$	$89.77 \pm 0.24 \quad (+0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6003 \pm 0.0071 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1978.2 \pm 9.4 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.07; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.79; R - 1 = 0.01061$$

17.19 base_r_CamSpecHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00016 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4513 \pm 0.0091 \quad (-0.2\sigma)$	$H(0.38)$	$82.94 \pm 0.40 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0014 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6039 \pm 0.0084 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531 \pm 11 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00032 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.983 \pm 0.012 \quad (-0.2\sigma)$	$H(0.51)$	$89.66 \pm 0.31 \quad (+0.2\sigma)$
τ	$0.0540^{+0.0047}_{-0.0080} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.5 \pm 1.1 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1983 \pm 13 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.011}_{-0.016} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.429 \pm 0.028 \quad (-0.3\sigma)$	$H(0.61)$	$95.28 \pm 0.25 \quad (+0.1\sigma)$
n_{s}	$0.9675 \pm 0.0047 \quad (+0.3\sigma)$	z_{re}	$7.64^{+0.52}_{-0.80} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2307 \pm 14 \quad (-0.2\sigma)$
r	< 0.0751	$10^9 A_{\mathrm{s}}$	$2.091^{+0.023}_{-0.033} \quad (-0.1\sigma)$	$H(2.33)$	$236.03 \pm 0.85 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 11 \quad (-0.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	D_{40}	$1243^{+16}_{-20} \quad (+1.3\sigma)$	$f\sigma_8(0.15)$	$0.4558 \pm 0.0085 \quad (-0.2\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5713 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7467^{+0.0056}_{-0.0064} \quad (-0.2\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4740 \pm 0.0069 \quad (-0.2\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 4.9 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6619^{+0.0044}_{-0.0054} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.7 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4726 \pm 0.0060 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9675 \pm 0.0047 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6194^{+0.0040}_{-0.0050} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19} \quad (-0.0\sigma)$	Y_{P}	$0.245367 \pm 0.000066 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4676 \pm 0.0054 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246693 \pm 0.000066 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5894^{+0.0037}_{-0.0048} \quad (-0.1\sigma)$
A^{kSZ}	$4.6^{+1.7}_{-4.4} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.598 \pm 0.030 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0018}_{-0.0024} \quad (-0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.801 \pm 0.026 \quad (-0.1\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0018}_{-0.0025} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1089.94 \pm 0.29 \quad (-0.1\sigma)$	$r_{0.002}$	< 0.0697
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.66 \pm 0.32 \quad (+0.2\sigma)$	$r_{0.01}$	< 0.0723
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00032 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.17^{+1.2}_{-0.46}$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.030 \quad (+0.2\sigma)$	r_{10}	< 0.0358
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.73 \pm 0.33 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.157
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.35 \pm 0.32 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.141
c_{EE}	$0.9922 \pm 0.0049 \quad (+0.0\sigma)$	k_{D}	$0.14054 \pm 0.00035 \quad (-0.2\sigma)$	f_{2000}^{143}	$29.4 \pm 2.9 \quad (-0.1\sigma)$
H_0	$67.55 \pm 0.63 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00020 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6881 \pm 0.0087 \quad (+0.2\sigma)$	z_{eq}	$3384 \pm 32 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.0 \quad (-0.1\sigma)$
Ω_{m}	$0.3119 \pm 0.0087 \quad (-0.2\sigma)$	k_{eq}	$0.010328 \pm 0.000098 \quad (-0.2\sigma)$	χ_{small}^2	$397.0 \pm 1.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1422 \pm 0.0013 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8165 \pm 0.0061 \quad (+0.2\sigma)$	χ_{lowl}^2	$24.9 \pm 1.9 \quad (+1.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09607 \pm 0.00032 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4511 \pm 0.0031 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.5 \pm 5.8 \quad (-0.2\sigma)$
σ_8	$0.8081 \pm 0.0070 \quad (-0.2\sigma)$	$H(0.15)$	$72.83 \pm 0.54 \quad (+0.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
S_8	$0.824 \pm 0.017 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.9 \pm 5.4 \quad (-0.2\sigma)$	χ_{CMB}^2	$11935.4 \pm 5.9 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.24; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.05; R - 1 = 0.00947$$

17.20 base_r_CamSpecHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00015 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9796 \pm 0.0099 \quad (-0.2\sigma)$	$H(0.61)$	$95.37 \pm 0.20 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1187 \pm 0.0010 \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.96 \pm 0.81 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2302 \pm 10 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04098 \pm 0.00030 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.420 \pm 0.024 \quad (-0.3\sigma)$	$H(2.33)$	$235.71 \pm 0.65 \quad (-0.2\sigma)$
τ	$0.0545^{+0.0049}_{-0.0079} \quad (-0.1\sigma)$	z_{re}	$7.68^{+0.53}_{-0.80} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761.2 \pm 9.5 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040^{+0.012}_{-0.016} \quad (-0.2\sigma)$	10^9A_{s}	$2.091^{+0.025}_{-0.033} \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4528 \pm 0.0066 \quad (-0.2\sigma)$
n_{s}	$0.9688 \pm 0.0041 \quad (+0.3\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.874 \pm 0.011 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7456^{+0.0052}_{-0.0063} \quad (-0.2\sigma)$
r	< 0.0783	D_{40}	$1241^{+15}_{-20} \quad (+1.5\sigma)$	$f\sigma_8(0.38)$	$0.4717 \pm 0.0056 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	D_{220}	$5715 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6612^{+0.0043}_{-0.0054} \quad (-0.1\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4706 \pm 0.0050 \quad (-0.2\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	D_{1420}	$816.5 \pm 4.9 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6190^{+0.0040}_{-0.0050} \quad (-0.1\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$230.6 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4659 \pm 0.0046 \quad (-0.2\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9688 \pm 0.0041 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5890^{+0.0037}_{-0.0048} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$4.0^{+1.9}_{-2.5} \quad (+0.0\sigma)$	Y_{P}	$0.245381 \pm 0.000059 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0019}_{-0.0024} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246708 \pm 0.000060 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0019}_{-0.0025} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.18} \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.028 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0733
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.794 \pm 0.021 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0758
A^{kSZ}	$< 6.05 \quad (-0.0\sigma)$	z_*	$1089.85 \pm 0.24 \quad (-0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.11^{+1.2}_{-0.46}$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.78 \pm 0.25 \quad (+0.2\sigma)$	r_{10}	< 0.0375
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00030 \quad (+0.0\sigma)$	10^9A_{t}	< 0.163
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.024 \quad (+0.2\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.147
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	z_{drag}	$1059.78 \pm 0.33 \quad (-0.1\sigma)$	f_{2000}^{143}	$29.2 \pm 2.9 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.46 \pm 0.26 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.6 \pm 1.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	k_{D}	$0.14046 \pm 0.00032 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.0 \quad (-0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16085 \pm 0.00019 \quad (+0.1\sigma)$	χ_{simall}^2	$397.1 \pm 1.6 \quad (+0.1\sigma)$
c_{EE}	$0.9925 \pm 0.0049 \quad (+0.0\sigma)$	z_{eq}	$3372 \pm 24 \quad (-0.2\sigma)$	χ_{lowl}^2	$24.7 \pm 1.8 \quad (+2.3\sigma)$
H_0	$67.79 \pm 0.47 \quad (+0.1\sigma)$	k_{eq}	$0.010290 \pm 0.000073 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.4 \pm 5.7 \quad (-0.2\sigma)$
Ω_{Λ}	$0.6915 \pm 0.0063 \quad (+0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8188 \pm 0.0045 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.039 \pm 0.051 \quad (-0.1\sigma)$
Ω_{m}	$0.3085 \pm 0.0063 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4523 \pm 0.0023 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.45 \pm 0.47 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1417 \pm 0.0010 \quad (-0.2\sigma)$	$H(0.15)$	$73.04 \pm 0.40 \quad (+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09608 \pm 0.00031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.8 \pm 4.0 \quad (-0.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (+0.0\sigma)$
σ_8	$0.8066^{+0.0060}_{-0.0070} \quad (-0.2\sigma)$	$H(0.38)$	$83.09 \pm 0.30 \quad (+0.1\sigma)$	χ_{BAO}^2	$5.88 \pm 0.89 \quad (-0.1\sigma)$
S_8	$0.818 \pm 0.013 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.5 \pm 8.0 \quad (-0.1\sigma)$	χ_{CMB}^2	$11935.2 \pm 5.8 \quad (+0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4480 \pm 0.0070 \quad (-0.2\sigma)$	$H(0.51)$	$89.78 \pm 0.24 \quad (+0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6011 \pm 0.0069 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977.9 \pm 9.4 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11948.86; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.87; R - 1 = 0.01058$$

17.21 base_r_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022491	0.02248 ± 0.00025 (-0.0σ)	z_{re}	7.13	$7.07^{+0.94}_{-0.72}$ (-0.0σ)	$D_{\text{M}}(0.38)$	1516.0	1515 ± 15 $(+0.0\sigma)$
$\Omega_c h^2$	0.11778	0.1177 ± 0.0020 $(+0.0\sigma)$	$10^9 A_s$	2.0459	2.043 ± 0.041 (-0.0σ)	$H(0.51)$	90.121	$90.14^{+0.43}_{-0.48}$ (-0.0σ)
$100\theta_{\text{MC}}$	1.04137	1.04140 ± 0.00051 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8530	1.851 ± 0.018 (-0.0σ)	$D_{\text{M}}(0.51)$	1965.4	1965 ± 18 $(+0.0\sigma)$
τ	0.0495	$0.0492^{+0.0087}_{-0.0075}$ (-0.0σ)	D_{40}	1214.8	1253^{+33}_{-46} $(+1.5\sigma)$	$H(0.61)$	95.664	$95.68^{+0.35}_{-0.40}$ (-0.0σ)
$\ln(10^{10} A_s)$	3.0184	$3.017^{+0.021}_{-0.018}$ (-0.0σ)	D_{220}	5699	5686 ± 57 (-0.1σ)	$D_{\text{M}}(0.61)$	2288.4	2288 ± 19 $(+0.0\sigma)$
n_s	0.9663	0.968 ± 0.011 $(+0.1\sigma)$	D_{810}	2508.0	2507 ± 25 $(+0.0\sigma)$	$H(2.33)$	235.26	235.2 ± 1.2 $(+0.0\sigma)$
r	0.000	< 0.149	D_{1420}	807.3	808 ± 12 $(+0.0\sigma)$	$D_{\text{M}}(2.33)$	5747.3	5747 ± 17 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1131	0.116 ± 0.038 $(+0.1\sigma)$	D_{2000}	227.67	227.8 ± 4.2 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4409	0.440 ± 0.012 $(+0.0\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1359	0.138 ± 0.030 $(+0.1\sigma)$	$n_{s,0.002}$	0.9663	0.968 ± 0.011 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7344	0.7339 ± 0.0097 $(+0.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.478	0.477 ± 0.085 (-0.0σ)	Y_{P}	0.245441	0.24543 ± 0.00010 (-0.0σ)	$f\sigma_8(0.38)$	0.4611	0.461 ± 0.010 $(+0.0\sigma)$
A_{143}^{dustTE}	0.221	0.225 ± 0.054 $(+0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246768	0.24676 ± 0.00010 (-0.0σ)	$\sigma_8(0.38)$	0.6521	$0.6517^{+0.0083}_{-0.0076}$ $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.659	0.657 ± 0.080 (-0.0σ)	10^5D/H	2.5635	2.567 ± 0.046 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4609	0.4604 ± 0.0090 $(+0.0\sigma)$
A_{217}^{dustTE}	2.040	2.03 ± 0.27 (-0.0σ)	Age/Gyr	13.7622	13.762 ± 0.038 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6107	$0.6104^{+0.0076}_{-0.0069}$ $(+0.0\sigma)$
c_{100}	1.00017	1.00017 ± 0.00070 (-0.0σ)	z_*	1089.574	1089.59 ± 0.42 $(+0.0\sigma)$	$f\sigma_8(0.61)$	0.4569	0.4564 ± 0.0082 $(+0.0\sigma)$
c_{217}	0.99799	0.99800 ± 0.00066 $(+0.0\sigma)$	r_*	144.913	144.95 ± 0.48 (-0.0σ)	$\sigma_8(0.61)$	0.5814	0.5811 ± 0.0070 $(+0.0\sigma)$
y_{cal}	1.00008	1.0000 ± 0.0025 $(+0.0\sigma)$	$100\theta_*$	1.041550	1.04157 ± 0.00050 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29354	0.2934 ± 0.0035 (-0.0σ)
H_0	68.39	68.43 ± 0.91 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.9132	13.917 ± 0.045 (-0.0σ)	$\sigma_8(2.33)$	0.30308	0.3030 ± 0.0036 (-0.0σ)
Ω_{Λ}	0.6987	0.699 ± 0.012 (-0.0σ)	z_{drag}	1060.05	1060.01 ± 0.54 (-0.0σ)	$r_{0.002}$	0.000	< 0.142
Ω_{m}	0.3013	0.301 ± 0.012 $(+0.0\sigma)$	r_{drag}	147.546	147.59 ± 0.49 $(+0.0\sigma)$	$r_{0.01}$	0.000	< 0.146
$\Omega_{\text{m}} h^2$	0.14092	0.1408 ± 0.0019 $(+0.0\sigma)$	k_{D}	0.14048	0.14042 ± 0.00057 (-0.0σ)	$\ln(10^{10} A_{\text{t}})$	-11.51	$0.47^{+1.3}_{-0.51}$
$\Omega_{\text{m}} h^3$	0.09638	0.09634 ± 0.00052 (-0.0σ)	$100\theta_{\text{D}}$	0.160734	0.16076 ± 0.00031 $(+0.0\sigma)$	r_{10}	0.0000	< 0.0735
σ_8	0.7937	0.793 ± 0.011 $(+0.0\sigma)$	z_{eq}	3352.1	3349 ± 46 $(+0.0\sigma)$	$10^9 A_{\text{t}}$	0.000	< 0.304
S_8	0.7954	0.794 ± 0.024 $(+0.0\sigma)$	k_{eq}	0.010231	0.01022 ± 0.00014 $(+0.0\sigma)$	$10^9 A_{\text{t}} e^{-2\tau}$	0.000	< 0.275
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4356	0.435 ± 0.013 $(+0.0\sigma)$	$100\theta_{\text{eq}}$	0.8230	0.8236 ± 0.0088 (-0.0σ)	χ_{simall}^2	395.70	397.4 ± 1.7 $(+0.4\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.5880	0.587 ± 0.012 $(+0.0\sigma)$	$100\theta_{\text{s,eq}}$	0.45439	0.4547 ± 0.0045 (-0.0σ)	χ_{plikTE}^2	852.87	860.3 ± 3.8 $(+0.2\sigma)$
$\sigma_8/h^{0.5}$	0.9597	0.959 ± 0.017 $(+0.0\sigma)$	$H(0.15)$	73.57	73.60 ± 0.78 (-0.0σ)	χ_{prior}^2	0.43	7.4 ± 3.7 (-0.0σ)
$r_{\text{drag}} h$	100.91	101.0 ± 1.6 (-0.0σ)	$D_{\text{M}}(0.15)$	634.6	634.4 ± 7.6 $(+0.0\sigma)$	χ_{CMB}^2	1248.57	1257.8 ± 4.2 $(+0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	2.3877	2.382 ± 0.042 (-0.1σ)	$H(0.38)$	83.50	83.53 ± 0.58 (-0.0σ)			

Best-fit $\chi_{\text{eff}}^2 = 1249.01$; $\Delta\chi_{\text{eff}}^2 = 0.02$; $\bar{\chi}_{\text{eff}}^2 = 1265.18$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.17$; $R - 1 = 0.00716$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.70 (Δ 0.01) plik_rd12_HM_v22_TE: 852.88 (Δ 0.02)

17.22 base_r_plikHM_TE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022448	0.02244 ± 0.00023 (-0.0σ)	$10^9 A_s$	2.0457	2.043 ± 0.041 (-0.0σ)	$D_M(0.51)$	1969.5	1969 ± 11 $(+0.0\sigma)$
$\Omega_c h^2$	0.11823	0.1181 ± 0.0012 $(+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	1.8552	1.853 ± 0.017 (-0.0σ)	$H(0.61)$	95.584	95.59 ± 0.26 (-0.0σ)
$100\theta_{MC}$	1.041342	1.04135 ± 0.00047 $(+0.0\sigma)$	D_{40}	1217.9	1255^{+31}_{-44} $(+1.6\sigma)$	$D_M(0.61)$	2292.7	2292 ± 12 $(+0.0\sigma)$
τ	0.0489	$0.0489^{+0.0084}_{-0.0075}$ $(+0.0\sigma)$	D_{220}	5698	5685 ± 56 (-0.2σ)	$H(2.33)$	235.51	235.45 ± 0.79 (-0.0σ)
$\ln(10^{10} A_s)$	3.0183	3.017 ± 0.020 (-0.0σ)	D_{810}	2508.4	2507 ± 25 $(+0.0\sigma)$	$D_M(2.33)$	5750.7	5750 ± 13 $(+0.0\sigma)$
n_s	0.9651	0.967 ± 0.010 $(+0.1\sigma)$	D_{1420}	806.9	807 ± 12 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4433	0.4429 ± 0.0082 $(+0.0\sigma)$
r	0.001	< 0.147	D_{2000}	227.49	227.6 ± 4.2 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7353	0.7351 ± 0.0090 $(+0.0\sigma)$
y_{cal}	1.00010	0.99998 ± 0.0025 (-0.0σ)	$n_{s,0.002}$	0.9651	0.967 ± 0.010 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4630	0.4626 ± 0.0073 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1135	0.116 ± 0.038 $(+0.1\sigma)$	Y_P	0.245425	0.245421 ± 0.000091 (-0.0σ)	$\sigma_8(0.38)$	0.6526	0.6524 ± 0.0078 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1345	0.138 ± 0.029 $(+0.0\sigma)$	Y_P^{BBN}	0.246752	0.246747 ± 0.000092 (-0.0σ)	$f\sigma_8(0.51)$	0.4625	0.4622 ± 0.0068 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.476	0.476 ± 0.084 (-0.0σ)	$10^5 D/H$	2.5712	2.573 ± 0.042 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.6110	0.6109 ± 0.0072 $(+0.0\sigma)$
A_{143}^{dustTE}	0.220	0.225 ± 0.055 $(+0.1\sigma)$	Age/Gyr	13.7694	13.769 ± 0.030 $(+0.0\sigma)$	$f\sigma_8(0.61)$	0.4582	0.4579 ± 0.0064 $(+0.0\sigma)$
$A_{143 \times 217}^{dustTE}$	0.658	0.658 ± 0.080 (-0.0σ)	z_*	1089.667	1089.67 ± 0.33 $(+0.0\sigma)$	$\sigma_8(0.61)$	0.5816	0.5815 ± 0.0069 $(+0.0\sigma)$
A_{217}^{dustTE}	2.057	2.04 ± 0.27 $(+0.0\sigma)$	r_*	144.831	144.86 ± 0.33 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29356	0.2935 ± 0.0034 $(+0.0\sigma)$
c_{100}	1.00016	1.00017 ± 0.00070 $(+0.0\sigma)$	$100\theta_*$	1.041522	1.04152 ± 0.00046 $(+0.0\sigma)$	$\sigma_8(2.33)$	0.30298	0.3030 ± 0.0036 $(+0.0\sigma)$
c_{217}	0.99801	0.99799 ± 0.00065 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.9057	13.908 ± 0.033 $(+0.0\sigma)$	$r_{0.002}$	0.001	< 0.140
H_0	68.19	68.22 ± 0.54 (-0.0σ)	z_{drag}	1059.97	1059.97 ± 0.53 (-0.0σ)	$r_{0.01}$	0.001	< 0.144
Ω_Λ	0.6960	0.6964 ± 0.0070 (-0.0σ)	r_{drag}	147.477	147.50 ± 0.37 $(+0.0\sigma)$	$\ln(10^{10} A_t)$	-3.90	$0.47^{+1.3}_{-0.49}$
Ω_m	0.3040	0.3036 ± 0.0070 $(+0.0\sigma)$	k_D	0.14052	0.14049 ± 0.00051 (-0.0σ)	r_{10}	0.0005	< 0.0724
$\Omega_m h^2$	0.14132	0.1412 ± 0.0012 (-0.0σ)	$100\theta_D$	0.160774	0.16079 ± 0.00031 $(+0.0\sigma)$	$10^9 A_t$	0.002	< 0.300
$\Omega_m h^3$	0.09636	0.09634 ± 0.00052 (-0.0σ)	z_{eq}	3361.7	3360 ± 29 (-0.0σ)	$10^9 A_t e^{-2\tau}$	0.002	< 0.273
σ_8	0.7949	0.7946 ± 0.0099 $(+0.0\sigma)$	k_{eq}	0.010260	0.010254 ± 0.000087 (-0.0σ)	χ_{simall}^2	395.69	397.4 ± 1.7 $(+0.3\sigma)$
S_8	0.8001	0.799 ± 0.016 $(+0.0\sigma)$	$100\theta_{eq}$	0.8212	0.8216 ± 0.0053 (-0.0σ)	χ_{plikTE}^2	852.95	859.7 ± 3.6 $(+0.1\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4382	0.4378 ± 0.0086 $(+0.0\sigma)$	$100\theta_{s,eq}$	0.45343	0.4537 ± 0.0027 $(+0.0\sigma)$	χ_{6DF}^2	0.0002	0.037 ± 0.053 (-0.0σ)
$\sigma_8 \Omega_m^{0.25}$	0.5902	0.5898 ± 0.0091 $(+0.0\sigma)$	$H(0.15)$	73.390	73.42 ± 0.47 (-0.0σ)	χ_{MGS}^2	1.75	1.85 ± 0.58 $(+0.0\sigma)$
$\sigma_8/h^{0.5}$	0.9626	0.962 ± 0.013 $(+0.0\sigma)$	$D_M(0.15)$	636.34	636.1 ± 4.6 $(+0.0\sigma)$	$\chi_{DR12BAO}^2$	3.435	3.97 ± 0.88 (-0.0σ)
$r_{drag} h$	100.56	100.62 ± 0.92 $(+0.0\sigma)$	$H(0.38)$	83.375	83.39 ± 0.36 (-0.0σ)	χ_{prior}^2	0.41	7.4 ± 3.6 (-0.0σ)
$\langle d^2 \rangle^{1/2}$	2.3948	2.389 ± 0.032 (-0.1σ)	$D_M(0.38)$	1519.4	1519.0 ± 9.3 $(+0.0\sigma)$	χ_{BAO}^2	5.183	5.86 ± 0.95 (-0.0σ)
z_{re}	7.08	$7.05^{+0.92}_{-0.73}$ $(+0.0\sigma)$	$H(0.51)$	90.020	90.03 ± 0.30 (-0.0σ)	χ_{CMB}^2	1248.64	1257.2 ± 4.0 $(+0.3\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 1254.24$; $\Delta\chi_{\text{eff}}^2 = 0.00$; $\bar{\chi}_{\text{eff}}^2 = 1270.41$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.99$; $R - 1 = 0.01140$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ 0.00) MGS: 1.75 (Δ 0.00) DR12BAO: 3.44 (Δ -0.00) CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.69 (Δ 0.03) plik_rd12_HM_v22_TE: 852.95 (Δ 0.02)

17.23 base_r_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02249 \pm 0.00025 \quad (-0.0\sigma)$	z_{re}	$7.43^{+0.33}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1515 \pm 15 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1176 \pm 0.0020 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.057^{+0.027}_{-0.035} \quad (-0.0\sigma)$	$H(0.51)$	$90.16 \pm 0.46 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04141 \pm 0.00051 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.851 \pm 0.018 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1964 \pm 18 \quad (+0.0\sigma)$
τ	$0.0526^{+0.0035}_{-0.0078} \quad (-0.0\sigma)$	D_{40}	$1252^{+33}_{-46} \quad (+1.5\sigma)$	$H(0.61)$	$95.70^{+0.35}_{-0.40} \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.024^{+0.014}_{-0.017} \quad (-0.0\sigma)$	D_{220}	$5686 \pm 57 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2287 \pm 19 \quad (+0.0\sigma)$
n_{s}	$0.969 \pm 0.011 \quad (+0.1\sigma)$	D_{810}	$2508 \pm 25 \quad (+0.0\sigma)$	$H(2.33)$	$235.2 \pm 1.2 \quad (+0.0\sigma)$
r	< 0.149	D_{1420}	$808 \pm 12 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5746 \pm 17 \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.116 \pm 0.038 \quad (+0.1\sigma)$	D_{2000}	$228.2 \pm 4.2 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.442 \pm 0.012 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.138 \pm 0.030 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.969 \pm 0.011 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7365 \pm 0.0085 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.477 \pm 0.084 \quad (-0.0\sigma)$	Y_{P}	$0.24544 \pm 0.00010 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4620 \pm 0.0098 \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.054 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24677 \pm 0.00010 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6541 \pm 0.0069 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.657 \pm 0.080 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.564 \pm 0.046 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4619 \pm 0.0086 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.03 \pm 0.27 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.760 \pm 0.038 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6126 \pm 0.0062 \quad (+0.0\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (-0.0\sigma)$	z_*	$1089.56 \pm 0.42 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4579 \pm 0.0078 \quad (+0.0\sigma)$
c_{217}	$0.99800 \pm 0.00065 \quad (+0.0\sigma)$	r_*	$144.96 \pm 0.48 \quad (-0.0\sigma)$	$\sigma_8(0.61)$	$0.5833 \pm 0.0058 \quad (+0.0\sigma)$
y_{cal}	$1.0000 \pm 0.0025 \quad (+0.0\sigma)$	$100\theta_*$	$1.04159 \pm 0.00050 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2945^{+0.0026}_{-0.0030} \quad (+0.0\sigma)$
H_0	$68.47 \pm 0.91 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.917 \pm 0.045 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3042^{+0.0026}_{-0.0031} \quad (+0.0\sigma)$
Ω_{Λ}	$0.700 \pm 0.012 \quad (-0.0\sigma)$	z_{drag}	$1060.04 \pm 0.54 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.143
Ω_{m}	$0.300 \pm 0.012 \quad (+0.0\sigma)$	r_{drag}	$147.59 \pm 0.49 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.146
$\Omega_{\mathrm{m}}h^2$	$0.1408 \pm 0.0019 \quad (+0.0\sigma)$	k_{D}	$0.14043 \pm 0.00057 \quad (-0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$0.47^{+1.3}_{-0.50}$
$\Omega_{\mathrm{m}}h^3$	$0.09636 \pm 0.00052 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16075 \pm 0.00031 \quad (+0.0\sigma)$	r_{10}	< 0.0737
σ_8	$0.7959 \pm 0.0099 \quad (+0.0\sigma)$	z_{eq}	$3348 \pm 46 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.306
S_8	$0.796 \pm 0.023 \quad (+0.0\sigma)$	k_{eq}	$0.01022 \pm 0.00014 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.276
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.436 \pm 0.013 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8239 \pm 0.0088 \quad (-0.0\sigma)$	χ_{small}^2	$397.0 \pm 1.3 \quad (+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.589 \pm 0.012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4548 \pm 0.0045 \quad (-0.0\sigma)$	χ_{plikTE}^2	$860.4 \pm 3.8 \quad (+0.2\sigma)$
$\sigma_8/h^{0.5}$	$0.962 \pm 0.017 \quad (+0.0\sigma)$	$H(0.15)$	$73.64 \pm 0.78 \quad (-0.0\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$101.1 \pm 1.6 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.0 \pm 7.6 \quad (+0.0\sigma)$	χ_{CMB}^2	$1257.4 \pm 4.1 \quad (+0.3\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.388 \pm 0.041 \quad (-0.1\sigma)$	$H(0.38)$	$83.56 \pm 0.58 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1264.77$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.13$; $R - 1 = 0.00680$

17.24 base_r_plikHM_TE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02246 \pm 0.00023 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.058^{+0.027}_{-0.035} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1968 \pm 11 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1181 \pm 0.0012 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.853 \pm 0.017 \quad (-0.0\sigma)$	$H(0.61)$	$95.61 \pm 0.26 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04136 \pm 0.00046 \quad (+0.1\sigma)$	D_{40}	$1255^{+31}_{-44} \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2292 \pm 12 \quad (+0.0\sigma)$
τ	$0.0524^{+0.0035}_{-0.0076} \quad (-0.0\sigma)$	D_{220}	$5684 \pm 56 \quad (-0.2\sigma)$	$H(2.33)$	$235.45 \pm 0.79 \quad (+0.0\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.024^{+0.013}_{-0.017} \quad (-0.0\sigma)$	D_{810}	$2508 \pm 25 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 13 \quad (-0.0\sigma)$
n_{s}	$0.967 \pm 0.010 \quad (+0.1\sigma)$	D_{1420}	$808 \pm 11 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4445 \pm 0.0077 \quad (+0.0\sigma)$
r	< 0.150	D_{2000}	$228.0 \pm 4.2 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7379^{+0.0070}_{-0.0078} \quad (+0.0\sigma)$
y_{cal}	$0.99998 \pm 0.0025 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.967 \pm 0.010 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4643 \pm 0.0067 \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.116 \pm 0.038 \quad (+0.1\sigma)$	Y_{P}	$0.245425 \pm 0.000090 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6549^{+0.0059}_{-0.0068} \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.138 \pm 0.029 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246752 \pm 0.000091 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4639 \pm 0.0061 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.476 \pm 0.083 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.571 \pm 0.042 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6133^{+0.0054}_{-0.0063} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.055 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.768 \pm 0.030 \quad (-0.0\sigma)$	$f\sigma_8(0.61)$	$0.4596 \pm 0.0057 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.658 \pm 0.080 \quad (-0.0\sigma)$	z_*	$1089.65 \pm 0.32 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5838^{+0.0051}_{-0.0060} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	r_*	$144.85 \pm 0.33 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2947^{+0.0025}_{-0.0030} \quad (+0.0\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (+0.0\sigma)$	$100\theta_*$	$1.04154 \pm 0.00046 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3042^{+0.0026}_{-0.0031} \quad (+0.0\sigma)$
c_{217}	$0.99799 \pm 0.00065 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.908 \pm 0.033 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.143
H_0	$68.24 \pm 0.54 \quad (-0.0\sigma)$	z_{drag}	$1060.00 \pm 0.52 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.146
Ω_{Λ}	$0.6966 \pm 0.0070 \quad (-0.0\sigma)$	r_{drag}	$147.50 \pm 0.37 \quad (+0.0\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$0.49^{+1.3}_{-0.49}$
Ω_{m}	$0.3034 \pm 0.0070 \quad (+0.0\sigma)$	k_{D}	$0.14050 \pm 0.00050 \quad (-0.0\sigma)$	r_{10}	< 0.0737
$\Omega_{\mathrm{m}}h^2$	$0.1412 \pm 0.0012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16077 \pm 0.00031 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.308
$\Omega_{\mathrm{m}}h^3$	$0.09636 \pm 0.00052 \quad (+0.0\sigma)$	z_{eq}	$3359 \pm 28 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.278
σ_8	$0.7976 \pm 0.0084 \quad (+0.0\sigma)$	k_{eq}	$0.010253 \pm 0.000087 \quad (+0.0\sigma)$	χ_{small}^2	$397.0 \pm 1.3 \quad (+0.5\sigma)$
S_8	$0.802 \pm 0.015 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8217 \pm 0.0052 \quad (-0.0\sigma)$	χ_{plikTE}^2	$859.8 \pm 3.5 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4393 \pm 0.0081 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4537 \pm 0.0027 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.037 \pm 0.054 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5920 \pm 0.0082 \quad (+0.0\sigma)$	$H(0.15)$	$73.44 \pm 0.47 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.87 \pm 0.58 \quad (-0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.966 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.9 \pm 4.5 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$3.96 \pm 0.87 \quad (-0.0\sigma)$
$r_{\mathrm{drag}}h$	$100.65 \pm 0.92 \quad (-0.0\sigma)$	$H(0.38)$	$83.41 \pm 0.36 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.396 \pm 0.029 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1518.6 \pm 9.2 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.87 \pm 0.96 \quad (-0.0\sigma)$
z_{re}	$7.42^{+0.31}_{-0.84} \quad (-0.0\sigma)$	$H(0.51)$	$90.05 \pm 0.30 \quad (-0.0\sigma)$	χ_{CMB}^2	$1256.8 \pm 3.9 \quad (+0.3\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1269.96$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.97$; $R - 1 = 0.01240$

17.25 base_r_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.02387	0.0239 ± 0.0012 (-0.1σ)	D_{810}	2585.9	2583 ± 39 (-0.2σ)	$D_{\text{M}}(0.51)$	1924	1920 ± 57 (-0.2σ)
$\Omega_{\text{c}}h^2$	0.11440	0.1138 ± 0.0048 (-0.4σ)	D_{1420}	845.3	846 ± 19 $(+0.1\sigma)$	$H(0.61)$	96.75	$96.9^{+1.3}_{-1.6}$ $(+0.1\sigma)$
$100\theta_{\text{MC}}$	1.04018	1.04020 ± 0.00088 $(+0.2\sigma)$	D_{2000}	241.8	242.1 ± 7.3 $(+0.1\sigma)$	$D_{\text{M}}(0.61)$	2243	2238 ± 62 (-0.2σ)
τ	0.0537	0.0528 ± 0.0090 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.9879	$0.993^{+0.016}_{-0.018}$ $(+0.9\sigma)$	$H(2.33)$	234.31	233.9 ± 2.2 (-0.7σ)
$\ln(10^{10}A_{\text{s}})$	3.0476	3.043 ± 0.023 (-0.4σ)	Y_{P}	0.246003	$0.24599^{+0.00043}_{-0.00056}$ (-0.1σ)	$D_{\text{M}}(2.33)$	5695	5691^{+73}_{-66} (-0.1σ)
n_{s}	0.9879	$0.993^{+0.016}_{-0.018}$ $(+0.9\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.247331	$0.24732^{+0.00043}_{-0.00056}$ (-0.1σ)	$f\sigma_{\text{s}}(0.15)$	0.4266	0.423 ± 0.030 (-0.4σ)
r	0.187	$0.267^{+0.076}_{-0.26}$	$10^5\text{D}/\text{H}$	2.329	$2.34^{+0.18}_{-0.21}$ $(+0.1\sigma)$	$\sigma_{\text{s}}(0.15)$	0.7355	$0.732^{+0.017}_{-0.014}$ (-0.4σ)
y_{cal}	1.00017	1.0001 ± 0.0025 $(+0.1\sigma)$	Age/Gyr	13.644	13.64 ± 0.15 (-0.0σ)	$f\sigma_{\text{s}}(0.38)$	0.4512	0.448 ± 0.024 (-0.4σ)
H_0	70.36	70.7 ± 2.8 $(+0.3\sigma)$	z_*	1087.68	$1087.7^{+1.6}_{-1.8}$ (-0.0σ)	$\sigma_{\text{s}}(0.38)$	0.6554	$0.653^{+0.012}_{-0.010}$ (-0.3σ)
Ω_{Λ}	0.7194	$0.721^{+0.032}_{-0.026}$ $(+0.3\sigma)$	r_*	144.74	144.90 ± 0.76 $(+0.9\sigma)$	$f\sigma_{\text{s}}(0.51)$	0.4535	0.450 ± 0.021 (-0.4σ)
Ω_{m}	0.2806	$0.279^{+0.026}_{-0.032}$ (-0.3σ)	$100\theta_*$	1.04020	1.04023 ± 0.00085 $(+0.3\sigma)$	$\sigma_{\text{s}}(0.51)$	0.6148	$0.613^{+0.010}_{-0.0086}$ (-0.3σ)
$\Omega_{\text{m}}h^2$	0.13891	0.1383 ± 0.0039 (-0.6σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.915	13.930 ± 0.071 $(+0.9\sigma)$	$f\sigma_{\text{s}}(0.61)$	0.4512	$0.448^{+0.020}_{-0.017}$ (-0.4σ)
$\Omega_{\text{m}}h^3$	0.09774	$0.0977^{+0.0017}_{-0.0019}$ (-0.3σ)	z_{drag}	1062.91	1062.9 ± 2.5 (-0.1σ)	$\sigma_{\text{s}}(0.61)$	0.5860	$0.5839^{+0.0089}_{-0.0078}$ (-0.3σ)
σ_{s}	0.7926	$0.789^{+0.021}_{-0.018}$ (-0.4σ)	r_{drag}	146.93	147.10 ± 0.84 $(+0.9\sigma)$	$f\sigma_{\text{s}}(2.33)$	0.29673	0.2958 ± 0.0037 (-0.2σ)
S_{s}	0.767	0.760 ± 0.058 (-0.4σ)	k_{D}	0.14207	0.1418 ± 0.0014 (-0.6σ)	$\sigma_{\text{s}}(2.33)$	0.30741	0.3068 ± 0.0037 (-0.0σ)
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.5}$	0.4198	0.416 ± 0.032 (-0.4σ)	$100\theta_{\text{D}}$	0.15892	$0.1590^{+0.0012}_{-0.0014}$ $(+0.2\sigma)$	$r_{0.002}$	0.194	< 0.385
$\sigma_{\text{s}}\Omega_{\text{m}}^{0.25}$	0.5769	0.573 ± 0.028 (-0.4σ)	z_{eq}	3304	3289 ± 93 (-0.6σ)	$r_{0.01}$	0.191	< 0.361
$\sigma_{\text{s}}/h^{0.5}$	0.9449	0.939 ± 0.040 (-0.3σ)	k_{eq}	0.010084	0.01004 ± 0.00028 (-0.6σ)	$\ln(10^{10}A_{\text{t}})$	1.37	$1.41^{+1.1}_{-0.35}$
$r_{\text{drag}}h$	103.39	104.0 ± 4.2 $(+0.4\sigma)$	$100\theta_{\text{eq}}$	0.8349	0.838 ± 0.021 $(+0.5\sigma)$	r_{10}	0.100	< 0.201
$\langle d^2 \rangle^{1/2}$	2.341	2.320 ± 0.084 (-0.7σ)	$100\theta_{\text{s,eq}}$	0.4595	0.461 ± 0.010 $(+0.5\sigma)$	10^9A_{t}	0.395	$0.56^{+0.17}_{-0.54}$
z_{re}	7.22	$7.10^{+0.88}_{-0.73}$ $(+0.0\sigma)$	$H(0.15)$	75.33	75.6 ± 2.5 $(+0.3\sigma)$	$10^9A_{\text{t}}e^{-2\tau}$	0.355	$0.50^{+0.15}_{-0.48}$
10^9A_{s}	2.1065	2.097 ± 0.049 (-0.4σ)	$D_{\text{M}}(0.15)$	618.3	616 ± 23 (-0.3σ)	χ_{small}^2	396.53	398.4 ± 2.1 $(+1.1\sigma)$
$10^9A_{\text{s}}e^{-2\tau}$	1.8920	1.886 ± 0.027 (-0.7σ)	$H(0.38)$	84.93	$85.2^{+1.9}_{-2.2}$ $(+0.2\sigma)$	χ_{plikEE}^2	737.59	742.5 ± 3.2 (-0.5σ)
D_{40}	1275	1297^{+44}_{-65} $(+2.2\sigma)$	$D_{\text{M}}(0.38)$	1481.8	1478 ± 47 (-0.3σ)	χ_{prior}^2	0.004	0.99 ± 1.4 $(+0.0\sigma)$
D_{220}	5905	5880 ± 200 (-0.4σ)	$H(0.51)$	91.36	$91.6^{+1.6}_{-1.9}$ $(+0.2\sigma)$	χ_{CMB}^2	1134.12	1140.9 ± 3.7 $(+0.1\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 1134.13$; $\Delta\chi_{\text{eff}}^2 = -0.43$; $\bar{\chi}_{\text{eff}}^2 = 1141.89$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.28$; $R - 1 = 0.00830$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.53 (Δ 0.94) plik_rd12_HM_v22_EE: 737.59 (Δ -1.37)

17.26 base_r_plikHM_EE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02330	0.02305 ± 0.00071 (-0.6σ)	D_{2000}	238.3	238.0 ± 5.5 (-0.1σ)	$D_M(2.33)$	5731.5	5741 ± 31 $(+0.6\sigma)$
$\Omega_c h^2$	0.11753	0.1174 ± 0.0015 (-0.2σ)	$n_{s,0.002}$	0.9767	0.983 ± 0.011 $(+0.8\sigma)$	$f\sigma_8(0.15)$	0.4457	0.4452 ± 0.0098 $(+0.0\sigma)$
$100\theta_{MC}$	1.03986	1.03993 ± 0.00077 $(+0.1\sigma)$	Y_P	0.245788	0.24567 ± 0.00029 (-0.7σ)	$\sigma_8(0.15)$	0.7436	0.7425 ± 0.0091 (-0.0σ)
τ	0.0532	0.0512 ± 0.0085 (-0.1σ)	Y_P^{BBN}	0.247116	0.24699 ± 0.00029 (-0.7σ)	$f\sigma_8(0.38)$	0.4663	0.4658 ± 0.0084 $(+0.0\sigma)$
$\ln(10^{10} A_s)$	3.0493	3.040 ± 0.022 (-0.4σ)	$10^5 D/H$	2.422	$2.47^{+0.11}_{-0.13}$ $(+0.7\sigma)$	$\sigma_8(0.38)$	0.6603	0.6594 ± 0.0078 (-0.0σ)
n_s	0.9767	0.983 ± 0.011 $(+0.8\sigma)$	Age/Gyr	13.725	13.747 ± 0.073 $(+0.6\sigma)$	$f\sigma_8(0.51)$	0.4663	0.4657 ± 0.0076 $(+0.0\sigma)$
r	0.065	< 0.314	z_*	1088.59	1088.89 ± 0.88 $(+0.6\sigma)$	$\sigma_8(0.51)$	0.6185	0.6176 ± 0.0072 (-0.0σ)
y_{cal}	1.00017	1.0001 ± 0.0025 $(+0.0\sigma)$	r_*	144.36	144.60 ± 0.59 $(+0.7\sigma)$	$f\sigma_8(0.61)$	0.4623	0.4617 ± 0.0071 $(+0.0\sigma)$
H_0	68.65	68.53 ± 0.86 (-0.3σ)	$100\theta_*$	1.03995	1.04005 ± 0.00078 $(+0.1\sigma)$	$\sigma_8(0.61)$	0.5888	0.5880 ± 0.0068 (-0.0σ)
Ω_Λ	0.6998	0.6995 ± 0.0091 (-0.1σ)	$D_M(z_*)/\text{Gpc}$	13.881	13.903 ± 0.057 $(+0.7\sigma)$	$f\sigma_8(2.33)$	0.29734	0.2969 ± 0.0034 (-0.0σ)
Ω_m	0.3002	0.3005 ± 0.0091 $(+0.1\sigma)$	z_{drag}	1061.88	1061.3 ± 1.6 (-0.7σ)	$\sigma_8(2.33)$	0.30705	0.3066 ± 0.0035 (-0.0σ)
$\Omega_m h^2$	0.14147	0.1411 ± 0.0015 (-0.5σ)	r_{drag}	146.72	147.05 ± 0.79 $(+0.8\sigma)$	$r_{0.002}$	0.062	< 0.342
$\Omega_m h^3$	0.09711	0.0967 ± 0.0013 (-0.7σ)	k_D	0.14194	0.1414 ± 0.0013 (-0.7σ)	$r_{0.01}$	0.064	< 0.327
σ_8	0.8034	0.802 ± 0.010 (-0.0σ)	$100\theta_D$	0.15945	$0.15982^{+0.00086}_{-0.00097}$ $(+0.7\sigma)$	$\ln(10^{10} A_t)$	0.32	$1.32^{+1.1}_{-0.39}$
S_8	0.8038	0.803 ± 0.019 $(+0.0\sigma)$	z_{eq}	3365.4	3355 ± 36 (-0.5σ)	r_{10}	0.032	< 0.180
$\sigma_8 \Omega_m^{0.5}$	0.4402	0.440 ± 0.010 $(+0.0\sigma)$	k_{eq}	0.010271	0.01024 ± 0.00011 (-0.5σ)	$10^9 A_t$	0.138	< 0.656
$\sigma_8 \Omega_m^{0.25}$	0.5947	0.594 ± 0.010 $(+0.0\sigma)$	$100\theta_{eq}$	0.8217	0.8230 ± 0.0062 $(+0.3\sigma)$	$10^9 A_t e^{-2\tau}$	0.124	< 0.590
$\sigma_8/h^{0.5}$	0.9697	0.969 ± 0.015 $(+0.1\sigma)$	$100\theta_{s,eq}$	0.45304	0.4539 ± 0.0033 $(+0.4\sigma)$	χ_{small}^2	395.97	398.3 ± 2.1 $(+1.0\sigma)$
$r_{drag} h$	100.71	100.8 ± 1.1 $(+0.0\sigma)$	$H(0.15)$	73.82	73.70 ± 0.78 (-0.3σ)	χ_{plikEE}^2	738.57	742.1 ± 2.9 (-0.4σ)
$\langle d^2 \rangle^{1/2}$	2.4004	2.377 ± 0.040 (-0.7σ)	$D_M(0.15)$	632.3	633.5 ± 7.3 $(+0.3\sigma)$	χ_{6DF}^2	0.0017	0.057 ± 0.082 $(+0.0\sigma)$
z_{re}	7.33	$7.16^{+0.87}_{-0.73}$ $(+0.0\sigma)$	$H(0.38)$	83.77	83.63 ± 0.67 (-0.4σ)	χ_{MGS}^2	1.82	1.94 ± 0.71 $(+0.0\sigma)$
$10^9 A_s$	2.1101	2.091 ± 0.047 (-0.4σ)	$D_M(0.38)$	1510.8	1513 ± 15 $(+0.3\sigma)$	$\chi_{DR12BAO}^2$	3.61	4.4 ± 1.2 (-0.1σ)
$10^9 A_s e^{-2\tau}$	1.8972	1.888 ± 0.027 (-0.6σ)	$H(0.51)$	90.39	90.25 ± 0.61 (-0.4σ)	χ_{prior}^2	0.00	0.98 ± 1.4 (-0.0σ)
D_{40}	1247	1295^{+44}_{-61} $(+2.1\sigma)$	$D_M(0.51)$	1958.9	1962 ± 19 $(+0.3\sigma)$	χ_{BAO}^2	5.43	6.4 ± 1.4 (-0.0σ)
D_{220}	5855	5773 ± 160 (-0.9σ)	$H(0.61)$	95.94	95.79 ± 0.58 (-0.5σ)	χ_{CMB}^2	1134.54	1140.4 ± 3.5 $(+0.1\sigma)$
D_{810}	2575.0	2567 ± 35 (-0.4σ)	$D_M(0.61)$	2280.9	2285 ± 21 $(+0.4\sigma)$			
D_{1420}	836.4	836 ± 15 (-0.1σ)	$H(2.33)$	235.76	235.4 ± 1.1 (-0.6σ)			

Best-fit $\chi_{eff}^2 = 1139.97$; $\Delta\chi_{eff}^2 = -0.19$; $\bar{\chi}_{eff}^2 = 1147.71$; $\Delta\bar{\chi}_{eff}^2 = 0.35$; $R - 1 = 0.01154$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.82 (Δ -0.07) DR12BAO: 3.61 (Δ 0.01) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.97 (Δ 0.36) plik_rd12_HM_v22_EE: 738.57 (Δ -0.47)

17.27 base_r_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.0239 \pm 0.0012 \quad (-0.1\sigma)$	D_{810}	$2582 \pm 39 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1921 \pm 56 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1138 \pm 0.0048 \quad (-0.4\sigma)$	D_{1420}	$846 \pm 19 \quad (+0.1\sigma)$	$H(0.61)$	$96.9^{+1.3}_{-1.6} \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04019 \pm 0.00087 \quad (+0.2\sigma)$	D_{2000}	$242.1 \pm 7.3 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2239 \pm 61 \quad (-0.2\sigma)$
τ	$0.0561^{+0.0048}_{-0.0082} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.993^{+0.016}_{-0.018} \quad (+0.9\sigma)$	$H(2.33)$	$233.9 \pm 2.2 \quad (-0.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.049^{+0.019}_{-0.021} \quad (-0.5\sigma)$	Y_{P}	$0.24598^{+0.00042}_{-0.00055} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5692 \pm 69 \quad (-0.1\sigma)$
n_{s}	$0.993^{+0.016}_{-0.018} \quad (+0.9\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24731^{+0.00042}_{-0.00055} \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.425 \pm 0.029 \quad (-0.3\sigma)$
r	$0.268^{+0.079}_{-0.26}$	$10^5\mathrm{D}/\mathrm{H}$	$2.34^{+0.18}_{-0.21} \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.016}_{-0.014} \quad (-0.3\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.64 \pm 0.15 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.449 \pm 0.024 \quad (-0.3\sigma)$
H_0	$70.6 \pm 2.8 \quad (+0.3\sigma)$	z_*	$1087.7^{+1.6}_{-1.8} \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.655^{+0.011}_{-0.0094} \quad (-0.3\sigma)$
Ω_{Λ}	$0.721^{+0.032}_{-0.026} \quad (+0.3\sigma)$	r_*	$144.91 \pm 0.76 \quad (+0.9\sigma)$	$f\sigma_8(0.51)$	$0.452 \pm 0.020 \quad (-0.4\sigma)$
Ω_{m}	$0.279^{+0.026}_{-0.032} \quad (-0.3\sigma)$	$100\theta_*$	$1.04022 \pm 0.00084 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6148^{+0.0091}_{-0.0079} \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1383 \pm 0.0039 \quad (-0.6\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.931 \pm 0.071 \quad (+0.9\sigma)$	$f\sigma_8(0.61)$	$0.450^{+0.019}_{-0.017} \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0976 \pm 0.0018 \quad (-0.3\sigma)$	z_{drag}	$1062.8 \pm 2.5 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5860^{+0.0079}_{-0.0072} \quad (-0.3\sigma)$
σ_8	$0.792^{+0.020}_{-0.018} \quad (-0.4\sigma)$	r_{drag}	$147.12 \pm 0.84 \quad (+0.9\sigma)$	$f\sigma_8(2.33)$	$0.2969 \pm 0.0032 \quad (-0.2\sigma)$
S_8	$0.763 \pm 0.057 \quad (-0.3\sigma)$	k_{D}	$0.1418 \pm 0.0014 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3078^{+0.0029}_{-0.0034} \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.418 \pm 0.031 \quad (-0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1590^{+0.0012}_{-0.0014} \quad (+0.2\sigma)$	$r_{0.002}$	< 0.384
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.575 \pm 0.028 \quad (-0.3\sigma)$	z_{eq}	$3290 \pm 93 \quad (-0.6\sigma)$	$r_{0.01}$	< 0.361
$\sigma_8/h^{0.5}$	$0.943 \pm 0.040 \quad (-0.3\sigma)$	k_{eq}	$0.01004 \pm 0.00028 \quad (-0.6\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$1.42^{+1.1}_{-0.35}$
$r_{\mathrm{drag}}h$	$103.9 \pm 4.2 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.838 \pm 0.021 \quad (+0.5\sigma)$	r_{10}	< 0.201
$\langle d^2 \rangle^{1/2}$	$2.327 \pm 0.082 \quad (-0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4611 \pm 0.0099 \quad (+0.5\sigma)$	10^9A_{t}	$0.56^{+0.18}_{-0.53}$
z_{re}	$7.43^{+0.33}_{-0.83} \quad (+0.0\sigma)$	$H(0.15)$	$75.6 \pm 2.5 \quad (+0.2\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	$0.50^{+0.16}_{-0.48}$
10^9A_{s}	$2.110^{+0.039}_{-0.046} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$617 \pm 23 \quad (-0.2\sigma)$	χ_{small}^2	$398.1 \pm 2.0 \quad (+1.3\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.886 \pm 0.027 \quad (-0.7\sigma)$	$H(0.38)$	$85.1^{+1.9}_{-2.1} \quad (+0.2\sigma)$	χ_{plikEE}^2	$742.4 \pm 3.2 \quad (-0.5\sigma)$
D_{40}	$1296^{+44}_{-64} \quad (+2.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1479 \pm 47 \quad (-0.2\sigma)$	χ_{prior}^2	$0.99 \pm 1.4 \quad (-0.0\sigma)$
D_{220}	$5872 \pm 200 \quad (-0.4\sigma)$	$H(0.51)$	$91.5^{+1.6}_{-1.8} \quad (+0.2\sigma)$	χ_{CMB}^2	$1140.5 \pm 3.5 \quad (+0.0\sigma)$

 $\bar{\chi}_{\mathrm{eff}}^2 = 1141.46; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.16; R - 1 = 0.01059$

17.28 base_r_plikHM_EE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02302 \pm 0.00070 \quad (-0.6\sigma)$	D_{2000}	$238.0 \pm 5.6 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5742 \pm 31 \quad (+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1174 \pm 0.0015 \quad (-0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.984 \pm 0.011 \quad (+0.8\sigma)$	$f\sigma_8(0.15)$	$0.4467 \pm 0.0095 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.03993 \pm 0.00077 \quad (+0.1\sigma)$	Y_{P}	$0.24566^{+0.00030}_{-0.00027} \quad (-0.7\sigma)$	$\sigma_8(0.15)$	$0.7448 \pm 0.0081 \quad (-0.0\sigma)$
τ	$0.0542^{+0.0042}_{-0.0075} \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24698^{+0.00030}_{-0.00027} \quad (-0.7\sigma)$	$f\sigma_8(0.38)$	$0.4673 \pm 0.0080 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046 \pm 0.020 \quad (-0.5\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.47 \pm 0.12 \quad (+0.7\sigma)$	$\sigma_8(0.38)$	$0.6614 \pm 0.0069 \quad (-0.0\sigma)$
n_{s}	$0.984 \pm 0.011 \quad (+0.8\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.750 \pm 0.072 \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.4672 \pm 0.0071 \quad (+0.0\sigma)$
r	< 0.317	z_*	$1088.92 \pm 0.86 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6194^{+0.0061}_{-0.0068} \quad (-0.0\sigma)$
y_{cal}	$1.0001 \pm 0.0024 \quad (+0.0\sigma)$	r_*	$144.62 \pm 0.59 \quad (+0.7\sigma)$	$f\sigma_8(0.61)$	$0.4631 \pm 0.0066 \quad (+0.0\sigma)$
H_0	$68.51 \pm 0.85 \quad (-0.3\sigma)$	$100\theta_*$	$1.04005 \pm 0.00078 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5897^{+0.0057}_{-0.0064} \quad (-0.0\sigma)$
Ω_{Λ}	$0.6993 \pm 0.0090 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.057 \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.2978^{+0.0028}_{-0.0032} \quad (-0.1\sigma)$
Ω_{m}	$0.3007 \pm 0.0090 \quad (+0.1\sigma)$	z_{drag}	$1061.2 \pm 1.6 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3075^{+0.0029}_{-0.0034} \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1410 \pm 0.0015 \quad (-0.5\sigma)$	r_{drag}	$147.08 \pm 0.78 \quad (+0.8\sigma)$	$r_{0.002}$	< 0.347
$\Omega_{\mathrm{m}}h^3$	$0.0966 \pm 0.0013 \quad (-0.7\sigma)$	k_{D}	$0.1414 \pm 0.0013 \quad (-0.7\sigma)$	$r_{0.01}$	< 0.331
σ_8	$0.8048 \pm 0.0092 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.15985 \pm 0.00091 \quad (+0.7\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$1.34^{+1.1}_{-0.39}$
S_8	$0.806 \pm 0.018 \quad (+0.0\sigma)$	z_{eq}	$3355 \pm 36 \quad (-0.5\sigma)$	r_{10}	< 0.182
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.441 \pm 0.010 \quad (+0.0\sigma)$	k_{eq}	$0.01024 \pm 0.00011 \quad (-0.5\sigma)$	10^9A_{t}	< 0.664
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5959 \pm 0.0097 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8230 \pm 0.0063 \quad (+0.3\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.595
$\sigma_8/h^{0.5}$	$0.972 \pm 0.014 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4539 \pm 0.0033 \quad (+0.4\sigma)$	χ_{small}^2	$398.0 \pm 1.9 \quad (+1.1\sigma)$
$r_{\mathrm{drag}}h$	$100.8 \pm 1.1 \quad (+0.0\sigma)$	$H(0.15)$	$73.68 \pm 0.77 \quad (-0.3\sigma)$	χ_{plikEE}^2	$741.9 \pm 2.8 \quad (-0.4\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.382 \pm 0.038 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$633.7 \pm 7.3 \quad (+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.081 \quad (+0.0\sigma)$
z_{re}	$7.47^{+0.36}_{-0.81} \quad (+0.0\sigma)$	$H(0.38)$	$83.61 \pm 0.66 \quad (-0.4\sigma)$	χ_{MGS}^2	$1.93 \pm 0.71 \quad (+0.0\sigma)$
10^9A_{s}	$2.103 \pm 0.041 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1514 \pm 15 \quad (+0.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.4 \pm 1.2 \quad (-0.1\sigma)$
$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.887 \pm 0.027 \quad (-0.6\sigma)$	$H(0.51)$	$90.22 \pm 0.61 \quad (-0.5\sigma)$	χ_{prior}^2	$0.95 \pm 1.4 \quad (-0.0\sigma)$
D_{40}	$1295^{+43}_{-62} \quad (+2.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1963 \pm 19 \quad (+0.3\sigma)$	χ_{BAO}^2	$6.3 \pm 1.4 \quad (-0.0\sigma)$
D_{220}	$5766 \pm 150 \quad (-0.9\sigma)$	$H(0.61)$	$95.77 \pm 0.57 \quad (-0.5\sigma)$	χ_{CMB}^2	$1140.0 \pm 3.3 \quad (+0.1\sigma)$
D_{810}	$2566 \pm 35 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2285 \pm 21 \quad (+0.4\sigma)$		
D_{1420}	$835 \pm 15 \quad (-0.1\sigma)$	$H(2.33)$	$235.4 \pm 1.1 \quad (-0.6\sigma)$		

 $\bar{\chi}_{\mathrm{eff}}^2 = 1147.29; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.22; R - 1 = 0.01573$

17.29 base_r_plikHM_TT_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022177	0.02214 ± 0.00021 (+0.0 σ)	$r_{\text{drag}} h$	98.82	98.9 ± 1.2 (+0.1 σ)	$D_{\text{M}}(0.51)$	1991.6	1992 ± 14 (−0.1 σ)
$\Omega_c h^2$	0.12018	0.1200 ± 0.0015 (−0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4451	2.444 ± 0.025 (−0.1 σ)	$H(0.61)$	95.099	95.08 ± 0.30 (+0.1 σ)
$100\theta_{\text{MC}}$	1.040852	1.04082 ± 0.00045 (+0.0 σ)	z_{re}	7.55	$7.53^{+0.80}_{-0.71}$ (+0.0 σ)	$D_{\text{M}}(0.61)$	2316.8	2317 ± 15 (−0.1 σ)
τ	0.0526	0.0525 ± 0.0077 (+0.0 σ)	$10^9 A_s$	2.0922	2.091 ± 0.031 (+0.0 σ)	$H(2.33)$	236.48	236.35 ± 0.94 (−0.1 σ)
$\ln(10^{10} A_s)$	3.0408	3.040 ± 0.015 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8834	1.882 ± 0.011 (−0.0 σ)	$D_{\text{M}}(2.33)$	5773.2	5775 ± 14 (−0.1 σ)
n_s	0.96474	0.9643 ± 0.0048 (+0.2 σ)	D_{40}	1229.4	1244^{+14}_{-17} (+0.9 σ)	$f\sigma_8(0.15)$	0.4611	0.4603 ± 0.0081 (−0.1 σ)
r	0.0002	< 0.0468	D_{220}	5714.8	5714 ± 42 (−0.0 σ)	$\sigma_8(0.15)$	0.7488	0.7481 ± 0.0056 (−0.0 σ)
y_{cal}	1.00047	1.0006 ± 0.0025 (+0.1 σ)	D_{810}	2538.4	2537 ± 14 (+0.1 σ)	$f\sigma_8(0.38)$	0.4781	0.4774 ± 0.0063 (−0.1 σ)
A_{217}^{CIB}	48.7	48 ± 7 (−0.0 σ)	D_{1420}	816.1	815.0 ± 5.2 (+0.1 σ)	$\sigma_8(0.38)$	0.66315	0.6625 ± 0.0048 (−0.0 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	D_{2000}	230.18	229.8 ± 1.8 (+0.1 σ)	$f\sigma_8(0.51)$	0.4760	0.4753 ± 0.0054 (−0.1 σ)
A_{143}^{tSZ}	7.01	5.1 ± 2.0 (+0.0 σ)	$n_{\text{s},0.002}$	0.96474	0.9643 ± 0.0048 (+0.2 σ)	$\sigma_8(0.51)$	0.62032	0.6198 ± 0.0046 (+0.0 σ)
A_{100}^{PS}	254.4	263 ± 28 (−0.0 σ)	Y_{P}	0.245316	$0.245297^{+0.000096}_{-0.000083}$ (+0.0 σ)	$f\sigma_8(0.61)$	0.47054	0.4699 ± 0.0048 (−0.1 σ)
A_{143}^{PS}	49.5	49 ± 8 (−0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246643	$0.246623^{+0.000097}_{-0.000083}$ (+0.0 σ)	$\sigma_8(0.61)$	0.59009	0.5896 ± 0.0044 (+0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	47.3	44 ± 9 (+0.0 σ)	$10^5 \text{D}/\text{H}$	2.6223	2.629 ± 0.040 (−0.0 σ)	$f\sigma_8(2.33)$	0.29729	0.2970 ± 0.0023 (+0.0 σ)
A_{217}^{PS}	119.3	115 ± 10 (+0.0 σ)	Age/Gyr	13.8198	13.824 ± 0.032 (−0.0 σ)	$\sigma_8(2.33)$	0.30623	0.3060 ± 0.0025 (+0.0 σ)
A^{kSZ}	0.02	< 4.76 (−0.1 σ)	z_*	1090.179	1090.22 ± 0.35 (−0.1 σ)	$r_{0.002}$	0.0001	< 0.0425
A_{100}^{dustTT}	8.88	8.9 ± 1.8 (−0.0 σ)	r_*	144.532	144.60 ± 0.36 (+0.1 σ)	$r_{0.01}$	0.0001	< 0.0446
A_{143}^{dustTT}	10.79	10.7 ± 1.8 (−0.0 σ)	$100\theta_*$	1.041055	1.04103 ± 0.00044 (+0.0 σ)	$\ln(10^{10} A_{\text{t}})$	−5.72	$−0.70^{+1.4}_{-0.62}$
$A_{143 \times 217}^{\text{dustTT}}$	19.46	18.3 ± 3.3 (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8833	13.890 ± 0.034 (+0.1 σ)	r_{10}	0.0001	< 0.0218
A_{217}^{dustTT}	94.7	93.5 ± 7.3 (+0.0 σ)	z_{drag}	1059.513	1059.41 ± 0.45 (−0.0 σ)	$10^9 A_{\text{t}}$	0.0003	< 0.0977
c_{100}	0.99965	0.99960 ± 0.00061 (−0.0 σ)	r_{drag}	147.258	147.34 ± 0.38 (+0.1 σ)	$10^9 A_{\text{t}} e^{-2\tau}$	0.0003	< 0.0879
c_{217}	0.99827	0.99827 ± 0.00063 (+0.0 σ)	k_{D}	0.140540	0.14043 ± 0.00045 (−0.1 σ)	f_{2000}^{143}	30.23	31.0 ± 2.9 (−0.1 σ)
H_0	67.11	67.12 ± 0.70 (+0.1 σ)	$100\theta_{\text{D}}$	0.161012	0.16106 ± 0.00026 (+0.0 σ)	$f_{2000}^{143 \times 217}$	33.17	33.5 ± 2.0 (−0.1 σ)
Ω_{Λ}	0.6825	0.6828 ± 0.0097 (+0.1 σ)	z_{eq}	3401.9	3398 ± 35 (−0.1 σ)	f_{2000}^{217}	107.60	108.1 ± 1.9 (−0.0 σ)
Ω_{m}	0.3175	0.3172 ± 0.0097 (−0.1 σ)	k_{eq}	0.010383	0.01037 ± 0.00011 (−0.1 σ)	χ_{lensing}^2	8.901	9.46 ± 0.85 (+0.0 σ)
$\Omega_{\text{m}} h^2$	0.14300	0.1428 ± 0.0015 (−0.1 σ)	$100\theta_{\text{eq}}$	0.8128	0.8135 ± 0.0066 (+0.1 σ)	χ_{small}^2	395.87	397.1 ± 1.6 (+0.1 σ)
$\Omega_{\text{m}} h^3$	0.095967	0.09586 ± 0.00045 (−0.0 σ)	$100\theta_{\text{s,eq}}$	0.44925	0.4496 ± 0.0034 (+0.1 σ)	χ_{lowl}^2	23.37	24.9 ± 1.6 (+1.2 σ)
σ_8	0.8110	0.8102 ± 0.0063 (−0.0 σ)	$H(0.15)$	72.45	72.46 ± 0.60 (+0.1 σ)	χ_{plik}^2	759.04	771.2 ± 5.2 (+0.0 σ)
S_8	0.8344	0.833 ± 0.016 (−0.1 σ)	$D_{\text{M}}(0.15)$	645.6	645.5 ± 6.1 (−0.1 σ)	χ_{prior}^2	1.36	7.3 ± 3.7 (−0.0 σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4570	0.4562 ± 0.0088 (−0.1 σ)	$H(0.38)$	82.662	82.66 ± 0.45 (+0.1 σ)	χ_{CMB}^2	1187.2	1202.6 ± 5.7 (+0.3 σ)
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6088	0.6079 ± 0.0077 (−0.1 σ)	$D_{\text{M}}(0.38)$	1538.2	1538 ± 12 (−0.1 σ)			
$\sigma_8/h^{0.5}$	0.9900	0.989 ± 0.010 (−0.1 σ)	$H(0.51)$	89.437	89.43 ± 0.36 (+0.1 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1188.55$; $\Delta\chi_{\text{eff}}^2 = -0.02$; $\bar{\chi}_{\text{eff}}^2 = 1209.87$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.46$; $R - 1 = 0.00994$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.90 (Δ -0.00) small_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.01) commander_dx12_v3.2.29: 23.37 (Δ 0.14) plik_rd12_HM_v22.TT: 759.04 (Δ -0.28)

17.30 base_r_plikHM_TT_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022253	0.02221 ± 0.00020 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4337	2.433 ± 0.022 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2306.8	2307 ± 11 (−0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.11914	0.1190 ± 0.0011 (−0.1 σ)	z_{re}	7.75	7.75 ± 0.73 (−0.0 σ)	$H(2.33)$	235.88	235.78 ± 0.69 (−0.1 σ)
$100\theta_{\mathrm{MC}}$	1.040958	1.04098 ± 0.00042 (+0.0 σ)	$10^9 A_{\mathrm{s}}$	2.0990	2.097 ± 0.030 (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5766.1	5768 ± 12 (−0.0 σ)
τ	0.0549	0.0549 ± 0.0072 (−0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8808	1.879 ± 0.011 (−0.0 σ)	$f\sigma_8(0.15)$	0.4560	0.4555 ± 0.0061 (−0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0440	3.043 ± 0.014 (−0.0 σ)	D_{40}	1226.7	1241^{+13}_{-17} (+1.1 σ)	$\sigma_8(0.15)$	0.7479	0.7474 ± 0.0056 (−0.0 σ)
n_{s}	0.96686	0.9666 ± 0.0041 (+0.2 σ)	D_{220}	5727.7	5722 ± 41 (−0.0 σ)	$f\sigma_8(0.38)$	0.4744	0.4740 ± 0.0051 (−0.1 σ)
r	0.0000	< 0.0490	D_{810}	2540.0	2537 ± 14 (+0.0 σ)	$\sigma_8(0.38)$	0.66299	0.6626 ± 0.0049 (−0.0 σ)
y_{cal}	1.00090	1.0008 ± 0.0025 (+0.0 σ)	D_{1420}	817.3	816.1 ± 5.0 (+0.1 σ)	$f\sigma_8(0.51)$	0.47305	0.4726 ± 0.0045 (−0.1 σ)
A_{217}^{CIB}	48.1	48 ± 7 (−0.1 σ)	D_{2000}	230.62	230.2 ± 1.8 (+0.1 σ)	$\sigma_8(0.51)$	0.62047	0.6201 ± 0.0046 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.42	—	$n_{\mathrm{s},0.002}$	0.96686	0.9666 ± 0.0041 (+0.2 σ)	$f\sigma_8(0.61)$	0.46812	0.4677 ± 0.0042 (−0.1 σ)
A_{143}^{tSZ}	6.96	$5.2^{+2.2}_{-1.9}$ (+0.0 σ)	Y_{P}	0.245348	$0.245326^{+0.000087}_{-0.000076}$ (+0.0 σ)	$\sigma_8(0.61)$	0.59040	0.5901 ± 0.0044 (−0.0 σ)
A_{100}^{PS}	253.6	262 ± 28 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246674	$0.246652^{+0.000087}_{-0.000076}$ (+0.0 σ)	$f\sigma_8(2.33)$	0.29770	0.2976 ± 0.0022 (−0.0 σ)
A_{143}^{PS}	50.6	48 ± 8 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6077	2.617 ± 0.037 (−0.0 σ)	$\sigma_8(2.33)$	0.30694	0.3068 ± 0.0024 (−0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	49.2	43 ± 9 (+0.0 σ)	Age/Gyr	13.8045	13.808 ± 0.028 (−0.0 σ)	$r_{0.002}$	0.0000	< 0.0448
A_{217}^{PS}	120.3	115 ± 10 (+0.1 σ)	z_{*}	1089.993	1090.04 ± 0.29 (−0.0 σ)	$r_{0.01}$	0.0000	< 0.0469
A^{kSZ}	0.01	< 4.59 (−0.1 σ)	r_{*}	144.744	144.80 ± 0.28 (+0.1 σ)	$\ln(10^{10}A_{\mathrm{t}})$	−6.92	$-0.65^{+1.4}_{-0.61}$
$A_{100}^{\mathrm{dustTT}}$	8.89	8.9 ± 1.8 (−0.0 σ)	$100\theta_{*}$	1.041155	1.04118 ± 0.00042 (+0.0 σ)	r_{10}	0.0000	< 0.0229
$A_{143}^{\mathrm{dustTT}}$	10.83	10.7 ± 1.8 (+0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.9023	13.908 ± 0.028 (+0.1 σ)	$10^9 A_{\mathrm{t}}$	0.000	< 0.103
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.58	18.3 ± 3.2 (+0.0 σ)	z_{drag}	1059.589	1059.49 ± 0.45 (−0.0 σ)	$10^9 A_{\mathrm{t}}e^{-2\tau}$	0.0001	< 0.0920
$A_{217}^{\mathrm{dustTT}}$	94.9	93.6 ± 7.2 (+0.0 σ)	r_{drag}	147.452	147.53 ± 0.32 (+0.1 σ)	f_{2000}^{143}	30.07	30.7 ± 2.9 (−0.1 σ)
c_{100}	0.99967	0.99960 ± 0.00061 (−0.0 σ)	k_{D}	0.140399	0.14028 ± 0.00043 (−0.1 σ)	$f_{2000}^{143 \times 217}$	33.02	33.2 ± 2.0 (−0.1 σ)
c_{217}	0.99823	0.99827 ± 0.00063 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.160954	0.16103 ± 0.00026 (+0.0 σ)	f_{2000}^{217}	107.50	107.9 ± 1.9 (−0.0 σ)
H_0	67.574	67.58 ± 0.49 (+0.1 σ)	z_{eq}	3378.7	3376 ± 25 (−0.1 σ)	$\chi_{\mathrm{lensing}}^2$	8.808	9.32 ± 0.77 (+0.1 σ)
Ω_{Λ}	0.6889	0.6892 ± 0.0065 (+0.1 σ)	k_{eq}	0.010312	0.010303 ± 0.000076 (−0.1 σ)	χ_{small}^2	396.18	397.3 ± 1.7 (+0.1 σ)
Ω_{m}	0.3111	0.3108 ± 0.0065 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.81721	0.8177 ± 0.0046 (+0.1 σ)	χ_{lowl}^2	23.01	24.5 ± 1.5 (+1.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.14203	0.1419 ± 0.0010 (−0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.45151	0.4518 ± 0.0024 (+0.1 σ)	χ_{plik}^2	759.74	771.5 ± 5.2 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.095978	0.09589 ± 0.00045 (−0.0 σ)	$H(0.15)$	72.847	72.85 ± 0.43 (+0.1 σ)	$\chi_{6\mathrm{DF}}^2$	0.0299	0.055 ± 0.068 (−0.1 σ)
σ_8	0.8093	0.8088 ± 0.0062 (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	641.59	641.6 ± 4.2 (−0.1 σ)	χ_{MGS}^2	1.217	1.30 ± 0.46 (+0.1 σ)
S_8	0.8241	0.823 ± 0.012 (−0.1 σ)	$H(0.38)$	82.945	82.94 ± 0.33 (+0.1 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.40	4.8 ± 1.5 (−0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4514	0.4509 ± 0.0065 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1530.3	1530.4 ± 8.6 (−0.1 σ)	χ_{prior}^2	1.35	7.3 ± 3.6 (−0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6044	0.6039 ± 0.0062 (−0.1 σ)	$H(0.51)$	89.654	89.64 ± 0.27 (+0.1 σ)	χ_{CMB}^2	1187.7	1202.6 ± 5.6 (+0.2 σ)
$\sigma_8/h^{0.5}$	0.9845	0.9839 ± 0.0089 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1982.4	1983 ± 10 (−0.1 σ)	χ_{BAO}^2	5.64	6.1 ± 1.2 (−0.1 σ)
$r_{\mathrm{drag}}h$	99.64	99.69 ± 0.83 (+0.1 σ)	$H(0.61)$	95.267	95.25 ± 0.24 (+0.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.73$; $\Delta\chi_{\mathrm{eff}}^2 = 0.04$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.99$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.26$; $R - 1 = 0.01776$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.40 (Δ 0.02) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.81 (Δ -0.07) small_100x143_offlike5_EE_Aplanck: 396.18 (Δ 0.08) commander_dx12_v3_2.29: 23.01 (Δ 0.05) plik_rd12_HM_v22_TT: 759.74 (Δ -0.06)

17.31 base_r_plikHM_TT_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02215 \pm 0.00021 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.0 \pm 1.2 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1991 \pm 14 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0015 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.445 \pm 0.025 \quad (-0.1\sigma)$	$H(0.61)$	$95.10 \pm 0.29 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04083 \pm 0.00045 \quad (+0.0\sigma)$	z_{re}	$7.68^{+0.55}_{-0.77} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2316 \pm 15 \quad (-0.1\sigma)$
τ	$0.0540^{+0.0050}_{-0.0079} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.023}_{-0.030} \quad (-0.0\sigma)$	$H(2.33)$	$236.28 \pm 0.92 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.014} \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5774 \pm 14 \quad (-0.1\sigma)$
n_{s}	$0.9646 \pm 0.0047 \quad (+0.2\sigma)$	D_{40}	$1243^{+14}_{-17} \quad (+1.0\sigma)$	$f\sigma_8(0.15)$	$0.4602 \pm 0.0081 \quad (-0.1\sigma)$
r	< 0.0471	D_{220}	$5714 \pm 42 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7488 \pm 0.0051 \quad (-0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4775 \pm 0.0063 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$815.1 \pm 5.2 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6632^{+0.0040}_{-0.0047} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4755 \pm 0.0053 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9646 \pm 0.0047 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.6205^{+0.0037}_{-0.0044} \quad (-0.0\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	Y_{P}	$0.245301^{+0.000096}_{-0.000082} \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4701 \pm 0.0047 \quad (-0.1\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246627^{+0.000096}_{-0.000082} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5903^{+0.0035}_{-0.0042} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.628 \pm 0.040 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0017}_{-0.0023} \quad (+0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.822 \pm 0.032 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0025} \quad (+0.0\sigma)$
A^{kSZ}	$< 4.71 \quad (-0.1\sigma)$	z_*	$1090.19 \pm 0.34 \quad (-0.1\sigma)$	$r_{0.002}$	< 0.0428
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.35 \quad (+0.1\sigma)$	$r_{0.01}$	< 0.0449
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00044 \quad (+0.0\sigma)$	$\ln(10^{10} A_{\mathrm{t}})$	$-0.69^{+1.4}_{-0.62}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.033 \quad (+0.1\sigma)$	r_{10}	< 0.0220
$A_{217}^{\mathrm{dustTT}}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	z_{drag}	$1059.42 \pm 0.45 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.0987
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.36 \pm 0.37 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}} e^{-2\tau}$	< 0.0885
c_{217}	$0.99827 \pm 0.00063 \quad (+0.0\sigma)$	k_{D}	$0.14041 \pm 0.00045 \quad (-0.1\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (-0.1\sigma)$
H_0	$67.18 \pm 0.69 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16106 \pm 0.00026 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6836 \pm 0.0094 \quad (+0.1\sigma)$	z_{eq}	$3395 \pm 34 \quad (-0.1\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (-0.0\sigma)$
Ω_{m}	$0.3164 \pm 0.0094 \quad (-0.1\sigma)$	k_{eq}	$0.01036 \pm 0.00010 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.43 \pm 0.84 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1427 \pm 0.0014 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8140 \pm 0.0064 \quad (+0.1\sigma)$	χ_{small}^2	$397.0 \pm 1.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09586 \pm 0.00045 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4499 \pm 0.0033 \quad (+0.1\sigma)$	χ_{lowl}^2	$24.9 \pm 1.6 \quad (+1.2\sigma)$
σ_8	$0.8109 \pm 0.0060 \quad (-0.0\sigma)$	$H(0.15)$	$72.51 \pm 0.59 \quad (+0.1\sigma)$	χ_{plik}^2	$771.1 \pm 5.2 \quad (+0.0\sigma)$
S_8	$0.833 \pm 0.016 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.0 \pm 5.9 \quad (-0.1\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4561 \pm 0.0088 \quad (-0.1\sigma)$	$H(0.38)$	$82.69 \pm 0.44 \quad (+0.1\sigma)$	χ_{CMB}^2	$1202.4 \pm 5.6 \quad (+0.3\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6081 \pm 0.0076 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 12 \quad (-0.1\sigma)$		
$\sigma_8/h^{0.5}$	$0.989 \pm 0.010 \quad (-0.1\sigma)$	$H(0.51)$	$89.45 \pm 0.35 \quad (+0.1\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1209.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.48$; $R - 1 = 0.01135$

17.32 base_r_plikHM_TT_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00020 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.434 ± 0.021 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2307 ± 11 (−0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.1190 ± 0.0011 (−0.1 σ)	z_{re}	$7.83^{+0.61}_{-0.72}$ (−0.0 σ)	$H(2.33)$	235.76 ± 0.68 (−0.1 σ)
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00042 (+0.0 σ)	$10^9 A_{\mathrm{s}}$	$2.100^{+0.025}_{-0.031}$ (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5767 ± 12 (−0.0 σ)
τ	$0.0557^{+0.0056}_{-0.0074}$ (−0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.879 ± 0.011 (−0.0 σ)	$f\sigma_8(0.15)$	0.4556 ± 0.0061 (−0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.012}_{-0.014}$ (−0.0 σ)	D_{40}	1241^{+13}_{-17} (+1.1 σ)	$\sigma_8(0.15)$	$0.7479^{+0.0049}_{-0.0056}$ (−0.0 σ)
n_{s}	0.9667 ± 0.0041 (+0.2 σ)	D_{220}	5722 ± 41 (−0.0 σ)	$f\sigma_8(0.38)$	0.4741 ± 0.0050 (−0.1 σ)
r	< 0.0492	D_{810}	2537 ± 14 (+0.0 σ)	$\sigma_8(0.38)$	$0.6630^{+0.0042}_{-0.0049}$ (−0.0 σ)
y_{cal}	1.0008 ± 0.0025 (+0.0 σ)	D_{1420}	816.1 ± 5.0 (+0.1 σ)	$f\sigma_8(0.51)$	0.4728 ± 0.0044 (−0.1 σ)
A_{217}^{CIB}	48 ± 7 (−0.1 σ)	D_{2000}	230.2 ± 1.8 (+0.1 σ)	$\sigma_8(0.51)$	$0.6205^{+0.0039}_{-0.0046}$ (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	0.9667 ± 0.0041 (+0.2 σ)	$f\sigma_8(0.61)$	0.4679 ± 0.0041 (−0.1 σ)
A_{143}^{tSZ}	$5.2^{+2.2}_{-1.9}$ (+0.0 σ)	Y_{P}	$0.245328^{+0.000087}_{-0.000076}$ (+0.0 σ)	$\sigma_8(0.61)$	$0.5905^{+0.0037}_{-0.0044}$ (−0.0 σ)
A_{100}^{PS}	262 ± 28 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246654^{+0.000087}_{-0.000076}$ (+0.0 σ)	$f\sigma_8(2.33)$	$0.2978^{+0.0019}_{-0.0023}$ (−0.0 σ)
A_{143}^{PS}	48 ± 8 (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.616 ± 0.037 (−0.0 σ)	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0024}$ (−0.0 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9 (+0.0 σ)	Age/Gyr	13.807 ± 0.028 (−0.0 σ)	$r_{0.002}$	< 0.0453
A_{217}^{PS}	115 ± 10 (+0.1 σ)	z_*	1090.04 ± 0.29 (−0.0 σ)	$r_{0.01}$	< 0.0472
A^{kSZ}	< 4.58 (−0.1 σ)	r_*	144.81 ± 0.28 (+0.1 σ)	$\ln(10^{10}A_{\mathrm{t}})$	$-0.64^{+1.4}_{-0.61}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8 (−0.0 σ)	$100\theta_*$	1.04118 ± 0.00042 (+0.0 σ)	r_{10}	< 0.0231
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.908 ± 0.028 (+0.1 σ)	$10^9 A_{\mathrm{t}}$	< 0.104
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3 (+0.0 σ)	z_{drag}	1059.50 ± 0.45 (−0.0 σ)	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0926
$A_{217}^{\mathrm{dust}TT}$	93.6 ± 7.2 (+0.0 σ)	r_{drag}	147.53 ± 0.32 (+0.1 σ)	f_{2000}^{143}	30.7 ± 2.9 (−0.1 σ)
c_{100}	0.99960 ± 0.00061 (−0.0 σ)	k_{D}	0.14028 ± 0.00043 (−0.0 σ)	$f_{2000}^{143 \times 217}$	33.2 ± 2.0 (−0.1 σ)
c_{217}	0.99827 ± 0.00063 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00026 (+0.0 σ)	f_{2000}^{217}	107.9 ± 1.9 (−0.0 σ)
H_0	67.59 ± 0.49 (+0.1 σ)	z_{eq}	3375 ± 25 (−0.1 σ)	$\chi_{\mathrm{lensing}}^2$	9.28 ± 0.72 (+0.1 σ)
Ω_{Λ}	0.6894 ± 0.0064 (+0.1 σ)	k_{eq}	0.010300 ± 0.000075 (−0.1 σ)	χ_{simall}^2	397.2 ± 1.7 (+0.1 σ)
Ω_{m}	0.3106 ± 0.0064 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8179 ± 0.0046 (+0.1 σ)	χ_{lowl}^2	24.5 ± 1.5 (+1.4 σ)
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0010 (−0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.4519 ± 0.0024 (+0.1 σ)	χ_{plik}^2	771.4 ± 5.2 (−0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09589 ± 0.00045 (−0.0 σ)	$H(0.15)$	72.86 ± 0.43 (+0.1 σ)	$\chi_{6\mathrm{DF}}^2$	0.053 ± 0.066 (−0.1 σ)
σ_8	$0.8092^{+0.0055}_{-0.0062}$ (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	641.5 ± 4.2 (−0.1 σ)	χ_{MGS}^2	1.32 ± 0.46 (+0.1 σ)
S_8	0.823 ± 0.012 (−0.1 σ)	$H(0.38)$	82.95 ± 0.33 (+0.1 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.4 (−0.1 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4510 ± 0.0065 (−0.1 σ)	$D_{\mathrm{M}}(0.38)$	1530.1 ± 8.5 (−0.1 σ)	χ_{prior}^2	7.3 ± 3.6 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6041 ± 0.0061 (−0.1 σ)	$H(0.51)$	89.65 ± 0.27 (+0.1 σ)	χ_{CMB}^2	1202.5 ± 5.6 (+0.3 σ)
$\sigma_8/h^{0.5}$	0.9843 ± 0.0088 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1982 ± 10 (−0.1 σ)	χ_{BAO}^2	6.1 ± 1.1 (−0.1 σ)
$r_{\mathrm{drag}}h$	99.72 ± 0.83 (+0.1 σ)	$H(0.61)$	95.25 ± 0.24 (+0.0 σ)		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.85$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.27$; $R - 1 = 0.01875$

17.33 base_r_plikHM_TTTEEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022391	0.02237 ± 0.00014 (-0.0σ)	S_8	0.8320	0.830 ± 0.013 (-0.1σ)	$D_M(0.38)$	1533.2	1532.9 ± 9.3 (-0.1σ)
$\Omega_c h^2$	0.12002	0.1199 ± 0.0012 (-0.1σ)	$\sigma_8 \Omega_m^{0.5}$	0.4557	0.4549 ± 0.0070 (-0.1σ)	$H(0.51)$	89.639	89.64 ± 0.27 $(+0.0\sigma)$
$100\theta_{MC}$	1.040933	1.04092 ± 0.00031 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.25}$	0.6082	0.6073 ± 0.0064 (-0.1σ)	$D_M(0.51)$	1985.6	1985 ± 11 (-0.1σ)
τ	0.0543	0.0543 ± 0.0075 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9889	0.9878 ± 0.0090 (-0.1σ)	$H(0.61)$	95.291	95.29 ± 0.22 $(+0.0\sigma)$
$\ln(10^{10} A_s)$	3.0445	3.044 ± 0.014 (-0.0σ)	$r_{drag} h$	99.08	99.16 ± 0.93 $(+0.1\sigma)$	$D_M(0.61)$	2310.0	2310 ± 12 (-0.1σ)
n_s	0.96634	0.9659 ± 0.0041 $(+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4430	2.442 ± 0.022 (-0.2σ)	$H(2.33)$	236.59	236.49 ± 0.72 (-0.1σ)
r	0.0005	< 0.0494	z_{re}	7.68	7.66 ± 0.75 (-0.0σ)	$D_M(2.33)$	5762.7	5763 ± 10 (-0.0σ)
y_{cal}	1.00038	1.0006 ± 0.0025 $(+0.0\sigma)$	$10^9 A_s$	2.0999	2.099 ± 0.030 (-0.0σ)	$f\sigma_8(0.15)$	0.4600	0.4592 ± 0.0065 (-0.1σ)
A_{217}^{CIB}	45.8	47 ± 7 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8836	1.883 ± 0.011 (-0.1σ)	$\sigma_8(0.15)$	0.7496	0.7490 ± 0.0053 (-0.0σ)
$\xi^{tSZ \times CIB}$	0.65	—	D_{40}	1228.3	1243_{-17}^{+13} $(+1.0\sigma)$	$f\sigma_8(0.38)$	0.4775	0.4768 ± 0.0052 (-0.1σ)
A_{143}^{tSZ}	7.08	$5.5_{-1.9}^{+2.1}$ $(+0.1\sigma)$	D_{220}	5729.4	5730 ± 39 (-0.1σ)	$\sigma_8(0.38)$	0.66410	0.6636 ± 0.0047 (-0.0σ)
A_{100}^{PS}	248.4	258 ± 28 (-0.1σ)	D_{810}	2540.9	2539 ± 13 (-0.0σ)	$f\sigma_8(0.51)$	0.47567	0.4750 ± 0.0046 (-0.1σ)
A_{143}^{PS}	50.6	46 ± 8 (-0.0σ)	D_{1420}	818.43	817.6 ± 4.8 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.62132	0.6209 ± 0.0044 (-0.0σ)
$A_{143 \times 217}^{PS}$	53.1	43 ± 9 $(+0.0\sigma)$	D_{2000}	231.35	231.0 ± 1.6 $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.47039	0.4698 ± 0.0041 (-0.1σ)
A_{217}^{PS}	122.1	115 ± 10 $(+0.1\sigma)$	$n_{s,0.002}$	0.96634	0.9659 ± 0.0041 $(+0.3\sigma)$	$\sigma_8(0.61)$	0.59110	0.5907 ± 0.0042 (-0.0σ)
A^{kSZ}	0.00	< 4.07 (-0.1σ)	Y_P	0.245404	$0.245394_{-0.000052}^{+0.000060}$ (-0.0σ)	$f\sigma_8(2.33)$	0.29789	0.2977 ± 0.0022 (-0.0σ)
A_{100}^{dustTT}	8.81	8.9 ± 1.8 $(+0.0\sigma)$	Y_P^{BBN}	0.246730	$0.246720_{-0.000052}^{+0.000060}$ (-0.0σ)	$\sigma_8(2.33)$	0.30695	0.3068 ± 0.0024 $(+0.0\sigma)$
A_{143}^{dustTT}	11.02	10.8 ± 1.8 (-0.0σ)	$10^5 D/H$	2.5815	2.586 ± 0.027 $(+0.0\sigma)$	$r_{0.002}$	0.0004	< 0.0452
$A_{143 \times 217}^{dustTT}$	20.21	18.6 ± 3.3 $(+0.0\sigma)$	Age/Gyr	13.7951	13.797 ± 0.023 (-0.0σ)	$r_{0.01}$	0.0004	< 0.0473
A_{217}^{dustTT}	95.6	93.8 ± 7.3 $(+0.0\sigma)$	z_*	1089.894	1089.91 ± 0.25 (-0.0σ)	$\ln(10^{10} A_t)$	-4.62	$-0.65_{-0.57}^{+1.4}$
A_{100}^{dustTE}	0.1151	0.115 ± 0.038 $(+0.0\sigma)$	r_*	144.411	144.46 ± 0.27 $(+0.1\sigma)$	r_{10}	0.0002	< 0.0231
$A_{100 \times 143}^{dustTE}$	0.1353	0.135 ± 0.030 $(+0.0\sigma)$	$100\theta_*$	1.041110	1.04110 ± 0.00030 $(+0.0\sigma)$	$10^9 A_t$	0.001	< 0.104
$A_{100 \times 217}^{dustTE}$	0.482	0.481 ± 0.084 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8709	13.876 ± 0.025 $(+0.1\sigma)$	$10^9 A_t e^{-2\tau}$	0.0009	< 0.0930
A_{143}^{dustTE}	0.226	0.226 ± 0.054 $(+0.0\sigma)$	z_{drag}	1059.971	1059.93 ± 0.29 (-0.0σ)	f_{2000}^{143}	28.57	29.3 ± 2.7 (-0.1σ)
$A_{143 \times 217}^{dustTE}$	0.667	0.667 ± 0.081 (-0.0σ)	r_{drag}	147.065	147.12 ± 0.27 $(+0.1\sigma)$	$f_{2000}^{143 \times 217}$	31.92	32.1 ± 1.8 (-0.1σ)
A_{217}^{dustTE}	2.088	2.09 ± 0.27 (-0.0σ)	k_D	0.140912	0.14084 ± 0.00030 (-0.1σ)	f_{2000}^{217}	106.44	106.9 ± 1.8 (-0.1σ)
c_{100}	0.99973	0.99966 ± 0.00061 (-0.0σ)	$100\theta_D$	0.160730	0.16076 ± 0.00017 $(+0.0\sigma)$	$\chi_{lensing}^2$	8.839	9.25 ± 0.67 $(+0.0\sigma)$
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	z_{eq}	3403.1	3400 ± 27 (-0.1σ)	χ_{small}^2	396.05	397.2 ± 1.8 $(+0.1\sigma)$
H_0	67.37	67.40 ± 0.54 $(+0.1\sigma)$	k_{eq}	0.010387	0.010376 ± 0.000082 (-0.1σ)	χ_{lowl}^2	23.21	24.7 ± 1.5 $(+1.3\sigma)$
Ω_Λ	0.6848	0.6853 ± 0.0074 $(+0.1\sigma)$	$100\theta_{eq}$	0.8132	0.8138 ± 0.0051 $(+0.1\sigma)$	χ_{plik}^2	2345.0	2359.2 ± 5.7 (-0.0σ)
Ω_m	0.3152	0.3147 ± 0.0074 (-0.1σ)	$100\theta_{s,eq}$	0.44932	0.4496 ± 0.0026 $(+0.1\sigma)$	χ_{prior}^2	1.55	11.6 ± 4.5 $(+0.0\sigma)$
$\Omega_m h^2$	0.14305	0.1429 ± 0.0011 (-0.1σ)	$H(0.15)$	72.693	72.71 ± 0.46 $(+0.1\sigma)$	χ_{CMB}^2	2773.1	2790.4 ± 6.0 $(+0.2\sigma)$
$\Omega_m h^3$	0.096372	0.09631 ± 0.00029 (-0.1σ)	$D_M(0.15)$	643.25	643.1 ± 4.6 (-0.1σ)			
σ_8	0.8117	0.8109 ± 0.0059 (-0.0σ)	$H(0.38)$	82.879	82.89 ± 0.34 $(+0.1\sigma)$			

Best-fit $\chi_{eff}^2 = 2774.63$; $\Delta\chi_{eff}^2 = 0.00$; $\bar{\chi}_{eff}^2 = 2801.95$; $\Delta\bar{\chi}_{eff}^2 = 1.26$; $R - 1 = 0.00682$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consect8: 8.84 (Δ -0.03) small_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ 0.00) commander_dx12_v3.2_29: 23.20 (Δ -0.05) plik_rd12_HM_v22b_TTTEEE: 2344.99 (Δ 0.06)

17.34 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022447	0.02242 ± 0.00013 (-0.0σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4521	0.4515 ± 0.0058 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	1979.0	1979.3 ± 8.6 (-0.1σ)
$\Omega_{\mathrm{c}}h^2$	0.11929	0.11924 ± 0.00094 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6056	0.6047 ± 0.0056 (-0.1σ)	$H(0.61)$	95.413	95.40 ± 0.18 $(+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	1.041014	1.04101 ± 0.00029 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9859	0.9846 ± 0.0083 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2303.0	2303.3 ± 9.3 (-0.1σ)
τ	0.0566	$0.0561^{+0.0068}_{-0.0076}$ (-0.0σ)	$r_{\mathrm{drag}}h$	99.65	99.67 ± 0.73 $(+0.1\sigma)$	$H(2.33)$	236.18	236.11 ± 0.57 (-0.1σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0484	3.046 ± 0.014 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4367	2.435 ± 0.020 (-0.2σ)	$D_{\mathrm{M}}(2.33)$	5757.5	5758.7 ± 8.8 (-0.0σ)
n_{s}	0.96801	0.9675 ± 0.0038 $(+0.3\sigma)$	z_{re}	7.89	7.82 ± 0.73 (-0.0σ)	$f\sigma_8(0.15)$	0.4568	0.4561 ± 0.0054 (-0.1σ)
r	0.0000	< 0.0513	10^9A_{s}	2.1082	$2.104^{+0.028}_{-0.031}$ (-0.0σ)	$\sigma_8(0.15)$	0.7496	0.7486 ± 0.0053 (-0.0σ)
y_{cal}	1.00082	1.0008 ± 0.0024 $(+0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8825	1.880 ± 0.011 (-0.1σ)	$f\sigma_8(0.38)$	0.47533	0.4746 ± 0.0046 (-0.1σ)
A_{217}^{CIB}	45.7	46 ± 7 (-0.1σ)	D_{40}	1226.5	1241^{+12}_{-18} $(+1.0\sigma)$	$\sigma_8(0.38)$	0.66460	0.6637 ± 0.0047 (-0.0σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.666	> 0.367 (-0.0σ)	D_{220}	5739.5	5735 ± 38 (-0.2σ)	$f\sigma_8(0.51)$	0.47403	0.4733 ± 0.0041 (-0.1σ)
A_{143}^{tSZ}	7.06	5.5 ± 1.9 $(+0.1\sigma)$	D_{810}	2542.8	2540 ± 13 $(+0.0\sigma)$	$\sigma_8(0.51)$	0.62199	0.6212 ± 0.0044 (-0.0σ)
A_{100}^{PS}	248.2	258 ± 28 (-0.0σ)	D_{1420}	819.61	818.3 ± 4.7 $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.46911	0.4684 ± 0.0038 (-0.0σ)
A_{143}^{PS}	50.2	45 ± 8 (-0.0σ)	D_{2000}	231.78	231.3 ± 1.5 $(+0.1\sigma)$	$\sigma_8(0.61)$	0.59186	0.5911 ± 0.0042 $(+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	52.9	42 ± 9 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.96801	0.9675 ± 0.0038 $(+0.3\sigma)$	$f\sigma_8(2.33)$	0.29845	0.2981 ± 0.0022 $(+0.0\sigma)$
A_{217}^{PS}	122.0	115 ± 10 $(+0.1\sigma)$	Y_{P}	0.245425	$0.245412^{+0.000055}_{-0.000047}$ (-0.0σ)	$\sigma_8(2.33)$	0.30773	0.3073 ± 0.0023 $(+0.0\sigma)$
A^{kSZ}	0.01	< 3.99 (-0.1σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246752	$0.246739^{+0.000055}_{-0.000047}$ (-0.0σ)	$r_{0.002}$	0.0000	< 0.0471
$A_{100}^{\mathrm{dustTT}}$	8.82	8.9 ± 1.8 $(+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	2.5713	2.577 ± 0.025 $(+0.0\sigma)$	$r_{0.01}$	0.0000	< 0.0491
$A_{143}^{\mathrm{dustTT}}$	11.04	10.8 ± 1.8 (-0.0σ)	Age/Gyr	13.7840	13.787 ± 0.020 $(+0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	-7.83	$-0.60^{+1.4}_{-0.57}$
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.21	18.6 ± 3.3 $(+0.0\sigma)$	z_*	1089.760	1089.79 ± 0.22 (-0.0σ)	r_{10}	0.0000	< 0.0241
$A_{217}^{\mathrm{dustTT}}$	95.8	93.9 ± 7.4 $(+0.1\sigma)$	r_*	144.557	144.59 ± 0.22 $(+0.1\sigma)$	10^9A_{t}	0.000	< 0.108
$A_{100}^{\mathrm{dustTE}}$	0.1138	0.114 ± 0.038 $(+0.0\sigma)$	$100\theta_*$	1.041188	1.04119 ± 0.00029 $(+0.0\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	0.0000	< 0.0964
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1343	0.135 ± 0.030 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8838	13.887 ± 0.021 $(+0.1\sigma)$	f_{2000}^{143}	28.29	29.1 ± 2.7 (-0.1σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.478	0.482 ± 0.085 $(+0.0\sigma)$	z_{drag}	1060.047	1059.99 ± 0.29 (-0.1σ)	$f_{2000}^{143 \times 217}$	31.68	31.9 ± 1.8 (-0.1σ)
$A_{143}^{\mathrm{dustTE}}$	0.223	0.226 ± 0.054 $(+0.0\sigma)$	r_{drag}	147.196	147.24 ± 0.23 $(+0.1\sigma)$	f_{2000}^{217}	106.33	106.8 ± 1.7 (-0.1σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.665	0.665 ± 0.080 (-0.0σ)	k_{D}	0.140817	0.14075 ± 0.00028 (-0.1σ)	$\chi_{\mathrm{lensing}}^2$	8.720	9.14 ± 0.60 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.082	2.08 ± 0.27 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.160689	0.16073 ± 0.00017 $(+0.1\sigma)$	χ_{simall}^2	396	1296 ± 1000 $(+486.8\sigma)$
c_{100}	0.99975	0.99966 ± 0.00062 (-0.0σ)	z_{eq}	3387.0	3385 ± 21 (-0.1σ)	χ_{lowl}^2	22.95	24.5 ± 1.5 $(+1.5\sigma)$
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	k_{eq}	0.010337	0.010332 ± 0.000065 (-0.1σ)	χ_{plik}^2	2345	1461 ± 1000 (-154.4σ)
H_0	67.698	67.69 ± 0.43 $(+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	0.81631	0.8166 ± 0.0040 $(+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0294	0.050 ± 0.058 (-0.0σ)
Ω_{Λ}	0.6893	0.6894 ± 0.0057 $(+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45090	0.4511 ± 0.0021 $(+0.1\sigma)$	χ_{MGS}^2	1.217	1.28 ± 0.40 $(+0.1\sigma)$
Ω_{m}	0.3107	0.3106 ± 0.0057 (-0.1σ)	$H(0.15)$	72.975	72.97 ± 0.37 $(+0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.43	4.8 ± 1.3 (-0.1σ)
$\Omega_{\mathrm{m}}h^2$	0.14238	0.14230 ± 0.00089 (-0.1σ)	$D_{\mathrm{M}}(0.15)$	640.44	640.5 ± 3.6 (-0.1σ)	χ_{prior}^2	1.58	11.6 ± 4.6 $(+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.096388	0.09632 ± 0.00029 (-0.1σ)	$H(0.38)$	83.081	83.07 ± 0.27 $(+0.0\sigma)$	χ_{CMB}^2	2773.4	2790.4 ± 5.9 $(+0.2\sigma)$
σ_8	0.8112	0.8101 ± 0.0059 (-0.0σ)	$D_{\mathrm{M}}(0.38)$	1527.6	1527.8 ± 7.3 (-0.1σ)	χ_{BAO}^2	5.68	6.1 ± 1.0 (-0.0σ)
S_8	0.8255	0.824 ± 0.011 (-0.1σ)	$H(0.51)$	89.795	89.78 ± 0.22 $(+0.0\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2780.69$; $\Delta\chi_{\mathrm{eff}}^2 = -0.00$; $\bar{\chi}_{\mathrm{eff}}^2 = 2808.06$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.22$; $R - 1 = 0.01525$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.43 (Δ 0.01) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.72 (Δ -0.01) simall_100x143_offlike5_EE_Aplanck: 396.49 (Δ -0.03) commander_dx12_v3.2_29: 22.95 (Δ 0.05) plik_rd12_HM_v22b.TTTEEE: 2345.28 (Δ -0.03)

17.35 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02238 \pm 0.00014 \quad (-0.0\sigma)$	S_8	$0.831 \pm 0.013 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1532.4 \pm 9.1 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1198 \pm 0.0012 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4549 \pm 0.0070 \quad (-0.1\sigma)$	$H(0.51)$	$89.65 \pm 0.27 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6075 \pm 0.0063 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1985 \pm 11 \quad (-0.1\sigma)$
τ	$0.0552^{+0.0053}_{-0.0079} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9882 \pm 0.0089 \quad (-0.1\sigma)$	$H(0.61)$	$95.30 \pm 0.22 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.011}_{-0.014} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.20 \pm 0.92 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2309 \pm 12 \quad (-0.1\sigma)$
n_{s}	$0.9661 \pm 0.0041 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.443 \pm 0.021 \quad (-0.2\sigma)$	$H(2.33)$	$236.45 \pm 0.70 \quad (-0.1\sigma)$
r	< 0.0493	z_{re}	$7.76^{+0.58}_{-0.76} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763 \pm 10 \quad (-0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.023}_{-0.031} \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4592 \pm 0.0065 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882 \pm 0.011 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7495^{+0.0047}_{-0.0052} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1243^{+13}_{-17} \quad (+1.0\sigma)$	$f\sigma_8(0.38)$	$0.4770 \pm 0.0052 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{220}	$5730 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6641^{+0.0039}_{-0.0047} \quad (-0.0\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4752 \pm 0.0045 \quad (-0.1\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$817.6 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6213^{+0.0036}_{-0.0044} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4700 \pm 0.0041 \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9661 \pm 0.0041 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5911^{+0.0034}_{-0.0043} \quad (-0.0\sigma)$
A^{kSZ}	$< 4.07 \quad (-0.1\sigma)$	Y_{P}	$0.245396^{+0.000059}_{-0.000052} \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0017}_{-0.0022} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246722^{+0.000060}_{-0.000052} \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0019}_{-0.0024} \quad (+0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.585 \pm 0.026 \quad (+0.0\sigma)$	$r_{0.002}$	< 0.0451
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.796 \pm 0.023 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0472
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.25 \quad (-0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.65^{+1.4}_{-0.57}$
$A_{100}^{\mathrm{dustTE}}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.47 \pm 0.26 \quad (+0.1\sigma)$	r_{10}	< 0.0231
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.030 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00030 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.104
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.084 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.877 \pm 0.025 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0927
$A_{143}^{\mathrm{dustTE}}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	z_{drag}	$1059.94 \pm 0.29 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.3 \pm 2.7 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.667 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$147.13 \pm 0.26 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	k_{D}	$0.14083 \pm 0.00030 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (-0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00017 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.22 \pm 0.65 \quad (+0.0\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	z_{eq}	$3398 \pm 26 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.8 \quad (+0.1\sigma)$
H_0	$67.42 \pm 0.53 \quad (+0.1\sigma)$	k_{eq}	$0.010372 \pm 0.000081 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.7 \pm 1.5 \quad (+1.3\sigma)$
Ω_{Λ}	$0.6857 \pm 0.0073 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8141 \pm 0.0050 \quad (+0.1\sigma)$	χ_{plik}^2	$2359.1 \pm 5.6 \quad (-0.0\sigma)$
Ω_{m}	$0.3143 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4498 \pm 0.0026 \quad (+0.1\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0011 \quad (-0.1\sigma)$	$H(0.15)$	$72.74 \pm 0.46 \quad (+0.1\sigma)$	χ_{CMB}^2	$2790.2 \pm 5.9 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09631 \pm 0.00029 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.8 \pm 4.6 \quad (-0.1\sigma)$		
σ_8	$0.8114 \pm 0.0056 \quad (-0.0\sigma)$	$H(0.38)$	$82.90 \pm 0.33 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.72; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.22; R - 1 = 0.00705$$

17.36 base_r_plikHM_TTTEEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02242 \pm 0.00013 \quad (-0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4516 \pm 0.0057 \quad (-0.1\sigma)$	$D_M(0.51)$	$1979.1 \pm 8.6 \quad (-0.1\sigma)$
$\Omega_c h^2$	$0.11922 \pm 0.00093 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6049 \pm 0.0055 \quad (-0.1\sigma)$	$H(0.61)$	$95.40 \pm 0.18 \quad (+0.0\sigma)$
$100\theta_{MC}$	$1.04101 \pm 0.00029 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9850 \pm 0.0081 \quad (-0.0\sigma)$	$D_M(0.61)$	$2303.1 \pm 9.3 \quad (-0.1\sigma)$
τ	$0.0566^{+0.0058}_{-0.0078} \quad (+0.0\sigma)$	$r_{\text{drag}} h$	$99.69 \pm 0.73 \quad (+0.1\sigma)$	$H(2.33)$	$236.10 \pm 0.57 \quad (-0.1\sigma)$
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.015} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.436 \pm 0.020 \quad (-0.2\sigma)$	$D_M(2.33)$	$5758.5 \pm 8.8 \quad (-0.0\sigma)$
n_s	$0.9676 \pm 0.0038 \quad (+0.3\sigma)$	z_{re}	$7.88^{+0.62}_{-0.76} \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4562 \pm 0.0054 \quad (-0.1\sigma)$
r	< 0.0511	$10^9 A_s$	$2.106^{+0.024}_{-0.031} \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7490^{+0.0048}_{-0.0054} \quad (-0.0\sigma)$
y_{cal}	$1.0008 \pm 0.0024 \quad (+0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.010 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4748 \pm 0.0045 \quad (-0.1\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	D_{40}	$1241^{+12}_{-18} \quad (+1.0\sigma)$	$\sigma_8(0.38)$	$0.6640^{+0.0041}_{-0.0048} \quad (+0.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	$> 0.367 \quad (-0.0\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4735 \pm 0.0040 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (+0.0\sigma)$	D_{810}	$2540 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.51)$	$0.6215^{+0.0038}_{-0.0045} \quad (+0.0\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{1420}	$818.2 \pm 4.7 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0038 \quad (-0.0\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{2000}	$231.3 \pm 1.5 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5914^{+0.0036}_{-0.0044} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9676 \pm 0.0038 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0018}_{-0.0023} \quad (+0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	Y_P	$0.245413^{+0.000055}_{-0.000047} \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3075^{+0.0019}_{-0.0024} \quad (+0.0\sigma)$
A^{kSZ}	$< 3.99 \quad (-0.1\sigma)$	Y_P^{BBN}	$0.246739^{+0.000055}_{-0.000047} \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0470
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	10^5D/H	$2.577 \pm 0.025 \quad (+0.0\sigma)$	$r_{0.01}$	< 0.0490
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	$13.787 \pm 0.020 \quad (+0.0\sigma)$	$\ln(10^{10} A_t)$	$-0.60^{+1.4}_{-0.57}$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1089.79 \pm 0.22 \quad (-0.0\sigma)$	r_{10}	< 0.0240
A_{217}^{dustTT}	$93.9 \pm 7.4 \quad (+0.1\sigma)$	r_*	$144.60 \pm 0.22 \quad (+0.1\sigma)$	$10^9 A_t$	< 0.108
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00029 \quad (-0.0\sigma)$	$10^9 A_t e^{-2\tau}$	< 0.0961
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.888 \pm 0.021 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.1 \pm 2.7 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	z_{drag}	$1059.99 \pm 0.29 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.8 \quad (-0.1\sigma)$
A_{143}^{dustTE}	$0.226 \pm 0.054 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.23 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.8 \pm 1.7 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.665 \pm 0.080 \quad (-0.0\sigma)$	k_D	$0.14074 \pm 0.00028 \quad (-0.1\sigma)$	χ_{lensing}^2	$9.12 \pm 0.55 \quad (+0.1\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	$100\theta_D$	$0.16073 \pm 0.00017 \quad (+0.1\sigma)$	χ_{simall}^2	$1291 \pm 1000 \quad (+479.1\sigma)$
c_{100}	$0.99966 \pm 0.00062 \quad (-0.0\sigma)$	z_{eq}	$3385 \pm 21 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.5 \pm 1.5 \quad (+1.5\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	k_{eq}	$0.010330 \pm 0.000064 \quad (-0.1\sigma)$	χ_{plik}^2	$1466 \pm 1000 \quad (-154.0\sigma)$
H_0	$67.70 \pm 0.42 \quad (+0.1\sigma)$	$100\theta_{\text{eq}}$	$0.8167 \pm 0.0040 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.049 \pm 0.057 \quad (-0.1\sigma)$
Ω_Λ	$0.6895 \pm 0.0057 \quad (+0.1\sigma)$	$100\theta_{s,\text{eq}}$	$0.4511 \pm 0.0020 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.29 \pm 0.40 \quad (+0.1\sigma)$
Ω_m	$0.3105 \pm 0.0057 \quad (-0.1\sigma)$	$H(0.15)$	$72.97 \pm 0.37 \quad (+0.1\sigma)$	χ_{DR12BAO}^2	$4.7 \pm 1.3 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.14228 \pm 0.00088 \quad (-0.1\sigma)$	$D_M(0.15)$	$640.5 \pm 3.6 \quad (-0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.6 \quad (+0.0\sigma)$
$\Omega_m h^3$	$0.09632 \pm 0.00029 \quad (-0.1\sigma)$	$H(0.38)$	$83.07 \pm 0.27 \quad (+0.1\sigma)$	χ_{CMB}^2	$2790.2 \pm 5.9 \quad (+0.2\sigma)$
σ_8	$0.8104 \pm 0.0056 \quad (-0.0\sigma)$	$D_M(0.38)$	$1527.7 \pm 7.3 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.05 \pm 0.99 \quad (-0.1\sigma)$
S_8	$0.824 \pm 0.010 \quad (-0.1\sigma)$	$H(0.51)$	$89.78 \pm 0.22 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2807.89; \Delta\bar{\chi}_{\text{eff}}^2 = 1.17; R - 1 = 0.01530$$

17.37 base_r_CamSpecHM_TTTEE_lowl_lowE_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022281	0.02230 ± 0.00015 (+0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6059	0.6051 ± 0.0065 (−0.1 σ)	$H(0.51)$	89.567	89.62 ± 0.27 (+0.1 σ)
$\Omega_c h^2$	0.11978	0.1195 ± 0.0012 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9858	0.9849 ± 0.0091 (−0.1 σ)	$D_M(0.51)$	1986.9	1985 ± 11 (−0.1 σ)
$100\theta_{MC}$	1.040852	1.04088 ± 0.00031 (+0.0 σ)	$r_{drag}h$	99.15	99.36 ± 0.93 (+0.1 σ)	$H(0.61)$	95.210	95.25 ± 0.22 (+0.1 σ)
τ	0.0528	0.0538 ± 0.0073 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4373	2.433 ± 0.022 (−0.2 σ)	$D_M(0.61)$	2311.6	2309 ± 12 (−0.1 σ)
$\ln(10^{10} A_s)$	3.0394	3.041 ± 0.014 (−0.0 σ)	z_{re}	7.54	7.62 ± 0.74 (+0.0 σ)	$H(2.33)$	236.32	236.17 ± 0.73 (−0.1 σ)
n_s	0.96541	0.9669 ± 0.0043 (+0.3 σ)	$10^9 A_s$	2.0893	2.092 ± 0.030 (−0.0 σ)	$D_M(2.33)$	5767.8	5766 ± 10 (−0.1 σ)
r	0.0020	< 0.0725	$10^9 A_s e^{-2\tau}$	1.8800	1.878 ± 0.011 (−0.1 σ)	$f\sigma_8(0.15)$	0.4581	0.4571 ± 0.0065 (−0.1 σ)
y_{cal}	1.00051	1.0006 ± 0.0025 (+0.0 σ)	D_{40}	1228.2	1244^{+15}_{-20} (+1.4 σ)	$\sigma_8(0.15)$	0.7472	0.7473 ± 0.0054 (−0.0 σ)
A_{100}^{PS}	234.2	238 ± 25 (−0.0 σ)	D_{220}	5719.5	5715 ± 39 (−0.1 σ)	$f\sigma_8(0.38)$	0.4757	0.4750 ± 0.0053 (−0.1 σ)
A_{143}^{PS}	39.8	39 ± 8 (−0.1 σ)	D_{810}	2535.9	2535 ± 13 (+0.0 σ)	$\sigma_8(0.38)$	0.66197	0.6622 ± 0.0047 (+0.0 σ)
A_{217}^{PS}	101.8	103 ± 10 (+0.0 σ)	D_{1420}	815.83	816.3 ± 4.8 (+0.1 σ)	$f\sigma_8(0.51)$	0.47394	0.4734 ± 0.0046 (−0.1 σ)
A_{217}^{CIB}	44.7	39 ± 7 (−0.0 σ)	D_{2000}	230.25	230.5 ± 1.6 (+0.1 σ)	$\sigma_8(0.51)$	0.61935	0.6197 ± 0.0044 (+0.0 σ)
A_{143}^{tSZ}	6.62	$3.9^{+1.9}_{-2.5}$ (+0.0 σ)	$n_{s,0.002}$	0.96541	0.9669 ± 0.0043 (+0.3 σ)	$f\sigma_8(0.61)$	0.46872	0.4683 ± 0.0042 (−0.1 σ)
$r_{143 \times 217}^{PS}$	0.597	0.66 ± 0.13 (+0.0 σ)	Y_P	0.245359	$0.245365^{+0.000065}_{-0.000058}$ (+0.0 σ)	$\sigma_8(0.61)$	0.58923	0.5896 ± 0.0042 (+0.0 σ)
$r_{143 \times 217}^{CIB}$	0.776	$0.55^{+0.38}_{-0.20}$ (−0.0 σ)	Y_P^{BBN}	0.246686	$0.246691^{+0.000065}_{-0.000058}$ (+0.0 σ)	$f\sigma_8(2.33)$	0.29697	0.2972 ± 0.0022 (+0.0 σ)
$\xi^{tSZ \times CIB}$	0.09	—	$10^5 D/H$	2.6025	2.599 ± 0.029 (−0.0 σ)	$\sigma_8(2.33)$	0.30602	0.3063 ± 0.0024 (+0.0 σ)
A^{kSZ}	0.01	< 6.08 (−0.1 σ)	Age/Gyr	13.8075	13.804 ± 0.023 (−0.1 σ)	$r_{0.002}$	0.0018	< 0.0671
A_{100}^{dust}	1.010	1.01 ± 0.19 (+0.0 σ)	z_*	1090.015	1089.97 ± 0.26 (−0.1 σ)	$r_{0.01}$	0.0019	< 0.0698
A_{143}^{dust}	0.973	0.96 ± 0.18 (−0.0 σ)	r_*	144.556	144.61 ± 0.28 (+0.1 σ)	$\ln(10^{10} A_t)$	−3.19	$-0.22^{+1.3}_{-0.47}$
A_{217}^{dust}	0.969	0.98 ± 0.10 (+0.0 σ)	$100\theta_*$	1.041048	1.04107 ± 0.00030 (+0.0 σ)	r_{10}	0.0009	< 0.0344
$A_{143 \times 217}^{dust}$	1.007	1.03 ± 0.16 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8857	13.891 ± 0.026 (+0.1 σ)	$10^9 A_t$	0.004	< 0.152
c_{100}	0.99766	0.9975 ± 0.0011 (−0.0 σ)	z_{drag}	1059.704	1059.74 ± 0.33 (−0.0 σ)	$10^9 A_t e^{-2\tau}$	0.004	< 0.136
c_{217}	1.00131	1.0011 ± 0.0016 (−0.0 σ)	r_{drag}	147.250	147.30 ± 0.28 (+0.1 σ)	f_{2000}^{143}	30.16	29.4 ± 2.8 (−0.1 σ)
c_{TE}	0.99652	0.9965 ± 0.0049 (−0.0 σ)	k_D	0.140632	0.14059 ± 0.00033 (−0.1 σ)	f_{2000}^{217}	106.93	106.7 ± 1.9 (−0.1 σ)
c_{EE}	0.99231	0.9921 ± 0.0050 (+0.0 σ)	$100\theta_D$	0.160879	0.16087 ± 0.00019 (+0.0 σ)	$f_{2000}^{143 \times 217}$	32.28	31.9 ± 2.0 (−0.1 σ)
H_0	67.34	67.45 ± 0.54 (+0.1 σ)	z_{eq}	3394.8	3389 ± 27 (−0.1 σ)	$\chi_{lensing}^2$	8.858	9.38 ± 0.76 (+0.1 σ)
Ω_Λ	0.6853	0.6868 ± 0.0074 (+0.1 σ)	k_{eq}	0.010361	0.010343 ± 0.000083 (−0.1 σ)	χ_{small}^2	395.87	397.2 ± 1.6 (+0.2 σ)
Ω_m	0.3147	0.3132 ± 0.0074 (−0.1 σ)	$100\theta_{eq}$	0.8143	0.8155 ± 0.0051 (+0.1 σ)	χ_{lowl}^2	23.23	25.0 ± 1.9 (+2.1 σ)
$\Omega_m h^2$	0.14271	0.1425 ± 0.0011 (−0.1 σ)	$100\theta_{s,eq}$	0.44998	0.4506 ± 0.0026 (+0.1 σ)	$\chi_{CamSpec}^2$	11499.4	11512.9 ± 5.5 (−0.2 σ)
$\Omega_m h^3$	0.096092	0.09609 ± 0.00032 (−0.1 σ)	$H(0.15)$	72.650	72.75 ± 0.46 (+0.1 σ)	χ_{prior}^2	2.19	7.8 ± 3.4 (−0.0 σ)
σ_8	0.8089	0.8089 ± 0.0060 (−0.0 σ)	$D_M(0.15)$	643.60	642.6 ± 4.6 (−0.1 σ)	χ_{CMB}^2	11927.4	11944.5 ± 5.9 (+0.2 σ)
S_8	0.8286	0.826 ± 0.013 (−0.1 σ)	$H(0.38)$	82.818	82.89 ± 0.34 (+0.1 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4538	0.4527 ± 0.0070 (−0.1 σ)	$D_M(0.38)$	1534.2	1532.2 ± 9.2 (−0.1 σ)			

Best-fit $\chi_{eff}^2 = 11929.59$; $\Delta\chi_{eff}^2 = -0.06$; $\bar{\chi}_{eff}^2 = 11952.27$; $\Delta\bar{\chi}_{eff}^2 = 0.82$; $R - 1 = 0.00977$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp.p_teb_consext8: 8.86 (Δ 0.03) simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.00) commander_dx12_v3.2_29: 23.23 (Δ 0.02) CamSpec like_10.7HM_1400_unified: 11499.43 (Δ -0.22)

17.38 base_r_CamSpecHM_TTTEE_lowl_lowE_lensing_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00014 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9823 \pm 0.0084 \quad (-0.0\sigma)$	$H(0.61)$	$95.34 \pm 0.19 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11898 \pm 0.00096 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.78 \pm 0.73 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304.0 \pm 9.3 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00029 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.427 \pm 0.021 \quad (-0.2\sigma)$	$H(2.33)$	$235.86 \pm 0.59 \quad (-0.1\sigma)$
τ	$0.0552 \pm 0.0072 \quad (-0.0\sigma)$	z_{re}	$7.75 \pm 0.72 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762.4 \pm 9.1 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042 \pm 0.014 \quad (-0.0\sigma)$	10^9A_{s}	$2.096 \pm 0.030 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4546 \pm 0.0055 \quad (-0.1\sigma)$
n_{s}	$0.9682 \pm 0.0039 \quad (+0.3\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.010 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7470 \pm 0.0054 \quad (-0.0\sigma)$
r	< 0.0744	D_{40}	$1243^{+15}_{-20} \quad (+1.6\sigma)$	$f\sigma_8(0.38)$	$0.4732 \pm 0.0047 \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0047 \quad (-0.0\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4720 \pm 0.0042 \quad (-0.1\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$816.9 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6199 \pm 0.0044 \quad (+0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.1\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4672 \pm 0.0039 \quad (-0.0\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9682 \pm 0.0039 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5899 \pm 0.0042 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	Y_{P}	$0.245380 \pm 0.000058 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2975 \pm 0.0022 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.67 \pm 0.13 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246706 \pm 0.000058 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3068 \pm 0.0023 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.37}_{-0.21} \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.027 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0693
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.796 \pm 0.021 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0718
A^{kSZ}	$< 5.95 \quad (-0.1\sigma)$	z_*	$1089.88 \pm 0.23 \quad (-0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.19^{+1.2}_{-0.47}$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.72 \pm 0.23 \quad (+0.1\sigma)$	r_{10}	< 0.0355
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00029 \quad (-0.0\sigma)$	10^9A_{t}	< 0.156
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.023 \quad (+0.1\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.140
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.78 \pm 0.32 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 2.8 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.25 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.6 \pm 1.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	k_{D}	$0.14052 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.0 \quad (-0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.40 \pm 0.83 \quad (+0.1\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (+0.0\sigma)$	z_{eq}	$3377 \pm 22 \quad (-0.1\sigma)$	χ_{small}^2	$397.3 \pm 1.7 \quad (+0.2\sigma)$
H_0	$67.69 \pm 0.43 \quad (+0.1\sigma)$	k_{eq}	$0.010307 \pm 0.000067 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.8 \pm 1.9 \quad (+2.4\sigma)$
Ω_{Λ}	$0.6901 \pm 0.0057 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8178 \pm 0.0041 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11512.9 \pm 5.5 \quad (-0.2\sigma)$
Ω_{m}	$0.3099 \pm 0.0057 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0021 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.043 \pm 0.053 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14197 \pm 0.00091 \quad (-0.1\sigma)$	$H(0.15)$	$72.95 \pm 0.37 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.34 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.6 \pm 3.6 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.2 \quad (-0.1\sigma)$
σ_8	$0.8082 \pm 0.0059 \quad (-0.0\sigma)$	$H(0.38)$	$83.04 \pm 0.27 \quad (+0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
S_8	$0.821 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.1 \pm 7.3 \quad (-0.1\sigma)$	χ_{CMB}^2	$11944.4 \pm 5.8 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4499 \pm 0.0059 \quad (-0.1\sigma)$	$H(0.51)$	$89.74 \pm 0.22 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.95 \pm 0.91 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6030 \pm 0.0057 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979.8 \pm 8.6 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.11; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.70; R - 1 = 0.01271$$

17.39 base_r_CamSpecHM_TTTEE_lowl_lowE_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00015 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6054 \pm 0.0064 \quad (-0.1\sigma)$	$H(0.51)$	$89.64 \pm 0.27 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0012 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.9855 \pm 0.0090 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1984 \pm 11 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00031 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.40 \pm 0.92 \quad (+0.1\sigma)$	$H(0.61)$	$95.26 \pm 0.22 \quad (+0.1\sigma)$
τ	$0.0549^{+0.0053}_{-0.0077} \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.434 \pm 0.022 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2309 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.014} \quad (-0.0\sigma)$	z_{re}	$7.73^{+0.58}_{-0.74} \quad (+0.0\sigma)$	$H(2.33)$	$236.13 \pm 0.72 \quad (-0.1\sigma)$
n_{s}	$0.9671 \pm 0.0042 \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.023}_{-0.030} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5766 \pm 10 \quad (-0.1\sigma)$
r	< 0.0727	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.011 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4572 \pm 0.0065 \quad (-0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	D_{40}	$1244^{+15}_{-20} \quad (+1.4\sigma)$	$\sigma_8(0.15)$	$0.7479^{+0.0047}_{-0.0053} \quad (-0.0\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{220}	$5715 \pm 39 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0052 \quad (-0.1\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6628^{+0.0039}_{-0.0047} \quad (+0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$816.3 \pm 4.8 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4737 \pm 0.0046 \quad (-0.1\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{2000}	$230.5 \pm 1.6 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6202^{+0.0036}_{-0.0044} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9671 \pm 0.0042 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0041 \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	Y_{P}	$0.245367^{+0.000064}_{-0.000057} \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5901^{+0.0034}_{-0.0043} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.38}_{-0.20} \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246693^{+0.000065}_{-0.000058} \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0017}_{-0.0022} \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.599 \pm 0.029 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3066^{+0.0019}_{-0.0024} \quad (+0.1\sigma)$
A^{kSZ}	$< 6.05 \quad (-0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.803 \pm 0.023 \quad (-0.1\sigma)$	$r_{0.002}$	< 0.0673
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	z_*	$1089.96 \pm 0.26 \quad (-0.1\sigma)$	$r_{0.01}$	< 0.0700
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.27 \quad (+0.1\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.22^{+1.3}_{-0.47}$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00030 \quad (+0.0\sigma)$	r_{10}	< 0.0345
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.026 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{t}}$	< 0.152
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.74 \pm 0.33 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.136
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	r_{drag}	$147.31 \pm 0.28 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.3 \pm 2.8 \quad (-0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	k_{D}	$0.14058 \pm 0.00033 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (-0.1\sigma)$
c_{EE}	$0.9921 \pm 0.0050 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16086 \pm 0.00019 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.0 \quad (-0.1\sigma)$
H_0	$67.48 \pm 0.53 \quad (+0.1\sigma)$	z_{eq}	$3388 \pm 27 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.32 \pm 0.71 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6872 \pm 0.0073 \quad (+0.1\sigma)$	k_{eq}	$0.010340 \pm 0.000082 \quad (-0.1\sigma)$	χ_{small}^2	$397.1 \pm 1.6 \quad (+0.2\sigma)$
Ω_{m}	$0.3128 \pm 0.0073 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8157 \pm 0.0051 \quad (+0.1\sigma)$	χ_{lowl}^2	$25.0 \pm 1.9 \quad (+2.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0011 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0026 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11512.8 \pm 5.5 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09609 \pm 0.00032 \quad (-0.1\sigma)$	$H(0.15)$	$72.77 \pm 0.46 \quad (+0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.8095 \pm 0.0056 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.4 \pm 4.5 \quad (-0.1\sigma)$	χ_{CMB}^2	$11944.3 \pm 5.8 \quad (+0.2\sigma)$
S_8	$0.827 \pm 0.013 \quad (-0.1\sigma)$	$H(0.38)$	$82.91 \pm 0.33 \quad (+0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4528 \pm 0.0070 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1531.8 \pm 9.1 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11952.03; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.78; R - 1 = 0.00998$$

17.40 base_r_CamSpecHM_TTTEE_lowl_lowE_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00014 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9828 \pm 0.0082 \quad (-0.0\sigma)$	$H(0.61)$	$95.34 \pm 0.19 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11896 \pm 0.00095 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$99.80 \pm 0.73 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303.7 \pm 9.3 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00029 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.428 \pm 0.020 \quad (-0.2\sigma)$	$H(2.33)$	$235.84 \pm 0.59 \quad (-0.1\sigma)$
τ	$0.0559^{+0.0058}_{-0.0073} \quad (+0.0\sigma)$	z_{re}	$7.82^{+0.62}_{-0.70} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762.2 \pm 9.0 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.014} \quad (-0.0\sigma)$	10^9A_{s}	$2.099^{+0.025}_{-0.030} \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4547 \pm 0.0055 \quad (-0.1\sigma)$
n_{s}	$0.9683 \pm 0.0039 \quad (+0.3\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.010 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7474^{+0.0047}_{-0.0054} \quad (-0.0\sigma)$
r	< 0.0745	D_{40}	$1243^{+15}_{-20} \quad (+1.5\sigma)$	$f\sigma_8(0.38)$	$0.4734 \pm 0.0046 \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0041}_{-0.0048} \quad (+0.0\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4722 \pm 0.0041 \quad (-0.0\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$816.8 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6203^{+0.0038}_{-0.0045} \quad (+0.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.1\sigma)$	D_{2000}	$230.7 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4674 \pm 0.0038 \quad (-0.0\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9683 \pm 0.0039 \quad (+0.3\sigma)$	$\sigma_8(0.61)$	$0.5903^{+0.0036}_{-0.0043} \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	Y_{P}	$0.245381 \pm 0.000057 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2977^{+0.0018}_{-0.0022} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.67 \pm 0.13 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707 \pm 0.000058 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3070^{+0.0019}_{-0.0023} \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.54^{+0.37}_{-0.22} \quad (-0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.027 \quad (-0.0\sigma)$	$r_{0.002}$	< 0.0693
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.795 \pm 0.021 \quad (-0.0\sigma)$	$r_{0.01}$	< 0.0719
A^{kSZ}	$< 5.95 \quad (-0.1\sigma)$	z_*	$1089.87 \pm 0.23 \quad (-0.0\sigma)$	$\ln(10^{10}A_{\mathrm{t}})$	$-0.19^{+1.3}_{-0.47}$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.73 \pm 0.23 \quad (+0.1\sigma)$	r_{10}	< 0.0356
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00029 \quad (-0.0\sigma)$	10^9A_{t}	< 0.156
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.022 \quad (+0.1\sigma)$	$10^9A_{\mathrm{t}}e^{-2\tau}$	< 0.140
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.79 \pm 0.32 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.1 \pm 2.8 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.25 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	k_{D}	$0.14051 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.0 \quad (-0.2\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.34 \pm 0.75 \quad (+0.1\sigma)$
c_{EE}	$0.9923 \pm 0.0049 \quad (+0.0\sigma)$	z_{eq}	$3377 \pm 22 \quad (-0.1\sigma)$	χ_{small}^2	$397.3 \pm 1.8 \quad (+0.1\sigma)$
H_0	$67.70 \pm 0.42 \quad (+0.1\sigma)$	k_{eq}	$0.010306 \pm 0.000066 \quad (-0.1\sigma)$	χ_{lowl}^2	$24.8 \pm 1.9 \quad (+2.4\sigma)$
Ω_{Λ}	$0.6903 \pm 0.0057 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8179 \pm 0.0041 \quad (+0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11512.8 \pm 5.5 \quad (-0.3\sigma)$
Ω_{m}	$0.3097 \pm 0.0057 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4518 \pm 0.0021 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.042 \pm 0.051 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14194 \pm 0.00091 \quad (-0.1\sigma)$	$H(0.15)$	$72.97 \pm 0.37 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.35 \pm 0.41 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.5 \pm 3.6 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.2 \quad (-0.1\sigma)$
σ_8	$0.8086^{+0.0053}_{-0.0060} \quad (-0.0\sigma)$	$H(0.38)$	$83.04 \pm 0.27 \quad (+0.1\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
S_8	$0.822 \pm 0.011 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.9 \pm 7.3 \quad (-0.1\sigma)$	χ_{CMB}^2	$11944.3 \pm 5.7 \quad (+0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4500 \pm 0.0059 \quad (-0.1\sigma)$	$H(0.51)$	$89.74 \pm 0.22 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.92 \pm 0.88 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6032 \pm 0.0056 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979.6 \pm 8.6 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.91; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.65; R - 1 = 0.01331$$

17.41 base_r_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022086	0.02212 ± 0.00022 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4473	2.441 ± 0.039 (−0.2 σ)	$D_{\mathrm{M}}(0.51)$	1994.3	1992 ± 19 (−0.2 σ)
$\Omega_{\mathrm{c}}h^2$	0.12026	0.1201 ± 0.0021 (−0.2 σ)	z_{re}	7.55	7.45 ± 0.81 (−0.0 σ)	$H(0.61)$	95.017	95.07 ± 0.36 (+0.1 σ)
$100\theta_{\mathrm{MC}}$	1.040816	1.04082 ± 0.00048 (+0.1 σ)	$10^9 A_{\mathrm{s}}$	2.0872	2.083 ± 0.034 (−0.1 σ)	$D_{\mathrm{M}}(0.61)$	2319.7	2317 ± 20 (−0.2 σ)
τ	0.0524	0.0517 ± 0.0079 (−0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8796	1.878 ± 0.014 (−0.1 σ)	$H(2.33)$	236.44	236.3 ± 1.3 (−0.2 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0384	3.036 ± 0.016 (−0.1 σ)	D_{40}	1230.7	1243^{+17}_{-19} (+0.7 σ)	$D_{\mathrm{M}}(2.33)$	5777.7	5776 ± 16 (−0.1 σ)
n_{s}	0.9629	0.9637 ± 0.0059 (+0.2 σ)	D_{220}	5703.7	5704 ± 42 (−0.0 σ)	$f\sigma_{\mathrm{s}}(0.15)$	0.4612	0.460 ± 0.012 (−0.2 σ)
r	0.0000	< 0.0499	D_{810}	2531.5	2531 ± 14 (+0.0 σ)	$\sigma_{\mathrm{s}}(0.15)$	0.7479	0.7466 ± 0.0076 (−0.1 σ)
y_{cal}	1.00029	1.0004 ± 0.0025 (+0.0 σ)	D_{1420}	812.7	813.0 ± 5.3 (+0.1 σ)	$f\sigma_{\mathrm{s}}(0.38)$	0.4780	0.4766 ± 0.0097 (−0.2 σ)
A_{100}^{PS}	253.7	255 ± 27 (−0.0 σ)	D_{2000}	228.92	229.0 ± 1.9 (+0.1 σ)	$\sigma_{\mathrm{s}}(0.38)$	0.6622	0.6612 ± 0.0061 (−0.1 σ)
A_{143}^{tSZ}	5.77	$3.8^{+1.7}_{-2.7}$ (+0.0 σ)	$n_{\mathrm{s},0.002}$	0.9629	0.9637 ± 0.0059 (+0.2 σ)	$f\sigma_{\mathrm{s}}(0.51)$	0.4757	0.4745 ± 0.0083 (−0.2 σ)
A^{kSZ}	0.996	$5.3^{+4.1}_{-2.2}$ (−0.0 σ)	Y_{P}	0.245278	$0.24529^{+0.00010}_{-0.000084}$ (+0.1 σ)	$\sigma_{\mathrm{s}}(0.51)$	0.6194	0.6185 ± 0.0055 (−0.1 σ)
A_{100}^{dust}	1.002	1.00 ± 0.20 (−0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246604	$0.24661^{+0.00011}_{-0.000084}$ (+0.1 σ)	$f\sigma_{\mathrm{s}}(0.61)$	0.4702	0.4690 ± 0.0074 (−0.2 σ)
A_{143}^{power}	12.17	$10.3^{+2.1}_{-2.5}$ (−0.0 σ)	$10^5\mathrm{D}/\mathrm{H}$	2.6397	2.634 ± 0.042 (−0.1 σ)	$\sigma_{\mathrm{s}}(0.61)$	0.5891	0.5884 ± 0.0052 (−0.1 σ)
A_{217}^{power}	11.26	$8.1^{+1.7}_{-2.9}$ (−0.0 σ)	Age/Gyr	13.8304	13.826 ± 0.037 (−0.1 σ)	$f\sigma_{\mathrm{s}}(2.33)$	0.29677	0.2964 ± 0.0025 (−0.0 σ)
$A_{143 \times 217}^{\mathrm{power}}$	7.53	$4.3^{+1.7}_{-2.8}$ (−0.0 σ)	z_{*}	1090.305	1090.25 ± 0.41 (−0.1 σ)	$\sigma_{\mathrm{s}}(2.33)$	0.30566	0.3054 ± 0.0027 (−0.0 σ)
$\gamma_{143}^{\mathrm{power}}$	1.312	$1.34^{+0.41}_{-0.54}$ (+0.0 σ)	r_{*}	144.581	144.61 ± 0.48 (+0.2 σ)	$r_{0.002}$	0.0000	< 0.0453
$\gamma_{217}^{\mathrm{power}}$	1.26	$1.38^{+0.76}_{-0.58}$ (+0.0 σ)	$100\theta_{*}$	1.041025	1.04103 ± 0.00047 (+0.1 σ)	$r_{0.01}$	0.0000	< 0.0475
$\gamma_{143 \times 217}^{\mathrm{power}}$	1.20	1.34 ± 0.59 (+0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8883	13.891 ± 0.045 (+0.2 σ)	$\ln(10^{10}A_{\mathrm{t}})$	−7.95	$−0.66^{+1.4}_{-0.60}$
c_{100}	0.99802	0.9978 ± 0.0011 (+0.0 σ)	z_{drag}	1059.284	1059.35 ± 0.45 (+0.0 σ)	r_{10}	0.0000	< 0.0232
c_{217}	0.99913	$0.9994^{+0.0012}_{-0.0017}$ (−0.0 σ)	r_{drag}	147.341	147.36 ± 0.48 (+0.2 σ)	$10^9 A_{\mathrm{t}}$	0.000	< 0.104
H_0	66.99	67.10 ± 0.93 (+0.2 σ)	k_{D}	0.14039	0.14038 ± 0.00052 (−0.1 σ)	$10^9 A_{\mathrm{t}}e^{-2\tau}$	0.0000	< 0.0936
Ω_{Λ}	0.6814	0.683 ± 0.013 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.161131	0.16110 ± 0.00026 (−0.0 σ)	f_{2000}^{143}	23.74	23^{+3}_{-3} (−0.1 σ)
Ω_{m}	0.3186	0.317 ± 0.013 (−0.2 σ)	z_{eq}	3401.6	3397 ± 48 (−0.2 σ)	f_{2000}^{217}	17.09	16.8 ± 2.0 (−0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14299	0.1428 ± 0.0020 (−0.2 σ)	k_{eq}	0.010382	0.01037 ± 0.00015 (−0.2 σ)	$f_{2000}^{143 \times 217}$	11.56	11.0 ± 2.2 (−0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.095795	0.09581 ± 0.00045 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8125	0.8135 ± 0.0090 (+0.2 σ)	χ_{small}^2	395.87	397.0 ± 1.6 (+0.1 σ)
σ_{s}	0.8101	0.8086 ± 0.0091 (−0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.44920	0.4497 ± 0.0046 (+0.2 σ)	χ_{lowl}^2	23.60	25.0 ± 1.8 (+0.9 σ)
S_{s}	0.8348	0.832 ± 0.024 (−0.2 σ)	$H(0.15)$	72.34	72.44 ± 0.79 (+0.2 σ)	$\chi_{\mathrm{CamSpec}}^2$	6704.38	6716.7 ± 5.3 (+0.1 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.5}$	0.4572	0.456 ± 0.013 (−0.2 σ)	$D_{\mathrm{M}}(0.15)$	646.6	645.8 ± 8.0 (−0.2 σ)	χ_{prior}^2	1.24	5.3 ± 3.0 (+0.0 σ)
$\sigma_{\mathrm{s}}\Omega_{\mathrm{m}}^{0.25}$	0.6086	0.607 ± 0.012 (−0.2 σ)	$H(0.38)$	82.57	82.64 ± 0.57 (+0.2 σ)	χ_{CMB}^2	7123.9	7138.7 ± 5.5 (+0.3 σ)
$\sigma_{\mathrm{s}}/h^{0.5}$	0.9897	0.987 ± 0.016 (−0.2 σ)	$D_{\mathrm{M}}(0.38)$	1540.4	1539 ± 16 (−0.2 σ)			
$r_{\mathrm{drag}}h$	98.71	98.9 ± 1.6 (+0.2 σ)	$H(0.51)$	89.349	89.41 ± 0.45 (+0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 7125.09$; $\Delta\chi_{\mathrm{eff}}^2 = -0.02$; $\bar{\chi}_{\mathrm{eff}}^2 = 7144.04$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.83$; $R - 1 = 0.00760$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 (Δ 0.09) commander_dx12_v3.2.29: 23.60 (Δ -0.10) CamSpec like_10.7cleaned: 6704.38 (Δ -0.06)

17.42 base_r_plikHM_TT_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022093	0.02208 ± 0.00021	σ_8	0.8156	0.8141 ± 0.0086	$H(0.38)$	82.34	82.38 ± 0.55
$\Omega_c h^2$	0.12135	0.1212 ± 0.0021	S_8	0.8490	0.846 ± 0.024	$D_M(0.38)$	1547.3	1546 ± 15
$100\theta_{MC}$	1.040695	1.04072 ± 0.00047	$\sigma_8 \Omega_m^{0.5}$	0.4650	0.463 ± 0.013	$H(0.51)$	89.189	89.22 ± 0.43
τ	0.0527	0.0523 ± 0.0078	$\sigma_8 \Omega_m^{0.25}$	0.6158	0.614 ± 0.011	$D_M(0.51)$	2002.3	2001 ± 18
$\ln(10^{10} A_s)$	3.0439	3.042 ± 0.016	$\sigma_8/h^{0.5}$	0.9996	0.997 ± 0.016	$H(0.61)$	94.908	94.93 ± 0.34
n_s	0.9624	0.9619 ± 0.0057	$r_{\text{drag}} h$	97.90	98.1 ± 1.6	$D_M(0.61)$	2328.2	2327 ± 19
r	0.0117	< 0.0310	$\langle d^2 \rangle^{1/2}$	2.4660	2.463 ± 0.037	$H(2.33)$	237.15	237.0 ± 1.3
y_{cal}	1.00061	1.0007 ± 0.0025	z_{re}	7.60	7.53 ± 0.80	$D_M(2.33)$	5781.5	5781 ± 16
$A_{B,\text{dust}}$	4.63	$4.87^{+0.81}_{-1.2}$	$10^9 A_s$	2.0988	2.096 ± 0.033	$f\sigma_8(0.15)$	0.4685	0.467 ± 0.012
$A_{B,\text{sync}}$	1.48	$1.64^{+0.53}_{-1.3}$	$10^9 A_s e^{-2\tau}$	1.8887	1.887 ± 0.013	$\sigma_8(0.15)$	0.7523	0.7511 ± 0.0072
$\alpha_{B,\text{dust}}$	-0.542	$-0.57^{+0.20}_{-0.33}$	D_{40}	1238.6	1245 ± 16	$f\sigma_8(0.38)$	0.4838	0.4825 ± 0.0093
$\beta_{B,\text{dust}}$	1.574	1.599 ± 0.096	D_{220}	5707.7	5711 ± 41	$\sigma_8(0.38)$	0.6654	0.6644 ± 0.0058
$\alpha_{B,\text{sync}}$	-0.33	—	D_{810}	2539.7	2538 ± 14	$f\sigma_8(0.51)$	0.4808	0.4796 ± 0.0079
$\beta_{B,\text{sync}}$	-3.035	-3.10 ± 0.27	D_{1420}	815.7	814.7 ± 5.1	$\sigma_8(0.51)$	0.6221	0.6212 ± 0.0053
$\epsilon_{\text{dust,sync}}$	-0.333	-0.35 ± 0.28	D_{2000}	230.03	229.6 ± 1.8	$f\sigma_8(0.61)$	0.4748	0.4736 ± 0.0070
A_{217}^{CIB}	48.7	48 ± 7	$n_{s,0.002}$	0.9624	0.9619 ± 0.0057	$\sigma_8(0.61)$	0.59160	0.5908 ± 0.0050
$\xi^{\text{tSZ} \times \text{CIB}}$	0.31	—	Y_P	0.245281	$0.24527^{+0.00010}_{-0.000087}$	$f\sigma_8(2.33)$	0.29776	0.2974 ± 0.0025
A_{143}^{tSZ}	7.01	5.1 ± 2.0	Y_P^{BBN}	0.246607	$0.24659^{+0.00011}_{-0.000087}$	$\sigma_8(2.33)$	0.30641	0.3061 ± 0.0026
A_{100}^{PS}	254.7	264 ± 28	$10^5 D/H$	2.6384	2.642 ± 0.041	$r_{0.002}$	0.0104	< 0.0277
A_{143}^{PS}	49.4	49 ± 8	Age/Gyr	13.8378	13.838 ± 0.035	$r_{0.01}$	0.0110	< 0.0293
$A_{143 \times 217}^{\text{PS}}$	46.8	44 ± 9	z_*	1090.391	1090.40 ± 0.40	$\ln(10^{10} A_t)$	-1.40	$-1.01^{+1.1}_{-0.43}$
A_{217}^{PS}	119.5	116 ± 10	r_*	144.295	144.36 ± 0.47	r_{10}	0.0053	< 0.0142
A^{kSZ}	0.00	< 4.79	$100\theta_*$	1.040900	1.04093 ± 0.00046	$10^9 A_t$	0.0245	< 0.0649
A_{100}^{dustTT}	8.79	8.9 ± 1.8	$D_M(z_*)/\text{Gpc}$	13.8625	13.869 ± 0.044	$10^9 A_t e^{-2\tau}$	0.0221	< 0.0584
A_{143}^{dustTT}	10.79	10.7 ± 1.8	z_{drag}	1059.399	1059.33 ± 0.45	f_{2000}^{143}	30.38	31.2 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.34	18.2 ± 3.3	r_{drag}	147.044	147.12 ± 0.48	$f_{2000}^{143 \times 217}$	33.27	33.6 ± 2.0
A_{217}^{dustTT}	94.6	93.4 ± 7.4	k_D	0.14070	0.14061 ± 0.00052	f_{2000}^{217}	107.76	108.2 ± 1.9
c_{100}	0.99964	0.99960 ± 0.00062	$100\theta_D$	0.161070	0.16111 ± 0.00026	χ_{BKPLANCK}^2	734.86	739.1 ± 2.7
c_{217}	0.99825	0.99825 ± 0.00062	z_{eq}	3427.8	3423 ± 47	χ_{simall}^2	396.01	397.1 ± 1.7
H_0	66.58	66.65 ± 0.89	k_{eq}	0.010462	0.01045 ± 0.00014	χ_{lowl}^2	24.26	25.0 ± 1.5
Ω_Λ	0.6750	0.676 ± 0.013	$100\theta_{\text{eq}}$	0.8078	0.8088 ± 0.0087	χ_{plik}^2	758.5	771.1 ± 5.3
Ω_m	0.3250	0.324 ± 0.013	$100\theta_{s,\text{eq}}$	0.44672	0.4472 ± 0.0045	χ_{prior}^2	1.47	8.9 ± 4.0
$\Omega_m h^2$	0.14409	0.1439 ± 0.0020	$H(0.15)$	72.00	72.06 ± 0.76	χ_{CMB}^2	1913.6	1932.3 ± 6.2
$\Omega_m h^3$	0.095933	0.09588 ± 0.00045	$D_M(0.15)$	650.2	649.6 ± 7.8			

Best-fit $\chi_{\text{eff}}^2 = 1915.08$; $\bar{\chi}_{\text{eff}}^2 = 1941.21$; $R - 1 = 0.00244$

χ_{eff}^2 : CMB - BK15_dust: 734.86 simall_100x143_offlike5_EE_Aplanck_B: 396.01 commander_dx12_v3_2_29: 24.26 plik_rd12_HM_v22_TT: 758.48

17.43 base_r_plikHM_TT_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022219	0.02219 ± 0.00019	S_8	0.8252	0.824 ± 0.015	$H(0.51)$	89.613	89.61 ± 0.28
$\Omega_c h^2$	0.11926	0.1191 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4520	0.4514 ± 0.0081	$D_M(0.51)$	1983.9	1984 ± 11
$100\theta_{MC}$	1.040960	1.04097 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6048	0.6043 ± 0.0078	$H(0.61)$	95.232	95.23 ± 0.24
τ	0.0547	0.0546 ± 0.0077	$\sigma_8/h^{0.5}$	0.9850	0.984 ± 0.011	$D_M(0.61)$	2308.5	2308 ± 12
$\ln(10^{10} A_s)$	3.0426	3.043 ± 0.016	$r_{\text{drag}} h$	99.54	99.62 ± 0.93	$H(2.33)$	235.93	235.82 ± 0.78
n_s	0.96687	0.9665 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.4334	2.433 ± 0.027	$D_M(2.33)$	5767.9	5769 ± 12
r	0.0175	< 0.0335	z_{re}	7.74	7.72 ± 0.78	$f\sigma_8(0.15)$	0.4565	0.4560 ± 0.0076
y_{cal}	1.00036	1.0009 ± 0.0025	$10^9 A_s$	2.0960	2.096 ± 0.034	$\sigma_8(0.15)$	0.7478	0.7475 ± 0.0067
$A_{B,\text{dust}}$	4.59	$4.88_{-1.2}^{+0.80}$	$10^9 A_s e^{-2\tau}$	1.8787	1.879 ± 0.011	$f\sigma_8(0.38)$	0.4748	0.4743 ± 0.0064
$A_{B,\text{sync}}$	1.43	$1.64_{-1.4}^{+0.52}$	D_{40}	1230.7	1236 ± 14	$\sigma_8(0.38)$	0.6628	0.6626 ± 0.0057
$\alpha_{B,\text{dust}}$	-0.502	$-0.56_{-0.32}^{+0.22}$	D_{220}	5715.4	5720 ± 40	$f\sigma_8(0.51)$	0.4733	0.4729 ± 0.0057
$\beta_{B,\text{dust}}$	1.575	1.595 ± 0.095	D_{810}	2536.8	2537 ± 14	$\sigma_8(0.51)$	0.6203	0.6201 ± 0.0053
$\alpha_{B,\text{sync}}$	-0.32	—	D_{1420}	816.2	816.0 ± 5.1	$f\sigma_8(0.61)$	0.4683	0.4679 ± 0.0053
$\beta_{B,\text{sync}}$	-3.042	-3.10 ± 0.28	D_{2000}	230.26	230.1 ± 1.8	$\sigma_8(0.61)$	0.59019	0.5900 ± 0.0050
$\epsilon_{\text{dust,sync}}$	-0.340	-0.34 ± 0.28	$n_{s,0.002}$	0.96687	0.9665 ± 0.0042	$f\sigma_8(2.33)$	0.29756	0.2975 ± 0.0025
A_{217}^{CIB}	48.7	48 ± 7	Y_{P}	0.245334	$0.245318_{-0.000074}^{+0.000088}$	$\sigma_8(2.33)$	0.30675	0.3067 ± 0.0026
$\xi^{\text{tSZ} \times \text{CIB}}$	0.32	—	$Y_{\text{P}}^{\text{BBN}}$	0.246660	$0.246644_{-0.000075}^{+0.000088}$	$r_{0.002}$	0.0159	< 0.0305
A_{143}^{tSZ}	7.04	5.1 ± 2.0	$10^5 \text{D}/\text{H}$	2.6143	2.620 ± 0.037	$r_{0.01}$	0.0167	< 0.0319
A_{100}^{PS}	253.4	263 ± 28	Age/Gyr	13.8084	13.810 ± 0.028	$\ln(10^{10} A_t)$	-1.00	$-0.91_{-0.41}^{+1.1}$
A_{143}^{PS}	49.0	49 ± 8	z_*	1090.049	1090.08 ± 0.29	r_{10}	0.0081	< 0.0156
$A_{143 \times 217}^{\text{PS}}$	46.5	43 ± 9	r_*	144.738	144.79 ± 0.32	$10^9 A_t$	0.0367	< 0.0702
A_{217}^{PS}	119.0	115 ± 10	$100\theta_*$	1.041162	1.04118 ± 0.00042	$10^9 A_t e^{-2\tau}$	0.0329	< 0.0629
A^{kSZ}	0.00	< 4.79	$D_M(z_*)/\text{Gpc}$	13.9015	13.907 ± 0.031	f_{2000}^{143}	30.10	30.8 ± 2.9
A_{100}^{dustTT}	8.86	8.9 ± 1.8	z_{drag}	1059.513	1059.45 ± 0.44	$f_{2000}^{143 \times 217}$	33.01	33.3 ± 2.0
A_{143}^{dustTT}	10.76	10.7 ± 1.8	r_{drag}	147.457	147.52 ± 0.35	f_{2000}^{217}	107.48	107.9 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	19.44	18.2 ± 3.3	k_{D}	0.140368	0.14027 ± 0.00045	χ_{BKPLANCK}^2	735.55	739.9 ± 2.7
A_{217}^{dustTT}	94.7	93.4 ± 7.4	$100\theta_{\text{D}}$	0.160997	0.16105 ± 0.00026	χ_{small}^2	396.19	397.2 ± 1.9
c_{100}	0.99965	0.99961 ± 0.00061	z_{eq}	3381.0	3377 ± 28	χ_{lowl}^2	23.52	24.0 ± 1.1
c_{217}	0.99827	0.99826 ± 0.00062	k_{eq}	0.010319	0.010308 ± 0.000087	χ_{plik}^2	759.5	771.7 ± 5.4
H_0	67.50	67.53 ± 0.54	$100\theta_{\text{eq}}$	0.8167	0.8173 ± 0.0052	$\chi_{6\text{DF}}^2$	0.0375	0.067 ± 0.084
Ω_{Λ}	0.6881	0.6886 ± 0.0073	$100\theta_{s,\text{eq}}$	0.45129	0.4516 ± 0.0027	χ_{MGS}^2	1.156	1.27 ± 0.50
Ω_{m}	0.3119	0.3114 ± 0.0073	$H(0.15)$	72.784	72.80 ± 0.46	χ_{DR12BAO}^2	4.56	5.0 ± 1.8
$\Omega_{\text{m}} h^2$	0.14213	0.1420 ± 0.0012	$D_M(0.15)$	642.21	642.0 ± 4.6	χ_{prior}^2	1.41	9.0 ± 4.1
$\Omega_{\text{m}} h^3$	0.095939	0.09587 ± 0.00046	$H(0.38)$	82.896	82.90 ± 0.35	χ_{BAO}^2	5.75	6.3 ± 1.5
σ_8	0.8093	0.8089 ± 0.0076	$D_M(0.38)$	1531.5	1531.2 ± 9.3	χ_{CMB}^2	1914.8	1932.8 ± 6.1

Best-fit $\chi_{\text{eff}}^2 = 1921.94$; $\bar{\chi}_{\text{eff}}^2 = 1948.08$; $R - 1 = 0.00580$
 χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.56 CMB - BK15_dust: 735.55 smalll_100x143.offlike5_EE_Aplanck_B: 396.19 commander_dx12_v3_2_29: 23.52 plik_rd12_HM_v22_TT: 759.51

17.44 base_r_plikHM_TT_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022122	0.02211 ± 0.00021	σ_8	0.8122	0.8115 ± 0.0062	$H(0.38)$	82.543	82.55 ± 0.44
$\Omega_c h^2$	0.12047	0.1204 ± 0.0016	S_8	0.8385	0.838 ± 0.016	$D_M(0.38)$	1541.3	1541 ± 12
$100\theta_{MC}$	1.040762	1.04078 ± 0.00045	$\sigma_8 \Omega_m^{0.5}$	0.4593	0.4589 ± 0.0088	$H(0.51)$	89.337	89.34 ± 0.35
τ	0.0529	0.0523 ± 0.0078	$\sigma_8 \Omega_m^{0.25}$	0.6107	0.6102 ± 0.0076	$D_M(0.51)$	1995.4	1995 ± 14
$\ln(10^{10} A_s)$	3.0420	3.041 ± 0.015	$\sigma_8/h^{0.5}$	0.9928	0.992 ± 0.010	$H(0.61)$	95.015	95.02 ± 0.29
n_s	0.96334	0.9632 ± 0.0048	$r_{\text{drag}} h$	98.55	98.6 ± 1.2	$D_M(0.61)$	2320.8	2321 ± 15
r	0.0128	< 0.0319	$\langle d^2 \rangle^{1/2}$	2.4528	2.451 ± 0.025	$H(2.33)$	236.61	236.59 ± 0.96
y_{cal}	1.00057	1.0007 ± 0.0025	z_{re}	7.60	$7.52^{+0.80}_{-0.72}$	$D_M(2.33)$	5777.3	5777 ± 14
$A_{B,\text{dust}}$	4.63	$4.87^{+0.80}_{-1.2}$	$10^9 A_s$	2.0948	2.092 ± 0.031	$f\sigma_8(0.15)$	0.4632	0.4627 ± 0.0080
$A_{B,\text{sync}}$	1.42	$1.63^{+0.53}_{-1.4}$	$10^9 A_s e^{-2\tau}$	1.8843	1.884 ± 0.011	$\sigma_8(0.15)$	0.7497	0.7491 ± 0.0055
$\alpha_{B,\text{dust}}$	-0.523	$-0.56^{+0.22}_{-0.32}$	D_{40}	1236.8	1242 ± 14	$f\sigma_8(0.38)$	0.4797	0.4792 ± 0.0062
$\beta_{B,\text{dust}}$	1.573	1.597 ± 0.095	D_{220}	5713.5	5714 ± 41	$\sigma_8(0.38)$	0.66368	0.6632 ± 0.0048
$\alpha_{B,\text{sync}}$	-0.54	—	D_{810}	2537.5	2537 ± 13	$f\sigma_8(0.51)$	0.4773	0.4769 ± 0.0053
$\beta_{B,\text{sync}}$	-3.040	$-3.10^{+0.29}_{-0.26}$	D_{1420}	815.0	814.9 ± 5.1	$\sigma_8(0.51)$	0.62072	0.6202 ± 0.0045
$\epsilon_{\text{dust,sync}}$	-0.339	-0.34 ± 0.28	D_{2000}	229.76	229.7 ± 1.8	$f\sigma_8(0.61)$	0.47168	0.4712 ± 0.0047
A_{217}^{CIB}	50.8	48 ± 7	$n_{s,0.002}$	0.96334	0.9632 ± 0.0048	$\sigma_8(0.61)$	0.59041	0.5900 ± 0.0043
$\xi^{\text{tSZ} \times \text{CIB}}$	0.05	—	Y_P	0.245294	$0.245284^{+0.000098}_{-0.000081}$	$f\sigma_8(2.33)$	0.29737	0.2971 ± 0.0023
A_{143}^{tSZ}	7.20	5.1 ± 2.0	Y_P^{BBN}	0.246620	$0.246610^{+0.000098}_{-0.000081}$	$\sigma_8(2.33)$	0.30622	0.3060 ± 0.0025
A_{100}^{PS}	256.9	264 ± 28	$10^5 D/H$	2.6328	2.635 ± 0.039	$r_{0.002}$	0.0114	< 0.0287
A_{143}^{PS}	45.8	49 ± 8	Age/Gyr	13.8292	13.829 ± 0.032	$r_{0.01}$	0.0121	< 0.0303
$A_{143 \times 217}^{\text{PS}}$	39.8	44 ± 9	z_*	1090.277	1090.29 ± 0.34	$\ln(10^{10} A_t)$	-1.32	$-0.97^{+1.1}_{-0.42}$
A_{217}^{PS}	116.0	115 ± 10	r_*	144.499	144.51 ± 0.37	r_{10}	0.0059	< 0.0147
A^{kSZ}	0.00	< 4.86	$100\theta_*$	1.040970	1.04099 ± 0.00044	$10^9 A_t$	0.0268	< 0.0668
A_{100}^{dustTT}	8.89	8.9 ± 1.8	$D_M(z_*)/\text{Gpc}$	13.8812	13.882 ± 0.035	$10^9 A_t e^{-2\tau}$	0.0241	< 0.0600
A_{143}^{dustTT}	10.76	10.7 ± 1.8	z_{drag}	1059.399	1059.37 ± 0.45	f_{2000}^{143}	30.83	31.2 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.04	18.3 ± 3.3	r_{drag}	147.243	147.26 ± 0.38	$f_{2000}^{143 \times 217}$	33.47	33.6 ± 2.0
A_{217}^{dustTT}	94.0	93.4 ± 7.4	k_D	0.140515	0.14049 ± 0.00046	f_{2000}^{217}	108.00	108.2 ± 1.9
c_{100}	0.99961	0.99961 ± 0.00061	$100\theta_D$	0.161065	0.16109 ± 0.00026	χ_{lensing}^2	8.98	9.53 ± 0.95
c_{217}	0.99827	0.99826 ± 0.00062	z_{eq}	3407.5	3407 ± 36	χ_{BKPLANCK}^2	735.21	739.4 ± 2.6
H_0	66.93	66.94 ± 0.70	k_{eq}	0.010400	0.01040 ± 0.00011	χ_{small}^2	396.00	397.0 ± 1.6
Ω_Λ	0.6803	0.6803 ± 0.0098	$100\theta_{\text{eq}}$	0.8115	0.8117 ± 0.0066	χ_{lowl}^2	24.07	24.6 ± 1.2
Ω_m	0.3197	0.3197 ± 0.0098	$100\theta_{s,\text{eq}}$	0.44865	0.4487 ± 0.0034	χ_{plik}^2	758.35	770.9 ± 5.2
$\Omega_m h^2$	0.14324	0.1432 ± 0.0015	$H(0.15)$	72.30	72.30 ± 0.60	χ_{prior}^2	1.70	8.9 ± 4.0
$\Omega_m h^3$	0.095873	0.09586 ± 0.00045	$D_M(0.15)$	647.1	647.1 ± 6.1	χ_{CMB}^2	1922.6	1941.5 ± 6.1

Best-fit $\chi_{\text{eff}}^2 = 1924.32$; $\bar{\chi}_{\text{eff}}^2 = 1950.36$; $R - 1 = 0.00332$
 χ_{eff}^2 : CMB - smicadx12_Dec5.ftl_mv2_ndclpp_p.teb_consext8: 8.98 BK15_dust: 735.21 small_100x143_offlike5_EE_Aplanck_B: 396.00 commander_dx12_v3.2.29: 24.07
plik_rd12_HM_v22.TT: 758.35

17.45 base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022208	0.02219 ± 0.00019	$\sigma_8 \Omega_m^{0.5}$	0.4531	0.4523 ± 0.0065	$H(0.61)$	95.210	95.22 ± 0.23
$\Omega_c h^2$	0.11941	0.1192 ± 0.0011	$\sigma_8 \Omega_m^{0.25}$	0.6059	0.6053 ± 0.0061	$D_M(0.61)$	2309.8	2309 ± 11
$100\theta_{MC}$	1.040959	1.04096 ± 0.00042	$\sigma_8/h^{0.5}$	0.9866	0.9859 ± 0.0088	$H(2.33)$	236.02	235.87 ± 0.70
τ	0.0546	0.0555 ± 0.0073	$r_{\text{drag}} h$	99.42	99.56 ± 0.83	$D_M(2.33)$	5768.7	5769 ± 12
$\ln(10^{10} A_s)$	3.0439	3.045 ± 0.014	$\langle d^2 \rangle^{1/2}$	2.4379	2.438 ± 0.021	$f\sigma_8(0.15)$	0.4576	0.4569 ± 0.0060
n_s	0.96623	0.9661 ± 0.0041	z_{re}	7.74	7.81 ± 0.73	$\sigma_8(0.15)$	0.7485	0.7484 ± 0.0055
r	0.0155	< 0.0331	$10^9 A_s$	2.0988	2.101 ± 0.030	$f\sigma_8(0.38)$	0.47566	0.4751 ± 0.0050
y_{cal}	1.00089	1.0010 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8815	1.880 ± 0.011	$\sigma_8(0.38)$	0.66337	0.6634 ± 0.0048
$A_{B,\text{dust}}$	4.60	$4.87_{-1.2}^{+0.79}$	D_{40}	1232.9	1237 ± 13	$f\sigma_8(0.51)$	0.47410	0.4737 ± 0.0045
$A_{B,\text{sync}}$	1.43	$1.64_{-1.4}^{+0.51}$	D_{220}	5722.8	5723 ± 40	$\sigma_8(0.51)$	0.62074	0.6208 ± 0.0045
$\alpha_{B,\text{dust}}$	-0.503	$-0.56_{-0.33}^{+0.22}$	D_{810}	2539.5	2538 ± 13	$f\sigma_8(0.61)$	0.46902	0.4687 ± 0.0041
$\beta_{B,\text{dust}}$	1.574	1.596 ± 0.095	D_{1420}	816.8	816.1 ± 5.0	$\sigma_8(0.61)$	0.59061	0.5907 ± 0.0043
$\alpha_{B,\text{sync}}$	-0.35	—	D_{2000}	230.41	230.2 ± 1.8	$f\sigma_8(2.33)$	0.29774	0.2978 ± 0.0022
$\beta_{B,\text{sync}}$	-3.039	-3.10 ± 0.28	$n_{s,0.002}$	0.96623	0.9661 ± 0.0041	$\sigma_8(2.33)$	0.30690	0.3070 ± 0.0024
$\epsilon_{\text{dust,sync}}$	-0.346	-0.34 ± 0.28	Y_P	0.245329	$0.245320_{-0.000074}^{+0.000088}$	$r_{0.002}$	0.0140	< 0.0301
A_{217}^{CIB}	48.9	48 ± 7	Y_P^{BBN}	0.246656	$0.246646_{-0.000074}^{+0.000088}$	$r_{0.01}$	0.0147	< 0.0316
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	10^5D/H	2.6163	2.619 ± 0.037	$\ln(10^{10} A_t)$	-1.12	$-0.92_{-0.40}^{+1.1}$
A_{143}^{tSZ}	7.07	5.1 ± 2.0	Age/Gyr	13.8103	13.811 ± 0.027	r_{10}	0.0071	< 0.0153
A_{100}^{PS}	255.1	263 ± 28	z_*	1090.074	1090.08 ± 0.28	$10^9 A_t$	0.0326	< 0.0696
A_{143}^{PS}	48.6	49 ± 8	r_*	144.706	144.77 ± 0.29	$10^9 A_t e^{-2\tau}$	0.0292	< 0.0623
$A_{143 \times 217}^{\text{PS}}$	45.8	43 ± 9	$100\theta_*$	1.041156	1.04116 ± 0.00041	f_{2000}^{143}	30.30	30.8 ± 2.9
A_{217}^{PS}	119.0	115 ± 10	$D_M(z_*)/\text{Gpc}$	13.8986	13.905 ± 0.028	$f_{2000}^{143 \times 217}$	33.18	33.3 ± 2.0
A^{kSZ}	0.02	< 4.76	z_{drag}	1059.513	1059.47 ± 0.44	f_{2000}^{217}	107.72	107.9 ± 1.9
$A_{100}^{\text{dust}TT}$	8.87	8.9 ± 1.8	r_{drag}	147.428	147.50 ± 0.32	χ_{lensing}^2	8.806	9.23 ± 0.66
$A_{143}^{\text{dust}TT}$	10.78	10.7 ± 1.8	k_D	0.140389	0.14030 ± 0.00042	χ_{BKPLANCK}^2	735.47	739.8 ± 2.6
$A_{143 \times 217}^{\text{dust}TT}$	19.35	18.2 ± 3.3	$100\theta_D$	0.161007	0.16104 ± 0.00025	χ_{simall}^2	396.21	397.3 ± 1.9
$A_{217}^{\text{dust}TT}$	94.6	93.4 ± 7.4	z_{eq}	3384.3	3379 ± 25	χ_{lowl}^2	23.60	24.1 ± 1.1
c_{100}	0.99966	0.99962 ± 0.00061	k_{eq}	0.010329	0.010314 ± 0.000077	χ_{plik}^2	759.2	771.3 ± 5.3
c_{217}	0.99825	0.99826 ± 0.00062	$100\theta_{\text{eq}}$	0.81608	0.8170 ± 0.0046	$\chi_{6\text{DF}}^2$	0.0471	0.065 ± 0.076
H_0	67.438	67.50 ± 0.49	$100\theta_{s,\text{eq}}$	0.45096	0.4514 ± 0.0024	χ_{MGS}^2	1.097	1.23 ± 0.45
Ω_Λ	0.6872	0.6881 ± 0.0065	$H(0.15)$	72.730	72.78 ± 0.43	χ_{DR12BAO}^2	4.77	5.0 ± 1.6
Ω_m	0.3128	0.3119 ± 0.0065	$D_M(0.15)$	642.76	642.3 ± 4.2	χ_{prior}^2	1.55	8.9 ± 4.1
$\Omega_m h^2$	0.14227	0.1421 ± 0.0011	$H(0.38)$	82.858	82.89 ± 0.32	χ_{CMB}^2	1923.3	1941.7 ± 6.1
$\Omega_m h^3$	0.095942	0.09588 ± 0.00045	$D_M(0.38)$	1532.6	1531.7 ± 8.5	χ_{BAO}^2	5.92	6.3 ± 1.3
σ_8	0.8102	0.8100 ± 0.0061	$H(0.51)$	89.584	89.60 ± 0.27			
S_8	0.8273	0.826 ± 0.012	$D_M(0.51)$	1985.2	1984 ± 10			

Best-fit $\chi_{\text{eff}}^2 = 1930.77$; $\bar{\chi}_{\text{eff}}^2 = 1956.87$; $R - 1 = 0.00562$
 χ_{eff}^2 : BAO - 6DF: 0.05 MGS: 1.10 DR12BAO: 4.78 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.81 BK15_dust: 735.47 simall_100x143_offlike5_EE_Aplanck_B: 396.21 commander_dx12_v3.2.29: 23.60 plik_rd12_HM_v22.TT: 759.22

17.46 base_r_plikHM_TT_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02208 ± 0.00021	σ_8	0.8151 ± 0.0082	$H(0.38)$	82.40 ± 0.54
$\Omega_{\mathrm{c}}h^2$	0.1211 ± 0.0021	S_8	0.847 ± 0.024	$D_{\mathrm{M}}(0.38)$	1546 ± 15
$100\theta_{\mathrm{MC}}$	1.04073 ± 0.00047	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.464 ± 0.013	$H(0.51)$	89.23 ± 0.42
τ	$0.0538^{+0.0049}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.615 ± 0.011	$D_{\mathrm{M}}(0.51)$	2000 ± 18
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.012}_{-0.016}$	$\sigma_8/h^{0.5}$	0.998 ± 0.015	$H(0.61)$	94.94 ± 0.34
n_{s}	0.9621 ± 0.0056	$r_{\mathrm{drag}}h$	98.1 ± 1.6	$D_{\mathrm{M}}(0.61)$	2326 ± 19
r	< 0.0309	$\langle d^2 \rangle^{1/2}$	2.466 ± 0.037	$H(2.33)$	237.0 ± 1.3
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.69^{+0.55}_{-0.79}$	$D_{\mathrm{M}}(2.33)$	5781 ± 16
$A_{B,\mathrm{dust}}$	$4.88^{+0.81}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.102^{+0.024}_{-0.033}$	$f\sigma_8(0.15)$	0.467 ± 0.012
$A_{B,\mathrm{sync}}$	$1.64^{+0.53}_{-1.3}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.887 ± 0.013	$\sigma_8(0.15)$	0.7520 ± 0.0068
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.20}_{-0.33}$	D_{40}	1244 ± 16	$f\sigma_8(0.38)$	0.4829 ± 0.0092
$\beta_{B,\mathrm{dust}}$	1.599 ± 0.096	D_{220}	5711 ± 41	$\sigma_8(0.38)$	$0.6653^{+0.0049}_{-0.0056}$
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2538 ± 14	$f\sigma_8(0.51)$	0.4800 ± 0.0079
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{1420}	814.7 ± 5.1	$\sigma_8(0.51)$	$0.6220^{+0.0043}_{-0.0051}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{2000}	229.7 ± 1.8	$f\sigma_8(0.61)$	0.4741 ± 0.0069
A_{217}^{CIB}	48 ± 7	$n_{\mathrm{s},0.002}$	0.9621 ± 0.0056	$\sigma_8(0.61)$	$0.5916^{+0.0039}_{-0.0048}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.24527^{+0.00010}_{-0.000086}$	$f\sigma_8(2.33)$	$0.2978^{+0.0018}_{-0.0024}$
A_{143}^{tSZ}	5.1 ± 2.0	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24660^{+0.00010}_{-0.000086}$	$\sigma_8(2.33)$	$0.3065^{+0.0019}_{-0.0026}$
A_{100}^{PS}	263 ± 28	$10^5 \mathrm{D}/\mathrm{H}$	2.641 ± 0.041	$r_{0.002}$	< 0.0277
A_{143}^{PS}	49 ± 8	$\mathrm{Age}/\mathrm{Gyr}$	13.836 ± 0.035	$r_{0.01}$	< 0.0292
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	z_*	1090.38 ± 0.40	$\ln(10^{10}A_{\mathrm{t}})$	$-1.00^{+1.1}_{-0.43}$
A_{217}^{PS}	116 ± 10	r_*	144.38 ± 0.47	r_{10}	< 0.0142
A^{kSZ}	< 4.76	$100\theta_*$	1.04094 ± 0.00046	$10^9 A_{\mathrm{t}}$	< 0.0649
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.870 ± 0.044	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0583
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_{drag}	1059.34 ± 0.45	f_{2000}^{143}	31.2 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.2 ± 3.3	r_{drag}	147.13 ± 0.48	$f_{2000}^{143 \times 217}$	33.6 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	k_{D}	0.14060 ± 0.00052	f_{2000}^{217}	108.2 ± 1.9
c_{100}	0.99960 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16110 ± 0.00026	$\chi_{\mathrm{BKPLANCK}}^2$	739.1 ± 2.7
c_{217}	0.99825 ± 0.00062	z_{eq}	3421 ± 47	χ_{small}^2	397.0 ± 1.7
H_0	66.69 ± 0.89	k_{eq}	0.01044 ± 0.00014	χ_{lowl}^2	25.0 ± 1.5
Ω_{Λ}	0.676 ± 0.013	$100\theta_{\mathrm{eq}}$	0.8091 ± 0.0087	χ_{plik}^2	771.0 ± 5.3
Ω_{m}	0.324 ± 0.013	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4474 ± 0.0045	χ_{prior}^2	8.9 ± 4.0
$\Omega_{\mathrm{m}}h^2$	0.1438 ± 0.0020	$H(0.15)$	72.09 ± 0.76	χ_{CMB}^2	1932.0 ± 6.1
$\Omega_{\mathrm{m}}h^3$	0.09588 ± 0.00046	$D_{\mathrm{M}}(0.15)$	649.3 ± 7.8		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1940.93; R - 1 = 0.00225$$

17.47 base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00019	S_8	0.825 ± 0.015	$H(0.51)$	89.62 ± 0.28
$\Omega_c h^2$	0.1191 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4517 ± 0.0080	$D_M(0.51)$	1983 ± 11
$100\theta_{MC}$	1.04097 ± 0.00042	$\sigma_8 \Omega_m^{0.25}$	0.6047 ± 0.0076	$H(0.61)$	95.23 ± 0.24
τ	$0.0556^{+0.0055}_{-0.0079}$	$\sigma_8/h^{0.5}$	0.985 ± 0.011	$D_M(0.61)$	2308 ± 12
$\ln(10^{10} A_s)$	$3.044^{+0.013}_{-0.016}$	$r_{\text{drag}} h$	99.63 ± 0.92	$H(2.33)$	235.81 ± 0.78
n_s	0.9665 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.435 ± 0.026	$D_M(2.33)$	5768 ± 12
r	< 0.0334	z_{re}	$7.82^{+0.61}_{-0.77}$	$f\sigma_8(0.15)$	0.4563 ± 0.0075
y_{cal}	1.0009 ± 0.0025	$10^9 A_s$	$2.100^{+0.026}_{-0.034}$	$\sigma_8(0.15)$	$0.7481^{+0.0058}_{-0.0067}$
$A_{B,\text{dust}}$	$4.88^{+0.80}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.879 ± 0.011	$f\sigma_8(0.38)$	0.4747 ± 0.0062
$A_{B,\text{sync}}$	$1.64^{+0.52}_{-1.4}$	D_{40}	1236 ± 14	$\sigma_8(0.38)$	$0.6632^{+0.0047}_{-0.0057}$
$\alpha_{B,\text{dust}}$	$-0.56^{+0.22}_{-0.33}$	D_{220}	5720 ± 40	$f\sigma_8(0.51)$	0.4733 ± 0.0055
$\beta_{B,\text{dust}}$	1.596 ± 0.095	D_{810}	2537 ± 14	$\sigma_8(0.51)$	$0.6206^{+0.0043}_{-0.0053}$
$\alpha_{B,\text{sync}}$	—	D_{1420}	815.9 ± 5.1	$f\sigma_8(0.61)$	0.4683 ± 0.0051
$\beta_{B,\text{sync}}$	-3.10 ± 0.28	D_{2000}	230.1 ± 1.8	$\sigma_8(0.61)$	$0.5906^{+0.0041}_{-0.0050}$
$\epsilon_{\text{dust,sync}}$	-0.34 ± 0.28	$n_{s,0.002}$	0.9665 ± 0.0042	$f\sigma_8(2.33)$	$0.2978^{+0.0020}_{-0.0025}$
A_{217}^{CIB}	48 ± 7	Y_P	$0.245319^{+0.000088}_{-0.000074}$	$\sigma_8(2.33)$	$0.3070^{+0.0020}_{-0.0026}$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.246645^{+0.000088}_{-0.000074}$	$r_{0.002}$	< 0.0304
A_{143}^{tSZ}	5.1 ± 2.0	10^5D/H	2.620 ± 0.037	$r_{0.01}$	< 0.0319
A_{100}^{PS}	263 ± 28	Age/Gyr	13.810 ± 0.028	$\ln(10^{10} A_t)$	$-0.91^{+1.1}_{-0.41}$
A_{143}^{PS}	48 ± 8	z_*	1090.07 ± 0.29	r_{10}	< 0.0155
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	r_*	144.80 ± 0.32	$10^9 A_t$	< 0.0702
A_{217}^{PS}	115 ± 10	$100\theta_*$	1.04118 ± 0.00042	$10^9 A_t e^{-2\tau}$	< 0.0627
A^{kSZ}	< 4.78	$D_M(z_*)/\text{Gpc}$	13.907 ± 0.031	f_{2000}^{143}	30.8 ± 2.9
A_{100}^{dustTT}	8.9 ± 1.8	z_{drag}	1059.46 ± 0.44	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
A_{143}^{dustTT}	10.7 ± 1.8	r_{drag}	147.52 ± 0.34	f_{2000}^{217}	107.9 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	18.2 ± 3.3	k_D	0.14027 ± 0.00045	χ_{BKPLANCK}^2	739.8 ± 2.7
A_{217}^{dustTT}	93.4 ± 7.4	$100\theta_D$	0.16105 ± 0.00026	χ_{simall}^2	397.2 ± 1.9
c_{100}	0.99961 ± 0.00061	z_{eq}	3377 ± 28	χ_{lowl}^2	24.0 ± 1.1
c_{217}	0.99826 ± 0.00062	k_{eq}	0.010307 ± 0.000086	χ_{plik}^2	771.6 ± 5.4
H_0	67.54 ± 0.53	$100\theta_{\text{eq}}$	0.8174 ± 0.0052	$\chi_{6\text{DF}}^2$	0.066 ± 0.083
Ω_Λ	0.6887 ± 0.0072	$100\theta_{s,\text{eq}}$	0.4517 ± 0.0027	χ_{MGS}^2	1.28 ± 0.50
Ω_m	0.3113 ± 0.0072	$H(0.15)$	72.81 ± 0.46	χ_{DR12BAO}^2	5.0 ± 1.8
$\Omega_m h^2$	0.1420 ± 0.0012	$D_M(0.15)$	642.0 ± 4.6	χ_{prior}^2	8.9 ± 4.0
$\Omega_m h^3$	0.09587 ± 0.00046	$H(0.38)$	82.91 ± 0.34	χ_{BAO}^2	6.3 ± 1.5
σ_8	$0.8096^{+0.0067}_{-0.0075}$	$D_M(0.38)$	1531.1 ± 9.2	χ_{CMB}^2	1932.6 ± 6.1

$\bar{\chi}_{\text{eff}}^2 = 1947.86$; $R - 1 = 0.00560$

17.48 base_r_plikHM_TT_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02212 ± 0.00020	σ_8	0.8122 ± 0.0059	$H(0.38)$	82.59 ± 0.43
$\Omega_{\mathrm{c}}h^2$	0.1203 ± 0.0015	S_8	0.837 ± 0.016	$D_{\mathrm{M}}(0.38)$	1540 ± 12
$100\theta_{\mathrm{MC}}$	1.04079 ± 0.00045	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4586 ± 0.0088	$H(0.51)$	89.37 ± 0.35
τ	$0.0538^{+0.0049}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6103 ± 0.0076	$D_{\mathrm{M}}(0.51)$	1994 ± 14
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.014}$	$\sigma_8/h^{0.5}$	0.992 ± 0.010	$H(0.61)$	95.04 ± 0.29
n_{s}	0.9636 ± 0.0047	$r_{\mathrm{drag}}h$	98.7 ± 1.2	$D_{\mathrm{M}}(0.61)$	2319 ± 15
r	< 0.0319	$\langle d^2 \rangle^{1/2}$	2.452 ± 0.024	$H(2.33)$	236.51 ± 0.93
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.67^{+0.55}_{-0.77}$	$D_{\mathrm{M}}(2.33)$	5776 ± 14
$A_{B,\mathrm{dust}}$	$4.88^{+0.80}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.022}_{-0.030}$	$f\sigma_8(0.15)$	0.4626 ± 0.0080
$A_{B,\mathrm{sync}}$	$1.64^{+0.53}_{-1.4}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.011	$\sigma_8(0.15)$	0.7498 ± 0.0051
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.33}$	D_{40}	1241 ± 13	$f\sigma_8(0.38)$	0.4793 ± 0.0062
$\beta_{B,\mathrm{dust}}$	1.598 ± 0.095	D_{220}	5714 ± 41	$\sigma_8(0.38)$	$0.6639^{+0.0039}_{-0.0046}$
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2537 ± 13	$f\sigma_8(0.51)$	0.4770 ± 0.0053
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.28	D_{1420}	814.9 ± 5.1	$\sigma_8(0.51)$	$0.6210^{+0.0036}_{-0.0044}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.34 ± 0.28	D_{2000}	229.7 ± 1.8	$f\sigma_8(0.61)$	0.4715 ± 0.0046
A_{217}^{CIB}	48 ± 7	$n_{\mathrm{s},0.002}$	0.9636 ± 0.0047	$\sigma_8(0.61)$	$0.5907^{+0.0034}_{-0.0042}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245289^{+0.000096}_{-0.000080}$	$f\sigma_8(2.33)$	$0.2975^{+0.0017}_{-0.0023}$
A_{143}^{tSZ}	5.1 ± 2.0	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246615^{+0.000097}_{-0.000080}$	$\sigma_8(2.33)$	$0.3064^{+0.0019}_{-0.0025}$
A_{100}^{PS}	264 ± 28	$10^5 \mathrm{D}/\mathrm{H}$	2.633 ± 0.039	$r_{0.002}$	< 0.0288
A_{143}^{PS}	49 ± 8	$\mathrm{Age}/\mathrm{Gyr}$	13.827 ± 0.031	$r_{0.01}$	< 0.0303
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	z_*	1090.26 ± 0.34	$\ln(10^{10}A_{\mathrm{t}})$	$-0.96^{+1.1}_{-0.42}$
A_{217}^{PS}	115 ± 10	r_*	144.54 ± 0.36	r_{10}	< 0.0147
A^{kSZ}	< 4.85	$100\theta_*$	1.04100 ± 0.00044	$10^9 A_{\mathrm{t}}$	< 0.0670
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.885 ± 0.034	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0601
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_{drag}	1059.38 ± 0.44	f_{2000}^{143}	31.1 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	r_{drag}	147.29 ± 0.38	$f_{2000}^{143 \times 217}$	33.5 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	k_{D}	0.14047 ± 0.00045	f_{2000}^{217}	108.1 ± 1.9
c_{100}	0.99961 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16108 ± 0.00026	$\chi_{\mathrm{lensing}}^2$	9.52 ± 0.96
c_{217}	0.99826 ± 0.00062	z_{eq}	3404 ± 35	$\chi_{\mathrm{BKPLANCK}}^2$	739.4 ± 2.6
H_0	67.00 ± 0.68	k_{eq}	0.01039 ± 0.00011	χ_{simall}^2	396.9 ± 1.6
Ω_{Λ}	0.6811 ± 0.0095	$100\theta_{\mathrm{eq}}$	0.8123 ± 0.0064	χ_{lowl}^2	24.6 ± 1.2
Ω_{m}	0.3189 ± 0.0095	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4490 ± 0.0033	χ_{plik}^2	770.8 ± 5.2
$\Omega_{\mathrm{m}}h^2$	0.1431 ± 0.0015	$H(0.15)$	72.36 ± 0.58	χ_{prior}^2	8.9 ± 4.0
$\Omega_{\mathrm{m}}h^3$	0.09586 ± 0.00045	$D_{\mathrm{M}}(0.15)$	646.6 ± 5.9	χ_{CMB}^2	1941.2 ± 6.1

$\bar{\chi}_{\mathrm{eff}}^2 = 1950.10$; $R - 1 = 0.00351$

17.49 base_r_plikHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00019	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4524 ± 0.0064	$H(0.61)$	95.22 ± 0.23
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6054 ± 0.0061	$D_{\mathrm{M}}(0.61)$	2308 ± 11
$100\theta_{\mathrm{MC}}$	1.04096 ± 0.00042	$\sigma_8/h^{0.5}$	0.9862 ± 0.0087	$H(2.33)$	235.85 ± 0.69
τ	$0.0561^{+0.0059}_{-0.0073}$	$r_{\mathrm{drag}}h$	99.58 ± 0.82	$D_{\mathrm{M}}(2.33)$	5769 ± 12
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.014}$	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.021	$f\sigma_8(0.15)$	0.4569 ± 0.0060
n_{s}	0.9662 ± 0.0040	z_{re}	$7.88^{+0.62}_{-0.71}$	$\sigma_8(0.15)$	0.7488 ± 0.0052
r	< 0.0331	$10^9 A_{\mathrm{s}}$	$2.103^{+0.025}_{-0.030}$	$f\sigma_8(0.38)$	0.4752 ± 0.0049
y_{cal}	1.0010 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.011	$\sigma_8(0.38)$	$0.6637^{+0.0042}_{-0.0049}$
$A_{B,\mathrm{dust}}$	$4.88^{+0.80}_{-1.2}$	D_{40}	1237 ± 13	$f\sigma_8(0.51)$	0.4738 ± 0.0044
$A_{B,\mathrm{sync}}$	$1.64^{+0.51}_{-1.4}$	D_{220}	5723 ± 40	$\sigma_8(0.51)$	$0.6211^{+0.0039}_{-0.0046}$
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.33}$	D_{810}	2538 ± 13	$f\sigma_8(0.61)$	0.4688 ± 0.0040
$\beta_{B,\mathrm{dust}}$	1.596 ± 0.095	D_{1420}	816.1 ± 5.0	$\sigma_8(0.61)$	$0.5910^{+0.0037}_{-0.0044}$
$\alpha_{B,\mathrm{sync}}$	—	D_{2000}	230.2 ± 1.7	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0022}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.28	$n_{\mathrm{s},0.002}$	0.9662 ± 0.0040	$\sigma_8(2.33)$	$0.3072^{+0.0020}_{-0.0024}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.34 ± 0.28	Y_{P}	$0.245321^{+0.000087}_{-0.000073}$	$r_{0.002}$	< 0.0301
A_{217}^{CIB}	48 ± 7	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246647^{+0.000088}_{-0.000074}$	$r_{0.01}$	< 0.0316
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.619 ± 0.037	$\ln(10^{10}A_{\mathrm{t}})$	$-0.92^{+1.1}_{-0.40}$
A_{143}^{tSZ}	5.1 ± 2.0	$\mathrm{Age}/\mathrm{Gyr}$	13.810 ± 0.027	r_{10}	< 0.0153
A_{100}^{PS}	263 ± 28	z_*	1090.07 ± 0.28	$10^9 A_{\mathrm{t}}$	< 0.0697
A_{143}^{PS}	48 ± 8	r_*	144.78 ± 0.28	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0623
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$100\theta_*$	1.04117 ± 0.00042	f_{2000}^{143}	30.8 ± 2.9
A_{217}^{PS}	115 ± 10	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.905 ± 0.028	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
A^{kSZ}	< 4.76	z_{drag}	1059.47 ± 0.44	f_{2000}^{217}	107.9 ± 1.9
$A_{100}^{\mathrm{dustTT}}$	8.9 ± 1.8	r_{drag}	147.50 ± 0.32	$\chi_{\mathrm{lensing}}^2$	9.20 ± 0.63
$A_{143}^{\mathrm{dustTT}}$	10.7 ± 1.8	k_{D}	0.14030 ± 0.00042	$\chi_{\mathrm{BKPLANCK}}^2$	739.8 ± 2.6
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.2 ± 3.3	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00025	χ_{simall}^2	397.3 ± 1.9
$A_{217}^{\mathrm{dustTT}}$	93.4 ± 7.4	z_{eq}	3379 ± 25	χ_{lowl}^2	24.1 ± 1.1
c_{100}	0.99962 ± 0.00061	k_{eq}	0.010312 ± 0.000076	χ_{plik}^2	771.2 ± 5.3
c_{217}	0.99826 ± 0.00062	$100\theta_{\mathrm{eq}}$	0.8171 ± 0.0046	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.074
H_0	67.51 ± 0.49	$100\theta_{\mathrm{s,eq}}$	0.4515 ± 0.0024	χ_{MGS}^2	1.24 ± 0.45
Ω_{Λ}	0.6883 ± 0.0065	$H(0.15)$	72.79 ± 0.42	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.6
Ω_{m}	0.3117 ± 0.0065	$D_{\mathrm{M}}(0.15)$	642.2 ± 4.2	χ_{prior}^2	8.9 ± 4.0
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0010	$H(0.38)$	82.90 ± 0.32	χ_{CMB}^2	1941.6 ± 6.1
$\Omega_{\mathrm{m}}h^3$	0.09588 ± 0.00045	$D_{\mathrm{M}}(0.38)$	1531.5 ± 8.5	χ_{BAO}^2	6.2 ± 1.3
σ_8	0.8103 ± 0.0058	$H(0.51)$	89.61 ± 0.27		
S_8	0.826 ± 0.012	$D_{\mathrm{M}}(0.51)$	1984 ± 10		

$$\bar{\chi}_{\mathrm{eff}}^2 = 1956.72; R - 1 = 0.00561$$

17.50 base_r_plikHM_TTTEEE_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022344	0.02234 ± 0.00015	Ω_Λ	0.6818	0.6822 ± 0.0084	$H(0.15)$	72.51	72.53 ± 0.52
$\Omega_c h^2$	0.12048	0.1204 ± 0.0014	Ω_m	0.3182	0.3178 ± 0.0084	$D_M(0.15)$	645.1	644.9 ± 5.2
$100\theta_{MC}$	1.040882	1.04088 ± 0.00031	$\Omega_m h^2$	0.14347	0.1434 ± 0.0013	$H(0.38)$	82.743	82.76 ± 0.37
τ	0.0545	0.0551 ± 0.0077	$\Omega_m h^3$	0.096343	0.09632 ± 0.00029	$D_M(0.38)$	1537.0	1537 ± 10
$\ln(10^{10} A_s)$	3.0467	3.047 ± 0.016	σ_8	0.8138	0.8137 ± 0.0073	$H(0.51)$	89.533	89.55 ± 0.29
n_s	0.96484	0.9647 ± 0.0043	S_8	0.8381	0.837 ± 0.016	$D_M(0.51)$	1990.0	1989 ± 12
r	0.0147	< 0.0333	$\sigma_8 \Omega_m^{0.5}$	0.4590	0.4587 ± 0.0088	$H(0.61)$	95.207	95.22 ± 0.24
y_{cal}	1.00104	1.0009 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6112	0.6109 ± 0.0082	$D_M(0.61)$	2314.7	2314 ± 13
$A_{B,dust}$	4.62	$4.87^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.9931	0.993 ± 0.012	$H(2.33)$	236.85	236.79 ± 0.81
$A_{B,sync}$	1.44	$1.63^{+0.53}_{-1.3}$	$r_{drag} h$	98.71	98.8 ± 1.0	$D_M(2.33)$	5766.4	5766 ± 11
$\alpha_{B,dust}$	-0.515	$-0.57^{+0.21}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.4538	2.454 ± 0.028	$f\sigma_8(0.15)$	0.4631	0.4627 ± 0.0081
$\beta_{B,dust}$	1.575	1.597 ± 0.095	z_{re}	7.71	7.75 ± 0.78	$\sigma_8(0.15)$	0.7513	0.7512 ± 0.0065
$\alpha_{B,sync}$	-0.44	—	$10^9 A_s$	2.1047	2.106 ± 0.033	$f\sigma_8(0.38)$	0.4800	0.4797 ± 0.0066
$\beta_{B,sync}$	-3.051	-3.10 ± 0.27	$10^9 A_s e^{-2\tau}$	1.8874	1.886 ± 0.012	$\sigma_8(0.38)$	0.6653	0.6652 ± 0.0055
$\epsilon_{dust,sync}$	-0.337	-0.35 ± 0.28	D_{40}	1237.9	1242 ± 13	$f\sigma_8(0.51)$	0.4778	0.4776 ± 0.0058
A_{217}^{CIB}	48.3	47 ± 7	D_{220}	5733.8	5733 ± 39	$\sigma_8(0.51)$	0.62229	0.6223 ± 0.0051
$\xi^{tSZ \times CIB}$	0.28	—	D_{810}	2543.1	2541 ± 13	$f\sigma_8(0.61)$	0.4723	0.4721 ± 0.0053
A_{143}^{tSZ}	7.28	$5.5^{+2.1}_{-1.9}$	D_{1420}	818.52	817.8 ± 4.8	$\sigma_8(0.61)$	0.59194	0.5919 ± 0.0048
A_{100}^{PS}	251.1	258 ± 28	D_{2000}	231.30	231.1 ± 1.6	$f\sigma_8(2.33)$	0.29820	0.2982 ± 0.0024
A_{143}^{PS}	45.8	46 ± 8	$n_{s,0.002}$	0.96484	0.9647 ± 0.0043	$\sigma_8(2.33)$	0.30714	0.3072 ± 0.0025
$A_{143 \times 217}^{PS}$	43.9	43 ± 9	Y_P	0.245385	0.245382 ± 0.000059	$r_{0.002}$	0.0132	< 0.0301
A_{217}^{PS}	118.3	116 ± 10	Y_P^{BBN}	0.246712	0.246709 ± 0.000059	$r_{0.01}$	0.0139	< 0.0316
A^{kSZ}	0.00	< 4.13	$10^5 D/H$	2.5903	2.591 ± 0.028	$\ln(10^{10} A_t)$	-1.17	$-0.90^{+1.1}_{-0.39}$
A_{100}^{dustTT}	8.79	8.8 ± 1.8	Age/Gyr	13.8032	13.803 ± 0.024	r_{10}	0.0067	< 0.0154
A_{143}^{dustTT}	10.90	10.8 ± 1.8	z_*	1089.995	1089.99 ± 0.27	$10^9 A_t$	0.0309	$0.056^{+0.014}_{-0.056}$
$A_{143 \times 217}^{dustTT}$	19.52	18.6 ± 3.3	r_*	144.327	144.35 ± 0.30	$10^9 A_t e^{-2\tau}$	0.0277	$0.050^{+0.012}_{-0.050}$
A_{217}^{dustTT}	94.7	93.8 ± 7.3	$100\theta_*$	1.041065	1.04107 ± 0.00031	f_{2000}^{143}	29.16	29.4 ± 2.7
A_{100}^{dustTE}	0.1126	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.8634	13.866 ± 0.028	$f_{2000}^{143 \times 217}$	32.18	32.2 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1350	0.135 ± 0.029	z_{drag}	1059.895	1059.90 ± 0.30	f_{2000}^{217}	106.95	107.1 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.484	0.481 ± 0.085	r_{drag}	146.994	147.02 ± 0.30	$\chi_{BKPLANCK}^2$	735.20	739.4 ± 2.6
A_{143}^{dustTE}	0.227	0.227 ± 0.054	k_D	0.140952	0.14092 ± 0.00032	χ_{simall}^2	396.18	397.4 ± 2.0
$A_{143 \times 217}^{dustTE}$	0.667	0.667 ± 0.081	$100\theta_D$	0.160772	0.16078 ± 0.00018	χ_{lowl}^2	23.97	24.5 ± 1.2
A_{217}^{dustTE}	2.098	2.09 ± 0.27	z_{eq}	3413.1	3411 ± 31	χ_{plik}^2	2344.1	2359.2 ± 5.8
c_{100}	0.99968	0.99966 ± 0.00061	k_{eq}	0.010417	0.010411 ± 0.000093	χ_{prior}^2	2.09	13.2 ± 4.9
c_{217}	0.99820	0.99819 ± 0.00062	$100\theta_{eq}$	0.8113	0.8117 ± 0.0057	χ_{CMB}^2	3499.4	3520.5 ± 6.4
H_0	67.15	67.18 ± 0.60	$100\theta_{s,eq}$	0.44833	0.4485 ± 0.0029			

Best-fit $\chi_{eff}^2 = 3501.51$; $\bar{\chi}_{eff}^2 = 3533.72$; $R - 1 = 0.00500$

χ_{eff}^2 : CMB - BK15_dust: 735.20 simall_100x143_offlike5_EE_Aplanck_B: 396.18 commander_dx12_v3_2_29: 23.97 plik_rd12_HM_v22b_TTTEEE: 2344.08

17.51 base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022418	0.02241 ± 0.00014	Ω_m	0.3117	0.3117 ± 0.0061	$H(0.38)$	83.025	83.02 ± 0.29
$\Omega_c h^2$	0.11944	0.1194 ± 0.0010	$\Omega_m h^2$	0.14250	0.14248 ± 0.00096	$D_M(0.38)$	1529.1	1529.1 ± 7.7
$100\theta_{MC}$	1.040993	1.04100 ± 0.00030	$\Omega_m h^3$	0.096351	0.09634 ± 0.00030	$H(0.51)$	89.749	89.75 ± 0.23
τ	0.0562	0.0565 ± 0.0077	σ_8	0.8113	0.8113 ± 0.0071	$D_M(0.51)$	1980.7	1980.8 ± 9.1
$\ln(10^{10} A_s)$	3.0476	3.048 ± 0.016	S_8	0.8269	0.827 ± 0.013	$H(0.61)$	95.374	95.37 ± 0.19
n_s	0.96741	0.9670 ± 0.0037	$\sigma_8 \Omega_m^{0.5}$	0.4529	0.4530 ± 0.0069	$D_M(0.61)$	2304.8	2304.9 ± 9.8
r	0.0175	$0.0282^{+0.0082}_{-0.027}$	$\sigma_8 \Omega_m^{0.25}$	0.6062	0.6062 ± 0.0069	$H(2.33)$	236.24	236.23 ± 0.61
y_{cal}	1.00086	1.0010 ± 0.0025	$\sigma_8/h^{0.5}$	0.9866	0.987 ± 0.010	$D_M(2.33)$	5759.4	5759.6 ± 9.1
$A_{B,dust}$	4.62	$4.89^{+0.80}_{-1.2}$	$r_{drag} h$	99.52	99.53 ± 0.78	$f\sigma_8(0.15)$	0.4575	0.4575 ± 0.0065
$A_{B,sync}$	1.44	$1.61^{+0.54}_{-1.3}$	$\langle d^2 \rangle^{1/2}$	2.4386	2.440 ± 0.025	$\sigma_8(0.15)$	0.7496	0.7497 ± 0.0064
$\alpha_{B,dust}$	-0.512	$-0.57^{+0.21}_{-0.32}$	z_{re}	7.85	7.86 ± 0.77	$f\sigma_8(0.38)$	0.4758	0.4758 ± 0.0056
$\beta_{B,dust}$	1.577	1.597 ± 0.095	$10^9 A_s$	2.1064	2.107 ± 0.034	$\sigma_8(0.38)$	0.6645	0.6645 ± 0.0055
$\alpha_{B,sync}$	-0.33	—	$10^9 A_s e^{-2\tau}$	1.8825	1.882 ± 0.011	$f\sigma_8(0.51)$	0.4744	0.4744 ± 0.0051
$\beta_{B,sync}$	-3.035	-3.10 ± 0.28	D_{40}	1233.2	1238 ± 13	$\sigma_8(0.51)$	0.6218	0.6218 ± 0.0051
$\epsilon_{dust,sync}$	-0.353	-0.35 ± 0.28	D_{220}	5736.5	5738 ± 39	$f\sigma_8(0.61)$	0.46939	0.4694 ± 0.0047
A_{217}^{CIB}	47.1	46 ± 7	D_{810}	2541.9	2541 ± 13	$\sigma_8(0.61)$	0.59167	0.5917 ± 0.0048
$\xi^{tSZ \times CIB}$	0.43	—	D_{1420}	819.00	818.5 ± 4.8	$f\sigma_8(2.33)$	0.29831	0.2983 ± 0.0024
A_{143}^{tSZ}	7.25	$5.5^{+2.1}_{-1.8}$	D_{2000}	231.54	231.4 ± 1.6	$\sigma_8(2.33)$	0.30754	0.3076 ± 0.0025
A_{100}^{PS}	249.4	258 ± 28	$n_{s,0.002}$	0.96741	0.9670 ± 0.0037	$r_{0.002}$	0.0159	$0.0257^{+0.0069}_{-0.025}$
A_{143}^{PS}	47.0	45 ± 8	Y_P	0.245414	0.245408 ± 0.000053	$r_{0.01}$	0.0167	$0.0269^{+0.0076}_{-0.026}$
$A_{143 \times 217}^{PS}$	47.3	42 ± 9	Y_P^{BBN}	0.246741	0.246735 ± 0.000053	$\ln(10^{10} A_t)$	-0.999	$-0.84^{+1.0}_{-0.38}$
A_{217}^{PS}	119.8	115 ± 10	$10^5 D/H$	2.5766	2.579 ± 0.025	r_{10}	0.0081	$0.0131^{+0.0035}_{-0.013}$
A^{kSZ}	0.00	< 4.10	Age/Gyr	13.7881	13.789 ± 0.021	$10^9 A_t$	0.0368	$0.059^{+0.017}_{-0.056}$
A_{100}^{dustTT}	8.83	8.9 ± 1.9	z_*	1089.810	1089.82 ± 0.23	$10^9 A_t e^{-2\tau}$	0.0329	$0.053^{+0.015}_{-0.050}$
A_{143}^{dustTT}	10.97	10.8 ± 1.8	r_*	144.540	144.55 ± 0.24	f_{2000}^{143}	28.65	29.1 ± 2.7
$A_{143 \times 217}^{dustTT}$	19.75	18.5 ± 3.3	$100\theta_*$	1.041172	1.04119 ± 0.00029	$f_{2000}^{143 \times 217}$	31.88	31.9 ± 1.8
A_{217}^{dustTT}	95.1	93.8 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.8824	13.883 ± 0.023	f_{2000}^{217}	106.62	106.9 ± 1.7
A_{100}^{dustTE}	0.1157	0.115 ± 0.038	z_{drag}	1060.009	1059.98 ± 0.30	$\chi_{BKPLANCK}^2$	735.50	739.8 ± 2.6
$A_{100 \times 143}^{dustTE}$	0.1351	0.135 ± 0.029	r_{drag}	147.187	147.20 ± 0.24	χ_{small}^2	396.48	397.6 ± 2.2
$A_{100 \times 217}^{dustTE}$	0.481	0.481 ± 0.085	k_D	0.140802	0.14078 ± 0.00029	χ_{lowl}^2	23.56	24.1 ± 1.1
A_{143}^{dustTE}	0.224	0.227 ± 0.054	$100\theta_D$	0.160722	0.16074 ± 0.00017	χ_{plik}^2	2344.7	2359.2 ± 5.8
$A_{143 \times 217}^{dustTE}$	0.666	0.665 ± 0.082	z_{eq}	3389.9	3390 ± 23	χ_{6DF}^2	0.0392	0.064 ± 0.071
A_{217}^{dustTE}	2.084	2.08 ± 0.27	k_{eq}	0.010346	0.010345 ± 0.000070	χ_{MGS}^2	1.156	1.21 ± 0.42
c_{100}	0.99972	0.99966 ± 0.00061	$100\theta_{eq}$	0.81569	0.8158 ± 0.0043	$\chi_{DR12BAO}^2$	4.66	5.0 ± 1.5
c_{217}	0.99820	0.99818 ± 0.00062	$100\theta_{s,eq}$	0.45060	0.4506 ± 0.0022	χ_{prior}^2	1.86	13.3 ± 4.9
H_0	67.615	67.61 ± 0.45	$H(0.15)$	72.902	72.90 ± 0.39	χ_{BAO}^2	5.85	6.3 ± 1.3
Ω_Λ	0.6883	0.6883 ± 0.0061	$D_M(0.15)$	641.16	641.2 ± 3.9	χ_{CMB}^2	3500.2	3520.7 ± 6.5

Best-fit $\chi_{eff}^2 = 3507.90$; $\bar{\chi}_{eff}^2 = 3540.30$; $R - 1 = 0.00604$
 χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.66 CMB - BK15_dust: 735.50 small_100x143.offlike5_EE_Aplanck_B: 396.48 commander_dx12.v3.2.29: 23.56 plik_rd12_HM.v22b_TTEEE 2344.65

17.52 base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02234 ± 0.00015	Ω_Λ	0.6824 ± 0.0084	$H(0.15)$	72.54 ± 0.51
$\Omega_c h^2$	0.1204 ± 0.0014	Ω_m	0.3176 ± 0.0084	$D_M(0.15)$	644.8 ± 5.2
$100\theta_{MC}$	1.04089 ± 0.00031	$\Omega_m h^2$	0.1434 ± 0.0013	$H(0.38)$	82.77 ± 0.37
τ	$0.0559^{+0.0057}_{-0.0081}$	$\Omega_m h^3$	0.09633 ± 0.00029	$D_M(0.38)$	1536 ± 10
$\ln(10^{10} A_s)$	$3.049^{+0.012}_{-0.016}$	σ_8	0.8142 ± 0.0070	$H(0.51)$	89.55 ± 0.29
n_s	0.9648 ± 0.0043	S_8	0.838 ± 0.016	$D_M(0.51)$	1989 ± 12
r	< 0.0332	$\sigma_8 \Omega_m^{0.5}$	0.4589 ± 0.0087	$H(0.61)$	95.22 ± 0.24
y_{cal}	1.0009 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6113 ± 0.0080	$D_M(0.61)$	2314 ± 13
$A_{B,dust}$	$4.87^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.993 ± 0.011	$H(2.33)$	236.78 ± 0.81
$A_{B,sync}$	$1.63^{+0.53}_{-1.3}$	$r_{drag} h$	98.8 ± 1.0	$D_M(2.33)$	5766 ± 11
$\alpha_{B,dust}$	$-0.57^{+0.21}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.456 ± 0.027	$f\sigma_8(0.15)$	0.4630 ± 0.0081
$\beta_{B,dust}$	1.598 ± 0.095	z_{re}	$7.84^{+0.61}_{-0.79}$	$\sigma_8(0.15)$	$0.7518^{+0.0056}_{-0.0064}$
$\alpha_{B,sync}$	—	$10^9 A_s$	$2.109^{+0.026}_{-0.034}$	$f\sigma_8(0.38)$	0.4800 ± 0.0066
$\beta_{B,sync}$	-3.10 ± 0.27	$10^9 A_s e^{-2\tau}$	1.886 ± 0.011	$\sigma_8(0.38)$	$0.6658^{+0.0046}_{-0.0055}$
$\epsilon_{dust,sync}$	-0.35 ± 0.28	D_{40}	1242 ± 13	$f\sigma_8(0.51)$	0.4779 ± 0.0057
A_{217}^{CIB}	47 ± 7	D_{220}	5733 ± 39	$\sigma_8(0.51)$	$0.6228^{+0.0042}_{-0.0051}$
$\xi^{tSZ \times CIB}$	—	D_{810}	2541 ± 13	$f\sigma_8(0.61)$	0.4724 ± 0.0052
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{1420}	817.8 ± 4.8	$\sigma_8(0.61)$	$0.5924^{+0.0039}_{-0.0048}$
A_{100}^{PS}	258 ± 28	D_{2000}	231.1 ± 1.6	$f\sigma_8(2.33)$	$0.2985^{+0.0019}_{-0.0025}$
A_{143}^{PS}	46 ± 8	$n_{s,0.002}$	0.9648 ± 0.0043	$\sigma_8(2.33)$	$0.3074^{+0.0020}_{-0.0026}$
$A_{143 \times 217}^{PS}$	43 ± 9	Y_P	0.245383 ± 0.000059	$r_{0.002}$	< 0.0301
A_{217}^{PS}	116 ± 10	Y_P^{BBN}	0.246710 ± 0.000059	$r_{0.01}$	< 0.0316
A^{kSZ}	< 4.11	$10^5 D/H$	2.591 ± 0.028	$\ln(10^{10} A_t)$	$-0.90^{+1.1}_{-0.39}$
A_{100}^{dustTT}	8.8 ± 1.8	Age/Gyr	13.802 ± 0.024	r_{10}	< 0.0154
A_{143}^{dustTT}	10.8 ± 1.8	z_*	1089.99 ± 0.27	$10^9 A_t$	< 0.0701
$A_{143 \times 217}^{dustTT}$	18.5 ± 3.3	r_*	144.36 ± 0.30	$10^9 A_t e^{-2\tau}$	< 0.0627
A_{217}^{dustTT}	93.8 ± 7.3	$100\theta_*$	1.04107 ± 0.00031	f_{2000}^{143}	29.4 ± 2.7
A_{100}^{dustTE}	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.866 ± 0.028	$f_{2000}^{143 \times 217}$	32.1 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029	z_{drag}	1059.90 ± 0.30	f_{2000}^{217}	107.0 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.481 ± 0.085	r_{drag}	147.02 ± 0.30	$\chi_{BKPLANCK}^2$	739.4 ± 2.6
A_{143}^{dustTE}	0.227 ± 0.054	k_D	0.14092 ± 0.00032	χ_{small}^2	397.4 ± 2.1
$A_{143 \times 217}^{dustTE}$	0.667 ± 0.081	$100\theta_D$	0.16078 ± 0.00018	χ_{lowl}^2	24.5 ± 1.2
A_{217}^{dustTE}	2.09 ± 0.27	z_{eq}	3410 ± 30	χ_{plik}^2	2359.0 ± 5.8
c_{100}	0.99966 ± 0.00061	k_{eq}	0.010409 ± 0.000093	χ_{prior}^2	13.2 ± 4.9
c_{217}	0.99819 ± 0.00062	$100\theta_{eq}$	0.8118 ± 0.0057	χ_{CMB}^2	3520.3 ± 6.4
H_0	67.20 ± 0.60	$100\theta_{s,eq}$	0.4486 ± 0.0029		

$$\bar{\chi}_{\text{eff}}^2 = 3533.51; R - 1 = 0.00462$$

17.53 base_r_plikHM_TTTEEE_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02241 ± 0.00014	Ω_{m}	0.3116 ± 0.0061	$H(0.38)$	83.03 ± 0.29
$\Omega_{\mathrm{c}}h^2$	0.1194 ± 0.0010	$\Omega_{\mathrm{m}}h^2$	0.14247 ± 0.00096	$D_{\mathrm{M}}(0.38)$	1529.0 ± 7.7
$100\theta_{\mathrm{MC}}$	1.04101 ± 0.00030	$\Omega_{\mathrm{m}}h^3$	0.09634 ± 0.00030	$H(0.51)$	89.75 ± 0.23
τ	$0.0571^{+0.0060}_{-0.0080}$	σ_8	$0.8118^{+0.0062}_{-0.0071}$	$D_{\mathrm{M}}(0.51)$	1980.7 ± 9.1
$\ln(10^{10}A_{\mathrm{s}})$	$3.049^{+0.013}_{-0.016}$	S_8	0.827 ± 0.012	$H(0.61)$	95.37 ± 0.19
n_{s}	0.9670 ± 0.0037	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4532 ± 0.0068	$D_{\mathrm{M}}(0.61)$	2304.8 ± 9.8
r	$0.0281^{+0.0082}_{-0.027}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6065 ± 0.0068	$H(2.33)$	236.22 ± 0.61
y_{cal}	1.0010 ± 0.0025	$\sigma_8/h^{0.5}$	0.9872 ± 0.0099	$D_{\mathrm{M}}(2.33)$	5759.5 ± 9.1
$A_{B,\mathrm{dust}}$	$4.89^{+0.80}_{-1.2}$	$r_{\mathrm{drag}}h$	99.54 ± 0.78	$f\sigma_8(0.15)$	0.4578 ± 0.0064
$A_{B,\mathrm{sync}}$	$1.61^{+0.54}_{-1.3}$	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.024	$\sigma_8(0.15)$	$0.7501^{+0.0055}_{-0.0064}$
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.32}$	z_{re}	$7.93^{+0.64}_{-0.78}$	$f\sigma_8(0.38)$	0.4761 ± 0.0055
$\beta_{B,\mathrm{dust}}$	1.598 ± 0.095	$10^9 A_{\mathrm{s}}$	$2.110^{+0.027}_{-0.035}$	$\sigma_8(0.38)$	$0.6649^{+0.0046}_{-0.0055}$
$\alpha_{B,\mathrm{sync}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.011	$f\sigma_8(0.51)$	0.4747 ± 0.0049
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.28	D_{40}	1238 ± 13	$\sigma_8(0.51)$	$0.6222^{+0.0043}_{-0.0052}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.34 ± 0.29	D_{220}	5738 ± 39	$f\sigma_8(0.61)$	0.4697 ± 0.0046
A_{217}^{CIB}	46 ± 7	D_{810}	2541 ± 13	$\sigma_8(0.61)$	$0.5921^{+0.0040}_{-0.0049}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	818.5 ± 4.8	$f\sigma_8(2.33)$	$0.2985^{+0.0020}_{-0.0025}$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.8}$	D_{2000}	231.4 ± 1.6	$\sigma_8(2.33)$	$0.3078^{+0.0021}_{-0.0026}$
A_{100}^{PS}	258 ± 28	$n_{\mathrm{s},0.002}$	0.9670 ± 0.0037	$r_{0.002}$	$0.0257^{+0.0069}_{-0.025}$
A_{143}^{PS}	45 ± 8	Y_{P}	0.245409 ± 0.000053	$r_{0.01}$	$0.0269^{+0.0075}_{-0.026}$
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246735 ± 0.000053	$\ln(10^{10}A_{\mathrm{t}})$	$-0.84^{+1.0}_{-0.38}$
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.579 ± 0.025	r_{10}	$0.0131^{+0.0034}_{-0.013}$
A^{kSZ}	< 4.07	$\mathrm{Age}/\mathrm{Gyr}$	13.788 ± 0.021	$10^9 A_{\mathrm{t}}$	$0.059^{+0.017}_{-0.056}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.9	z_*	1089.82 ± 0.22	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.053^{+0.015}_{-0.050}$
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	r_*	144.55 ± 0.24	f_{2000}^{143}	29.1 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.3	$100\theta_*$	1.04119 ± 0.00029	$f_{2000}^{143 \times 217}$	31.9 ± 1.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.883 ± 0.023	f_{2000}^{217}	106.8 ± 1.7
$A_{100}^{\mathrm{dust}TE}$	0.115 ± 0.038	z_{drag}	1059.98 ± 0.29	$\chi_{\mathrm{BKPLANCK}}^2$	739.8 ± 2.6
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	r_{drag}	147.20 ± 0.24	χ_{simall}^2	397.6 ± 2.2
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.481 ± 0.085	k_{D}	0.14078 ± 0.00029	χ_{lowl}^2	24.1 ± 1.1
$A_{143}^{\mathrm{dust}TE}$	0.227 ± 0.054	$100\theta_{\mathrm{D}}$	0.16074 ± 0.00017	χ_{plik}^2	2359.1 ± 5.8
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.082	z_{eq}	3389 ± 23	$\chi_{6\mathrm{DF}}^2$	0.063 ± 0.071
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{eq}	0.010344 ± 0.000070	χ_{MGS}^2	1.21 ± 0.42
c_{100}	0.99966 ± 0.00061	$100\theta_{\mathrm{eq}}$	0.8158 ± 0.0043	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.5
c_{217}	0.99818 ± 0.00062	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4507 ± 0.0022	χ_{prior}^2	13.3 ± 4.9
H_0	67.62 ± 0.45	$H(0.15)$	72.91 ± 0.39	χ_{BAO}^2	6.3 ± 1.2
Ω_{Λ}	0.6884 ± 0.0061	$D_{\mathrm{M}}(0.15)$	641.1 ± 3.9	χ_{CMB}^2	3520.5 ± 6.4

$\bar{\chi}_{\mathrm{eff}}^2 = 3540.14$; $R - 1 = 0.00660$

17.54 base_r_CamSpecHM_TT_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022078	0.02209 ± 0.00022	$\Omega_m h^3$	0.095901	0.09591 ± 0.00046	$D_M(0.15)$	649.4	649.0 ± 8.0
$\Omega_c h^2$	0.12113	0.1210 ± 0.0021	σ_8	0.8143	0.8137 ± 0.0088	$H(0.38)$	82.39	82.43 ± 0.56
$100\theta_{MC}$	1.040754	1.04078 ± 0.00048	S_8	0.8458	0.844 ± 0.024	$D_M(0.38)$	1545.8	1545 ± 16
τ	0.0528	0.0526 ± 0.0079	$\sigma_8 \Omega_m^{0.5}$	0.4632	0.463 ± 0.013	$H(0.51)$	89.222	89.26 ± 0.44
$\ln(10^{10} A_s)$	3.0420	3.042 ± 0.016	$\sigma_8 \Omega_m^{0.25}$	0.6142	0.613 ± 0.012	$D_M(0.51)$	2000.6	1999 ± 19
n_s	0.9626	0.9628 ± 0.0058	$\sigma_8/h^{0.5}$	0.9973	0.996 ± 0.016	$H(0.61)$	94.930	94.96 ± 0.35
r	0.0132	< 0.0316	$r_{\text{drag}} h$	98.08	98.2 ± 1.6	$D_M(0.61)$	2326.4	2325 ± 20
y_{cal}	1.00060	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4611	2.459 ± 0.038	$H(2.33)$	237.00	236.9 ± 1.3
$A_{B,\text{dust}}$	4.60	$4.87_{-1.2}^{+0.81}$	z_{re}	7.60	7.56 ± 0.82	$D_M(2.33)$	5780.7	5779 ± 16
$A_{B,\text{sync}}$	1.48	$1.64_{-1.4}^{+0.52}$	$10^9 A_s$	2.0947	2.094 ± 0.034	$f\sigma_8(0.15)$	0.4668	0.466 ± 0.012
$\alpha_{B,\text{dust}}$	-0.522	$-0.57_{-0.32}^{+0.21}$	$10^9 A_s e^{-2\tau}$	1.8849	1.885 ± 0.014	$\sigma_8(0.15)$	0.7512	0.7507 ± 0.0074
$\beta_{B,\text{dust}}$	1.573	1.597 ± 0.096	D_{40}	1237.0	1241 ± 16	$f\sigma_8(0.38)$	0.4825	0.4818 ± 0.0095
$\alpha_{B,\text{sync}}$	-0.31	—	D_{220}	5699.9	5702 ± 41	$\sigma_8(0.38)$	0.6646	0.6642 ± 0.0060
$\beta_{B,\text{sync}}$	-3.032	-3.10 ± 0.27	D_{810}	2535.5	2536 ± 14	$f\sigma_8(0.51)$	0.4797	0.4791 ± 0.0081
$\epsilon_{\text{dust,sync}}$	-0.338	-0.35 ± 0.28	D_{1420}	814.2	814.4 ± 5.2	$\sigma_8(0.51)$	0.6214	0.6211 ± 0.0054
A_{100}^{PS}	237.4	242 ± 25	D_{2000}	229.52	229.6 ± 1.8	$f\sigma_8(0.61)$	0.4737	0.4732 ± 0.0072
A_{143}^{PS}	40.8	41 ± 8	$n_{s,0.002}$	0.9626	0.9628 ± 0.0058	$\sigma_8(0.61)$	0.59095	0.5907 ± 0.0051
A_{217}^{PS}	100.4	102 ± 10	Y_P	0.245274	$0.24527_{-0.000087}^{+0.00011}$	$f\sigma_8(2.33)$	0.29749	0.2974 ± 0.0025
A_{217}^{CIB}	46.1	41 ± 7	Y_P^{BBN}	0.246601	$0.24660_{-0.000087}^{+0.00011}$	$\sigma_8(2.33)$	0.30619	0.3061 ± 0.0027
A_{143}^{tSZ}	6.47	$3.7_{-2.6}^{+1.7}$	$10^5 D/H$	2.6414	2.639 ± 0.042	$r_{0.002}$	0.0117	< 0.0284
$r_{143 \times 217}^{\text{PS}}$	0.565	0.65 ± 0.13	Age/Gyr	13.8364	13.834 ± 0.037	$r_{0.01}$	0.0124	< 0.0300
$r_{143 \times 217}^{\text{CIB}}$	0.806	$0.58_{-0.14}^{+0.41}$	z_*	1090.391	1090.37 ± 0.41	$\ln(10^{10} A_t)$	-1.29	$-0.97_{-0.42}^{+1.1}$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.02	—	r_*	144.364	144.38 ± 0.48	r_{10}	0.0060	< 0.0146
A^{kSZ}	0.2	—	$100\theta_*$	1.040973	1.04099 ± 0.00047	$10^9 A_t$	0.0276	< 0.0662
A_{100}^{dust}	1.011	1.01 ± 0.19	$D_M(z_*)/\text{Gpc}$	13.8682	13.870 ± 0.044	$10^9 A_t e^{-2\tau}$	0.0248	< 0.0595
A_{143}^{dust}	0.985	0.97 ± 0.18	z_{drag}	1059.322	1059.36 ± 0.46	f_{2000}^{143}	31.32	30.8 ± 3.0
A_{217}^{dust}	0.963	0.97 ± 0.10	r_{drag}	147.121	147.14 ± 0.48	f_{2000}^{217}	107.68	107.7 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	0.996	1.03 ± 0.16	k_D	0.14061	0.14060 ± 0.00052	$f_{2000}^{143 \times 217}$	33.07	33.1 ± 2.2
c_{100}	0.99756	0.9975 ± 0.0011	$100\theta_D$	0.161109	0.16110 ± 0.00027	χ_{BKPLANCK}^2	734.95	739.3 ± 2.7
c_{217}	1.00141	1.0012 ± 0.0016	z_{eq}	3422.2	3420 ± 48	χ_{small}^2	396.01	397.1 ± 1.8
H_0	66.67	66.73 ± 0.92	k_{eq}	0.010445	0.01044 ± 0.00015	χ_{lowl}^2	24.16	24.7 ± 1.5
Ω_Λ	0.6763	0.677 ± 0.013	$100\theta_{\text{eq}}$	0.8088	0.8094 ± 0.0088	χ_{CamSpec}^2	7049.9	7063.0 ± 5.3
Ω_m	0.3237	0.323 ± 0.013	$100\theta_{s,\text{eq}}$	0.44726	0.4475 ± 0.0046	χ_{prior}^2	2.29	9.2 ± 3.8
$\Omega_m h^2$	0.14385	0.1438 ± 0.0020	$H(0.15)$	72.07	72.13 ± 0.78	χ_{CMB}^2	8205.0	8224.0 ± 6.1

Best-fit $\chi_{\text{eff}}^2 = 8207.30$; $\bar{\chi}_{\text{eff}}^2 = 8233.28$; $R - 1 = 0.00244$

χ_{eff}^2 : CMB - BK15_dust: 734.95 simall_100x143_offlike5_EE_Aplanck_B: 396.00 commander_dx12_v3_2_29: 24.16 CamSpec like_10.7HM: 7049.91

17.55 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022205	0.02220 ± 0.00020	S_8	0.8233	0.823 ± 0.015	$D_M(0.51)$	1983.0	1983 ± 11
$\Omega_c h^2$	0.11915	0.1191 ± 0.0012	$\sigma_8 \Omega_m^{0.5}$	0.4510	0.4509 ± 0.0081	$H(0.61)$	95.246	95.25 ± 0.25
$100\theta_{MC}$	1.041025	1.04104 ± 0.00041	$\sigma_8 \Omega_m^{0.25}$	0.6038	0.6038 ± 0.0079	$D_M(0.61)$	2307.5	2307 ± 12
τ	0.0547	0.0547 ± 0.0077	$\sigma_8/h^{0.5}$	0.9836	0.984 ± 0.011	$H(2.33)$	235.85	235.82 ± 0.78
$\ln(10^{10} A_s)$	3.0410	3.041 ± 0.016	$r_{\text{drag}} h$	99.64	99.68 ± 0.93	$D_M(2.33)$	5767.4	5767 ± 12
n_s	0.96676	0.9672 ± 0.0043	$\langle d^2 \rangle^{1/2}$	2.4305	2.430 ± 0.027	$f\sigma_8(0.15)$	0.4556	0.4555 ± 0.0076
r	0.0188	$0.0276^{+0.0073}_{-0.027}$	z_{re}	7.74	7.72 ± 0.78	$\sigma_8(0.15)$	0.7470	0.7472 ± 0.0067
y_{cal}	1.00052	1.0008 ± 0.0025	$10^9 A_s$	2.0927	2.094 ± 0.034	$f\sigma_8(0.38)$	0.4739	0.4739 ± 0.0064
$A_{B,\text{dust}}$	4.62	$4.87^{+0.83}_{-1.2}$	$10^9 A_s e^{-2\tau}$	1.8758	1.877 ± 0.012	$\sigma_8(0.38)$	0.6622	0.6624 ± 0.0057
$A_{B,\text{sync}}$	1.44	$1.64^{+0.52}_{-1.4}$	D_{40}	1229.8	1233 ± 14	$f\sigma_8(0.51)$	0.4726	0.4726 ± 0.0058
$\alpha_{B,\text{dust}}$	-0.504	$-0.56^{+0.22}_{-0.31}$	D_{220}	5708.8	5710 ± 41	$\sigma_8(0.51)$	0.6197	0.6199 ± 0.0053
$\beta_{B,\text{dust}}$	1.578	1.595 ± 0.096	D_{810}	2533.2	2535 ± 14	$f\sigma_8(0.61)$	0.4676	0.4676 ± 0.0053
$\alpha_{B,\text{sync}}$	-0.29	—	D_{1420}	814.9	815.5 ± 5.1	$\sigma_8(0.61)$	0.58970	0.5899 ± 0.0050
$\beta_{B,\text{sync}}$	-3.044	-3.10 ± 0.27	D_{2000}	229.82	230.0 ± 1.8	$f\sigma_8(2.33)$	0.29734	0.2974 ± 0.0025
$\epsilon_{\text{dust,sync}}$	-0.343	-0.35 ± 0.28	$n_{s,0.002}$	0.96676	0.9672 ± 0.0043	$\sigma_8(2.33)$	0.30656	0.3067 ± 0.0026
A_{100}^{PS}	240.3	242 ± 25	Y_{P}	0.245328	$0.245324^{+0.000087}_{-0.000075}$	$r_{0.002}$	0.0171	$0.0253^{+0.0061}_{-0.025}$
A_{143}^{PS}	39.2	40 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.246654	$0.246650^{+0.000087}_{-0.000075}$	$r_{0.01}$	0.0179	$0.0264^{+0.0067}_{-0.026}$
A_{217}^{PS}	99.8	102 ± 10	10^5D/H	2.6170	2.618 ± 0.037	$\ln(10^{10} A_t)$	-0.93	$-0.87^{+1.1}_{-0.41}$
A_{217}^{CIB}	44.8	40 ± 7	Age/Gyr	13.8074	13.807 ± 0.028	r_{10}	0.0087	$0.0129^{+0.0031}_{-0.013}$
A_{143}^{tSZ}	5.62	$3.8^{+1.8}_{-2.6}$	z_*	1090.057	1090.05 ± 0.29	$10^9 A_t$	0.0394	$0.058^{+0.015}_{-0.056}$
$r_{143 \times 217}^{\text{PS}}$	0.569	0.65 ± 0.13	r_*	144.777	144.79 ± 0.31	$10^9 A_t e^{-2\tau}$	0.0353	$0.052^{+0.014}_{-0.050}$
$r_{143 \times 217}^{\text{CIB}}$	0.735	$0.57^{+0.39}_{-0.16}$	$100\theta_*$	1.041228	1.04124 ± 0.00041	f_{2000}^{143}	30.98	30.4 ± 3.0
$\xi^{\text{tSZ} \times \text{CIB}}$	0.04	—	$D_M(z_*)/\text{Gpc}$	13.9044	13.906 ± 0.031	f_{2000}^{217}	107.48	107.4 ± 2.0
A^{kSZ}	1.6	—	z_{drag}	1059.475	1059.48 ± 0.44	$f_{2000}^{143 \times 217}$	32.87	32.7 ± 2.1
A_{100}^{dust}	1.005	1.01 ± 0.19	r_{drag}	147.502	147.52 ± 0.34	χ_{BKPLANCK}^2	735.63	740.0 ± 2.7
A_{143}^{dust}	0.992	0.97 ± 0.18	k_{D}	0.140310	0.14029 ± 0.00044	χ_{simall}^2	396.19	397.3 ± 1.9
A_{217}^{dust}	0.966	0.97 ± 0.10	$100\theta_{\text{D}}$	0.161031	0.16104 ± 0.00026	χ_{lowl}^2	23.47	23.7 ± 1.1
$A_{143 \times 217}^{\text{dust}}$	1.011	1.03 ± 0.16	z_{eq}	3378.0	3377 ± 28	χ_{CamSpec}^2	7050.82	7063.3 ± 5.2
c_{100}	0.99750	0.9975 ± 0.0011	k_{eq}	0.010310	0.010307 ± 0.000086	$\chi_{6\text{DF}}^2$	0.0298	0.064 ± 0.081
c_{217}	1.00140	1.0012 ± 0.0016	$100\theta_{\text{eq}}$	0.8173	0.8175 ± 0.0052	χ_{MGS}^2	1.22	1.30 ± 0.51
H_0	67.55	67.57 ± 0.54	$100\theta_{s,\text{eq}}$	0.45158	0.4517 ± 0.0027	χ_{DR12BAO}^2	4.37	4.9 ± 1.7
Ω_{Λ}	0.6888	0.6890 ± 0.0073	$H(0.15)$	72.825	72.84 ± 0.47	χ_{prior}^2	2.30	9.2 ± 3.8
Ω_{m}	0.3112	0.3110 ± 0.0073	$D_M(0.15)$	641.80	641.7 ± 4.6	χ_{BAO}^2	5.62	6.3 ± 1.4
$\Omega_{\text{m}} h^2$	0.14200	0.1420 ± 0.0012	$H(0.38)$	82.924	82.94 ± 0.35	χ_{CMB}^2	8206.1	8224.3 ± 6.0
$\Omega_{\text{m}} h^3$	0.095925	0.09592 ± 0.00045	$D_M(0.38)$	1530.7	1530.4 ± 9.4			
σ_8	0.8084	0.8085 ± 0.0076	$H(0.51)$	89.633	89.64 ± 0.29			

Best-fit $\chi_{\text{eff}}^2 = 8214.03$; $\bar{\chi}_{\text{eff}}^2 = 8239.80$; $R - 1 = 0.00717$
 χ_{eff}^2 : BAO - 6DF: 0.03 MGS: 1.22 DR12BAO: 4.37 CMB - BK15_dust: 735.63 simall.100x143_offlike5_EE_Aplanck_B: 396.19 commander_dx12_v3_2_29: 23.46 CamSpec like_10.7HM: 7050.82

17.56 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022111	0.02212 ± 0.00021	σ_8	0.8124	0.8118 ± 0.0062	$D_M(0.38)$	1542.3	1541 ± 12
$\Omega_c h^2$	0.12065	0.1205 ± 0.0016	S_8	0.8399	0.838 ± 0.016	$H(0.51)$	89.316	89.36 ± 0.36
$100\theta_{MC}$	1.040806	1.04083 ± 0.00045	$\sigma_8 \Omega_m^{0.5}$	0.4601	0.4589 ± 0.0089	$D_M(0.51)$	1996.5	1995 ± 15
τ	0.0529	0.0528 ± 0.0078	$\sigma_8 \Omega_m^{0.25}$	0.6114	0.6103 ± 0.0077	$H(0.61)$	95.002	95.04 ± 0.30
$\ln(10^{10} A_s)$	3.0410	3.041 ± 0.015	$\sigma_8/h^{0.5}$	0.9935	0.992 ± 0.010	$D_M(0.61)$	2322.0	2320 ± 16
n_s	0.96325	0.9638 ± 0.0050	$r_{\text{drag}} h$	98.44	98.6 ± 1.2	$H(2.33)$	236.72	236.62 ± 0.96
r	0.0132	< 0.0323	$\langle d^2 \rangle^{1/2}$	2.4535	2.450 ± 0.025	$D_M(2.33)$	5777.7	5776 ± 14
y_{cal}	1.00056	1.0007 ± 0.0025	z_{re}	7.61	7.56 ± 0.79	$f\sigma_8(0.15)$	0.4639	0.4628 ± 0.0081
$A_{B,\text{dust}}$	4.61	$4.87_{-1.2}^{+0.83}$	$10^9 A_s$	2.0926	2.092 ± 0.031	$\sigma_8(0.15)$	0.7498	0.7493 ± 0.0055
$A_{B,\text{sync}}$	1.47	$1.64_{-1.4}^{+0.53}$	$10^9 A_s e^{-2\tau}$	1.8824	1.882 ± 0.011	$f\sigma_8(0.38)$	0.4802	0.4793 ± 0.0063
$\alpha_{B,\text{dust}}$	-0.518	$-0.57_{-0.32}^{+0.21}$	D_{40}	1235.3	1239 ± 14	$\sigma_8(0.38)$	0.66367	0.6633 ± 0.0048
$\beta_{B,\text{dust}}$	1.576	1.596 ± 0.096	D_{220}	5702.9	5705 ± 41	$f\sigma_8(0.51)$	0.4777	0.4770 ± 0.0053
$\alpha_{B,\text{sync}}$	-0.27	—	D_{810}	2534.3	2535 ± 13	$\sigma_8(0.51)$	0.62068	0.6204 ± 0.0045
$\beta_{B,\text{sync}}$	-3.037	-3.10 ± 0.27	D_{1420}	814.0	814.5 ± 5.2	$f\sigma_8(0.61)$	0.47201	0.4713 ± 0.0047
$\epsilon_{\text{dust,sync}}$	-0.338	-0.35 ± 0.28	D_{2000}	229.47	229.6 ± 1.8	$\sigma_8(0.61)$	0.59034	0.5901 ± 0.0044
A_{100}^{PS}	240.5	242 ± 25	$n_{s,0.002}$	0.96325	0.9638 ± 0.0050	$f\sigma_8(2.33)$	0.29730	0.2972 ± 0.0023
A_{143}^{PS}	39.3	41 ± 8	Y_{P}	0.245289	$0.24529_{-0.000081}^{+0.00010}$	$\sigma_8(2.33)$	0.30611	0.3061 ± 0.0026
A_{217}^{PS}	99.6	102 ± 10	$Y_{\text{P}}^{\text{BBN}}$	0.246615	$0.24661_{-0.000081}^{+0.00010}$	$r_{0.002}$	0.0118	< 0.0291
A_{217}^{CIB}	45.3	41 ± 7	$10^5 D/H$	2.6350	2.633 ± 0.040	$r_{0.01}$	0.0125	< 0.0306
A_{143}^{tSZ}	5.64	$3.7_{-2.6}^{+1.7}$	Age/Gyr	13.8298	13.827 ± 0.033	$\ln(10^{10} A_t)$	-1.29	$-0.95_{-0.42}^{+1.1}$
$r_{143 \times 217}^{\text{PS}}$	0.562	0.65 ± 0.13	z_*	1090.309	1090.28 ± 0.35	r_{10}	0.0060	< 0.0149
$r_{143 \times 217}^{\text{CIB}}$	0.746	$0.58_{-0.15}^{+0.39}$	r_*	144.461	144.50 ± 0.36	$10^9 A_t$	0.0276	< 0.0676
$\xi^{\text{tSZ} \times \text{CIB}}$	0.01	—	$100\theta_*$	1.041012	1.04104 ± 0.00045	$10^9 A_t e^{-2\tau}$	0.0248	< 0.0607
A^{kSZ}	1.6	—	$D_M(z_*)/\text{Gpc}$	13.8770	13.880 ± 0.034	f_{2000}^{143}	31.30	30.8 ± 3.0
A_{100}^{dust}	1.003	1.01 ± 0.19	z_{drag}	1059.399	1059.39 ± 0.45	f_{2000}^{217}	107.83	107.7 ± 2.0
A_{143}^{dust}	0.986	0.97 ± 0.18	r_{drag}	147.207	147.25 ± 0.38	$f_{2000}^{143 \times 217}$	33.19	33.0 ± 2.2
A_{217}^{dust}	0.961	0.97 ± 0.10	k_{D}	0.140542	0.14051 ± 0.00045	χ_{lensing}^2	9.00	9.56 ± 0.92
$A_{143 \times 217}^{\text{dust}}$	0.999	1.03 ± 0.16	$100\theta_{\text{D}}$	0.161082	0.16108 ± 0.00026	χ_{BKPLANCK}^2	735.17	739.4 ± 2.6
c_{100}	0.99746	0.9975 ± 0.0011	z_{eq}	3411.6	3408 ± 36	χ_{small}^2	396.01	397.0 ± 1.6
c_{217}	1.00143	1.0012 ± 0.0016	k_{eq}	0.010412	0.01040 ± 0.00011	χ_{lowl}^2	23.99	24.4 ± 1.2
H_0	66.87	66.96 ± 0.71	$100\theta_{\text{eq}}$	0.8108	0.8117 ± 0.0067	χ_{CamSpec}^2	7049.83	7062.6 ± 5.1
Ω_{Λ}	0.6793	0.6804 ± 0.0099	$100\theta_{s,\text{eq}}$	0.44828	0.4487 ± 0.0034	χ_{prior}^2	2.43	9.2 ± 3.8
Ω_{m}	0.3207	0.3196 ± 0.0099	$H(0.15)$	72.25	72.32 ± 0.61	χ_{CMB}^2	8214.0	8233.0 ± 6.1
$\Omega_{\text{m}} h^2$	0.14341	0.1432 ± 0.0015	$D_M(0.15)$	647.6	646.9 ± 6.2			
$\Omega_{\text{m}} h^3$	0.095902	0.09590 ± 0.00045	$H(0.38)$	82.512	82.57 ± 0.45			

Best-fit $\chi_{\text{eff}}^2 = 8216.43$; $\bar{\chi}_{\text{eff}}^2 = 8242.24$; $R - 1 = 0.00337$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 9.00 BK15_dust: 735.17 small_100x143_offlike5_EE_Aplanck_B: 396.01 commander_dx12_v3_2_29: 23.99 CamSpec like_10.7HM: 7049.83

17.57 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022189	0.02221 ± 0.00019	S_8	0.8268	0.826 ± 0.012	$D_M(0.51)$	1985.4	1984 ± 10
$\Omega_c h^2$	0.11942	0.1193 ± 0.0011	$\sigma_8 \Omega_m^{0.5}$	0.4529	0.4524 ± 0.0065	$H(0.61)$	95.200	95.24 ± 0.24
$100\theta_{MC}$	1.040976	1.04102 ± 0.00041	$\sigma_8 \Omega_m^{0.25}$	0.6055	0.6054 ± 0.0062	$D_M(0.61)$	2310.1	2308 ± 11
τ	0.0546	0.0559 ± 0.0073	$\sigma_8/h^{0.5}$	0.9860	0.9860 ± 0.0089	$H(2.33)$	236.00	235.91 ± 0.70
$\ln(10^{10} A_s)$	3.0425	3.045 ± 0.014	$r_{\text{drag}} h$	99.42	99.57 ± 0.84	$D_M(2.33)$	5769.3	5768 ± 12
n_s	0.96584	0.9667 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.4370	2.436 ± 0.021	$f\sigma_8(0.15)$	0.4573	0.4569 ± 0.0061
r	0.0130	< 0.0337	z_{re}	7.74	7.85 ± 0.72	$\sigma_8(0.15)$	0.7480	0.7486 ± 0.0055
y_{cal}	1.00083	1.0009 ± 0.0025	$10^9 A_s$	2.0957	2.101 ± 0.030	$f\sigma_8(0.38)$	0.4754	0.4752 ± 0.0050
$A_{B,\text{dust}}$	4.59	$4.87_{-1.2}^{+0.83}$	$10^9 A_s e^{-2\tau}$	1.8789	1.878 ± 0.011	$\sigma_8(0.38)$	0.66288	0.6636 ± 0.0048
$A_{B,\text{sync}}$	1.46	$1.64_{-1.4}^{+0.53}$	D_{40}	1231.2	1235 ± 13	$f\sigma_8(0.51)$	0.47379	0.4738 ± 0.0045
$\alpha_{B,\text{dust}}$	-0.501	$-0.56_{-0.31}^{+0.22}$	D_{220}	5714.9	5714 ± 40	$\sigma_8(0.51)$	0.62029	0.6210 ± 0.0045
$\beta_{B,\text{dust}}$	1.573	1.595 ± 0.096	D_{810}	2535.6	2536 ± 13	$f\sigma_8(0.61)$	0.46871	0.4688 ± 0.0041
$\alpha_{B,\text{sync}}$	-0.41	—	D_{1420}	815.3	815.8 ± 5.0	$\sigma_8(0.61)$	0.59018	0.5909 ± 0.0043
$\beta_{B,\text{sync}}$	-3.034	-3.10 ± 0.27	D_{2000}	229.91	230.1 ± 1.8	$f\sigma_8(2.33)$	0.29752	0.2979 ± 0.0022
$\epsilon_{\text{dust,sync}}$	-0.325	-0.35 ± 0.28	$n_{s,0.002}$	0.96584	0.9667 ± 0.0042	$\sigma_8(2.33)$	0.30666	0.3071 ± 0.0024
A_{100}^{PS}	239.7	242 ± 25	Y_{P}	0.245321	$0.245326_{-0.000074}^{+0.000085}$	$r_{0.002}$	0.0117	< 0.0307
A_{143}^{PS}	40.7	41 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.246648	$0.246652_{-0.000075}^{+0.000086}$	$r_{0.01}$	0.0123	< 0.0322
A_{217}^{PS}	100.5	102 ± 10	10^5D/H	2.6200	2.617 ± 0.037	$\ln(10^{10} A_t)$	-1.30	$-0.89_{-0.41}^{+1.1}$
A_{217}^{CIB}	44.9	40 ± 7	Age/Gyr	13.8115	13.808 ± 0.027	r_{10}	0.0060	< 0.0157
A_{143}^{tSZ}	5.78	$3.8_{-2.6}^{+1.8}$	z_*	1090.099	1090.06 ± 0.29	$10^9 A_t$	0.0272	< 0.0707
$r_{143 \times 217}^{\text{PS}}$	0.583	0.65 ± 0.13	r_*	144.719	144.75 ± 0.28	$10^9 A_t e^{-2\tau}$	0.0244	< 0.0633
$r_{143 \times 217}^{\text{CIB}}$	0.761	$0.57_{-0.16}^{+0.38}$	$100\theta_*$	1.041182	1.04122 ± 0.00041	f_{2000}^{143}	30.98	30.4 ± 3.0
$\xi^{\text{tSZ} \times \text{CIB}}$	0.10	—	$D_M(z_*)/\text{Gpc}$	13.8995	13.902 ± 0.028	f_{2000}^{217}	107.56	107.4 ± 2.0
A^{kSZ}	1.3	—	z_{drag}	1059.475	1059.50 ± 0.44	$f_{2000}^{143 \times 217}$	32.87	32.7 ± 2.1
A_{100}^{dust}	1.011	1.01 ± 0.19	r_{drag}	147.446	147.47 ± 0.31	χ_{lensing}^2	8.896	9.33 ± 0.73
A_{143}^{dust}	0.977	0.97 ± 0.18	k_{D}	0.140354	0.14034 ± 0.00042	χ_{BKPLANCK}^2	735.61	739.8 ± 2.6
A_{217}^{dust}	0.966	0.97 ± 0.10	$100\theta_{\text{D}}$	0.161037	0.16103 ± 0.00025	χ_{simall}^2	396.19	397.4 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.002	1.03 ± 0.16	z_{eq}	3384.1	3380 ± 25	χ_{lowl}^2	23.50	23.9 ± 1.1
c_{100}	0.99759	0.9975 ± 0.0011	k_{eq}	0.010329	0.010317 ± 0.000077	χ_{CamSpec}^2	7050.59	7062.9 ± 5.1
c_{217}	1.00142	1.0012 ± 0.0016	$100\theta_{\text{eq}}$	0.81609	0.8169 ± 0.0047	$\chi_{6\text{DF}}^2$	0.0474	0.064 ± 0.076
H_0	67.43	67.52 ± 0.50	$100\theta_{s,\text{eq}}$	0.45098	0.4514 ± 0.0024	χ_{MGS}^2	1.097	1.24 ± 0.45
Ω_{Λ}	0.6871	0.6882 ± 0.0066	$H(0.15)$	72.719	72.80 ± 0.43	χ_{DR12BAO}^2	4.77	5.0 ± 1.6
Ω_{m}	0.3129	0.3118 ± 0.0066	$D_M(0.15)$	642.86	642.1 ± 4.3	χ_{prior}^2	2.30	9.2 ± 3.8
$\Omega_{\text{m}} h^2$	0.14226	0.1421 ± 0.0011	$H(0.38)$	82.848	82.91 ± 0.33	χ_{CMB}^2	8214.8	8233.2 ± 6.1
$\Omega_{\text{m}} h^3$	0.095920	0.09594 ± 0.00045	$D_M(0.38)$	1532.8	1531.3 ± 8.6	χ_{BAO}^2	5.92	6.3 ± 1.3
σ_8	0.8096	0.8102 ± 0.0061	$H(0.51)$	89.574	89.62 ± 0.27			

Best-fit $\chi_{\text{eff}}^2 = 8223.00$; $\bar{\chi}_{\text{eff}}^2 = 8248.72$; $R - 1 = 0.00847$
 χ_{eff}^2 : BAO - 6DF: 0.05 MGS: 1.10 DR12BAO: 4.77 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.90 BK15_dust: 735.61 simall_100x143_offlike5_EE_Aplanck_B: 396.19 commander_dx12_v3.2.29: 23.50 CamSpec like_10.7HM: 7050.59

17.58 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02210 ± 0.00022	$\Omega_{\mathrm{m}}h^3$	0.09592 ± 0.00046	$D_{\mathrm{M}}(0.15)$	648.6 ± 7.9
$\Omega_{\mathrm{c}}h^2$	0.1209 ± 0.0021	σ_8	0.8146 ± 0.0085	$H(0.38)$	82.46 ± 0.56
$100\theta_{\mathrm{MC}}$	1.04079 ± 0.00047	S_8	0.845 ± 0.024	$D_{\mathrm{M}}(0.38)$	1544 ± 16
τ	$0.0540^{+0.0049}_{-0.0083}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.463 ± 0.013	$H(0.51)$	89.28 ± 0.44
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.614 ± 0.012	$D_{\mathrm{M}}(0.51)$	1999 ± 18
n_{s}	0.9631 ± 0.0058	$\sigma_8/h^{0.5}$	0.997 ± 0.016	$H(0.61)$	94.98 ± 0.35
r	< 0.0317	$r_{\mathrm{drag}}h$	98.2 ± 1.6	$D_{\mathrm{M}}(0.61)$	2324 ± 20
y_{cal}	1.0007 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.461 ± 0.037	$H(2.33)$	236.9 ± 1.3
$A_{B,\mathrm{dust}}$	$4.86^{+0.81}_{-1.2}$	z_{re}	$7.72^{+0.55}_{-0.81}$	$D_{\mathrm{M}}(2.33)$	5779 ± 16
$A_{B,\mathrm{sync}}$	$1.64^{+0.52}_{-1.4}$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.025}_{-0.033}$	$f\sigma_8(0.15)$	0.466 ± 0.012
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.32}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.014	$\sigma_8(0.15)$	0.7516 ± 0.0070
$\beta_{B,\mathrm{dust}}$	1.598 ± 0.096	D_{40}	1241 ± 16	$f\sigma_8(0.38)$	0.4822 ± 0.0095
$\alpha_{B,\mathrm{sync}}$	—	D_{220}	5702 ± 41	$\sigma_8(0.38)$	$0.6651^{+0.0051}_{-0.0057}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{810}	2536 ± 14	$f\sigma_8(0.51)$	0.4795 ± 0.0081
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{1420}	814.4 ± 5.2	$\sigma_8(0.51)$	$0.6219^{+0.0044}_{-0.0052}$
A_{100}^{PS}	242 ± 25	D_{2000}	229.6 ± 1.8	$f\sigma_8(0.61)$	0.4736 ± 0.0071
A_{143}^{PS}	41 ± 8	$n_{\mathrm{s},0.002}$	0.9631 ± 0.0058	$\sigma_8(0.61)$	$0.5915^{+0.0041}_{-0.0049}$
A_{217}^{PS}	102 ± 10	Y_{P}	$0.24528^{+0.00011}_{-0.000086}$	$f\sigma_8(2.33)$	$0.2978^{+0.0019}_{-0.0025}$
A_{217}^{CIB}	41 ± 7	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24660^{+0.00011}_{-0.000086}$	$\sigma_8(2.33)$	$0.3066^{+0.0020}_{-0.0026}$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6}$	$10^5 \mathrm{D}/\mathrm{H}$	2.638 ± 0.042	$r_{0.002}$	< 0.0285
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$\mathrm{Age}/\mathrm{Gyr}$	13.832 ± 0.036	$r_{0.01}$	< 0.0300
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.40}_{-0.14}$	z_*	1090.35 ± 0.41	$\ln(10^{10}A_{\mathrm{t}})$	$-0.97^{+1.1}_{-0.42}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	r_*	144.40 ± 0.48	r_{10}	< 0.0146
A^{kSZ}	4.9 ± 2.7	$100\theta_*$	1.04100 ± 0.00046	$10^9 A_{\mathrm{t}}$	< 0.0665
A_{100}^{dust}	1.01 ± 0.19	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.871 ± 0.044	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0596
A_{143}^{dust}	0.97 ± 0.18	z_{drag}	1059.37 ± 0.45	f_{2000}^{143}	30.8 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	r_{drag}	147.15 ± 0.48	f_{2000}^{217}	107.6 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	k_{D}	0.14059 ± 0.00052	$f_{2000}^{143 \times 217}$	33.0 ± 2.2
c_{100}	0.9975 ± 0.0011	$100\theta_{\mathrm{D}}$	0.16110 ± 0.00026	$\chi_{\mathrm{BKPLANCK}}^2$	739.2 ± 2.7
c_{217}	1.0012 ± 0.0016	z_{eq}	3418 ± 48	χ_{simall}^2	397.0 ± 1.8
H_0	66.77 ± 0.91	k_{eq}	0.01043 ± 0.00015	χ_{lowl}^2	24.7 ± 1.5
Ω_{Λ}	0.677 ± 0.013	$100\theta_{\mathrm{eq}}$	0.8097 ± 0.0088	$\chi_{\mathrm{CamSpec}}^2$	7062.9 ± 5.3
Ω_{m}	0.323 ± 0.013	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4477 ± 0.0045	χ_{prior}^2	9.2 ± 3.8
$\Omega_{\mathrm{m}}h^2$	0.1437 ± 0.0020	$H(0.15)$	72.16 ± 0.78	χ_{CMB}^2	8223.8 ± 6.1

$$\bar{\chi}_{\mathrm{eff}}^2 = 8233.01; R - 1 = 0.00318$$

17.59 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00019	S_8	0.824 ± 0.015	$D_{\mathrm{M}}(0.51)$	1982 ± 11
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0012	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512 ± 0.0080	$H(0.61)$	95.26 ± 0.24
$100\theta_{\mathrm{MC}}$	1.04104 ± 0.00041	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042 ± 0.0077	$D_{\mathrm{M}}(0.61)$	2307 ± 12
τ	$0.0556^{+0.0055}_{-0.0080}$	$\sigma_8/h^{0.5}$	0.984 ± 0.011	$H(2.33)$	235.81 ± 0.78
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.013}_{-0.016}$	$r_{\mathrm{drag}}h$	99.70 ± 0.93	$D_{\mathrm{M}}(2.33)$	5767 ± 12
n_{s}	0.9673 ± 0.0043	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.026	$f\sigma_8(0.15)$	0.4558 ± 0.0075
r	$0.0276^{+0.0071}_{-0.027}$	z_{re}	$7.82^{+0.60}_{-0.78}$	$\sigma_8(0.15)$	$0.7478^{+0.0058}_{-0.0067}$
y_{cal}	1.0008 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.098^{+0.026}_{-0.034}$	$f\sigma_8(0.38)$	0.4742 ± 0.0063
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.012	$\sigma_8(0.38)$	$0.6630^{+0.0048}_{-0.0057}$
$A_{B,\mathrm{sync}}$	$1.64^{+0.52}_{-1.4}$	D_{40}	1233 ± 14	$f\sigma_8(0.51)$	0.4729 ± 0.0056
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.31}$	D_{220}	5710 ± 41	$\sigma_8(0.51)$	$0.6205^{+0.0044}_{-0.0053}$
$\beta_{B,\mathrm{dust}}$	1.595 ± 0.096	D_{810}	2535 ± 14	$f\sigma_8(0.61)$	0.4680 ± 0.0051
$\alpha_{B,\mathrm{sync}}$	—	D_{1420}	815.5 ± 5.1	$\sigma_8(0.61)$	$0.5904^{+0.0041}_{-0.0050}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{2000}	230.1 ± 1.8	$f\sigma_8(2.33)$	$0.2977^{+0.0020}_{-0.0025}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	$n_{\mathrm{s},0.002}$	0.9673 ± 0.0043	$\sigma_8(2.33)$	$0.3070^{+0.0021}_{-0.0026}$
A_{100}^{PS}	242 ± 25	Y_{P}	$0.245325^{+0.000086}_{-0.000075}$	$r_{0.002}$	< 0.0313
A_{143}^{PS}	40 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246652^{+0.000087}_{-0.000075}$	$r_{0.01}$	$0.0265^{+0.0065}_{-0.026}$
A_{217}^{PS}	102 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.617 ± 0.037	$\ln(10^{10}A_{\mathrm{t}})$	$-0.87^{+1.1}_{-0.41}$
A_{217}^{CIB}	40 ± 7	$\mathrm{Age}/\mathrm{Gyr}$	13.807 ± 0.028	r_{10}	< 0.0160
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	z_*	1090.05 ± 0.29	$10^9 A_{\mathrm{t}}$	$0.058^{+0.015}_{-0.057}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	r_*	144.79 ± 0.31	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.052^{+0.013}_{-0.051}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.39}_{-0.16}$	$100\theta_*$	1.04124 ± 0.00041	f_{2000}^{143}	30.4 ± 3.0
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.906 ± 0.031	f_{2000}^{217}	107.4 ± 2.0
A^{kSZ}	—	z_{drag}	1059.49 ± 0.44	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
A_{100}^{dust}	1.01 ± 0.19	r_{drag}	147.52 ± 0.34	$\chi_{\mathrm{BKPLANCK}}^2$	739.9 ± 2.7
A_{143}^{dust}	0.97 ± 0.18	k_{D}	0.14029 ± 0.00044	χ_{simall}^2	397.2 ± 1.9
A_{217}^{dust}	0.97 ± 0.10	$100\theta_{\mathrm{D}}$	0.16104 ± 0.00026	χ_{lowl}^2	23.8 ± 1.1
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	z_{eq}	3376 ± 28	$\chi_{\mathrm{CamSpec}}^2$	7063.2 ± 5.2
c_{100}	0.9975 ± 0.0011	k_{eq}	0.010305 ± 0.000086	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.080
c_{217}	1.0012 ± 0.0016	$100\theta_{\mathrm{eq}}$	0.8176 ± 0.0052	χ_{MGS}^2	1.31 ± 0.51
H_0	67.58 ± 0.54	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4517 ± 0.0027	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.7
Ω_{Λ}	0.6891 ± 0.0073	$H(0.15)$	72.85 ± 0.47	χ_{prior}^2	9.2 ± 3.8
Ω_{m}	0.3109 ± 0.0073	$D_{\mathrm{M}}(0.15)$	641.6 ± 4.6	χ_{BAO}^2	6.2 ± 1.4
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0012	$H(0.38)$	82.94 ± 0.35	χ_{CMB}^2	8224.1 ± 5.9
$\Omega_{\mathrm{m}}h^3$	0.09592 ± 0.00045	$D_{\mathrm{M}}(0.38)$	1530.2 ± 9.3		
σ_8	$0.8092^{+0.0067}_{-0.0075}$	$H(0.51)$	89.65 ± 0.29		

$\bar{\chi}_{\mathrm{eff}}^2 = 8239.57$; $R - 1 = 0.00860$

17.60 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02213 ± 0.00021	σ_8	0.8124 ± 0.0059	$D_{\mathrm{M}}(0.38)$	1540 ± 12
$\Omega_{\mathrm{c}}h^2$	0.1203 ± 0.0015	S_8	0.837 ± 0.016	$H(0.51)$	89.39 ± 0.35
$100\theta_{\mathrm{MC}}$	1.04085 ± 0.00045	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4587 ± 0.0089	$D_{\mathrm{M}}(0.51)$	1994 ± 14
τ	$0.0541^{+0.0050}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6104 ± 0.0077	$H(0.61)$	95.06 ± 0.29
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.014}$	$\sigma_8/h^{0.5}$	0.992 ± 0.010	$D_{\mathrm{M}}(0.61)$	2319 ± 15
n_{s}	0.9642 ± 0.0049	$r_{\mathrm{drag}}h$	98.7 ± 1.2	$H(2.33)$	236.54 ± 0.93
r	< 0.0324	$\langle d^2 \rangle^{1/2}$	2.451 ± 0.025	$D_{\mathrm{M}}(2.33)$	5775 ± 14
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.71^{+0.56}_{-0.78}$	$f\sigma_8(0.15)$	0.4627 ± 0.0081
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.031}$	$\sigma_8(0.15)$	0.7500 ± 0.0051
$A_{B,\mathrm{sync}}$	$1.64^{+0.53}_{-1.4}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.011	$f\sigma_8(0.38)$	0.4794 ± 0.0063
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.32}$	D_{40}	1239 ± 14	$\sigma_8(0.38)$	$0.6640^{+0.0040}_{-0.0047}$
$\beta_{B,\mathrm{dust}}$	1.597 ± 0.096	D_{220}	5705 ± 41	$f\sigma_8(0.51)$	0.4771 ± 0.0053
$\alpha_{B,\mathrm{sync}}$	—	D_{810}	2535 ± 13	$\sigma_8(0.51)$	$0.6211^{+0.0037}_{-0.0044}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{1420}	814.6 ± 5.2	$f\sigma_8(0.61)$	0.4715 ± 0.0047
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	D_{2000}	229.7 ± 1.8	$\sigma_8(0.61)$	$0.5908^{+0.0035}_{-0.0043}$
A_{100}^{PS}	242 ± 25	$n_{\mathrm{s},0.002}$	0.9642 ± 0.0049	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0023}$
A_{143}^{PS}	41 ± 8	Y_{P}	$0.245293^{+0.000097}_{-0.000081}$	$\sigma_8(2.33)$	$0.3065^{+0.0019}_{-0.0025}$
A_{217}^{PS}	102 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246619^{+0.000098}_{-0.000081}$	$r_{0.002}$	< 0.0293
A_{217}^{CIB}	41 ± 7	$10^5 \mathrm{D}/\mathrm{H}$	2.631 ± 0.040	$r_{0.01}$	< 0.0308
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6}$	$\mathrm{Age}/\mathrm{Gyr}$	13.825 ± 0.032	$\ln(10^{10}A_{\mathrm{t}})$	$-0.94^{+1.1}_{-0.42}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	z_*	1090.25 ± 0.35	r_{10}	< 0.0150
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.39}_{-0.15}$	r_*	144.53 ± 0.36	$10^9 A_{\mathrm{t}}$	< 0.0679
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$100\theta_*$	1.04105 ± 0.00044	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0609
A^{kSZ}	—	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.883 ± 0.034	f_{2000}^{143}	30.7 ± 3.0
A_{100}^{dust}	1.01 ± 0.19	z_{drag}	1059.41 ± 0.45	f_{2000}^{217}	107.6 ± 2.0
A_{143}^{dust}	0.97 ± 0.18	r_{drag}	147.27 ± 0.37	$f_{2000}^{143 \times 217}$	33.0 ± 2.2
A_{217}^{dust}	0.97 ± 0.10	k_{D}	0.14050 ± 0.00045	$\chi_{\mathrm{lensing}}^2$	9.54 ± 0.92
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00026	$\chi_{\mathrm{BKPLANCK}}^2$	739.4 ± 2.6
c_{100}	0.9975 ± 0.0011	z_{eq}	3405 ± 35	χ_{small}^2	397.0 ± 1.6
c_{217}	1.0012 ± 0.0016	k_{eq}	0.01039 ± 0.00011	χ_{lowl}^2	24.4 ± 1.2
H_0	67.02 ± 0.69	$100\theta_{\mathrm{eq}}$	0.8122 ± 0.0065	$\chi_{\mathrm{CamSpec}}^2$	7062.5 ± 5.1
Ω_{Λ}	0.6812 ± 0.0096	$100\theta_{\mathrm{s,eq}}$	0.4490 ± 0.0033	χ_{prior}^2	9.2 ± 3.8
Ω_{m}	0.3188 ± 0.0096	$H(0.15)$	72.37 ± 0.60	χ_{CMB}^2	8232.8 ± 6.0
$\Omega_{\mathrm{m}}h^2$	0.1431 ± 0.0014	$D_{\mathrm{M}}(0.15)$	646.4 ± 6.0		
$\Omega_{\mathrm{m}}h^3$	0.09591 ± 0.00045	$H(0.38)$	82.60 ± 0.44		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8241.99; R - 1 = 0.00437$$

17.61 base_r_CamSpecHM_TT_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02221 ± 0.00019	S_8	0.826 ± 0.012	$D_{\mathrm{M}}(0.51)$	1983 ± 10
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0011	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4524 ± 0.0065	$H(0.61)$	95.25 ± 0.23
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00041	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6055 ± 0.0061	$D_{\mathrm{M}}(0.61)$	2308 ± 11
τ	$0.0564^{+0.0058}_{-0.0076}$	$\sigma_8/h^{0.5}$	0.9863 ± 0.0087	$H(2.33)$	235.90 ± 0.69
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.014}$	$r_{\mathrm{drag}}h$	99.60 ± 0.83	$D_{\mathrm{M}}(2.33)$	5767 ± 12
n_{s}	0.9668 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.021	$f\sigma_8(0.15)$	0.4570 ± 0.0061
r	< 0.0338	z_{re}	$7.91^{+0.62}_{-0.73}$	$\sigma_8(0.15)$	0.7489 ± 0.0053
y_{cal}	1.0009 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.103^{+0.025}_{-0.031}$	$f\sigma_8(0.38)$	0.4753 ± 0.0050
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$\sigma_8(0.38)$	$0.6639^{+0.0043}_{-0.0049}$
$A_{B,\mathrm{sync}}$	$1.64^{+0.53}_{-1.4}$	D_{40}	1235 ± 13	$f\sigma_8(0.51)$	0.4739 ± 0.0044
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.31}$	D_{220}	5714 ± 41	$\sigma_8(0.51)$	$0.6213^{+0.0040}_{-0.0046}$
$\beta_{B,\mathrm{dust}}$	1.595 ± 0.096	D_{810}	2536 ± 13	$f\sigma_8(0.61)$	0.4689 ± 0.0041
$\alpha_{B,\mathrm{sync}}$	—	D_{1420}	815.7 ± 5.0	$\sigma_8(0.61)$	$0.5911^{+0.0038}_{-0.0044}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{2000}	230.1 ± 1.8	$f\sigma_8(2.33)$	$0.2981^{+0.0019}_{-0.0023}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.35 ± 0.28	$n_{\mathrm{s},0.002}$	0.9668 ± 0.0042	$\sigma_8(2.33)$	$0.3073^{+0.0020}_{-0.0024}$
A_{100}^{PS}	242 ± 25	Y_{P}	$0.245327^{+0.000085}_{-0.000075}$	$r_{0.002}$	< 0.0307
A_{143}^{PS}	40 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246653^{+0.000085}_{-0.000075}$	$r_{0.01}$	< 0.0322
A_{217}^{PS}	102 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.616 ± 0.037	$\ln(10^{10}A_{\mathrm{t}})$	$-0.89^{+1.1}_{-0.41}$
A_{217}^{CIB}	40 ± 7	$\mathrm{Age}/\mathrm{Gyr}$	13.807 ± 0.027	r_{10}	< 0.0157
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	z_*	1090.06 ± 0.28	$10^9 A_{\mathrm{t}}$	< 0.0709
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	r_*	144.76 ± 0.28	$10^9 A_{\mathrm{t}}e^{-2\tau}$	< 0.0634
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.38}_{-0.16}$	$100\theta_*$	1.04123 ± 0.00041	f_{2000}^{143}	30.3 ± 3.0
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.902 ± 0.028	f_{2000}^{217}	107.4 ± 2.0
A^{kSZ}	—	z_{drag}	1059.51 ± 0.44	$f_{2000}^{143 \times 217}$	32.6 ± 2.1
A_{100}^{dust}	1.01 ± 0.19	r_{drag}	147.48 ± 0.31	$\chi_{\mathrm{lensing}}^2$	9.30 ± 0.69
A_{143}^{dust}	0.97 ± 0.18	k_{D}	0.14034 ± 0.00042	$\chi_{\mathrm{BKPLANCK}}^2$	739.8 ± 2.6
A_{217}^{dust}	0.97 ± 0.10	$100\theta_{\mathrm{D}}$	0.16103 ± 0.00025	χ_{simall}^2	397.4 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	z_{eq}	3380 ± 25	χ_{lowl}^2	23.9 ± 1.1
c_{100}	0.9975 ± 0.0011	k_{eq}	0.010315 ± 0.000076	$\chi_{\mathrm{CamSpec}}^2$	7062.8 ± 5.1
c_{217}	1.0011 ± 0.0016	$100\theta_{\mathrm{eq}}$	0.8170 ± 0.0046	$\chi_{6\mathrm{DF}}^2$	0.062 ± 0.073
H_0	67.53 ± 0.49	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4514 ± 0.0024	χ_{MGS}^2	1.25 ± 0.45
Ω_{Λ}	0.6884 ± 0.0065	$H(0.15)$	72.81 ± 0.43	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.6
Ω_{m}	0.3116 ± 0.0065	$D_{\mathrm{M}}(0.15)$	642.0 ± 4.2	χ_{prior}^2	9.2 ± 3.8
$\Omega_{\mathrm{m}}h^2$	0.1421 ± 0.0010	$H(0.38)$	82.92 ± 0.32	χ_{CMB}^2	8233.1 ± 6.0
$\Omega_{\mathrm{m}}h^3$	0.09594 ± 0.00045	$D_{\mathrm{M}}(0.38)$	1531.1 ± 8.6	χ_{BAO}^2	6.2 ± 1.3
σ_8	0.8105 ± 0.0059	$H(0.51)$	89.63 ± 0.27		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8248.57; R - 1 = 0.00954$$

17.62 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022276	0.02228 ± 0.00016	$\Omega_m h^2$	0.14281	0.1427 ± 0.0013	$D_M(0.15)$	644.0	643.6 ± 5.3
$\Omega_c h^2$	0.11989	0.1198 ± 0.0014	$\Omega_m h^3$	0.096098	0.09608 ± 0.00032	$H(0.38)$	82.792	82.82 ± 0.38
$100\theta_{MC}$	1.040845	1.04086 ± 0.00032	σ_8	0.8095	0.8096 ± 0.0076	$D_M(0.38)$	1534.9	1534 ± 11
τ	0.0530	0.0535 ± 0.0080	S_8	0.8300	0.829 ± 0.016	$H(0.51)$	89.548	89.57 ± 0.30
$\ln(10^{10} A_s)$	3.0398	3.041 ± 0.016	$\sigma_8 \Omega_m^{0.5}$	0.4546	0.4542 ± 0.0089	$D_M(0.51)$	1987.7	1987 ± 12
n_s	0.96560	0.9660 ± 0.0045	$\sigma_8 \Omega_m^{0.25}$	0.6066	0.6064 ± 0.0084	$H(0.61)$	95.196	95.21 ± 0.24
r	0.0194	$0.032^{+0.012}_{-0.027}$	$\sigma_8/h^{0.5}$	0.9868	0.987 ± 0.012	$D_M(0.61)$	2312.5	2311 ± 13
y_{cal}	1.00054	1.0007 ± 0.0025	$r_{drag} h$	99.07	99.2 ± 1.1	$H(2.33)$	236.38	236.30 ± 0.84
$A_{B,dust}$	4.60	$4.87^{+0.81}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4385	2.438 ± 0.029	$D_M(2.33)$	5768.3	5768 ± 11
$A_{B,sync}$	1.49	$1.62^{+0.52}_{-1.4}$	z_{re}	7.56	7.60 ± 0.81	$f\sigma_8(0.15)$	0.4589	0.4585 ± 0.0083
$\alpha_{B,dust}$	-0.503	$-0.56^{+0.21}_{-0.33}$	$10^9 A_s$	2.0901	2.092 ± 0.034	$\sigma_8(0.15)$	0.7477	0.7478 ± 0.0067
$\beta_{B,dust}$	1.580	1.600 ± 0.096	$10^9 A_s e^{-2\tau}$	1.8801	1.880 ± 0.012	$f\sigma_8(0.38)$	0.4763	0.4761 ± 0.0068
$\alpha_{B,sync}$	-0.23	—	D_{40}	1233.5	1237 ± 14	$\sigma_8(0.38)$	0.6623	0.6625 ± 0.0057
$\beta_{B,sync}$	-3.040	-3.10 ± 0.27	D_{220}	5716.1	5716 ± 39	$f\sigma_8(0.51)$	0.4745	0.4743 ± 0.0060
$\epsilon_{dust,sync}$	-0.349	-0.36 ± 0.28	D_{810}	2535.9	2536 ± 14	$\sigma_8(0.51)$	0.6196	0.6199 ± 0.0053
A_{100}^{PS}	235.0	239 ± 24	D_{1420}	815.94	816.1 ± 4.9	$f\sigma_8(0.61)$	0.4692	0.4690 ± 0.0055
A_{143}^{PS}	39.6	39 ± 8	D_{2000}	230.31	230.4 ± 1.7	$\sigma_8(0.61)$	0.58950	0.5897 ± 0.0050
A_{217}^{PS}	102.6	103 ± 10	$n_{s,0.002}$	0.96560	0.9660 ± 0.0045	$f\sigma_8(2.33)$	0.29708	0.2972 ± 0.0025
A_{217}^{CIB}	44.2	40 ± 7	Y_P	0.245357	$0.245356^{+0.000069}_{-0.000061}$	$\sigma_8(2.33)$	0.30611	0.3063 ± 0.0026
A_{143}^{tSZ}	6.51	$3.9^{+1.9}_{-2.5}$	Y_P^{BBN}	0.246684	$0.246682^{+0.000069}_{-0.000061}$	$r_{0.002}$	0.0175	$0.029^{+0.010}_{-0.026}$
$r_{143 \times 217}^{PS}$	0.601	0.66 ± 0.13	$10^5 D/H$	2.6034	2.604 ± 0.030	$r_{0.01}$	0.0184	$0.031^{+0.011}_{-0.026}$
$r_{143 \times 217}^{CIB}$	0.758	$0.56^{+0.38}_{-0.19}$	Age/Gyr	13.8086	13.808 ± 0.025	$\ln(10^{10} A_t)$	-0.90	$-0.69^{+1.0}_{-0.38}$
$\xi^{tSZ \times CIB}$	0.09	—	z_*	1090.030	1090.02 ± 0.28	r_{10}	0.0089	$0.0150^{+0.0051}_{-0.013}$
A^{kSZ}	0.14	$4.7^{+2.0}_{-4.1}$	r_*	144.533	144.57 ± 0.31	$10^9 A_t$	0.0405	$0.067^{+0.024}_{-0.057}$
A_{100}^{dust}	1.004	1.00 ± 0.20	$100\theta_*$	1.041042	1.04105 ± 0.00031	$10^9 A_t e^{-2\tau}$	0.0364	$0.060^{+0.022}_{-0.051}$
A_{143}^{dust}	0.972	0.96 ± 0.18	$D_M(z_*)/\text{Gpc}$	13.8835	13.887 ± 0.029	f_{2000}^{143}	30.08	29.6 ± 2.9
A_{217}^{dust}	0.971	0.98 ± 0.10	z_{drag}	1059.704	1059.70 ± 0.33	f_{2000}^{217}	106.92	106.9 ± 1.9
$A_{143 \times 217}^{dust}$	1.009	1.03 ± 0.16	r_{drag}	147.227	147.26 ± 0.32	$f_{2000}^{143 \times 217}$	32.25	32.1 ± 2.0
c_{100}	0.99764	0.9975 ± 0.0011	k_D	0.140652	0.14062 ± 0.00035	$\chi_{BKPLANCK}^2$	735.45	739.9 ± 2.7
c_{217}	1.00126	1.0011 ± 0.0016	$100\theta_D$	0.160882	0.16089 ± 0.00020	χ_{small}^2	395.96	397.2 ± 1.8
c_{TE}	0.99660	0.9967 ± 0.0049	z_{eq}	3397.2	3394 ± 31	χ_{lowl}^2	23.74	24.2 ± 1.2
c_{EE}	0.99213	0.9921 ± 0.0049	k_{eq}	0.010369	0.010359 ± 0.000096	$\chi_{CamSpec}^2$	11498.9	11513.5 ± 5.6
H_0	67.29	67.34 ± 0.62	$100\theta_{eq}$	0.8139	0.8145 ± 0.0059	χ_{prior}^2	2.23	9.5 ± 3.8
Ω_Λ	0.6846	0.6853 ± 0.0085	$100\theta_{s,eq}$	0.44975	0.4501 ± 0.0030	χ_{CMB}^2	12654.1	12674.8 ± 6.4
Ω_m	0.3154	0.3147 ± 0.0085	$H(0.15)$	72.61	72.66 ± 0.53			

Best-fit $\chi_{eff}^2 = 12656.30$; $\bar{\chi}_{eff}^2 = 12684.27$; $R - 1 = 0.00430$

χ_{eff}^2 : CMB - BK15_dust: 735.45 small_100x143_offlike5_EE_Aplanck_B: 395.96 commander_dx12_v3_2_29: 23.74 CamSpec like_10.7HM_1400_unified: 11498.91

17.63 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022330	0.02233 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.096093	0.09608 ± 0.00032	$D_{\mathrm{M}}(0.38)$	1528.3	1528.4 ± 7.8
$\Omega_{\mathrm{c}}h^2$	0.11901	0.1190 ± 0.0010	σ_8	0.8079	0.8078 ± 0.0073	$H(0.51)$	89.727	89.73 ± 0.23
$100\theta_{\mathrm{MC}}$	1.040953	1.04095 ± 0.00030	S_8	0.8213	0.821 ± 0.013	$D_{\mathrm{M}}(0.51)$	1980.1	1980.2 ± 9.1
τ	0.0548	0.0546 ± 0.0080	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4498	0.4498 ± 0.0070	$H(0.61)$	95.333	95.33 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	3.0415	3.041 ± 0.017	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6028	0.6027 ± 0.0071	$D_{\mathrm{M}}(0.61)$	2304.3	2304.4 ± 9.9
n_{s}	0.96809	0.9678 ± 0.0040	$\sigma_8/h^{0.5}$	0.9821	0.982 ± 0.010	$H(2.33)$	235.87	235.87 ± 0.63
r	0.0213	$0.033^{+0.013}_{-0.027}$	$r_{\mathrm{drag}}h$	99.76	99.76 ± 0.78	$D_{\mathrm{M}}(2.33)$	5762.7	5762.8 ± 9.4
y_{cal}	1.00068	1.0008 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.4264	2.427 ± 0.025	$f\sigma_8(0.15)$	0.4545	0.4545 ± 0.0066
$A_{B,\mathrm{dust}}$	4.57	$4.87^{+0.82}_{-1.2}$	z_{re}	7.72	7.68 ± 0.81	$\sigma_8(0.15)$	0.7467	0.7466 ± 0.0066
$A_{B,\mathrm{sync}}$	1.40	$1.61^{+0.52}_{-1.3}$	10^9A_{s}	2.0938	2.094 ± 0.035	$f\sigma_8(0.38)$	0.4731	0.4731 ± 0.0057
$\alpha_{B,\mathrm{dust}}$	-0.491	$-0.56^{+0.22}_{-0.32}$	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8765	1.877 ± 0.011	$\sigma_8(0.38)$	0.6621	0.6619 ± 0.0057
$\beta_{B,\mathrm{dust}}$	1.580	1.600 ± 0.096	D_{40}	1229.1	1234 ± 13	$f\sigma_8(0.51)$	0.4719	0.4718 ± 0.0052
$\alpha_{B,\mathrm{sync}}$	-0.35	—	D_{220}	5718.0	5720 ± 39	$\sigma_8(0.51)$	0.6197	0.6195 ± 0.0053
$\beta_{B,\mathrm{sync}}$	-3.042	-3.10 ± 0.27	D_{810}	2535.9	2536 ± 14	$f\sigma_8(0.61)$	0.46709	0.4670 ± 0.0049
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.352	-0.36 ± 0.28	D_{1420}	816.79	816.6 ± 4.9	$\sigma_8(0.61)$	0.58966	0.5895 ± 0.0051
A_{100}^{PS}	232.9	239 ± 24	D_{2000}	230.66	230.6 ± 1.6	$f\sigma_8(2.33)$	0.29737	0.2973 ± 0.0025
A_{143}^{PS}	38.7	39 ± 8	$n_{\mathrm{s},0.002}$	0.96809	0.9678 ± 0.0040	$\sigma_8(2.33)$	0.30664	0.3066 ± 0.0026
A_{217}^{PS}	102.6	103 ± 10	Y_{P}	0.245379	$0.245376^{+0.000062}_{-0.000055}$	$r_{0.002}$	0.0194	$0.030^{+0.011}_{-0.026}$
A_{217}^{CIB}	44.1	39^{+7}_{-8}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246706	$0.246702^{+0.000062}_{-0.000055}$	$r_{0.01}$	0.0204	$0.032^{+0.012}_{-0.027}$
A_{143}^{tSZ}	6.61	$3.9^{+1.9}_{-2.5}$	$10^5\mathrm{D}/\mathrm{H}$	2.5931	2.594 ± 0.028	$\ln(10^{10}A_{\mathrm{t}})$	-0.81	$-0.64^{+0.96}_{-0.38}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.594	0.66 ± 0.13	$\mathrm{Age}/\mathrm{Gyr}$	13.7965	13.797 ± 0.021	r_{10}	0.0099	$0.0156^{+0.0056}_{-0.013}$
$r_{143 \times 217}^{\mathrm{CIB}}$	0.769	$0.55^{+0.39}_{-0.19}$	z_*	1089.883	1089.89 ± 0.23	10^9A_{t}	0.0447	$0.069^{+0.026}_{-0.057}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.08	—	r_*	144.718	144.72 ± 0.25	$10^9A_{\mathrm{t}}e^{-2\tau}$	0.0400	$0.062^{+0.024}_{-0.051}$
A^{kSZ}	0.01	$4.6^{+1.9}_{-4.3}$	$100\theta_*$	1.041140	1.04114 ± 0.00029	f_{2000}^{143}	29.67	29.4 ± 2.8
A_{100}^{dust}	1.009	1.00 ± 0.20	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9000	13.900 ± 0.024	f_{2000}^{217}	106.70	106.8 ± 1.9
A_{143}^{dust}	0.968	0.96 ± 0.18	z_{drag}	1059.780	1059.76 ± 0.32	$f_{2000}^{143 \times 217}$	31.86	31.9 ± 2.0
A_{217}^{dust}	0.972	0.98 ± 0.10	r_{drag}	147.398	147.40 ± 0.26	$\chi_{\mathrm{BKPLANCK}}^2$	735.72	740.2 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}}$	1.004	1.03 ± 0.16	k_{D}	0.140512	0.14050 ± 0.00032	χ_{small}^2	396.16	397.3 ± 2.0
c_{100}	0.99763	0.9975 ± 0.0011	$100\theta_{\mathrm{D}}$	0.160851	0.16086 ± 0.00019	χ_{lowl}^2	23.32	23.8 ± 1.1
c_{217}	1.00128	1.0011 ± 0.0016	z_{eq}	3377.6	3378 ± 23	$\chi_{\mathrm{CamSpec}}^2$	11499.2	11513.4 ± 5.6
c_{TE}	0.99659	0.9968 ± 0.0049	k_{eq}	0.010309	0.010308 ± 0.000071	$\chi_{6\mathrm{DF}}^2$	0.0223	0.048 ± 0.060
c_{EE}	0.99226	0.9924 ± 0.0049	$100\theta_{\mathrm{eq}}$	0.81763	0.8177 ± 0.0044	χ_{MGS}^2	1.279	1.33 ± 0.44
H_0	67.678	67.68 ± 0.45	$100\theta_{\mathrm{s,eq}}$	0.45167	0.4517 ± 0.0023	$\chi_{\mathrm{DR12BAO}}^2$	4.23	4.6 ± 1.3
Ω_{Λ}	0.6900	0.6899 ± 0.0061	$H(0.15)$	72.942	72.94 ± 0.39	χ_{prior}^2	2.28	9.5 ± 3.8
Ω_{m}	0.3100	0.3101 ± 0.0061	$D_{\mathrm{M}}(0.15)$	640.68	640.7 ± 3.9	χ_{BAO}^2	5.536	6.0 ± 1.0
$\Omega_{\mathrm{m}}h^2$	0.14199	0.14198 ± 0.00098	$H(0.38)$	83.026	83.02 ± 0.29	χ_{CMB}^2	12654.4	12674.7 ± 6.3

Best-fit $\chi_{\mathrm{eff}}^2 = 12662.21$; $\bar{\chi}_{\mathrm{eff}}^2 = 12690.24$; $R - 1 = 0.00669$
 χ_{eff}^2 : BAO - 6DF: 0.02 MGS: 1.28 DR12BAO: 4.24 CMB - BK15_dust: 735.72 small_100x143_offlike5_EE_Aplanck_B: 396.17 commander_dx12_v3_2_29: 23.32 CamSpec like_10.7HM_1400_unified: 11499.19

17.64 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022288	0.02228 ± 0.00016	$\Omega_m h^2$	0.14281	0.1427 ± 0.0011	$D_M(0.15)$	643.81	643.6 ± 4.7
$\Omega_c h^2$	0.11988	0.1198 ± 0.0012	$\Omega_m h^3$	0.096126	0.09608 ± 0.00032	$H(0.38)$	82.807	82.82 ± 0.34
$100\theta_{MC}$	1.040861	1.04085 ± 0.00031	σ_8	0.8100	0.8102 ± 0.0060	$D_M(0.38)$	1534.5	1534.1 ± 9.4
τ	0.0534	0.0542 ± 0.0076	S_8	0.8303	0.830 ± 0.013	$H(0.51)$	89.562	89.57 ± 0.28
$\ln(10^{10} A_s)$	3.0412	3.042 ± 0.015	$\sigma_8 \Omega_m^{0.5}$	0.4548	0.4545 ± 0.0070	$D_M(0.51)$	1987.3	1987 ± 11
n_s	0.96574	0.9658 ± 0.0043	$\sigma_8 \Omega_m^{0.25}$	0.6070	0.6068 ± 0.0064	$H(0.61)$	95.210	95.21 ± 0.23
r	0.0192	$0.032^{+0.011}_{-0.027}$	$\sigma_8/h^{0.5}$	0.9873	0.9874 ± 0.0091	$D_M(0.61)$	2312.0	2312 ± 12
y_{cal}	1.00074	1.0008 ± 0.0025	$r_{drag} h$	99.09	99.16 ± 0.94	$H(2.33)$	236.39	236.31 ± 0.73
$A_{B,dust}$	4.62	$4.87^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4397	2.440 ± 0.022	$D_M(2.33)$	5767.6	5768 ± 11
$A_{B,sync}$	1.43	$1.62^{+0.52}_{-1.4}$	z_{re}	7.60	7.67 ± 0.76	$f\sigma_8(0.15)$	0.4591	0.4588 ± 0.0065
$\alpha_{B,dust}$	-0.506	$-0.56^{+0.22}_{-0.32}$	$10^9 A_s$	2.0930	2.096 ± 0.031	$\sigma_8(0.15)$	0.7482	0.7484 ± 0.0054
$\beta_{B,dust}$	1.580	1.600 ± 0.096	$10^9 A_s e^{-2\tau}$	1.8811	1.880 ± 0.011	$f\sigma_8(0.38)$	0.4766	0.4764 ± 0.0052
$\alpha_{B,sync}$	-0.35	—	D_{40}	1234.0	1238 ± 13	$\sigma_8(0.38)$	0.66278	0.6630 ± 0.0048
$\beta_{B,sync}$	-3.036	-3.10 ± 0.27	D_{220}	5719.7	5719 ± 39	$f\sigma_8(0.51)$	0.47473	0.4747 ± 0.0046
$\epsilon_{dust,sync}$	-0.357	-0.36 ± 0.28	D_{810}	2537.4	2537 ± 13	$\sigma_8(0.51)$	0.62009	0.6203 ± 0.0045
A_{100}^{PS}	233.7	240 ± 24	D_{1420}	816.52	816.2 ± 4.9	$f\sigma_8(0.61)$	0.46946	0.4694 ± 0.0042
A_{143}^{PS}	42.9	40 ± 8	D_{2000}	230.52	230.4 ± 1.7	$\sigma_8(0.61)$	0.58992	0.5902 ± 0.0043
A_{217}^{PS}	102.9	103 ± 10	$n_{s,0.002}$	0.96574	0.9658 ± 0.0043	$f\sigma_8(2.33)$	0.29730	0.2974 ± 0.0023
A_{217}^{CIB}	44.0	40 ± 7	Y_P	0.245362	0.245357 ± 0.000064	$\sigma_8(2.33)$	0.30634	0.3065 ± 0.0024
A_{143}^{tSZ}	6.56	$3.9^{+1.9}_{-2.5}$	Y_P^{BBN}	0.246689	0.246683 ± 0.000064	$r_{0.002}$	0.0173	$0.0289^{+0.0099}_{-0.025}$
$r_{143 \times 217}^{PS}$	0.632	0.66 ± 0.13	$10^5 D/H$	2.6010	2.603 ± 0.030	$r_{0.01}$	0.0182	$0.030^{+0.011}_{-0.026}$
$r_{143 \times 217}^{CIB}$	0.820	$0.56^{+0.39}_{-0.18}$	Age/Gyr	13.8069	13.808 ± 0.024	$\ln(10^{10} A_t)$	-0.91	$-0.70^{+0.99}_{-0.38}$
$\xi^{tSZ \times CIB}$	0.29	—	z_*	1090.013	1090.02 ± 0.27	r_{10}	0.0088	$0.0148^{+0.0050}_{-0.013}$
A^{kSZ}	0.03	$4.6^{+2.0}_{-4.2}$	r_*	144.525	144.56 ± 0.28	$10^9 A_t$	0.0401	$0.066^{+0.024}_{-0.057}$
A_{100}^{dust}	1.003	1.00 ± 0.20	$100\theta_*$	1.041053	1.04104 ± 0.00031	$10^9 A_t e^{-2\tau}$	0.0360	$0.060^{+0.022}_{-0.051}$
A_{143}^{dust}	0.981	0.96 ± 0.18	$D_M(z_*)/\text{Gpc}$	13.8826	13.886 ± 0.026	f_{2000}^{143}	30.05	29.7 ± 2.8
A_{217}^{dust}	0.973	0.98 ± 0.10	z_{drag}	1059.742	1059.71 ± 0.33	f_{2000}^{217}	106.80	106.9 ± 2.0
$A_{143 \times 217}^{dust}$	1.001	1.03 ± 0.16	r_{drag}	147.215	147.25 ± 0.28	$f_{2000}^{143 \times 217}$	32.13	32.1 ± 2.0
c_{100}	0.99768	0.9975 ± 0.0010	k_D	0.140675	0.14062 ± 0.00033	$\chi^2_{lensing}$	8.845	9.29 ± 0.67
c_{217}	1.00130	1.0011 ± 0.0016	$100\theta_D$	0.160866	0.16088 ± 0.00019	$\chi^2_{BKPLANCK}$	735.41	739.9 ± 2.7
c_{TE}	0.99639	0.9966 ± 0.0049	z_{eq}	3397.3	3394 ± 27	χ^2_{small}	396.01	397.2 ± 1.8
c_{EE}	0.99192	0.9922 ± 0.0049	k_{eq}	0.010369	0.010360 ± 0.000083	χ^2_{lowl}	23.74	24.2 ± 1.1
H_0	67.31	67.34 ± 0.55	$100\theta_{eq}$	0.8139	0.8144 ± 0.0051	$\chi^2_{CamSpec}$	11498.9	11513.1 ± 5.5
Ω_Λ	0.6848	0.6852 ± 0.0075	$100\theta_{s,eq}$	0.44976	0.4500 ± 0.0026	χ^2_{prior}	2.25	9.4 ± 3.8
Ω_m	0.3152	0.3148 ± 0.0075	$H(0.15)$	72.630	72.65 ± 0.47	χ^2_{CMB}	12662.9	12683.6 ± 6.4

Best-fit $\chi^2_{eff} = 12665.14$; $\bar{\chi}^2_{eff} = 12693.08$; $R - 1 = 0.00549$

χ^2_{eff} : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.85 BK15_dust: 735.41 simall_100x143_offlike5_EE_Aplanck_B: 396.01 commander_dx12_v3_2.29: 23.74 CamSpec like_10.7HM.1400_unified: 11498.88

17.65 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022314	0.02233 ± 0.00015	σ_8	0.8091	0.8095 ± 0.0060	$D_M(0.51)$	1982.5	1981.0 ± 8.7
$\Omega_c h^2$	0.11928	0.11912 ± 0.00095	S_8	0.8247	0.824 ± 0.011	$H(0.61)$	95.288	95.32 ± 0.19
$100\theta_{MC}$	1.040908	1.04094 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4517	0.4512 ± 0.0058	$D_M(0.61)$	2306.9	2305.2 ± 9.4
τ	0.0547	0.0560 ± 0.0074	$\sigma_8 \Omega_m^{0.25}$	0.6046	0.6043 ± 0.0057	$H(2.33)$	236.03	235.94 ± 0.59
$\ln(10^{10} A_s)$	3.0431	3.045 ± 0.015	$\sigma_8/h^{0.5}$	0.9845	0.9843 ± 0.0084	$D_M(2.33)$	5764.5	5763.2 ± 9.2
n_s	0.96699	0.9674 ± 0.0039	$r_{drag} h$	99.54	99.67 ± 0.73	$f\sigma_8(0.15)$	0.4563	0.4558 ± 0.0054
r	0.0197	$0.033^{+0.012}_{-0.027}$	$\langle d^2 \rangle^{1/2}$	2.4334	2.433 ± 0.021	$\sigma_8(0.15)$	0.7477	0.7481 ± 0.0055
y_{cal}	1.00104	1.0009 ± 0.0025	z_{re}	7.72	7.83 ± 0.74	$f\sigma_8(0.38)$	0.47457	0.4743 ± 0.0046
$A_{B,dust}$	4.62	$4.87^{+0.82}_{-1.1}$	$10^9 A_s$	2.0970	$2.101^{+0.029}_{-0.032}$	$\sigma_8(0.38)$	0.66274	0.6632 ± 0.0049
$A_{B,sync}$	1.48	$1.62^{+0.52}_{-1.3}$	$10^9 A_s e^{-2\tau}$	1.8796	1.878 ± 0.011	$f\sigma_8(0.51)$	0.47315	0.4730 ± 0.0042
$\alpha_{B,dust}$	-0.504	$-0.56^{+0.22}_{-0.32}$	D_{40}	1232.4	1236 ± 13	$\sigma_8(0.51)$	0.62020	0.6207 ± 0.0046
$\beta_{B,dust}$	1.579	1.601 ± 0.096	D_{220}	5725.2	5724 ± 39	$f\sigma_8(0.61)$	0.46817	0.4681 ± 0.0039
$\alpha_{B,sync}$	-0.22	—	D_{810}	2538.2	2537 ± 13	$\sigma_8(0.61)$	0.59013	0.5906 ± 0.0044
$\beta_{B,sync}$	-3.045	-3.10 ± 0.27	D_{1420}	817.11	816.9 ± 4.8	$f\sigma_8(2.33)$	0.29754	0.2978 ± 0.0023
$\epsilon_{dust,sync}$	-0.339	-0.36 ± 0.28	D_{2000}	230.72	230.7 ± 1.6	$\sigma_8(2.33)$	0.30674	0.3071 ± 0.0024
A_{100}^{PS}	233.6	239 ± 24	$n_{s,0.002}$	0.96699	0.9674 ± 0.0039	$r_{0.002}$	0.0179	$0.030^{+0.011}_{-0.025}$
A_{143}^{PS}	40.5	39 ± 8	Y_P	0.245373	$0.245376^{+0.000061}_{-0.000055}$	$r_{0.01}$	0.0188	$0.031^{+0.011}_{-0.026}$
A_{217}^{PS}	103.0	103 ± 10	Y_P^{BBN}	0.246699	$0.246702^{+0.000062}_{-0.000055}$	$\ln(10^{10} A_t)$	-0.88	$-0.66^{+0.97}_{-0.38}$
A_{217}^{CIB}	44.1	39 ± 7	$10^5 D/H$	2.5960	2.594 ± 0.028	r_{10}	0.0091	$0.0152^{+0.0054}_{-0.013}$
A_{143}^{tSZ}	6.54	$3.9^{+1.9}_{-2.5}$	Age/Gyr	13.8005	13.798 ± 0.021	$10^9 A_t$	0.0414	$0.068^{+0.026}_{-0.057}$
$r_{143 \times 217}^{PS}$	0.609	0.66 ± 0.13	z_*	1089.927	1089.90 ± 0.23	$10^9 A_t e^{-2\tau}$	0.0371	$0.061^{+0.023}_{-0.051}$
$r_{143 \times 217}^{CIB}$	0.785	$0.55^{+0.39}_{-0.19}$	r_*	144.660	144.69 ± 0.23	f_{2000}^{143}	29.89	29.4 ± 2.8
$\xi^{tSZ \times CIB}$	0.16	—	$100\theta_*$	1.041098	1.04113 ± 0.00029	f_{2000}^{217}	106.89	106.8 ± 1.9
A^{kSZ}	0.04	$4.6^{+1.7}_{-4.3}$	$D_M(z_*)/Gpc$	13.8949	13.898 ± 0.022	$f_{2000}^{143 \times 217}$	32.05	31.9 ± 2.0
A_{100}^{dust}	1.007	1.00 ± 0.20	z_{drag}	1059.742	1059.77 ± 0.32	$\chi^2_{lensing}$	8.869	9.25 ± 0.69
A_{143}^{dust}	0.972	0.96 ± 0.18	r_{drag}	147.345	147.37 ± 0.25	$\chi^2_{BKPLANCK}$	735.58	740.0 ± 2.6
A_{217}^{dust}	0.973	0.98 ± 0.10	k_D	0.140558	0.14053 ± 0.00031	χ^2_{small}	396.18	397.4 ± 2.0
$A_{143 \times 217}^{dust}$	1.003	1.03 ± 0.16	$100\theta_D$	0.160857	0.16085 ± 0.00019	χ^2_{lowl}	23.52	24.0 ± 1.1
c_{100}	0.99766	0.9975 ± 0.0010	z_{eq}	3383.7	3380 ± 22	$\chi^2_{CamSpec}$	11498.9	11512.9 ± 5.5
c_{217}	1.00128	1.0011 ± 0.0016	k_{eq}	0.010327	0.010317 ± 0.000066	χ^2_{6DF}	0.0375	0.050 ± 0.058
c_{TE}	0.99658	0.9966 ± 0.0049	$100\theta_{eq}$	0.81645	0.8172 ± 0.0040	χ^2_{MGS}	1.156	1.28 ± 0.40
c_{EE}	0.99248	0.9924 ± 0.0049	$100\theta_{s,eq}$	0.45107	0.4514 ± 0.0021	$\chi^2_{DR12BAO}$	4.60	4.7 ± 1.3
H_0	67.556	67.63 ± 0.43	$H(0.15)$	72.837	72.90 ± 0.37	χ^2_{prior}	2.32	9.4 ± 3.8
Ω_Λ	0.6883	0.6893 ± 0.0057	$D_M(0.15)$	641.72	641.1 ± 3.7	χ^2_{CMB}	12663.0	12683.6 ± 6.4
Ω_m	0.3117	0.3107 ± 0.0057	$H(0.38)$	82.951	83.00 ± 0.28	χ^2_{BAO}	5.79	6.1 ± 1.0
$\Omega_m h^2$	0.14224	0.14209 ± 0.00090	$D_M(0.38)$	1530.4	1529.1 ± 7.4			
$\Omega_m h^3$	0.096092	0.09610 ± 0.00032	$H(0.51)$	89.669	89.71 ± 0.23			

Best-fit $\chi^2_{eff} = 12671.15$; $\bar{\chi}^2_{eff} = 12699.13$; $R - 1 = 0.00878$
 χ^2_{eff} : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.59 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.87 BK15_dust: 735.58 simall_100x143_offlike5_EE_Aplanck_B: 396.18 commander_dx12_v3.2.29: 23.52 CamSpec like_10.7HM_1400.unified: 11498.90

17.66 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02228 ± 0.00016	$\Omega_{\mathrm{m}}h^2$	0.1426 ± 0.0013	$D_{\mathrm{M}}(0.15)$	643.4 ± 5.3
$\Omega_{\mathrm{c}}h^2$	0.1197 ± 0.0014	$\Omega_{\mathrm{m}}h^3$	0.09608 ± 0.00032	$H(0.38)$	82.84 ± 0.38
$100\theta_{\mathrm{MC}}$	1.04086 ± 0.00032	σ_8	$0.8105^{+0.0066}_{-0.0075}$	$D_{\mathrm{M}}(0.38)$	1534 ± 11
τ	$0.0548^{+0.0051}_{-0.0084}$	S_8	0.830 ± 0.016	$H(0.51)$	89.58 ± 0.30
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4545 ± 0.0088	$D_{\mathrm{M}}(0.51)$	1986 ± 12
n_{s}	0.9662 ± 0.0045	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6069 ± 0.0082	$H(0.61)$	95.22 ± 0.24
r	$0.032^{+0.012}_{-0.027}$	$\sigma_8/h^{0.5}$	0.988 ± 0.011	$D_{\mathrm{M}}(0.61)$	2311 ± 13
y_{cal}	1.0007 ± 0.0025	$r_{\mathrm{drag}}h$	99.2 ± 1.1	$H(2.33)$	236.28 ± 0.83
$A_{B,\mathrm{dust}}$	$4.87^{+0.81}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.440 ± 0.028	$D_{\mathrm{M}}(2.33)$	5767 ± 11
$A_{B,\mathrm{sync}}$	$1.62^{+0.53}_{-1.4}$	z_{re}	$7.74^{+0.56}_{-0.82}$	$f\sigma_8(0.15)$	0.4588 ± 0.0082
$\alpha_{B,\mathrm{dust}}$	$-0.57^{+0.21}_{-0.33}$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.024}_{-0.035}$	$\sigma_8(0.15)$	$0.7487^{+0.0056}_{-0.0066}$
$\beta_{B,\mathrm{dust}}$	1.600 ± 0.096	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.012	$f\sigma_8(0.38)$	0.4765 ± 0.0067
$\alpha_{B,\mathrm{sync}}$	—	D_{40}	1237 ± 14	$\sigma_8(0.38)$	$0.6633^{+0.0044}_{-0.0057}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{220}	5716 ± 39	$f\sigma_8(0.51)$	0.4747 ± 0.0058
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{810}	2536 ± 14	$\sigma_8(0.51)$	$0.6206^{+0.0040}_{-0.0053}$
A_{100}^{PS}	239 ± 24	D_{1420}	816.1 ± 4.9	$f\sigma_8(0.61)$	0.4695 ± 0.0053
A_{143}^{PS}	39 ± 8	D_{2000}	230.4 ± 1.7	$\sigma_8(0.61)$	$0.5905^{+0.0037}_{-0.0050}$
A_{217}^{PS}	103 ± 10	$n_{\mathrm{s},0.002}$	0.9662 ± 0.0045	$f\sigma_8(2.33)$	$0.2976^{+0.0018}_{-0.0025}$
A_{217}^{CIB}	39 ± 7	Y_{P}	$0.245357^{+0.000068}_{-0.000061}$	$\sigma_8(2.33)$	$0.3067^{+0.0019}_{-0.0027}$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246684^{+0.000068}_{-0.000061}$	$r_{0.002}$	$0.029^{+0.010}_{-0.026}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$10^5 \mathrm{D}/\mathrm{H}$	2.603 ± 0.030	$r_{0.01}$	$0.031^{+0.011}_{-0.026}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.38}_{-0.19}$	$\mathrm{Age}/\mathrm{Gyr}$	13.807 ± 0.025	$\ln(10^{10}A_{\mathrm{t}})$	$-0.69^{+1.0}_{-0.38}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_*	1090.01 ± 0.28	r_{10}	$0.0150^{+0.0051}_{-0.013}$
A^{kSZ}	$4.6^{+1.9}_{-4.2}$	r_*	144.57 ± 0.31	$10^9 A_{\mathrm{t}}$	$0.067^{+0.024}_{-0.057}$
A_{100}^{dust}	1.00 ± 0.20	$100\theta_*$	1.04105 ± 0.00031	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.060^{+0.022}_{-0.051}$
A_{143}^{dust}	0.96 ± 0.18	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.887 ± 0.029	f_{2000}^{143}	29.6 ± 2.8
A_{217}^{dust}	0.98 ± 0.10	z_{drag}	1059.71 ± 0.33	f_{2000}^{217}	106.8 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_{drag}	147.27 ± 0.32	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
c_{100}	0.9975 ± 0.0011	k_{D}	0.14061 ± 0.00035	$\chi_{\mathrm{BKPLANCK}}^2$	739.9 ± 2.7
c_{217}	1.0011 ± 0.0016	$100\theta_{\mathrm{D}}$	0.16088 ± 0.00019	χ_{simall}^2	397.1 ± 1.8
c_{TE}	0.9966 ± 0.0049	z_{eq}	3393 ± 31	χ_{lowl}^2	24.2 ± 1.2
c_{EE}	0.9921 ± 0.0049	k_{eq}	0.010357 ± 0.000095	$\chi_{\mathrm{CamSpec}}^2$	11513.4 ± 5.6
H_0	67.36 ± 0.61	$100\theta_{\mathrm{eq}}$	0.8146 ± 0.0059	χ_{prior}^2	9.5 ± 3.8
Ω_{Λ}	0.6855 ± 0.0085	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4501 ± 0.0030	χ_{CMB}^2	12674.6 ± 6.3
Ω_{m}	0.3145 ± 0.0085	$H(0.15)$	72.67 ± 0.52		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12684.04; R - 1 = 0.00482$$

17.67 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.09609 ± 0.00032	$D_{\mathrm{M}}(0.38)$	1528.3 ± 7.8
$\Omega_{\mathrm{c}}h^2$	0.1190 ± 0.0010	σ_8	$0.8086^{+0.0059}_{-0.0074}$	$H(0.51)$	89.73 ± 0.23
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00030	S_8	0.822 ± 0.012	$D_{\mathrm{M}}(0.51)$	1980.0 ± 9.1
τ	$0.0557^{+0.0054}_{-0.0084}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4502 ± 0.0068	$H(0.61)$	95.34 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.017}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6033 ± 0.0068	$D_{\mathrm{M}}(0.61)$	2304.2 ± 9.8
n_{s}	0.9679 ± 0.0040	$\sigma_8/h^{0.5}$	$0.9829^{+0.0092}_{-0.010}$	$H(2.33)$	235.86 ± 0.63
r	$0.033^{+0.013}_{-0.027}$	$r_{\mathrm{drag}}h$	99.77 ± 0.78	$D_{\mathrm{M}}(2.33)$	5762.7 ± 9.4
y_{cal}	1.0008 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.024	$f\sigma_8(0.15)$	0.4549 ± 0.0064
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	z_{re}	$7.81^{+0.60}_{-0.82}$	$\sigma_8(0.15)$	$0.7474^{+0.0052}_{-0.0066}$
$A_{B,\mathrm{sync}}$	$1.61^{+0.52}_{-1.3}$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.025}_{-0.036}$	$f\sigma_8(0.38)$	0.4735 ± 0.0055
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.22}_{-0.32}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$\sigma_8(0.38)$	$0.6627^{+0.0043}_{-0.0058}$
$\beta_{B,\mathrm{dust}}$	1.601 ± 0.096	D_{40}	1234 ± 13	$f\sigma_8(0.51)$	0.4723 ± 0.0050
$\alpha_{B,\mathrm{sync}}$	—	D_{220}	5720 ± 39	$\sigma_8(0.51)$	$0.6202^{+0.0040}_{-0.0054}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{810}	2536 ± 14	$f\sigma_8(0.61)$	$0.4675^{+0.0043}_{-0.0048}$
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{1420}	816.6 ± 4.9	$\sigma_8(0.61)$	$0.5902^{+0.0038}_{-0.0051}$
A_{100}^{PS}	239 ± 24	D_{2000}	230.6 ± 1.6	$f\sigma_8(2.33)$	$0.2976^{+0.0019}_{-0.0026}$
A_{143}^{PS}	39 ± 8	$n_{\mathrm{s},0.002}$	0.9679 ± 0.0040	$\sigma_8(2.33)$	$0.3069^{+0.0019}_{-0.0027}$
A_{217}^{PS}	103 ± 10	Y_{P}	$0.245377^{+0.000061}_{-0.000055}$	$r_{0.002}$	$0.030^{+0.011}_{-0.026}$
A_{217}^{CIB}	39^{+7}_{-8}	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246703^{+0.000062}_{-0.000055}$	$r_{0.01}$	$0.032^{+0.012}_{-0.027}$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$10^5 \mathrm{D}/\mathrm{H}$	2.594 ± 0.027	$\ln(10^{10}A_{\mathrm{t}})$	$-0.64^{+0.96}_{-0.38}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$\mathrm{Age}/\mathrm{Gyr}$	13.797 ± 0.021	r_{10}	$0.0156^{+0.0056}_{-0.013}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	z_*	1089.89 ± 0.23	$10^9 A_{\mathrm{t}}$	$0.069^{+0.027}_{-0.057}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	r_*	144.72 ± 0.25	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.062^{+0.024}_{-0.051}$
A^{kSZ}	$4.6^{+1.8}_{-4.3}$	$100\theta_*$	1.04114 ± 0.00030	f_{2000}^{143}	29.4 ± 2.8
A_{100}^{dust}	1.00 ± 0.20	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.901 ± 0.024	f_{2000}^{217}	106.7 ± 1.9
A_{143}^{dust}	0.96 ± 0.18	z_{drag}	1059.76 ± 0.32	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
A_{217}^{dust}	0.98 ± 0.10	r_{drag}	147.41 ± 0.26	$\chi_{\mathrm{BKPLANCK}}^2$	740.1 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	k_{D}	0.14050 ± 0.00032	χ_{simall}^2	397.3 ± 2.0
c_{100}	0.9975 ± 0.0011	$100\theta_{\mathrm{D}}$	0.16086 ± 0.00019	χ_{lowl}^2	23.9 ± 1.1
c_{217}	1.0011 ± 0.0016	z_{eq}	3377 ± 23	$\chi_{\mathrm{CamSpec}}^2$	11513.3 ± 5.6
c_{TE}	0.9967 ± 0.0049	k_{eq}	0.010308 ± 0.000071	$\chi_{6\mathrm{DF}}^2$	0.047 ± 0.059
c_{EE}	0.9923 ± 0.0049	$100\theta_{\mathrm{eq}}$	0.8177 ± 0.0044	χ_{MGS}^2	1.34 ± 0.44
H_0	67.68 ± 0.45	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4517 ± 0.0022	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
Ω_{Λ}	0.6900 ± 0.0061	$H(0.15)$	72.95 ± 0.39	χ_{prior}^2	9.5 ± 3.8
Ω_{m}	0.3100 ± 0.0061	$D_{\mathrm{M}}(0.15)$	640.6 ± 3.9	χ_{BAO}^2	6.0 ± 1.0
$\Omega_{\mathrm{m}}h^2$	0.14197 ± 0.00097	$H(0.38)$	83.03 ± 0.29	χ_{CMB}^2	12674.5 ± 6.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 12690.02; R - 1 = 0.00713$$

17.68 base_r_CamSpecHM_TTTEE_lowl_lowE_BK15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02228 ± 0.00016	$\Omega_{\mathrm{m}}h^2$	0.1426 ± 0.0011	$D_{\mathrm{M}}(0.15)$	643.4 ± 4.6
$\Omega_{\mathrm{c}}h^2$	0.1197 ± 0.0012	$\Omega_{\mathrm{m}}h^3$	0.09608 ± 0.00032	$H(0.38)$	82.84 ± 0.34
$100\theta_{\mathrm{MC}}$	1.04086 ± 0.00031	σ_8	0.8108 ± 0.0057	$D_{\mathrm{M}}(0.38)$	1533.7 ± 9.3
τ	$0.0552^{+0.0054}_{-0.0080}$	S_8	0.830 ± 0.013	$H(0.51)$	89.58 ± 0.27
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.011}_{-0.015}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4546 ± 0.0070	$D_{\mathrm{M}}(0.51)$	1986 ± 11
n_{s}	0.9660 ± 0.0043	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6071 ± 0.0064	$H(0.61)$	95.22 ± 0.22
r	$0.032^{+0.011}_{-0.027}$	$\sigma_8/h^{0.5}$	0.9878 ± 0.0089	$D_{\mathrm{M}}(0.61)$	2311 ± 12
y_{cal}	1.0008 ± 0.0025	$r_{\mathrm{drag}}h$	99.21 ± 0.93	$H(2.33)$	236.28 ± 0.72
$A_{B,\mathrm{dust}}$	$4.87^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.022	$D_{\mathrm{M}}(2.33)$	5767 ± 11
$A_{B,\mathrm{sync}}$	$1.63^{+0.52}_{-1.4}$	z_{re}	$7.77^{+0.59}_{-0.77}$	$f\sigma_8(0.15)$	0.4589 ± 0.0065
$\alpha_{B,\mathrm{dust}}$	$-0.56^{+0.21}_{-0.32}$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.023}_{-0.032}$	$\sigma_8(0.15)$	$0.7489^{+0.0047}_{-0.0054}$
$\beta_{B,\mathrm{dust}}$	1.601 ± 0.096	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.011	$f\sigma_8(0.38)$	0.4766 ± 0.0052
$\alpha_{B,\mathrm{sync}}$	—	D_{40}	1238 ± 13	$\sigma_8(0.38)$	$0.6635^{+0.0040}_{-0.0048}$
$\beta_{B,\mathrm{sync}}$	-3.10 ± 0.27	D_{220}	5719 ± 39	$f\sigma_8(0.51)$	0.4749 ± 0.0045
$\epsilon_{\mathrm{dust},\mathrm{sync}}$	-0.36 ± 0.28	D_{810}	2536 ± 13	$\sigma_8(0.51)$	$0.6208^{+0.0036}_{-0.0046}$
A_{100}^{PS}	239 ± 24	D_{1420}	816.2 ± 4.9	$f\sigma_8(0.61)$	0.4697 ± 0.0041
A_{143}^{PS}	39 ± 8	D_{2000}	230.4 ± 1.7	$\sigma_8(0.61)$	$0.5907^{+0.0035}_{-0.0044}$
A_{217}^{PS}	103 ± 10	$n_{\mathrm{s},0.002}$	0.9660 ± 0.0043	$f\sigma_8(2.33)$	$0.2977^{+0.0018}_{-0.0023}$
A_{217}^{CIB}	40 ± 7	Y_{P}	0.245359 ± 0.000064	$\sigma_8(2.33)$	$0.3068^{+0.0019}_{-0.0025}$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246685 ± 0.000064	$r_{0.002}$	$0.0290^{+0.0099}_{-0.025}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$10^5 \mathrm{D}/\mathrm{H}$	2.602 ± 0.029	$r_{0.01}$	$0.030^{+0.011}_{-0.026}$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.40}_{-0.18}$	$\mathrm{Age}/\mathrm{Gyr}$	13.807 ± 0.024	$\ln(10^{10}A_{\mathrm{t}})$	$-0.69^{+0.99}_{-0.38}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_*	1090.00 ± 0.26	r_{10}	$0.0148^{+0.0050}_{-0.013}$
A^{kSZ}	$4.6^{+1.9}_{-4.2}$	r_*	144.57 ± 0.27	$10^9 A_{\mathrm{t}}$	$0.067^{+0.024}_{-0.057}$
A_{100}^{dust}	1.00 ± 0.20	$100\theta_*$	1.04105 ± 0.00031	$10^9 A_{\mathrm{t}}e^{-2\tau}$	$0.060^{+0.022}_{-0.051}$
A_{143}^{dust}	0.96 ± 0.18	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.887 ± 0.026	f_{2000}^{143}	29.6 ± 2.8
A_{217}^{dust}	0.98 ± 0.10	z_{drag}	1059.71 ± 0.33	f_{2000}^{217}	106.9 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_{drag}	147.27 ± 0.28	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
c_{100}	0.9975 ± 0.0010	k_{D}	0.14062 ± 0.00033	$\chi_{\mathrm{lensing}}^2$	9.25 ± 0.63
c_{217}	1.0011 ± 0.0016	$100\theta_{\mathrm{D}}$	0.16088 ± 0.00019	$\chi_{\mathrm{BKPLANCK}}^2$	739.8 ± 2.7
c_{TE}	0.9966 ± 0.0049	z_{eq}	3393 ± 27	χ_{small}^2	397.1 ± 1.8
c_{EE}	0.9921 ± 0.0049	k_{eq}	0.010356 ± 0.000082	χ_{lowl}^2	24.2 ± 1.1
H_0	67.37 ± 0.54	$100\theta_{\mathrm{eq}}$	0.8147 ± 0.0051	$\chi_{\mathrm{CamSpec}}^2$	11513.0 ± 5.5
Ω_{Λ}	0.6856 ± 0.0074	$100\theta_{\mathrm{s},\mathrm{eq}}$	0.4502 ± 0.0026	χ_{prior}^2	9.4 ± 3.8
Ω_{m}	0.3144 ± 0.0074	$H(0.15)$	72.68 ± 0.46	χ_{CMB}^2	12683.5 ± 6.3

$\bar{\chi}_{\mathrm{eff}}^2 = 12692.90$; $R - 1 = 0.00651$

17.69 base_r_CamSpecHM_TTTEEE_lowl_lowE_BK15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02233 ± 0.00015	σ_8	$0.8098^{+0.0053}_{-0.0062}$	$D_M(0.51)$	1980.8 ± 8.6
$\Omega_c h^2$	0.11910 ± 0.00094	S_8	0.824 ± 0.011	$H(0.61)$	95.32 ± 0.19
$100\theta_{MC}$	1.04094 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4513 ± 0.0058	$D_M(0.61)$	2305.0 ± 9.3
τ	$0.0566^{+0.0059}_{-0.0079}$	$\sigma_8 \Omega_m^{0.25}$	0.6045 ± 0.0056	$H(2.33)$	235.93 ± 0.58
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.015}$	$\sigma_8/h^{0.5}$	0.9847 ± 0.0082	$D_M(2.33)$	5763.1 ± 9.2
n_s	0.9674 ± 0.0039	$r_{\text{drag}} h$	99.69 ± 0.73	$f\sigma_8(0.15)$	0.4559 ± 0.0054
r	$0.033^{+0.012}_{-0.027}$	$\langle d^2 \rangle^{1/2}$	2.434 ± 0.020	$\sigma_8(0.15)$	$0.7484^{+0.0048}_{-0.0057}$
y_{cal}	1.0009 ± 0.0025	z_{re}	$7.89^{+0.63}_{-0.76}$	$f\sigma_8(0.38)$	0.4745 ± 0.0046
$A_{B,\text{dust}}$	$4.87^{+0.82}_{-1.1}$	$10^9 A_s$	$2.103^{+0.025}_{-0.032}$	$\sigma_8(0.38)$	$0.6635^{+0.0041}_{-0.0050}$
$A_{B,\text{sync}}$	$1.62^{+0.52}_{-1.3}$	$10^9 A_s e^{-2\tau}$	1.878 ± 0.010	$f\sigma_8(0.51)$	0.4732 ± 0.0041
$\alpha_{B,\text{dust}}$	$-0.56^{+0.22}_{-0.32}$	D_{40}	1236 ± 13	$\sigma_8(0.51)$	$0.6210^{+0.0038}_{-0.0047}$
$\beta_{B,\text{dust}}$	1.601 ± 0.096	D_{220}	5724 ± 38	$f\sigma_8(0.61)$	0.4683 ± 0.0038
$\alpha_{B,\text{sync}}$	—	D_{810}	2537 ± 13	$\sigma_8(0.61)$	$0.5909^{+0.0036}_{-0.0045}$
$\beta_{B,\text{sync}}$	-3.10 ± 0.27	D_{1420}	816.8 ± 4.8	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0023}$
$\epsilon_{\text{dust,sync}}$	-0.36 ± 0.28	D_{2000}	230.7 ± 1.6	$\sigma_8(2.33)$	$0.3073^{+0.0020}_{-0.0025}$
A_{100}^{PS}	239 ± 24	$n_{s,0.002}$	0.9674 ± 0.0039	$r_{0.002}$	$0.030^{+0.011}_{-0.025}$
A_{143}^{PS}	39 ± 8	Y_P	$0.245377^{+0.000061}_{-0.000055}$	$r_{0.01}$	$0.031^{+0.011}_{-0.026}$
A_{217}^{PS}	103 ± 10	Y_P^{BBN}	$0.246703^{+0.000062}_{-0.000055}$	$\ln(10^{10} A_t)$	$-0.66^{+0.97}_{-0.38}$
A_{217}^{CIB}	39 ± 7	10^5D/H	2.594 ± 0.027	r_{10}	$0.0153^{+0.0054}_{-0.013}$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	Age/Gyr	13.797 ± 0.021	$10^9 A_t$	$0.068^{+0.026}_{-0.057}$
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.13	z_*	1089.90 ± 0.23	$10^9 A_t e^{-2\tau}$	$0.061^{+0.023}_{-0.051}$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.39}_{-0.19}$	r_*	144.70 ± 0.23	f_{2000}^{143}	29.4 ± 2.8
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$100\theta_*$	1.04113 ± 0.00029	f_{2000}^{217}	106.8 ± 1.9
A^{kSZ}	$4.6^{+1.7}_{-4.3}$	$D_M(z_*)/\text{Gpc}$	13.898 ± 0.022	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
A_{100}^{dust}	1.00 ± 0.20	z_{drag}	1059.77 ± 0.32	χ_{lensing}^2	9.21 ± 0.64
A_{143}^{dust}	0.96 ± 0.18	r_{drag}	147.38 ± 0.25	χ_{BKPLANCK}^2	740.0 ± 2.6
A_{217}^{dust}	0.98 ± 0.10	k_D	0.14053 ± 0.00031	χ_{simall}^2	397.4 ± 2.0
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_D$	0.16085 ± 0.00019	χ_{lowl}^2	24.0 ± 1.1
c_{100}	0.9975 ± 0.0010	z_{eq}	3380 ± 21	χ_{CamSpec}^2	11512.9 ± 5.5
c_{217}	1.0011 ± 0.0016	k_{eq}	0.010315 ± 0.000065	$\chi_{6\text{DF}}^2$	0.049 ± 0.057
c_{TE}	0.9966 ± 0.0049	$100\theta_{\text{eq}}$	0.8173 ± 0.0040	χ_{MGS}^2	1.29 ± 0.40
c_{EE}	0.9924 ± 0.0049	$100\theta_{s,\text{eq}}$	0.4515 ± 0.0021	χ_{DR12BAO}^2	4.7 ± 1.3
H_0	67.64 ± 0.43	$H(0.15)$	72.91 ± 0.37	χ_{prior}^2	9.4 ± 3.8
Ω_Λ	0.6894 ± 0.0057	$D_M(0.15)$	641.0 ± 3.6	χ_{CMB}^2	12683.5 ± 6.3
Ω_m	0.3106 ± 0.0057	$H(0.38)$	83.01 ± 0.27	χ_{BAO}^2	6.03 ± 0.99
$\Omega_m h^2$	0.14207 ± 0.00090	$D_M(0.38)$	1528.9 ± 7.3		
$\Omega_m h^3$	0.09610 ± 0.00032	$H(0.51)$	89.71 ± 0.22		

$$\bar{\chi}_{\text{eff}}^2 = 12699.00; R - 1 = 0.00924$$

17.70 base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022382	0.02236 ± 0.00014	Ω_Λ	0.6841	0.6839 ± 0.0074	$H(0.15)$	72.649	72.63 ± 0.46
$\Omega_c h^2$	0.12011	0.1201 ± 0.0012	Ω_m	0.3159	0.3161 ± 0.0074	$D_M(0.15)$	643.69	643.9 ± 4.6
$100\theta_{MC}$	1.040889	1.04091 ± 0.00031	$\Omega_m h^2$	0.14313	0.1431 ± 0.0011	$H(0.38)$	82.845	82.83 ± 0.34
τ	0.0546	0.0546 ± 0.0074	$\Omega_m h^3$	0.096354	0.09632 ± 0.00029	$D_M(0.38)$	1534.1	1534.5 ± 9.2
$\ln(10^{10} A_s)$	3.0456	3.046 ± 0.014	σ_8	0.8123	0.8122 ± 0.0059	$H(0.51)$	89.611	89.60 ± 0.27
n_s	0.96585	0.9651 ± 0.0041	S_8	0.8334	0.834 ± 0.013	$D_M(0.51)$	1986.6	1987 ± 11
r	0.0153	$0.0270^{+0.0065}_{-0.027}$	$\sigma_8 \Omega_m^{0.5}$	0.4565	0.4566 ± 0.0070	$H(0.61)$	95.269	95.26 ± 0.22
y_{cal}	1.00057	1.0009 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6089	0.6090 ± 0.0063	$D_M(0.61)$	2311.1	2312 ± 12
$A_{B,dust}$	4.62	$4.86^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.9900	0.9901 ± 0.0090	$H(2.33)$	236.64	236.63 ± 0.71
$A_{B,sync}$	1.44	$1.64^{+0.53}_{-1.3}$	$r_{drag} h$	98.99	98.98 ± 0.92	$D_M(2.33)$	5763.7	5765 ± 10
$\alpha_{B,dust}$	-0.510	$-0.56^{+0.22}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.4463	2.448 ± 0.022	$f\sigma_8(0.15)$	0.4607	0.4608 ± 0.0064
$\beta_{B,dust}$	1.576	1.597 ± 0.096	z_{re}	7.71	7.70 ± 0.74	$\sigma_8(0.15)$	0.7501	0.7501 ± 0.0053
$\alpha_{B,sync}$	-0.39	—	$10^9 A_s$	2.1022	2.103 ± 0.030	$f\sigma_8(0.38)$	0.4781	0.4782 ± 0.0052
$\beta_{B,sync}$	-3.032	-3.10 ± 0.28	$10^9 A_s e^{-2\tau}$	1.8846	1.885 ± 0.011	$\sigma_8(0.38)$	0.66447	0.6644 ± 0.0047
$\epsilon_{dust,sync}$	-0.345	-0.34 ± 0.29	D_{40}	1235.1	1241 ± 13	$f\sigma_8(0.51)$	0.47621	0.4762 ± 0.0045
A_{217}^{CIB}	46.8	47 ± 7	D_{220}	5732.1	5735 ± 38	$\sigma_8(0.51)$	0.62163	0.6215 ± 0.0044
$\xi^{tSZ \times CIB}$	0.48	—	D_{810}	2541.4	2541 ± 13	$f\sigma_8(0.61)$	0.47088	0.4709 ± 0.0041
A_{143}^{tSZ}	7.15	$5.5^{+2.1}_{-1.9}$	D_{1420}	818.39	817.7 ± 4.7	$\sigma_8(0.61)$	0.59138	0.5913 ± 0.0042
A_{100}^{PS}	250.1	259 ± 28	D_{2000}	231.31	231.0 ± 1.6	$f\sigma_8(2.33)$	0.29800	0.2980 ± 0.0022
A_{143}^{PS}	48.2	46 ± 8	$n_{s,0.002}$	0.96585	0.9651 ± 0.0041	$\sigma_8(2.33)$	0.30704	0.3070 ± 0.0024
$A_{143 \times 217}^{PS}$	48.7	42 ± 9	Y_P	0.245400	$0.245388^{+0.000060}_{-0.000053}$	$r_{0.002}$	0.0138	< 0.0303
A_{217}^{PS}	120.4	115 ± 10	Y_P^{BBN}	0.246727	$0.246715^{+0.000060}_{-0.000053}$	$r_{0.01}$	0.0145	< 0.0318
A^{kSZ}	0.00	< 4.22	$10^5 D/H$	2.5832	2.588 ± 0.027	$\ln(10^{10} A_t)$	-1.14	$-0.89^{+1.1}_{-0.42}$
A_{100}^{dustTT}	8.76	8.9 ± 1.8	Age/Gyr	13.7975	13.799 ± 0.023	r_{10}	0.0070	< 0.0155
A_{143}^{dustTT}	10.97	10.9 ± 1.8	z_*	1089.914	1089.95 ± 0.25	$10^9 A_t$	0.0321	$0.057^{+0.014}_{-0.057}$
$A_{143 \times 217}^{dustTT}$	19.84	18.5 ± 3.3	r_*	144.395	144.41 ± 0.26	$10^9 A_t e^{-2\tau}$	0.0288	$0.051^{+0.012}_{-0.051}$
A_{217}^{dustTT}	95.2	93.7 ± 7.3	$100\theta_*$	1.041074	1.04110 ± 0.00030	f_{2000}^{143}	28.76	29.5 ± 2.7
A_{100}^{dustTE}	0.1156	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.8698	13.871 ± 0.025	$f_{2000}^{143 \times 217}$	31.95	32.2 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1348	0.135 ± 0.029	z_{drag}	1059.971	1059.91 ± 0.30	f_{2000}^{217}	106.59	107.1 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.481	0.482 ± 0.085	r_{drag}	147.050	147.08 ± 0.26	$\chi^2_{lensing}$	8.863	9.28 ± 0.73
A_{143}^{dustTE}	0.223	0.226 ± 0.054	k_D	0.140921	0.14087 ± 0.00029	$\chi^2_{BKPLANCK}$	735.35	739.6 ± 2.6
$A_{143 \times 217}^{dustTE}$	0.664	0.667 ± 0.080	$100\theta_D$	0.160733	0.16077 ± 0.00017	χ^2_{small}	396.18	397.2 ± 1.8
A_{217}^{dustTE}	2.083	2.09 ± 0.27	z_{eq}	3405.0	3405 ± 27	χ^2_{lowl}	23.79	24.4 ± 1.1
c_{100}	0.99971	0.99967 ± 0.00061	k_{eq}	0.010392	0.010392 ± 0.000081	χ^2_{plik}	2344.5	2359.0 ± 5.6
c_{217}	0.99818	0.99819 ± 0.00062	$100\theta_{eq}$	0.81281	0.8128 ± 0.0050	χ^2_{prior}	1.72	13.2 ± 4.8
H_0	67.32	67.30 ± 0.53	$100\theta_{s,eq}$	0.44912	0.4491 ± 0.0026	χ^2_{CMB}	3508.7	3529.5 ± 6.5

Best-fit $\chi^2_{eff} = 3510.40$; $\bar{\chi}^2_{eff} = 3542.67$; $R - 1 = 0.00459$
 χ^2_{eff} : CMB - smicadx12_Dec5.ftl_mv2.ndclpp-p.teb.consext8: 8.86 BK15_dust: 735.35 small_100x143_offlike5_EE_Aplanck_B: 396.18 commander_dx12_v3.2.29: 23.79
plik_rd12_HM_v22b_TTTEEE: 2344.50

17.71 base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022426	0.02241 ± 0.00013	$\Omega_m h^2$	0.14249	0.14245 ± 0.00089	$H(0.51)$	89.760	89.75 ± 0.22
$\Omega_c h^2$	0.11941	0.11940 ± 0.00094	$\Omega_m h^3$	0.096367	0.09633 ± 0.00029	$D_M(0.51)$	1980.4	1980.5 ± 8.6
$100\theta_{MC}$	1.041001	1.04100 ± 0.00030	σ_8	0.8111	0.8112 ± 0.0059	$H(0.61)$	95.384	95.38 ± 0.18
τ	0.0560	0.0566 ± 0.0072	S_8	0.8265	0.827 ± 0.011	$D_M(0.61)$	2304.4	2304.6 ± 9.2
$\ln(10^{10} A_s)$	3.0474	3.048 ± 0.014	$\sigma_8 \Omega_m^{0.5}$	0.4527	0.4528 ± 0.0058	$H(2.33)$	236.24	236.21 ± 0.57
n_s	0.96753	0.9668 ± 0.0037	$\sigma_8 \Omega_m^{0.25}$	0.6060	0.6061 ± 0.0057	$D_M(2.33)$	5758.9	5759.4 ± 8.8
r	0.0181	< 0.0346	$\sigma_8/h^{0.5}$	0.9863	0.9865 ± 0.0083	$f\sigma_8(0.15)$	0.4573	0.4574 ± 0.0055
y_{cal}	1.00105	1.0010 ± 0.0025	$r_{drag}h$	99.54	99.55 ± 0.73	$\sigma_8(0.15)$	0.7495	0.7496 ± 0.0054
$A_{B,dust}$	4.61	$4.86^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.4378	2.440 ± 0.020	$f\sigma_8(0.38)$	0.47564	0.4757 ± 0.0046
$A_{B,sync}$	1.44	$1.62^{+0.53}_{-1.4}$	z_{re}	7.83	7.88 ± 0.71	$\sigma_8(0.38)$	0.66437	0.6645 ± 0.0047
$\alpha_{B,dust}$	-0.503	$-0.56^{+0.22}_{-0.32}$	$10^9 A_s$	2.1060	2.108 ± 0.030	$f\sigma_8(0.51)$	0.47424	0.4743 ± 0.0042
$\beta_{B,dust}$	1.578	1.596 ± 0.097	$10^9 A_s e^{-2\tau}$	1.8829	1.882 ± 0.011	$\sigma_8(0.51)$	0.62174	0.6219 ± 0.0045
$\alpha_{B,sync}$	-0.34	—	D_{40}	1233.5	1239 ± 12	$f\sigma_8(0.61)$	0.46926	0.4693 ± 0.0039
$\beta_{B,sync}$	-3.036	-3.10 ± 0.28	D_{220}	5738.5	5740 ± 38	$\sigma_8(0.61)$	0.59160	0.5917 ± 0.0043
$\epsilon_{dust,sync}$	-0.344	-0.34 ± 0.29	D_{810}	2542.6	2541 ± 13	$f\sigma_8(2.33)$	0.29829	0.2983 ± 0.0022
A_{217}^{CIB}	47.4	47 ± 7	D_{1420}	819.32	818.4 ± 4.7	$\sigma_8(2.33)$	0.30752	0.3076 ± 0.0023
$\xi^{tSZ \times CIB}$	0.40	—	D_{2000}	231.65	231.3 ± 1.5	$r_{0.002}$	0.0164	< 0.0315
A_{143}^{tSZ}	7.24	$5.5^{+2.1}_{-1.9}$	$n_{s,0.002}$	0.96753	0.9668 ± 0.0037	$r_{0.01}$	0.0173	< 0.0330
A_{100}^{PS}	250.6	258 ± 28	Y_P	0.245417	$0.245409^{+0.000055}_{-0.000047}$	$\ln(10^{10} A_t)$	-0.96	$-0.86^{+1.1}_{-0.42}$
A_{143}^{PS}	46.7	45 ± 8	Y_P^{BBN}	0.246744	$0.246736^{+0.000055}_{-0.000047}$	r_{10}	0.0084	< 0.0161
$A_{143 \times 217}^{PS}$	46.4	42 ± 9	$10^5 D/H$	2.5751	2.579 ± 0.025	$10^9 A_t$	0.0382	< 0.0728
A_{217}^{PS}	119.4	115 ± 10	Age/Gyr	13.7870	13.788 ± 0.020	$10^9 A_t e^{-2\tau}$	0.0341	< 0.0650
A^{kSZ}	0.00	< 4.15	z_*	1089.797	1089.82 ± 0.22	f_{2000}^{143}	28.74	29.2 ± 2.7
A_{100}^{dustTT}	8.84	8.9 ± 1.8	r_*	144.540	144.56 ± 0.22	$f_{2000}^{143 \times 217}$	31.89	32.0 ± 1.8
A_{143}^{dustTT}	11.04	10.9 ± 1.8	$100\theta_*$	1.041180	1.04118 ± 0.00029	f_{2000}^{217}	106.69	106.9 ± 1.8
$A_{143 \times 217}^{dustTT}$	19.76	18.6 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.8823	13.884 ± 0.021	$\chi^2_{lensing}$	8.739	9.10 ± 0.56
A_{217}^{dustTT}	95.0	93.7 ± 7.4	z_{drag}	1060.009	1059.98 ± 0.29	$\chi^2_{BKPLANCK}$	735.50	739.8 ± 2.6
A_{100}^{dustTE}	0.1147	0.115 ± 0.038	r_{drag}	147.185	147.21 ± 0.23	χ^2_{small}	396.42	397.5 ± 2.0
$A_{100 \times 143}^{dustTE}$	0.1352	0.135 ± 0.029	k_D	0.140812	0.14077 ± 0.00028	χ^2_{lowl}	23.54	24.1 ± 1.0
$A_{100 \times 217}^{dustTE}$	0.479	0.482 ± 0.085	$100\theta_D$	0.160713	0.16074 ± 0.00017	χ^2_{plik}	2344.7	2359.0 ± 5.6
A_{143}^{dustTE}	0.226	0.226 ± 0.054	z_{eq}	3389.6	3389 ± 21	χ^2_{6DF}	0.0372	0.058 ± 0.064
$A_{143 \times 217}^{dustTE}$	0.666	0.666 ± 0.080	k_{eq}	0.010345	0.010343 ± 0.000065	χ^2_{MGS}	1.156	1.22 ± 0.39
A_{217}^{dustTE}	2.075	2.08 ± 0.27	$100\theta_{eq}$	0.81578	0.8159 ± 0.0040	$\chi^2_{DR12BAO}$	4.61	4.9 ± 1.4
c_{100}	0.99969	0.99967 ± 0.00062	$100\theta_{s,eq}$	0.45064	0.4507 ± 0.0021	χ^2_{prior}	1.96	13.3 ± 4.8
c_{217}	0.99818	0.99819 ± 0.00062	$H(0.15)$	72.917	72.91 ± 0.37	χ^2_{CMB}	3508.9	3529.5 ± 6.4
H_0	67.632	67.63 ± 0.42	$D_M(0.15)$	641.01	641.1 ± 3.6	χ^2_{BAO}	5.80	6.2 ± 1.1
Ω_Λ	0.6885	0.6885 ± 0.0057	$H(0.38)$	83.038	83.03 ± 0.27			
Ω_m	0.3115	0.3115 ± 0.0057	$D_M(0.38)$	1528.8	1528.9 ± 7.3			

Best-fit $\chi^2_{eff} = 3516.64$; $\bar{\chi}^2_{eff} = 3549.03$; $R - 1 = 0.00581$
 χ^2_{eff} : BAO - 6DF: 0.04 MGS: 1.16 DR12BAO: 4.61 CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.74 BK15_dust: 735.50 simall_100x143_offlike5_EE_Aplanck_B: 396.42 commander_dx12_v3_2_29: 23.54 plik_rd12_HM_v22b_TTTEEE: 2344.67

17.72 base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02236 ± 0.00014	Ω_Λ	0.6842 ± 0.0072	$H(0.15)$	72.65 ± 0.45
$\Omega_c h^2$	0.1201 ± 0.0012	Ω_m	0.3158 ± 0.0072	$D_M(0.15)$	643.7 ± 4.5
$100\theta_{MC}$	1.04092 ± 0.00031	$\Omega_m h^2$	0.1431 ± 0.0011	$H(0.38)$	82.84 ± 0.33
τ	$0.0554^{+0.0054}_{-0.0078}$	$\Omega_m h^3$	0.09632 ± 0.00029	$D_M(0.38)$	1534.1 ± 9.1
$\ln(10^{10} A_s)$	$3.047^{+0.011}_{-0.015}$	σ_8	0.8126 ± 0.0056	$H(0.51)$	89.61 ± 0.26
n_s	0.9652 ± 0.0040	S_8	0.834 ± 0.013	$D_M(0.51)$	1987 ± 11
r	$0.0270^{+0.0065}_{-0.027}$	$\sigma_8 \Omega_m^{0.5}$	0.4566 ± 0.0069	$H(0.61)$	95.26 ± 0.21
y_{cal}	1.0009 ± 0.0025	$\sigma_8 \Omega_m^{0.25}$	0.6092 ± 0.0063	$D_M(0.61)$	2311 ± 11
$A_{B,dust}$	$4.86^{+0.81}_{-1.2}$	$\sigma_8/h^{0.5}$	0.9905 ± 0.0088	$H(2.33)$	236.60 ± 0.70
$A_{B,sync}$	$1.64^{+0.53}_{-1.3}$	$r_{drag} h$	99.02 ± 0.91	$D_M(2.33)$	5764 ± 10
$\alpha_{B,dust}$	$-0.56^{+0.22}_{-0.32}$	$\langle d^2 \rangle^{1/2}$	2.449 ± 0.021	$f\sigma_8(0.15)$	0.4609 ± 0.0064
$\beta_{B,dust}$	1.597 ± 0.096	z_{re}	$7.79^{+0.59}_{-0.75}$	$\sigma_8(0.15)$	$0.7505^{+0.0046}_{-0.0053}$
$\alpha_{B,sync}$	—	$10^9 A_s$	$2.106^{+0.024}_{-0.031}$	$f\sigma_8(0.38)$	0.4783 ± 0.0051
$\beta_{B,sync}$	-3.10 ± 0.28	$10^9 A_s e^{-2\tau}$	1.884 ± 0.011	$\sigma_8(0.38)$	$0.6648^{+0.0039}_{-0.0047}$
$\epsilon_{dust,sync}$	-0.34 ± 0.29	D_{40}	1241 ± 13	$f\sigma_8(0.51)$	0.4764 ± 0.0045
A_{217}^{CIB}	47 ± 7	D_{220}	5734 ± 38	$\sigma_8(0.51)$	$0.6220^{+0.0036}_{-0.0045}$
$\xi^{tSZ \times CIB}$	—	D_{810}	2541 ± 13	$f\sigma_8(0.61)$	0.4711 ± 0.0040
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{1420}	817.7 ± 4.7	$\sigma_8(0.61)$	$0.5917^{+0.0034}_{-0.0043}$
A_{100}^{PS}	259 ± 28	D_{2000}	231.0 ± 1.6	$f\sigma_8(2.33)$	$0.2982^{+0.0018}_{-0.0022}$
A_{143}^{PS}	46 ± 8	$n_{s,0.002}$	0.9652 ± 0.0040	$\sigma_8(2.33)$	$0.3072^{+0.0019}_{-0.0024}$
$A_{143 \times 217}^{PS}$	42 ± 9	Y_P	$0.245390^{+0.000060}_{-0.000052}$	$r_{0.002}$	< 0.0303
A_{217}^{PS}	115 ± 10	Y_P^{BBN}	$0.246716^{+0.000060}_{-0.000053}$	$r_{0.01}$	< 0.0318
A^{kSZ}	< 4.20	$10^5 D/H$	2.588 ± 0.027	$\ln(10^{10} A_t)$	$-0.89^{+1.1}_{-0.42}$
A_{100}^{dustTT}	8.9 ± 1.8	Age/Gyr	13.799 ± 0.023	r_{10}	< 0.0155
A_{143}^{dustTT}	10.9 ± 1.8	z_*	1089.94 ± 0.25	$10^9 A_t$	$0.057^{+0.014}_{-0.057}$
$A_{143 \times 217}^{dustTT}$	18.5 ± 3.3	r_*	144.42 ± 0.26	$10^9 A_t e^{-2\tau}$	$0.051^{+0.012}_{-0.051}$
A_{217}^{dustTT}	93.7 ± 7.3	$100\theta_*$	1.04110 ± 0.00030	f_{2000}^{143}	29.5 ± 2.7
A_{100}^{dustTE}	0.115 ± 0.038	$D_M(z_*)/\text{Gpc}$	13.872 ± 0.024	$f_{2000}^{143 \times 217}$	32.2 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029	z_{drag}	1059.92 ± 0.29	f_{2000}^{217}	107.0 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.482 ± 0.085	r_{drag}	147.08 ± 0.26	$\chi_{lensing}^2$	9.27 ± 0.73
A_{143}^{dustTE}	0.226 ± 0.054	k_D	0.14087 ± 0.00029	$\chi_{BKPLANCK}^2$	739.6 ± 2.6
$A_{143 \times 217}^{dustTE}$	0.667 ± 0.080	$100\theta_D$	0.16077 ± 0.00017	χ_{simall}^2	397.2 ± 1.8
A_{217}^{dustTE}	2.09 ± 0.27	z_{eq}	3404 ± 26	χ_{lowl}^2	24.4 ± 1.1
c_{100}	0.99967 ± 0.00061	k_{eq}	0.010388 ± 0.000080	χ_{plik}^2	2358.9 ± 5.6
c_{217}	0.99819 ± 0.00062	$100\theta_{eq}$	0.8130 ± 0.0050	χ_{prior}^2	13.2 ± 4.8
H_0	67.32 ± 0.53	$100\theta_{s,eq}$	0.4493 ± 0.0025	χ_{CMB}^2	3529.3 ± 6.4

$$\bar{\chi}_{\text{eff}}^2 = 3542.49; R - 1 = 0.00477$$

17.73 base_r_plikHM_TTTEEE_lowl_lowE_BK15_lensing_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02241 ± 0.00013	$\Omega_m h^2$	0.14244 ± 0.00089	$H(0.51)$	89.76 ± 0.22
$\Omega_c h^2$	0.11938 ± 0.00093	$\Omega_m h^3$	0.09633 ± 0.00029	$D_M(0.51)$	1980.4 ± 8.5
$100\theta_{MC}$	1.04101 ± 0.00030	σ_8	$0.8115^{+0.0053}_{-0.0060}$	$H(0.61)$	95.38 ± 0.18
τ	$0.0571^{+0.0059}_{-0.0075}$	S_8	0.827 ± 0.011	$D_M(0.61)$	2304.5 ± 9.2
$\ln(10^{10} A_s)$	$3.049^{+0.012}_{-0.014}$	$\sigma_8 \Omega_m^{0.5}$	0.4529 ± 0.0058	$H(2.33)$	236.20 ± 0.57
n_s	0.9668 ± 0.0036	$\sigma_8 \Omega_m^{0.25}$	0.6062 ± 0.0056	$D_M(2.33)$	5759.3 ± 8.8
r	< 0.0346	$\sigma_8/h^{0.5}$	0.9868 ± 0.0082	$f\sigma_8(0.15)$	0.4575 ± 0.0054
y_{cal}	1.0010 ± 0.0025	$r_{drag} h$	99.57 ± 0.72	$\sigma_8(0.15)$	$0.7499^{+0.0047}_{-0.0055}$
$A_{B,dust}$	$4.86^{+0.82}_{-1.2}$	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.020	$f\sigma_8(0.38)$	0.4758 ± 0.0045
$A_{B,sync}$	$1.62^{+0.53}_{-1.4}$	z_{re}	$7.93^{+0.62}_{-0.72}$	$\sigma_8(0.38)$	$0.6648^{+0.0041}_{-0.0048}$
$\alpha_{B,dust}$	$-0.56^{+0.21}_{-0.32}$	$10^9 A_s$	$2.110^{+0.025}_{-0.031}$	$f\sigma_8(0.51)$	0.4745 ± 0.0041
$\beta_{B,dust}$	1.596 ± 0.097	$10^9 A_s e^{-2\tau}$	1.882 ± 0.010	$\sigma_8(0.51)$	$0.6221^{+0.0038}_{-0.0046}$
$\alpha_{B,sync}$	—	D_{40}	1239 ± 12	$f\sigma_8(0.61)$	0.4695 ± 0.0038
$\beta_{B,sync}$	-3.10 ± 0.28	D_{220}	5740 ± 38	$\sigma_8(0.61)$	$0.5920^{+0.0036}_{-0.0044}$
$\epsilon_{dust,sync}$	-0.34 ± 0.29	D_{810}	2541 ± 13	$f\sigma_8(2.33)$	$0.2985^{+0.0019}_{-0.0022}$
A_{217}^{CIB}	47 ± 7	D_{1420}	818.4 ± 4.7	$\sigma_8(2.33)$	$0.3077^{+0.0020}_{-0.0024}$
$\xi^{tSZ \times CIB}$	—	D_{2000}	231.3 ± 1.5	$r_{0.002}$	< 0.0315
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$n_{s,0.002}$	0.9668 ± 0.0036	$r_{0.01}$	< 0.0330
A_{100}^{PS}	258 ± 28	Y_P	$0.245410^{+0.000054}_{-0.000047}$	$\ln(10^{10} A_t)$	$-0.86^{+1.1}_{-0.42}$
A_{143}^{PS}	45 ± 8	Y_P^{BBN}	$0.246736^{+0.000055}_{-0.000047}$	r_{10}	< 0.0161
$A_{143 \times 217}^{PS}$	42 ± 9	$10^5 D/H$	2.578 ± 0.024	$10^9 A_t$	$0.059^{+0.014}_{-0.059}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.788 ± 0.020	$10^9 A_t e^{-2\tau}$	$0.052^{+0.013}_{-0.052}$
A^{kSZ}	< 4.15	z_*	1089.81 ± 0.21	f_{2000}^{143}	29.2 ± 2.7
A_{100}^{dustTT}	8.9 ± 1.8	r_*	144.56 ± 0.22	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
A_{143}^{dustTT}	10.9 ± 1.8	$100\theta_*$	1.04119 ± 0.00029	f_{2000}^{217}	106.9 ± 1.8
$A_{143 \times 217}^{dustTT}$	18.6 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.884 ± 0.021	$\chi_{lensing}^2$	9.08 ± 0.54
A_{217}^{dustTT}	93.7 ± 7.4	z_{drag}	1059.99 ± 0.29	$\chi_{BKPLANCK}^2$	739.8 ± 2.6
A_{100}^{dustTE}	0.115 ± 0.038	r_{drag}	147.21 ± 0.23	χ_{simall}^2	397.5 ± 2.0
$A_{100 \times 143}^{dustTE}$	0.135 ± 0.029	k_D	0.14077 ± 0.00028	χ_{lowl}^2	24.1 ± 1.0
$A_{100 \times 217}^{dustTE}$	0.482 ± 0.085	$100\theta_D$	0.16074 ± 0.00017	χ_{plik}^2	2358.9 ± 5.6
A_{143}^{dustTE}	0.226 ± 0.054	z_{eq}	3388 ± 21	χ_{6DF}^2	0.057 ± 0.063
$A_{143 \times 217}^{dustTE}$	0.666 ± 0.080	k_{eq}	0.010342 ± 0.000065	χ_{MGS}^2	1.22 ± 0.39
A_{217}^{dustTE}	2.08 ± 0.27	$100\theta_{eq}$	0.8160 ± 0.0040	$\chi_{DR12BAO}^2$	4.9 ± 1.4
c_{100}	0.99967 ± 0.00062	$100\theta_{s,eq}$	0.4508 ± 0.0020	χ_{prior}^2	13.3 ± 4.8
c_{217}	0.99819 ± 0.00062	$H(0.15)$	72.92 ± 0.36	χ_{CMB}^2	3529.4 ± 6.4
H_0	67.64 ± 0.42	$D_M(0.15)$	641.0 ± 3.6	χ_{BAO}^2	6.2 ± 1.1
Ω_Λ	0.6886 ± 0.0057	$H(0.38)$	83.04 ± 0.27		
Ω_m	0.3114 ± 0.0057	$D_M(0.38)$	1528.8 ± 7.2		

$\bar{\chi}_{eff}^2 = 3548.89$; $R - 1 = 0.00600$

18 w

18.1 base_w_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022222	0.02215 ± 0.00022 (+0.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4077	$0.431^{+0.016}_{-0.023}$ (-2.2 σ)	$100\theta_{s,eq}$	0.44903	0.4487 ± 0.0046 (+0.1 σ)
$\Omega_c h^2$	0.12025	0.1205 ± 0.0021 (-0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6626	$0.643^{+0.023}_{-0.018}$ (+2.7 σ)	$H(0.15)$	88.71	$81.8^{+6.6}_{-2.8}$ (+12.2 σ)
$100\theta_{MC}$	1.040876	1.04080 ± 0.00047 (+0.1 σ)	$\sigma_8/h^{0.5}$	1.0772	$1.045^{+0.037}_{-0.026}$ (+3.3 σ)	$D_M(0.15)$	480.8	547^{+20}_{-65} (-12.7 σ)
τ	0.0523	0.0516 ± 0.0079 (-0.1 σ)	$r_{drag}h$	147.1	125^{+20}_{-8} (+16.6 σ)	$H(0.38)$	84.31	$84.0^{+1.1}_{-0.89}$ (+2.6 σ)
w_0	-1.971	$-1.56^{+0.19}_{-0.39}$	$\langle d^2 \rangle^{1/2}$	2.5278	$2.504^{+0.048}_{-0.042}$ (+1.3 σ)	$D_M(0.38)$	1288	1386^{+34}_{-98} (-9.9 σ)
$\ln(10^{10} A_s)$	3.0403	3.039 ± 0.016 (-0.1 σ)	z_{re}	7.44	$7.38^{+0.83}_{-0.72}$ (-0.1 σ)	$H(0.51)$	86.62	$88.1^{+1.4}_{-0.86}$ (-2.7 σ)
n_s	0.9647	0.9630 ± 0.0057 (+0.1 σ)	$10^9 A_s$	2.0912	2.088 ± 0.034 (-0.1 σ)	$D_M(0.51)$	1745	1840^{+35}_{-97} (-8.5 σ)
y_{cal}	1.00031	1.0004 ± 0.0024 (-0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8835	1.884 ± 0.013 (-0.0 σ)	$H(0.61)$	90.06	$92.4^{+1.6}_{-1.9}$ (-7.4 σ)
A_{217}^{CIB}	48.3	48 ± 7 (-0.0 σ)	D_{40}	1225.0	1230 ± 15 (-0.3 σ)	$D_M(0.61)$	2085	2172^{+34}_{-92} (-7.5 σ)
$\xi^{tSZ \times CIB}$	0.38	—	D_{220}	5717.3	5716 ± 41 (+0.1 σ)	$H(2.33)$	230.54	$232.3^{+1.4}_{-2.7}$ (-3.5 σ)
A_{143}^{tSZ}	6.98	5.1 ± 2.0 (+0.0 σ)	D_{810}	2537.0	2535 ± 13 (-0.1 σ)	$D_M(2.33)$	5737.5	5750^{+18}_{-23} (-1.7 σ)
A_{100}^{PS}	253.0	263 ± 28 (-0.0 σ)	D_{1420}	815.4	814.0 ± 5.0 (-0.1 σ)	$f\sigma_8(0.15)$	0.5108	0.491 ± 0.021 (+2.3 σ)
A_{143}^{PS}	49.1	49 ± 8 (-0.1 σ)	D_{2000}	230.40	229.7 ± 1.8 (+0.1 σ)	$\sigma_8(0.15)$	1.015	$0.901^{+0.11}_{-0.052}$ (+20.2 σ)
$A_{143 \times 217}^{PS}$	47.5	43 ± 9 (-0.0 σ)	$n_{s,0.002}$	0.9647	0.9630 ± 0.0057 (+0.1 σ)	$f\sigma_8(0.38)$	0.648	$0.574^{+0.066}_{-0.045}$ (+9.8 σ)
A_{217}^{PS}	119.3	115 ± 10 (+0.0 σ)	Y_P	0.245335	$0.24530^{+0.00010}_{-0.000082}$ (+0.2 σ)	$\sigma_8(0.38)$	0.908	$0.803^{+0.099}_{-0.046}$ (+23.2 σ)
A^{kSZ}	0.00	< 4.73 (-0.0 σ)	Y_P^{BBN}	0.246661	$0.24663^{+0.00010}_{-0.000082}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.680	$0.590^{+0.080}_{-0.049}$ (+13.8 σ)
A_{100}^{dustTT}	8.88	8.9 ± 1.8 (-0.0 σ)	$10^5 D/H$	2.6136	2.627 ± 0.042 (-0.2 σ)	$\sigma_8(0.51)$	0.849	$0.751^{+0.092}_{-0.042}$ (+23.9 σ)
A_{143}^{dustTT}	10.76	10.7 ± 1.8 (-0.0 σ)	Age/Gyr	13.451	$13.592^{+0.055}_{-0.15}$ (-6.5 σ)	$f\sigma_8(0.61)$	0.685	$0.591^{+0.086}_{-0.048}$ (+16.5 σ)
$A_{143 \times 217}^{dustTT}$	19.35	18.2 ± 3.3 (-0.0 σ)	z_*	1090.128	1090.24 ± 0.40 (-0.2 σ)	$\sigma_8(0.61)$	0.805	$0.713^{+0.087}_{-0.039}$ (+24.0 σ)
A_{217}^{dustTT}	94.5	93.3 ± 7.3 (-0.0 σ)	r_*	144.479	144.48 ± 0.48 (+0.0 σ)	$f\sigma_8(2.33)$	0.4006	$0.357^{+0.041}_{-0.017}$ (+23.7 σ)
c_{100}	0.99965	0.99961 ± 0.00062 (-0.0 σ)	$100\theta_*$	1.041078	1.04101 ± 0.00046 (+0.1 σ)	$\sigma_8(2.33)$	0.4011	$0.360^{+0.039}_{-0.017}$ (+20.3 σ)
c_{217}	0.99823	0.99825 ± 0.00063 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8778	13.879 ± 0.044 (+0.0 σ)	f_{2000}^{143}	29.71	30.9 ± 2.9 (-0.1 σ)
H_0	99.9	> 80.4 (+19.7 σ)	z_{drag}	1059.628	1059.46 ± 0.45 (+0.2 σ)	$f_{2000}^{143 \times 217}$	32.74	33.4 ± 2.0 (-0.1 σ)
Ω_Λ	0.8566	$0.792^{+0.065}_{-0.017}$ (+8.6 σ)	r_{drag}	147.188	147.22 ± 0.48 (+0.0 σ)	f_{2000}^{217}	107.21	107.9 ± 1.9 (-0.1 σ)
Ω_m	0.1434	$0.208^{+0.017}_{-0.065}$ (-8.6 σ)	k_D	0.14065	0.14056 ± 0.00053 (+0.0 σ)	χ_{small}^2	395.73	396.8 ± 1.6 (-0.1 σ)
$\Omega_m h^2$	0.14312	0.1433 ± 0.0020 (-0.1 σ)	$100\theta_D$	0.160950	0.16104 ± 0.00026 (-0.1 σ)	χ_{lowl}^2	22.64	23.2 ± 1.2 (-0.5 σ)
$\Omega_m h^3$	0.1430	$0.122^{+0.019}_{-0.0092}$ (+56.5 σ)	z_{eq}	3404.7	3408 ± 47 (-0.1 σ)	χ_{plik}^2	756.6	770.0 ± 5.4 (-0.3 σ)
σ_8	1.077	$0.963^{+0.11}_{-0.053}$ (+16.9 σ)	k_{eq}	0.010392	0.01040 ± 0.00014 (-0.1 σ)	χ_{prior}^2	1.29	7.2 ± 3.6 (-0.0 σ)
S_8	0.7444	$0.787^{+0.030}_{-0.042}$ (-2.2 σ)	$100\theta_{eq}$	0.8124	0.8117 ± 0.0089 (+0.1 σ)	χ_{CMB}^2	1175.0	1190.0 ± 5.7 (-0.4 σ)

Best-fit $\chi_{eff}^2 = 1176.30$; $\Delta\chi_{eff}^2 = -3.28$; $\bar{\chi}_{eff}^2 = 1197.21$; $\Delta\bar{\chi}_{eff}^2 = -2.37$; $R - 1 = 0.00888$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.73 (Δ -0.14) commander_dx12_v3.2.29: 22.64 (Δ -0.96) plik_rd12_HM_v22.TT: 756.63 (Δ -2.12)

18.2 base_w_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022274	0.02221 ± 0.00021 (+0.3 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6517	$0.635^{+0.018}_{-0.013}$ (+3.5 σ)	$D_M(0.15)$	479.2	543^{+20}_{-63} (−17.0 σ)
$\Omega_c h^2$	0.11880	0.1193 ± 0.0016 (−0.6 σ)	$\sigma_8/h^{0.5}$	1.0622	$1.034^{+0.029}_{-0.019}$ (+4.3 σ)	$H(0.38)$	84.97	$84.4^{+1.0}_{-0.69}$ (+4.1 σ)
$100\theta_{MC}$	1.040976	1.04092 ± 0.00045 (+0.3 σ)	$r_{drag}h$	147.4	126^{+20}_{-8} (+22.5 σ)	$D_M(0.38)$	1280	1378^{+33}_{-97} (−13.3 σ)
τ	0.0519	0.0508 ± 0.0078 (−0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.5004	$2.482^{+0.031}_{-0.028}$ (+1.4 σ)	$H(0.51)$	87.18	$88.5^{+1.1}_{-0.73}$ (−2.6 σ)
w_0	−1.928	$-1.54^{+0.17}_{-0.37}$	z_{re}	7.37	$7.27^{+0.84}_{-0.70}$ (−0.3 σ)	$D_M(0.51)$	1734	1829^{+34}_{-96} (−11.5 σ)
$\ln(10^{10} A_s)$	3.0353	$3.034^{+0.015}_{-0.014}$ (−0.4 σ)	$10^9 A_s$	2.0807	2.079 ± 0.031 (−0.4 σ)	$H(0.61)$	90.51	$92.7^{+1.4}_{-1.7}$ (−8.2 σ)
n_s	0.96759	0.9654 ± 0.0049 (+0.4 σ)	$10^9 A_s e^{-2\tau}$	1.8757	1.878 ± 0.011 (−0.4 σ)	$D_M(0.61)$	2072	2161^{+33}_{-91} (−10.3 σ)
y_{cal}	1.00002	1.0002 ± 0.0024 (−0.1 σ)	D_{40}	1217.1	1223 ± 13 (−0.7 σ)	$H(2.33)$	229.51	$231.5^{+1.1}_{-2.6}$ (−5.2 σ)
A_{217}^{CIB}	48.5	48 ± 7 (−0.0 σ)	D_{220}	5717.8	5718 ± 40 (+0.1 σ)	$D_M(2.33)$	5729.4	5743^{+15}_{-22} (−2.3 σ)
$\xi^{tSZ \times CIB}$	0.32	—	D_{810}	2533.5	2533 ± 13 (−0.2 σ)	$f\sigma_8(0.15)$	0.4978	0.482 ± 0.015 (+2.6 σ)
A_{143}^{tSZ}	7.03	5.1 ± 2.0 (+0.0 σ)	D_{1420}	815.05	814.1 ± 5.0 (−0.1 σ)	$\sigma_8(0.15)$	1.001	$0.893^{+0.10}_{-0.046}$ (+26.0 σ)
A_{100}^{PS}	253.3	263 ± 28 (−0.0 σ)	D_{2000}	230.24	229.7 ± 1.8 (+0.1 σ)	$f\sigma_8(0.38)$	0.6319	$0.564^{+0.059}_{-0.037}$ (+13.9 σ)
A_{143}^{PS}	48.2	48 ± 8 (−0.1 σ)	$n_{s,0.002}$	0.96759	0.9654 ± 0.0049 (+0.4 σ)	$\sigma_8(0.38)$	0.898	$0.798^{+0.093}_{-0.042}$ (+27.6 σ)
$A_{143 \times 217}^{PS}$	46.0	43 ± 9 (−0.0 σ)	Y_P	0.245357	$0.245326^{+0.000094}_{-0.000079}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.664	$0.581^{+0.073}_{-0.042}$ (+19.9 σ)
A_{217}^{PS}	118.6	115 ± 10 (−0.0 σ)	Y_P^{BBN}	0.246683	$0.246652^{+0.000095}_{-0.000079}$ (+0.3 σ)	$\sigma_8(0.51)$	0.839	$0.746^{+0.087}_{-0.038}$ (+27.4 σ)
A^{kSZ}	0.01	< 4.85 (−0.0 σ)	$10^5 D/H$	2.6037	2.617 ± 0.040 (−0.3 σ)	$f\sigma_8(0.61)$	0.671	$0.583^{+0.079}_{-0.042}$ (+24.0 σ)
A_{100}^{dustTT}	8.97	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.437	$13.576^{+0.056}_{-0.14}$ (−7.8 σ)	$\sigma_8(0.61)$	0.797	$0.709^{+0.082}_{-0.036}$ (+26.9 σ)
A_{143}^{dustTT}	10.84	10.7 ± 1.8 (+0.0 σ)	z_*	1089.935	1090.07 ± 0.35 (−0.5 σ)	$f\sigma_8(2.33)$	0.3973	$0.356^{+0.039}_{-0.016}$ (+25.0 σ)
$A_{143 \times 217}^{dustTT}$	19.40	18.3 ± 3.3 (+0.0 σ)	r_*	144.816	144.73 ± 0.38 (+0.5 σ)	$\sigma_8(2.33)$	0.3980	$0.359^{+0.036}_{-0.016}$ (+20.4 σ)
A_{217}^{dustTT}	94.5	93.2 ± 7.3 (+0.0 σ)	$100\theta_*$	1.041175	1.04112 ± 0.00044 (+0.2 σ)	f_{2000}^{143}	29.77	30.9 ± 2.9 (−0.1 σ)
c_{100}	0.99967	0.99962 ± 0.00062 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9089	13.901 ± 0.035 (+0.4 σ)	$f_{2000}^{143 \times 217}$	32.73	33.3 ± 2.0 (−0.2 σ)
c_{217}	0.99825	0.99825 ± 0.00064 (−0.0 σ)	z_{drag}	1059.628	1059.51 ± 0.45 (+0.2 σ)	f_{2000}^{217}	107.17	107.8 ± 1.9 (−0.2 σ)
H_0	99.9	> 81.1 (+26.2 σ)	r_{drag}	147.518	147.45 ± 0.39 (+0.4 σ)	$\chi_{lensing}^2$	8.41	9.0 ± 1.2 (−0.5 σ)
Ω_Λ	0.8581	$0.796^{+0.062}_{-0.016}$ (+11.8 σ)	k_D	0.140344	0.14036 ± 0.00046 (−0.2 σ)	χ_{small}^2	395.65	396.6 ± 1.3 (−0.2 σ)
Ω_m	0.1419	$0.204^{+0.016}_{-0.062}$ (−11.8 σ)	$100\theta_D$	0.160939	0.16101 ± 0.00026 (−0.2 σ)	χ_{lowl}^2	22.16	22.74 ± 0.94 (−0.9 σ)
$\Omega_m h^2$	0.14172	0.1422 ± 0.0015 (−0.5 σ)	z_{eq}	3371.1	3382 ± 36 (−0.5 σ)	χ_{plik}^2	757.7	770.3 ± 5.3 (−0.2 σ)
$\Omega_m h^3$	0.1416	$0.121^{+0.019}_{-0.0087}$ (+56.6 σ)	k_{eq}	0.010289	0.01032 ± 0.00011 (−0.5 σ)	χ_{prior}^2	1.32	7.3 ± 3.7 (−0.0 σ)
σ_8	1.062	$0.955^{+0.098}_{-0.047}$ (+22.9 σ)	$100\theta_{eq}$	0.8187	0.8165 ± 0.0069 (+0.6 σ)	χ_{CMB}^2	1183.9	1198.7 ± 5.6 (−0.4 σ)
S_8	0.7303	$0.774^{+0.025}_{-0.042}$ (−3.8 σ)	$100\theta_{s,eq}$	0.45226	0.4512 ± 0.0035 (+0.6 σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4000	$0.424^{+0.014}_{-0.023}$ (−3.8 σ)	$H(0.15)$	89.23	$82.3^{+6.6}_{-2.8}$ (+16.4 σ)			

Best-fit $\chi_{\text{eff}}^2 = 1185.20$; $\Delta\chi_{\text{eff}}^2 = -3.37$; $\bar{\chi}_{\text{eff}}^2 = 1205.98$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.44$; $R - 1 = 0.01136$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.41 (Δ -0.49) small_100x143_offlike5_EE_Aplanck_B: 395.65 (Δ -0.21) commander_dx12_v3_2_29: 22.16 (Δ -1.07) plik_rd12_HM_v22_TT: 757.66 (Δ -1.66)

18.3 base_w_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022155	0.02212 ± 0.00021 (-1.2σ)	$\sigma_8 \Omega_m^{0.25}$	0.6270	0.626 ± 0.014 $(+2.9\sigma)$	$D_M(0.15)$	601.1	602 ± 10 (-4.5σ)
$\Omega_c h^2$	0.12060	0.1206 ± 0.0020 $(+1.8\sigma)$	$\sigma_8/h^{0.5}$	1.0189	1.017 ± 0.020 $(+3.1\sigma)$	$H(0.38)$	83.57	83.51 ± 0.55 (-0.0σ)
$100\theta_{MC}$	1.040794	1.04076 ± 0.00046 (-1.1σ)	$r_{drag}h$	108.44	108.4 ± 2.5 $(+4.7\sigma)$	$D_M(0.38)$	1467.9	1469 ± 17 (-3.2σ)
τ	0.0524	0.0512 ± 0.0079 (-0.6σ)	$\langle d^2 \rangle^{1/2}$	2.4817	2.481 ± 0.042 $(+2.2\sigma)$	$H(0.51)$	89.24	89.18 ± 0.55 (-2.2σ)
w_0	-1.225	-1.227 ± 0.067	z_{re}	7.51	$7.37^{+0.79}_{-0.71}$ (-0.5σ)	$D_M(0.51)$	1919.5	1921 ± 19 (-2.6σ)
$\ln(10^{10} A_s)$	3.0411	3.038 ± 0.016 (-0.1σ)	$10^9 A_s$	2.0927	2.087 ± 0.034 (-0.1σ)	$H(0.61)$	94.25	94.20 ± 0.58 (-4.1σ)
n_s	0.9638	0.9626 ± 0.0058 (-1.6σ)	$10^9 A_s e^{-2\tau}$	1.8846	1.884 ± 0.013 $(+1.0\sigma)$	$D_M(0.61)$	2246.5	2248 ± 19 (-2.1σ)
y_{cal}	1.00029	1.0003 ± 0.0024 (-0.1σ)	D_{40}	1229.2	1231 ± 15 $(+1.0\sigma)$	$H(2.33)$	234.03	234.0 ± 1.1 (-0.6σ)
A_{217}^{CIB}	48.5	48 ± 7 $(+0.0\sigma)$	D_{220}	5711.3	5712 ± 38 (-0.5σ)	$D_M(2.33)$	5758.2	5760 ± 15 $(+0.6\sigma)$
$\xi^{tSZ \times CIB}$	0.35	—	D_{810}	2537.2	2535 ± 13 $(+0.0\sigma)$	$f\sigma_8(0.15)$	0.4756	0.475 ± 0.015 $(+2.8\sigma)$
A_{143}^{tSZ}	6.98	5.1 ± 2.0 (-0.0σ)	D_{1420}	815.2	813.9 ± 5.0 (-0.6σ)	$\sigma_8(0.15)$	0.8120	0.811 ± 0.021 $(+8.5\sigma)$
A_{100}^{PS}	254.4	262 ± 28 $(+0.0\sigma)$	D_{2000}	230.06	$229.5^{+1.7}_{-1.9}$ (-0.6σ)	$f\sigma_8(0.38)$	0.5164	0.516 ± 0.018 $(+5.5\sigma)$
A_{143}^{PS}	49.6	49^{+8}_{-8} $(+0.2\sigma)$	$n_{s,0.002}$	0.9638	0.9626 ± 0.0058 (-1.6σ)	$\sigma_8(0.38)$	0.7213	0.720 ± 0.018 $(+9.3\sigma)$
$A_{143 \times 217}^{PS}$	47.6	44 ± 9 $(+0.1\sigma)$	Y_P	0.245307	0.245286 ± 0.000094 (-1.2σ)	$f\sigma_8(0.51)$	0.5212	0.521 ± 0.019 $(+6.8\sigma)$
A_{217}^{PS}	119.6	115 ± 10 $(+0.1\sigma)$	Y_P^{BBN}	0.246633	0.246613 ± 0.000094 (-1.2σ)	$\sigma_8(0.51)$	0.6747	0.673 ± 0.017 $(+9.4\sigma)$
A^{kSZ}	0.02	< 4.77 $(+0.0\sigma)$	$10^5 D/H$	2.6266	2.634 ± 0.041 $(+1.2\sigma)$	$f\sigma_8(0.61)$	0.5185	0.518 ± 0.018 $(+7.7\sigma)$
A_{100}^{dustTT}	8.90	8.9 ± 1.8 (-0.1σ)	Age/Gyr	13.7052	13.711 ± 0.035 (-1.8σ)	$\sigma_8(0.61)$	0.6415	0.640 ± 0.016 $(+9.4\sigma)$
A_{143}^{dustTT}	10.82	10.8 ± 1.8 $(+0.1\sigma)$	z_*	1090.247	1090.30 ± 0.39 $(+1.7\sigma)$	$f\sigma_8(2.33)$	0.3232	0.3225 ± 0.0074 $(+9.4\sigma)$
$A_{143 \times 217}^{dustTT}$	19.30	$18.3^{+3.4}_{-3.0}$ $(+0.1\sigma)$	r_*	144.440	144.47 ± 0.47 (-1.6σ)	$\sigma_8(2.33)$	0.3286	0.3280 ± 0.0065 $(+7.6\sigma)$
A_{217}^{dustTT}	94.4	93.3 ± 7.1 $(+0.0\sigma)$	$100\theta_*$	1.041004	1.04097 ± 0.00045 (-1.1σ)	f_{2000}^{143}	30.16	31.1 ± 2.9 $(+0.3\sigma)$
c_{100}	0.99967	0.99963 ± 0.00063 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8750	13.878 ± 0.044 (-1.5σ)	$f_{2000}^{143 \times 217}$	33.14	33.6 ± 2.0 $(+0.4\sigma)$
c_{217}	0.99824	0.99828 ± 0.00063 $(+0.0\sigma)$	z_{drag}	1059.475	1059.39 ± 0.45 (-0.7σ)	f_{2000}^{217}	107.55	108.1 ± 2.0 $(+0.3\sigma)$
H_0	73.68	73.7 ± 1.7 $(+6.1\sigma)$	r_{drag}	147.172	147.21 ± 0.48 (-1.4σ)	χ_{simall}^2	395.82	396.8 ± 1.7 (-0.3σ)
Ω_Λ	0.7358	0.735 ± 0.012 $(+3.1\sigma)$	k_D	0.14062	0.14054 ± 0.00052 $(+0.9\sigma)$	χ_{lowl}^2	23.23	23.5 ± 1.2 $(+1.2\sigma)$
Ω_m	0.2642	0.265 ± 0.012 (-3.1σ)	$100\theta_D$	0.161022	0.16107 ± 0.00026 $(+0.6\sigma)$	χ_{plik}^2	757.77	770.5 ± 5.4 (-0.8σ)
$\Omega_m h^2$	0.14340	0.1434 ± 0.0020 $(+1.8\sigma)$	z_{eq}	3411.5	3411 ± 47 $(+1.8\sigma)$	$\chi_{H073p45}^2$	0.019	1.0 ± 1.4 (-2.6σ)
$\Omega_m h^3$	0.10566	0.1056 ± 0.0028 $(+20.4\sigma)$	k_{eq}	0.010412	0.01041 ± 0.00014 $(+1.8\sigma)$	χ_{prior}^2	1.28	7.2 ± 3.6 (-0.1σ)
σ_8	0.8746	0.873 ± 0.022 $(+7.6\sigma)$	$100\theta_{eq}$	0.8110	0.8111 ± 0.0087 (-1.8σ)	χ_{CMB}^2	1176.8	1190.8 ± 5.6 (-0.7σ)
S_8	0.8207	0.820 ± 0.021 $(+0.9\sigma)$	$100\theta_{s,eq}$	0.44832	0.4484 ± 0.0045 (-1.8σ)			
$\sigma_8 \Omega_m^{0.5}$	0.4495	0.449 ± 0.012 $(+0.9\sigma)$	$H(0.15)$	76.27	76.21 ± 0.97 $(+3.5\sigma)$			

Best-fit $\chi_{eff}^2 = 1178.12$; $\Delta\chi_{eff}^2 = -13.46$; $\bar{\chi}_{eff}^2 = 1198.92$; $\Delta\bar{\chi}_{eff}^2 = -13.16$; $R - 1 = 0.05017$
 χ_{eff}^2 : CMB - simall_100x143.offlike5_EE_Aplanck_B: 395.82 (Δ -0.25) commander_dx12_v3_2_29: 23.23 (Δ 1.14) plik_rd12_HM_v22_TT: 757.77 (Δ -5.25) Hubble - H073p45: 0.02 (Δ -8.97)

18.4 base_w_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02216 \pm 0.00022 \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.431^{+0.016}_{-0.023} \quad (-2.2\sigma)$	$100\theta_{s,eq}$	$0.4489 \pm 0.0045 \quad (+0.1\sigma)$
$\Omega_c h^2$	$0.1204 \pm 0.0021 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.644^{+0.023}_{-0.018} \quad (+2.8\sigma)$	$H(0.15)$	$81.8^{+6.6}_{-2.8} \quad (+12.2\sigma)$
$100\theta_{MC}$	$1.04082 \pm 0.00047 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$1.046^{+0.037}_{-0.025} \quad (+3.3\sigma)$	$D_M(0.15)$	$546^{+20}_{-65} \quad (-12.8\sigma)$
τ	$0.0535^{+0.0044}_{-0.0079} \quad (-0.0\sigma)$	$r_{drag} h$	$125^{+20}_{-8} \quad (+16.6\sigma)$	$H(0.38)$	$84.0^{+1.1}_{-0.88} \quad (+2.6\sigma)$
w_0	$-1.56^{+0.19}_{-0.39}$	$\langle d^2 \rangle^{1/2}$	$2.507^{+0.046}_{-0.041} \quad (+1.4\sigma)$	$D_M(0.38)$	$1385^{+34}_{-98} \quad (-9.9\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.015} \quad (-0.1\sigma)$	z_{re}	$7.59^{+0.48}_{-0.79} \quad (-0.1\sigma)$	$H(0.51)$	$88.1^{+1.4}_{-0.86} \quad (-2.7\sigma)$
n_s	$0.9633 \pm 0.0056 \quad (+0.1\sigma)$	$10^9 A_s$	$2.096^{+0.023}_{-0.032} \quad (-0.1\sigma)$	$D_M(0.51)$	$1839^{+35}_{-96} \quad (-8.5\sigma)$
y_{cal}	$1.0004 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.883 \pm 0.013 \quad (-0.0\sigma)$	$H(0.61)$	$92.4^{+1.6}_{-1.9} \quad (-7.4\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{40}	$1230 \pm 15 \quad (-0.3\sigma)$	$D_M(0.61)$	$2171^{+34}_{-91} \quad (-7.6\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{220}	$5716 \pm 41 \quad (+0.1\sigma)$	$H(2.33)$	$232.3^{+1.4}_{-2.7} \quad (-3.5\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$D_M(2.33)$	$5750^{+17}_{-23} \quad (-1.7\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	D_{1420}	$814.1 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.492 \pm 0.021 \quad (+2.3\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.902^{+0.11}_{-0.052} \quad (+21.7\sigma)$
$A_{143 \times 217}^{PS}$	$43 \pm 9 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9633 \pm 0.0056 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.574^{+0.066}_{-0.045} \quad (+9.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_P	$0.24530^{+0.00010}_{-0.000082} \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.805^{+0.099}_{-0.046} \quad (+25.7\sigma)$
A^{kSZ}	$< 4.69 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.24663^{+0.00010}_{-0.000082} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.591^{+0.080}_{-0.049} \quad (+14.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$10^5 D/H$	$2.626 \pm 0.041 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.752^{+0.092}_{-0.042} \quad (+26.7\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (-0.0\sigma)$	Age/Gyr	$13.590^{+0.055}_{-0.15} \quad (-6.5\sigma)$	$f\sigma_8(0.61)$	$0.592^{+0.086}_{-0.049} \quad (+16.8\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	z_*	$1090.22 \pm 0.40 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.714^{+0.087}_{-0.038} \quad (+27.1\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.3 \quad (+0.0\sigma)$	r_*	$144.50 \pm 0.48 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.358^{+0.041}_{-0.017} \quad (+27.2\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_*$	$1.04102 \pm 0.00046 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.361^{+0.038}_{-0.017} \quad (+23.4\sigma)$
c_{217}	$0.99825 \pm 0.00063 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.880 \pm 0.044 \quad (+0.0\sigma)$	f_{2000}^{143}	$30.8 \pm 2.9 \quad (-0.1\sigma)$
H_0	$> 80.5 \quad (+19.8\sigma)$	z_{drag}	$1059.47 \pm 0.45 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (-0.1\sigma)$
Ω_Λ	$0.792^{+0.065}_{-0.017} \quad (+8.7\sigma)$	r_{drag}	$147.23 \pm 0.48 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (-0.1\sigma)$
Ω_m	$0.208^{+0.017}_{-0.065} \quad (-8.7\sigma)$	k_D	$0.14056 \pm 0.00052 \quad (+0.0\sigma)$	χ_{small}^2	$396.6 \pm 1.5 \quad (-0.1\sigma)$
$\Omega_m h^2$	$0.1432 \pm 0.0020 \quad (-0.1\sigma)$	$100\theta_D$	$0.16103 \pm 0.00026 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.2 \pm 1.2 \quad (-0.5\sigma)$
$\Omega_m h^3$	$0.122^{+0.019}_{-0.0092} \quad (+56.2\sigma)$	z_{eq}	$3406 \pm 47 \quad (-0.1\sigma)$	χ_{plik}^2	$769.8 \pm 5.4 \quad (-0.3\sigma)$
σ_8	$0.964^{+0.11}_{-0.053} \quad (+17.9\sigma)$	k_{eq}	$0.01040 \pm 0.00014 \quad (-0.1\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.787^{+0.029}_{-0.042} \quad (-2.2\sigma)$	$100\theta_{eq}$	$0.8120 \pm 0.0088 \quad (+0.1\sigma)$	χ_{CMB}^2	$1189.7 \pm 5.6 \quad (-0.4\sigma)$

$\bar{\chi}_{eff}^2 = 1196.88$; $\Delta\bar{\chi}_{eff}^2 = -2.44$; $R - 1 = 0.00979$

18.5 base_w_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00021 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.635^{+0.018}_{-0.013} \quad (+3.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$544^{+20}_{-64} \quad (-17.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0015 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$1.034^{+0.029}_{-0.019} \quad (+4.3\sigma)$	$H(0.38)$	$84.5^{+1.1}_{-0.67} \quad (+4.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00045 \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$126^{+20}_{-8} \quad (+22.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1378^{+34}_{-99} \quad (-13.6\sigma)$
τ	$0.0530^{+0.0042}_{-0.0075} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.483^{+0.031}_{-0.027} \quad (+1.4\sigma)$	$H(0.51)$	$88.6^{+1.1}_{-0.70} \quad (-2.5\sigma)$
w_0	$-1.53^{+0.17}_{-0.37}$	z_{re}	$7.51^{+0.43}_{-0.78} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1830^{+35}_{-98} \quad (-11.8\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.010}_{-0.013} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.087^{+0.021}_{-0.028} \quad (-0.3\sigma)$	$H(0.61)$	$92.8^{+1.5}_{-1.7} \quad (-8.1\sigma)$
n_{s}	$0.9659 \pm 0.0049 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.011 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2161^{+33}_{-93} \quad (-10.5\sigma)$
y_{cal}	$1.0002 \pm 0.0024 \quad (-0.1\sigma)$	D_{40}	$1223 \pm 13 \quad (-0.7\sigma)$	$H(2.33)$	$231.4^{+1.0}_{-2.6} \quad (-5.4\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5718 \pm 40 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5742^{+15}_{-23} \quad (-2.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2533 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.481 \pm 0.015 \quad (+2.6\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{1420}	$814.2 \pm 5.0 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.893^{+0.10}_{-0.047} \quad (+27.9\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.1\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.563^{+0.059}_{-0.038} \quad (+13.7\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9659 \pm 0.0049 \quad (+0.5\sigma)$	$\sigma_8(0.38)$	$0.797^{+0.095}_{-0.042} \quad (+30.4\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	Y_{P}	$0.245330^{+0.000092}_{-0.000079} \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.580^{+0.074}_{-0.042} \quad (+19.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246657^{+0.000093}_{-0.000080} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.746^{+0.089}_{-0.038} \quad (+30.4\sigma)$
A^{kSZ}	$< 4.81 \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.615 \pm 0.039 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.582^{+0.080}_{-0.043} \quad (+24.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.576^{+0.057}_{-0.15} \quad (-7.9\sigma)$	$\sigma_8(0.61)$	$0.709^{+0.084}_{-0.036} \quad (+30.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.04 \pm 0.34 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.356^{+0.040}_{-0.016} \quad (+28.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.77 \pm 0.37 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.037}_{-0.016} \quad (+23.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.3 \pm 7.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00044 \quad (+0.3\sigma)$	f_{2000}^{143}	$30.8 \pm 3.0 \quad (-0.1\sigma)$
c_{100}	$0.99961 \pm 0.00063 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.905 \pm 0.034 \quad (+0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 2.0 \quad (-0.2\sigma)$
c_{217}	$0.99825 \pm 0.00064 \quad (-0.0\sigma)$	z_{drag}	$1059.52 \pm 0.45 \quad (+0.2\sigma)$	f_{2000}^{217}	$107.8 \pm 1.9 \quad (-0.2\sigma)$
H_0	$> 80.8 \quad (+26.6\sigma)$	r_{drag}	$147.49 \pm 0.38 \quad (+0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.1 \pm 1.2 \quad (-0.4\sigma)$
Ω_{Λ}	$0.795^{+0.063}_{-0.016} \quad (+12.0\sigma)$	k_{D}	$0.14033 \pm 0.00045 \quad (-0.3\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.2\sigma)$
Ω_{m}	$0.205^{+0.016}_{-0.063} \quad (-12.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00026 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.70 \pm 0.95 \quad (-0.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0015 \quad (-0.6\sigma)$	z_{eq}	$3378 \pm 35 \quad (-0.6\sigma)$	χ_{plik}^2	$770.2 \pm 5.3 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.121^{+0.019}_{-0.0087} \quad (+55.7\sigma)$	k_{eq}	$0.01031 \pm 0.00011 \quad (-0.6\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.954^{+0.10}_{-0.047} \quad (+24.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8173 \pm 0.0067 \quad (+0.6\sigma)$	χ_{CMB}^2	$1198.3 \pm 5.5 \quad (-0.5\sigma)$
S_8	$0.774^{+0.025}_{-0.042} \quad (-3.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0034 \quad (+0.6\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.424^{+0.014}_{-0.023} \quad (-3.8\sigma)$	$H(0.15)$	$82.2^{+6.8}_{-2.8} \quad (+16.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1205.67$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.49$; $R - 1 = 0.01511$

18.6 base_w_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02212^{+0.00020}_{-0.00022} \quad (-1.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.627 \pm 0.014 \quad (+3.1\sigma)$	$D_M(0.15)$	$602 \pm 10 \quad (-4.6\sigma)$
$\Omega_c h^2$	$0.1205 \pm 0.0020 \quad (+1.8\sigma)$	$\sigma_8/h^{0.5}$	$1.019 \pm 0.020 \quad (+3.2\sigma)$	$H(0.38)$	$83.53 \pm 0.54 \quad (+0.0\sigma)$
$100\theta_{MC}$	$1.04076 \pm 0.00046 \quad (-1.1\sigma)$	$r_{drag} h$	$108.4 \pm 2.5 \quad (+4.8\sigma)$	$D_M(0.38)$	$1469 \pm 17 \quad (-3.3\sigma)$
τ	$0.0531^{+0.0045}_{-0.0071} \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.484 \pm 0.041 \quad (+2.3\sigma)$	$H(0.51)$	$89.20 \pm 0.54 \quad (-2.1\sigma)$
w_0	-1.225 ± 0.066	z_{re}	$7.58^{+0.45}_{-0.76} \quad (-0.5\sigma)$	$D_M(0.51)$	$1921 \pm 18 \quad (-2.6\sigma)$
$\ln(10^{10} A_s)$	$3.042^{+0.010}_{-0.015} \quad (-0.1\sigma)$	$10^9 A_s$	$2.095^{+0.021}_{-0.032} \quad (-0.1\sigma)$	$H(0.61)$	$94.22 \pm 0.57 \quad (-4.1\sigma)$
n_s	$0.9630 \pm 0.0056 \quad (-1.5\sigma)$	$10^9 A_s e^{-2\tau}$	$1.883 \pm 0.013 \quad (+1.0\sigma)$	$D_M(0.61)$	$2248 \pm 19 \quad (-2.2\sigma)$
y_{cal}	$1.0003 \pm 0.0024 \quad (-0.1\sigma)$	D_{40}	$1231 \pm 15 \quad (+0.9\sigma)$	$H(2.33)$	$234.0 \pm 1.1 \quad (-0.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5712 \pm 38 \quad (-0.5\sigma)$	$D_M(2.33)$	$5760 \pm 15 \quad (+0.5\sigma)$
$\xi^{tSZ \times CIB}$	—	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.476 \pm 0.015 \quad (+2.8\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{1420}	$813.9 \pm 5.0 \quad (-0.6\sigma)$	$\sigma_8(0.15)$	$0.812 \pm 0.021 \quad (+9.2\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.0\sigma)$	D_{2000}	$229.6^{+1.6}_{-1.9} \quad (-0.6\sigma)$	$f\sigma_8(0.38)$	$0.516 \pm 0.018 \quad (+5.7\sigma)$
A_{143}^{PS}	$49^{+8}_{-8} \quad (+0.2\sigma)$	$n_{s,0.002}$	$0.9630 \pm 0.0056 \quad (-1.5\sigma)$	$\sigma_8(0.38)$	$0.721 \pm 0.018 \quad (+10.1\sigma)$
$A_{143 \times 217}^{PS}$	$44 \pm 9 \quad (+0.1\sigma)$	Y_P	$0.245289 \pm 0.000092 \quad (-1.2\sigma)$	$f\sigma_8(0.51)$	$0.521 \pm 0.018 \quad (+7.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	Y_P^{BBN}	$0.246616 \pm 0.000092 \quad (-1.2\sigma)$	$\sigma_8(0.51)$	$0.674 \pm 0.017 \quad (+10.3\sigma)$
A^{kSZ}	$< 4.74 \quad (+0.0\sigma)$	$10^5 D/H$	$2.633 \pm 0.040 \quad (+1.2\sigma)$	$f\sigma_8(0.61)$	$0.518 \pm 0.018 \quad (+8.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.1\sigma)$	Age/Gyr	$13.710 \pm 0.035 \quad (-1.8\sigma)$	$\sigma_8(0.61)$	$0.641 \pm 0.015 \quad (+10.3\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1090.28 \pm 0.38 \quad (+1.7\sigma)$	$f\sigma_8(2.33)$	$0.3230 \pm 0.0073 \quad (+10.4\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.3^{+3.4}_{-3.0} \quad (+0.1\sigma)$	r_*	$144.49 \pm 0.47 \quad (-1.5\sigma)$	$\sigma_8(2.33)$	$0.3285 \pm 0.0064 \quad (+8.4\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.1 \quad (+0.0\sigma)$	$100\theta_*$	$1.04097 \pm 0.00045 \quad (-1.1\sigma)$	f_{2000}^{143}	$31.1 \pm 2.9 \quad (+0.3\sigma)$
c_{100}	$0.99963 \pm 0.00063 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.880 \pm 0.043 \quad (-1.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.0 \quad (+0.4\sigma)$
c_{217}	$0.99828 \pm 0.00063 \quad (+0.0\sigma)$	z_{drag}	$1059.40 \pm 0.44 \quad (-0.7\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.3\sigma)$
H_0	$73.7 \pm 1.7 \quad (+6.2\sigma)$	r_{drag}	$147.23 \pm 0.47 \quad (-1.3\sigma)$	χ_{small}^2	$396.6 \pm 1.6 \quad (-0.3\sigma)$
Ω_Λ	$0.735 \pm 0.012 \quad (+3.2\sigma)$	k_D	$0.14053 \pm 0.00052 \quad (+0.9\sigma)$	χ_{lowl}^2	$23.5 \pm 1.2 \quad (+1.1\sigma)$
Ω_m	$0.265 \pm 0.012 \quad (-3.2\sigma)$	$100\theta_D$	$0.16107 \pm 0.00025 \quad (+0.6\sigma)$	χ_{plik}^2	$770.2 \pm 5.3 \quad (-0.8\sigma)$
$\Omega_m h^2$	$0.1433 \pm 0.0019 \quad (+1.8\sigma)$	z_{eq}	$3409 \pm 46 \quad (+1.8\sigma)$	$\chi_{H073p45}^2$	$1.0 \pm 1.4 \quad (-2.7\sigma)$
$\Omega_m h^3$	$0.1055 \pm 0.0028 \quad (+20.0\sigma)$	k_{eq}	$0.01040 \pm 0.00014 \quad (+1.8\sigma)$	χ_{prior}^2	$7.1 \pm 3.6 \quad (-0.1\sigma)$
σ_8	$0.874 \pm 0.022 \quad (+8.1\sigma)$	$100\theta_{eq}$	$0.8114 \pm 0.0086 \quad (-1.8\sigma)$	χ_{CMB}^2	$1190.3 \pm 5.5 \quad (-0.8\sigma)$
S_8	$0.820 \pm 0.021 \quad (+0.9\sigma)$	$100\theta_{s,eq}$	$0.4486 \pm 0.0044 \quad (-1.8\sigma)$		
$\sigma_8 \Omega_m^{0.5}$	$0.449 \pm 0.011 \quad (+0.9\sigma)$	$H(0.15)$	$76.23 \pm 0.97 \quad (+3.6\sigma)$		

$\bar{\chi}_{eff}^2 = 1198.47$; $\Delta\bar{\chi}_{eff}^2 = -13.34$; $R - 1 = 0.05306$

18.10 base_w_plikHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02240 \pm 0.00015 \quad (+0.2\sigma)$	$\Omega_{\text{m}}h^2$	$0.1429 \pm 0.0013 \quad (-0.2\sigma)$	k_{eq}	$0.010377 \pm 0.000093 \quad (-0.2\sigma)$
$\Omega_{\text{c}}h^2$	$0.1199 \pm 0.0013 \quad (-0.2\sigma)$	$\Omega_{\text{m}}h^3$	$0.124^{+0.018}_{-0.0078} \quad (+94.9\sigma)$	$100\theta_{\text{eq}}$	$0.8138 \pm 0.0057 \quad (+0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04094 \pm 0.00032 \quad (+0.1\sigma)$	σ_8	$0.973^{+0.094}_{-0.044} \quad (+23.2\sigma)$	$100\theta_{\text{s,eq}}$	$0.4496 \pm 0.0029 \quad (+0.2\sigma)$
τ	$0.0553^{+0.0049}_{-0.0083} \quad (-0.0\sigma)$	S_8	$0.778^{+0.022}_{-0.037} \quad (-3.6\sigma)$	$H(0.15)$	$82.9^{+5.9}_{-2.3} \quad (+19.9\sigma)$
w_0	$-1.58^{+0.16}_{-0.34}$	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.426^{+0.012}_{-0.020} \quad (-3.6\sigma)$	$D_{\text{M}}(0.15)$	$537^{+18}_{-56} \quad (-20.8\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.046^{+0.012}_{-0.016} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.643^{+0.019}_{-0.013} \quad (+4.2\sigma)$	$H(0.38)$	$84.51^{+0.81}_{-0.57} \quad (+4.5\sigma)$
n_{s}	$0.9656 \pm 0.0043 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$1.046^{+0.030}_{-0.019} \quad (+4.9\sigma)$	$D_{\text{M}}(0.38)$	$1368^{+28}_{-84} \quad (-16.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$r_{\text{drag}}h$	$127^{+20}_{-7} \quad (+27.2\sigma)$	$H(0.51)$	$88.4^{+1.2}_{-0.81} \quad (-4.0\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.504^{+0.036}_{-0.030} \quad (+2.0\sigma)$	$D_{\text{M}}(0.51)$	$1819^{+28}_{-82} \quad (-13.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$7.72^{+0.55}_{-0.82} \quad (-0.1\sigma)$	$H(0.61)$	$92.5^{+1.2}_{-1.9} \quad (-11.6\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	$10^9 A_{\text{s}}$	$2.103^{+0.024}_{-0.035} \quad (-0.0\sigma)$	$D_{\text{M}}(0.61)$	$2151^{+27}_{-77} \quad (-12.4\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	$10^9 A_{\text{s}}e^{-2\tau}$	$1.883 \pm 0.012 \quad (-0.1\sigma)$	$H(2.33)$	$231.84^{+0.88}_{-2.1} \quad (-5.9\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{40}	$1227 \pm 13 \quad (-0.4\sigma)$	$D_{\text{M}}(2.33)$	$5735^{+12}_{-16} \quad (-2.8\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	D_{220}	$5735 \pm 38 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.489^{+0.017}_{-0.015} \quad (+3.5\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.911^{+0.095}_{-0.043} \quad (+26.7\sigma)$
A^{kSZ}	$< 3.96 \quad (-0.1\sigma)$	D_{1420}	$816.9 \pm 4.7 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.577^{+0.059}_{-0.035} \quad (+15.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$231.1 \pm 1.6 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.814^{+0.088}_{-0.039} \quad (+29.4\sigma)$
A_{143}^{dustTT}	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9656 \pm 0.0043 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.595^{+0.072}_{-0.039} \quad (+20.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.245404 \pm 0.000057 \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.761^{+0.082}_{-0.036} \quad (+29.8\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246731 \pm 0.000057 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.597^{+0.077}_{-0.039} \quad (+24.5\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (-0.0\sigma)$	10^5D/H	$2.581 \pm 0.027 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.723^{+0.077}_{-0.033} \quad (+29.8\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	Age/Gyr	$13.544^{+0.044}_{-0.12} \quad (-10.6\sigma)$	$f\sigma_8(2.33)$	$0.362^{+0.036}_{-0.015} \quad (+29.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	z_*	$1089.88 \pm 0.27 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.365^{+0.034}_{-0.015} \quad (+24.9\sigma)$
A_{143}^{dustTE}	$0.225 \pm 0.054 \quad (-0.0\sigma)$	r_*	$144.44 \pm 0.30 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.0 \pm 2.7 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.665 \pm 0.081 \quad (-0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00031 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 1.8 \quad (-0.1\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.874 \pm 0.028 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.1\sigma)$
c_{100}	$0.99967 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.99 \pm 0.30 \quad (+0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99818 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.09 \pm 0.29 \quad (+0.1\sigma)$	χ_{lowl}^2	$22.87 \pm 0.85 \quad (-0.7\sigma)$
H_0	$> 82.6 \quad (+32.1\sigma)$	k_{D}	$0.14088 \pm 0.00032 \quad (-0.0\sigma)$	χ_{plik}^2	$2357.1 \pm 5.7 \quad (-0.4\sigma)$
Ω_{Λ}	$0.802^{+0.055}_{-0.014} \quad (+14.1\sigma)$	$100\theta_{\text{D}}$	$0.16073 \pm 0.00017 \quad (-0.2\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.198^{+0.014}_{-0.055} \quad (-14.1\sigma)$	z_{eq}	$3400 \pm 30 \quad (-0.2\sigma)$	χ_{CMB}^2	$2776.9 \pm 5.9 \quad (-0.5\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2788.38$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.15$; $R - 1 = 0.01060$

18.11 base_w_plikHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02243 \pm 0.00015 \quad (+0.4\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.123^{+0.017}_{-0.0083} \quad (+88.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0026 \quad (+0.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1192 \pm 0.0012 \quad (-0.6\sigma)$	σ_8	$0.963^{+0.090}_{-0.045} \quad (+26.6\sigma)$	$H(0.15)$	$82.9^{+6.0}_{-2.6} \quad (+22.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04100 \pm 0.00031 \quad (+0.3\sigma)$	S_8	$0.771^{+0.022}_{-0.036} \quad (-4.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$537^{+19}_{-57} \quad (-23.4\sigma)$
τ	$0.0540^{+0.0044}_{-0.0076} \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.422^{+0.012}_{-0.020} \quad (-4.7\sigma)$	$H(0.38)$	$84.75^{+0.82}_{-0.51} \quad (+5.6\sigma)$
w_0	$-1.56^{+0.16}_{-0.33}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.637^{+0.016}_{-0.011} \quad (+4.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1367^{+31}_{-86} \quad (-18.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.010}_{-0.014} \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$1.037^{+0.027}_{-0.016} \quad (+5.4\sigma)$	$H(0.51)$	$88.7^{+1.1}_{-0.67} \quad (-3.6\sigma)$
n_{s}	$0.9669 \pm 0.0040 \quad (+0.5\sigma)$	$r_{\mathrm{drag}}h$	$127^{+20}_{-8} \quad (+30.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1817^{+31}_{-83} \quad (-15.8\sigma)$
y_{cal}	$1.0002 \pm 0.0024 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.487^{+0.028}_{-0.024} \quad (+1.9\sigma)$	$H(0.61)$	$92.8^{+1.3}_{-1.7} \quad (-11.5\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	z_{re}	$7.56^{+0.47}_{-0.77} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2148^{+29}_{-78} \quad (-14.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.093^{+0.021}_{-0.030} \quad (-0.4\sigma)$	$H(2.33)$	$231.47^{+0.78}_{-2.1} \quad (-7.3\sigma)$
A_{143}^{tSZ}	$5.5 \pm 2.0 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.010 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5731^{+11}_{-16} \quad (-3.2\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	D_{40}	$1223 \pm 12 \quad (-0.8\sigma)$	$f\sigma_8(0.15)$	$0.483 \pm 0.013 \quad (+3.6\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5733 \pm 38 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.902^{+0.091}_{-0.045} \quad (+30.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.568^{+0.055}_{-0.035} \quad (+17.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{1420}	$816.5 \pm 4.7 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.806^{+0.085}_{-0.040} \quad (+32.4\sigma)$
A^{kSZ}	$< 4.12 \quad (-0.1\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.586^{+0.068}_{-0.040} \quad (+24.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9669 \pm 0.0040 \quad (+0.5\sigma)$	$\sigma_8(0.51)$	$0.754^{+0.079}_{-0.037} \quad (+32.4\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_{P}	$0.245418 \pm 0.000056 \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.589^{+0.072}_{-0.040} \quad (+28.7\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246745 \pm 0.000056 \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.716^{+0.074}_{-0.035} \quad (+32.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.4 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.574 \pm 0.027 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.359^{+0.036}_{-0.016} \quad (+30.6\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.540^{+0.048}_{-0.12} \quad (-11.1\sigma)$	$\sigma_8(2.33)$	$0.362^{+0.033}_{-0.015} \quad (+25.7\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (+0.0\sigma)$	z_*	$1089.78 \pm 0.25 \quad (-0.5\sigma)$	f_{2000}^{143}	$29.1 \pm 2.8 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.483 \pm 0.085 \quad (+0.0\sigma)$	r_*	$144.58 \pm 0.26 \quad (+0.5\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 1.8 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.054 \quad (+0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00030 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.7 \pm 1.8 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.081 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886 \pm 0.024 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.0 \pm 1.1 \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.07 \pm 0.27 \quad (-0.1\sigma)$	z_{drag}	$1060.03 \pm 0.30 \quad (+0.3\sigma)$	χ_{small}^2	$1339 \pm 1000 \quad (+559.0\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.22 \pm 0.26 \quad (+0.5\sigma)$	χ_{lowl}^2	$22.58 \pm 0.76 \quad (-1.1\sigma)$
c_{217}	$0.99819 \pm 0.00064 \quad (+0.0\sigma)$	k_{D}	$0.14077 \pm 0.00029 \quad (-0.3\sigma)$	χ_{plik}^2	$1416 \pm 1000 \quad (-165.4\sigma)$
H_0	$> 82.2 \quad (+35.9\sigma)$	$100\theta_{\mathrm{D}}$	$0.16071 \pm 0.00017 \quad (-0.2\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.802^{+0.056}_{-0.015} \quad (+16.2\sigma)$	z_{eq}	$3385 \pm 26 \quad (-0.6\sigma)$	χ_{CMB}^2	$2785.8 \pm 5.9 \quad (-0.6\sigma)$
Ω_{m}	$0.198^{+0.015}_{-0.056} \quad (-16.2\sigma)$	k_{eq}	$0.010333 \pm 0.000080 \quad (-0.6\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1423 \pm 0.0011 \quad (-0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8166 \pm 0.0050 \quad (+0.6\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2797.43; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.08; R - 1 = 0.01516$$

18.12 base_w_plikHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02236 \pm 0.00014 \quad (-0.9\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.1055 \pm 0.0025 \quad (+33.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4490 \pm 0.0030 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1202 \pm 0.0014 \quad (+1.3\sigma)$	σ_8	$0.872 \pm 0.018 \quad (+8.7\sigma)$	$H(0.15)$	$76.39 \pm 0.94 \quad (+6.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00032 \quad (-0.6\sigma)$	S_8	$0.817 \pm 0.015 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$600.7^{+9.4}_{-11} \quad (-7.9\sigma)$
τ	$0.0552^{+0.0060}_{-0.0082} \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4477 \pm 0.0084 \quad (-0.0\sigma)$	$H(0.38)$	$83.80 \pm 0.40 \quad (+1.5\sigma)$
w_0	-1.211 ± 0.057	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.625 \pm 0.010 \quad (+3.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1466^{+15}_{-17} \quad (-6.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.017} \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$1.015 \pm 0.015 \quad (+3.1\sigma)$	$H(0.51)$	$89.50 \pm 0.37 \quad (-1.6\sigma)$
n_{s}	$0.9648 \pm 0.0044 \quad (-0.9\sigma)$	$r_{\mathrm{drag}}h$	$108.4 \pm 2.4 \quad (+8.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1916^{+16}_{-18} \quad (-5.1\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.479 \pm 0.030 \quad (+2.0\sigma)$	$H(0.61)$	$94.53 \pm 0.41 \quad (-4.5\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	z_{re}	$7.74^{+0.57}_{-0.91} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2242^{+16}_{-18} \quad (-4.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.105^{+0.025}_{-0.035} \quad (-0.1\sigma)$	$H(2.33)$	$234.13 \pm 0.85 \quad (-2.2\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.884 \pm 0.012 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5748 \pm 10 \quad (-0.6\sigma)$
A_{100}^{PS}	$257 \pm 27 \quad (+0.0\sigma)$	D_{40}	$1231 \pm 13 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.473 \pm 0.010 \quad (+2.6\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.2\sigma)$	D_{220}	$5733 \pm 38 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.809 \pm 0.018 \quad (+9.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 10 \quad (+0.1\sigma)$	D_{810}	$2539^{+12}_{-14} \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.513 \pm 0.013 \quad (+6.5\sigma)$
A_{217}^{PS}	$116 \pm 10 \quad (+0.1\sigma)$	D_{1420}	$817.0 \pm 4.7 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.719 \pm 0.016 \quad (+10.2\sigma)$
A^{kSZ}	$< 4.04 \quad (-0.0\sigma)$	D_{2000}	$231.0 \pm 1.5 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.518 \pm 0.014 \quad (+8.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9648 \pm 0.0044 \quad (-0.9\sigma)$	$\sigma_8(0.51)$	$0.673 \pm 0.015 \quad (+10.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245391^{+0.000058}_{-0.000051} \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.515 \pm 0.015 \quad (+9.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.7 \pm 3.2 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246718^{+0.000058}_{-0.000052} \quad (-0.9\sigma)$	$\sigma_8(0.61)$	$0.640 \pm 0.014 \quad (+10.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.9 \pm 7.2 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.587 \pm 0.026 \quad (+0.9\sigma)$	$f\sigma_8(2.33)$	$0.3226 \pm 0.0066 \quad (+10.0\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114^{+0.035}_{-0.040} \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.685 \pm 0.030 \quad (-4.0\sigma)$	$\sigma_8(2.33)$	$0.3284 \pm 0.0059 \quad (+8.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	z_*	$1089.95 \pm 0.26 \quad (+1.2\sigma)$	f_{2000}^{143}	$29.4 \pm 2.8 \quad (+0.2\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.485 \pm 0.085 \quad (+0.1\sigma)$	r_*	$144.38 \pm 0.31 \quad (-1.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.225 \pm 0.056 \quad (+0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00032 \quad (-0.6\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.664 \pm 0.079 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.868 \pm 0.029 \quad (-1.1\sigma)$	χ_{small}^2	$1305 \pm 1000 \quad (+353.2\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1059.94 \pm 0.29 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.28 \pm 0.93 \quad (+0.5\sigma)$
c_{100}	$0.99966^{+0.00060}_{-0.00068} \quad (+0.0\sigma)$	r_{drag}	$147.05 \pm 0.31 \quad (-1.0\sigma)$	χ_{plik}^2	$1450 \pm 1000 \quad (-141.6\sigma)$
c_{217}	$0.99820^{+0.00056}_{-0.00064} \quad (+0.1\sigma)$	k_{D}	$0.14091 \pm 0.00033 \quad (+0.7\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$0.97 \pm 1.4 \quad (-4.4\sigma)$
H_0	$73.7 \pm 1.6 \quad (+10.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16076 \pm 0.00017 \quad (+0.6\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.736^{+0.013}_{-0.011} \quad (+5.6\sigma)$	z_{eq}	$3407 \pm 31 \quad (+1.2\sigma)$	χ_{CMB}^2	$2778.4 \pm 6.0 \quad (-0.5\sigma)$
Ω_{m}	$0.264^{+0.011}_{-0.013} \quad (-5.6\sigma)$	k_{eq}	$0.010399 \pm 0.000095 \quad (+1.2\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.1432 \pm 0.0013 \quad (+1.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8125 \pm 0.0058 \quad (-1.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2791.00; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -12.89; R - 1 = 0.07585$$

18.13 base_w_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022221	0.02217 ± 0.00022 (+0.2 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4063	$0.430^{+0.016}_{-0.023}$ (−2.1 σ)	$H(0.15)$	88.72	$81.6^{+6.7}_{-2.9}$ (+11.8 σ)
$\Omega_c h^2$	0.11998	0.1202 ± 0.0020 (−0.1 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6599	$0.641^{+0.023}_{-0.018}$ (+2.7 σ)	$D_M(0.15)$	481.3	548^{+21}_{-66} (−12.3 σ)
$100\theta_{MC}$	1.040963	1.04088 ± 0.00047 (+0.1 σ)	$\sigma_8/h^{0.5}$	1.0733	$1.042^{+0.037}_{-0.026}$ (+3.2 σ)	$H(0.38)$	84.46	$84.1^{+1.1}_{-0.87}$ (+2.6 σ)
τ	0.0524	0.0523 ± 0.0082 (+0.0 σ)	$r_{drag}h$	146.8	125^{+20}_{-9} (+16.0 σ)	$D_M(0.38)$	1288	1388^{+36}_{-100} (−9.6 σ)
w_0	−1.956	$-1.54^{+0.20}_{-0.39}$	$\langle d^2 \rangle^{1/2}$	2.5205	$2.498^{+0.047}_{-0.041}$ (+1.3 σ)	$H(0.51)$	86.77	$88.2^{+1.3}_{-0.85}$ (−2.5 σ)
$\ln(10^{10} A_s)$	3.0381	3.039 ± 0.017 (−0.0 σ)	z_{re}	7.45	7.45 ± 0.85 (−0.0 σ)	$D_M(0.51)$	1744	1841^{+36}_{-99} (−8.2 σ)
n_s	0.9653	0.9643 ± 0.0056 (+0.1 σ)	$10^9 A_s$	2.0866	2.088 ± 0.035 (−0.0 σ)	$H(0.61)$	90.19	92.5 ± 1.6 (−7.1 σ)
y_{cal}	1.00015	1.0004 ± 0.0025 (−0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8790	1.881 ± 0.013 (−0.1 σ)	$D_M(0.61)$	2083	2173^{+35}_{-93} (−7.3 σ)
A_{100}^{PS}	234.9	241 ± 25 (−0.0 σ)	D_{40}	1221.3	1226 ± 15 (−0.2 σ)	$H(2.33)$	230.35	$232.3^{+1.4}_{-2.7}$ (−3.4 σ)
A_{143}^{PS}	42.9	40 ± 8 (−0.1 σ)	D_{220}	5706.6	5707 ± 41 (+0.1 σ)	$D_M(2.33)$	5735.6	5748^{+18}_{-23} (−1.7 σ)
A_{217}^{PS}	101.3	102 ± 10 (+0.0 σ)	D_{810}	2532.2	2533 ± 14 (−0.1 σ)	$f\sigma_8(0.15)$	0.5076	0.489 ± 0.021 (+2.2 σ)
A_{217}^{CIB}	45.1	40 ± 7 (−0.1 σ)	D_{1420}	814.0	813.8 ± 5.1 (−0.1 σ)	$\sigma_8(0.15)$	1.010	$0.896^{+0.11}_{-0.053}$ (+19.7 σ)
A_{143}^{tSZ}	6.50	$3.8^{+1.8}_{-2.6}$ (+0.0 σ)	D_{2000}	229.96	229.7 ± 1.8 (+0.1 σ)	$f\sigma_8(0.38)$	0.644	$0.570^{+0.065}_{-0.046}$ (+9.5 σ)
$r_{143 \times 217}^{PS}$	0.610	0.65 ± 0.13 (+0.0 σ)	$n_{s,0.002}$	0.9653	0.9643 ± 0.0056 (+0.1 σ)	$\sigma_8(0.38)$	0.904	$0.799^{+0.10}_{-0.047}$ (+22.7 σ)
$r_{143 \times 217}^{CIB}$	0.838	$0.57^{+0.41}_{-0.14}$ (−0.0 σ)	Y_P	0.245335	$0.24531^{+0.00010}_{-0.000081}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.675	$0.586^{+0.080}_{-0.051}$ (+13.3 σ)
$\xi^{tSZ \times CIB}$	0.24	—	Y_P^{BBN}	0.246661	$0.24664^{+0.00010}_{-0.000082}$ (+0.2 σ)	$\sigma_8(0.51)$	0.845	$0.747^{+0.093}_{-0.043}$ (+23.4 σ)
A^{kSZ}	0.1	—	$10^5 D/H$	2.6139	2.624 ± 0.042 (−0.2 σ)	$f\sigma_8(0.61)$	0.681	$0.587^{+0.086}_{-0.050}$ (+16.0 σ)
A_{100}^{dust}	1.010	1.01 ± 0.20 (+0.0 σ)	Age/Gyr	13.449	$13.592^{+0.057}_{-0.15}$ (−6.4 σ)	$\sigma_8(0.61)$	0.802	$0.710^{+0.088}_{-0.040}$ (+23.6 σ)
A_{143}^{dust}	0.991	0.97 ± 0.18 (−0.0 σ)	z_*	1090.106	1090.20 ± 0.40 (−0.2 σ)	$f\sigma_8(2.33)$	0.3991	$0.356^{+0.042}_{-0.018}$ (+23.3 σ)
A_{217}^{dust}	0.967	0.97 ± 0.10 (+0.0 σ)	r_*	144.551	144.52 ± 0.47 (+0.1 σ)	$\sigma_8(2.33)$	0.3997	$0.359^{+0.039}_{-0.017}$ (+19.9 σ)
$A_{143 \times 217}^{dust}$	0.993	1.03 ± 0.16 (−0.0 σ)	$100\theta_*$	1.041162	1.04108 ± 0.00047 (+0.1 σ)	f_{2000}^{143}	30.54	30.5 ± 3.0 (−0.1 σ)
c_{100}	0.99763	0.9975 ± 0.0011 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8836	13.882 ± 0.043 (+0.1 σ)	f_{2000}^{217}	107.03	107.3 ± 2.0 (−0.1 σ)
c_{217}	1.00138	1.0011 ± 0.0016 (−0.0 σ)	z_{drag}	1059.589	1059.49 ± 0.45 (+0.1 σ)	$f_{2000}^{143 \times 217}$	32.41	32.7 ± 2.2 (−0.1 σ)
H_0	99.7	> 79.9 (+19.0 σ)	r_{drag}	147.264	147.25 ± 0.47 (+0.0 σ)	χ_{small}^2	395.72	396.9 ± 1.7 (−0.0 σ)
Ω_Λ	0.8562	$0.790^{+0.067}_{-0.017}$ (+8.4 σ)	k_D	0.14057	0.14054 ± 0.00051 (+0.0 σ)	χ_{lowl}^2	22.46	23.0 ± 1.1 (−0.5 σ)
Ω_m	0.1438	$0.210^{+0.017}_{-0.067}$ (−8.4 σ)	$100\theta_D$	0.160973	0.16103 ± 0.00026 (−0.1 σ)	$\chi_{CamSpec}^2$	7048.6	7062.0 ± 5.3 (−0.3 σ)
$\Omega_m h^2$	0.14284	0.1431 ± 0.0019 (−0.1 σ)	z_{eq}	3398.1	3403 ± 46 (−0.1 σ)	χ_{prior}^2	2.03	7.6 ± 3.4 (−0.0 σ)
$\Omega_m h^3$	0.1424	$0.121^{+0.020}_{-0.0095}$ (+55.7 σ)	k_{eq}	0.010371	0.01039 ± 0.00014 (−0.1 σ)	χ_{CMB}^2	7466.8	7481.8 ± 5.5 (−0.4 σ)
σ_8	1.072	$0.958^{+0.11}_{-0.055}$ (+16.5 σ)	$100\theta_{eq}$	0.8137	0.8126 ± 0.0087 (+0.1 σ)			
S_8	0.7418	$0.786^{+0.030}_{-0.042}$ (−2.1 σ)	$100\theta_{s,eq}$	0.44968	0.4492 ± 0.0045 (+0.1 σ)			

Best-fit $\chi_{eff}^2 = 7468.79$; $\Delta\chi_{eff}^2 = -2.94$; $\bar{\chi}_{eff}^2 = 7489.40$; $\Delta\bar{\chi}_{eff}^2 = -2.14$; $R - 1 = 0.00889$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.72 (Δ -0.11) commander_dx12_v3_2_29: 22.46 (Δ -0.94) CamSpec like_10.7HM: 7048.57 (Δ -1.76)

18.14 base_w_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02222 \pm 0.00021 \quad (+0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.424^{+0.014}_{-0.023} \quad (-3.7\sigma)$	$H(0.15)$	$82.2^{+6.5}_{-2.8} \quad (+16.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0016 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.635^{+0.017}_{-0.013} \quad (+3.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$544^{+21}_{-62} \quad (-16.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04097 \pm 0.00046 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$1.034^{+0.028}_{-0.019} \quad (+4.2\sigma)$	$H(0.38)$	$84.5^{+1.0}_{-0.73} \quad (+4.1\sigma)$
τ	$0.0517 \pm 0.0081 \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$126^{+20}_{-9} \quad (+22.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1378^{+35}_{-95} \quad (-13.2\sigma)$
w_0	$-1.53^{+0.19}_{-0.35}$	$\langle d^2 \rangle^{1/2}$	$2.481^{+0.030}_{-0.027} \quad (+1.4\sigma)$	$H(0.51)$	$88.5^{+1.1}_{-0.70} \quad (-2.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.035 \pm 0.015 \quad (-0.3\sigma)$	z_{re}	$7.37 \pm 0.83 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1829^{+35}_{-94} \quad (-11.4\sigma)$
n_{s}	$0.9661 \pm 0.0050 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.081 \pm 0.032 \quad (-0.3\sigma)$	$H(0.61)$	$92.7 \pm 1.4 \quad (-8.0\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.876 \pm 0.011 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2161^{+34}_{-89} \quad (-10.2\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1221 \pm 13 \quad (-0.7\sigma)$	$H(2.33)$	$231.5^{+1.1}_{-2.6} \quad (-5.2\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5709 \pm 41 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5742^{+16}_{-22} \quad (-2.3\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2531 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.482 \pm 0.015 \quad (+2.5\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$813.8 \pm 5.2 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.893^{+0.097}_{-0.049} \quad (+25.6\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.563^{+0.057}_{-0.039} \quad (+13.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9661 \pm 0.0050 \quad (+0.5\sigma)$	$\sigma_8(0.38)$	$0.797^{+0.091}_{-0.044} \quad (+27.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.451 \quad (-0.0\sigma)$	Y_{P}	$0.245330^{+0.000096}_{-0.000079} \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.580^{+0.071}_{-0.045} \quad (+19.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246656^{+0.000097}_{-0.000080} \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.746^{+0.085}_{-0.041} \quad (+27.2\sigma)$
A^{kSZ}	—	$10^5\mathrm{D}/\mathrm{H}$	$2.615 \pm 0.040 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.583^{+0.076}_{-0.045} \quad (+23.2\sigma)$
A_{100}^{dust}	$1.02 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.574^{+0.057}_{-0.14} \quad (-7.8\sigma)$	$\sigma_8(0.61)$	$0.709^{+0.080}_{-0.038} \quad (+26.8\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1090.05 \pm 0.36 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.356^{+0.038}_{-0.017} \quad (+25.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.73 \pm 0.37 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.036}_{-0.017} \quad (+20.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04117 \pm 0.00045 \quad (+0.3\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.035 \quad (+0.5\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.53 \pm 0.45 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.2 \quad (-0.2\sigma)$
H_0	$> 80.6 \quad (+25.7\sigma)$	r_{drag}	$147.45 \pm 0.38 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.0 \pm 1.1 \quad (-0.6\sigma)$
Ω_{Λ}	$0.796^{+0.062}_{-0.018} \quad (+11.6\sigma)$	k_{D}	$0.14038 \pm 0.00045 \quad (-0.3\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.1\sigma)$
Ω_{m}	$0.204^{+0.018}_{-0.062} \quad (-11.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00026 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.56 \pm 0.89 \quad (-0.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1422 \pm 0.0015 \quad (-0.6\sigma)$	z_{eq}	$3382 \pm 36 \quad (-0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.1 \pm 5.1 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.121^{+0.018}_{-0.0094} \quad (+57.1\sigma)$	k_{eq}	$0.01032 \pm 0.00011 \quad (-0.6\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.954^{+0.096}_{-0.050} \quad (+22.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8166 \pm 0.0069 \quad (+0.6\sigma)$	χ_{CMB}^2	$7490.4 \pm 5.5 \quad (-0.4\sigma)$
S_8	$0.774^{+0.025}_{-0.041} \quad (-3.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4512 \pm 0.0035 \quad (+0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7497.94$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.30$; $R - 1 = 0.01572$

18.15 base_w_CamSpecHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02218 \pm 0.00022 \quad (+0.2\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.431^{+0.016}_{-0.023} \quad (-2.1\sigma)$	$H(0.15)$	$81.6^{+6.7}_{-2.9} \quad (+11.8\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1201 \pm 0.0020 \quad (-0.1\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.641^{+0.023}_{-0.018} \quad (+2.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$548^{+22}_{-67} \quad (-12.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00047 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$1.043^{+0.037}_{-0.026} \quad (+3.2\sigma)$	$H(0.38)$	$84.1^{+1.1}_{-0.87} \quad (+2.6\sigma)$
τ	$0.0542^{+0.0045}_{-0.0086} \quad (+0.1\sigma)$	$r_{\mathrm{drag}} h$	$124^{+20}_{-9} \quad (+16.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1388^{+36}_{-100} \quad (-9.6\sigma)$
w_0	$-1.53^{+0.20}_{-0.39}$	$\langle d^2 \rangle^{1/2}$	$2.500^{+0.047}_{-0.041} \quad (+1.3\sigma)$	$H(0.51)$	$88.3^{+1.3}_{-0.84} \quad (-2.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016} \quad (+0.0\sigma)$	z_{re}	$7.66^{+0.52}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1841^{+37}_{-99} \quad (-8.3\sigma)$
n_{s}	$0.9646 \pm 0.0056 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.024}_{-0.034} \quad (+0.0\sigma)$	$H(0.61)$	$92.6 \pm 1.6 \quad (-7.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.013 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2173^{+35}_{-94} \quad (-7.4\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1225 \pm 15 \quad (-0.3\sigma)$	$H(2.33)$	$232.2^{+1.4}_{-2.7} \quad (-3.4\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5707 \pm 41 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5748^{+18}_{-23} \quad (-1.7\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.489 \pm 0.021 \quad (+2.2\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.1\sigma)$	D_{1420}	$813.8 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.896^{+0.11}_{-0.054} \quad (+21.2\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.569^{+0.065}_{-0.046} \quad (+9.5\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9646 \pm 0.0056 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.799^{+0.10}_{-0.048} \quad (+25.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.15} \quad (-0.0\sigma)$	Y_{P}	$0.24531^{+0.00010}_{-0.000081} \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.585^{+0.079}_{-0.051} \quad (+13.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.24664^{+0.00010}_{-0.000081} \quad (+0.2\sigma)$	$\sigma_8(0.51)$	$0.748^{+0.093}_{-0.043} \quad (+26.3\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.622 \pm 0.041 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.587^{+0.085}_{-0.051} \quad (+16.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.591^{+0.057}_{-0.15} \quad (-6.4\sigma)$	$\sigma_8(0.61)$	$0.710^{+0.088}_{-0.040} \quad (+26.7\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1090.18 \pm 0.40 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.356^{+0.042}_{-0.018} \quad (+26.9\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.54 \pm 0.46 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.039}_{-0.017} \quad (+23.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00047 \quad (+0.1\sigma)$	f_{2000}^{143}	$30.4 \pm 3.0 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.884 \pm 0.043 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.50 \pm 0.45 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.2 \quad (-0.1\sigma)$
H_0	$> 79.8 \quad (+19.0\sigma)$	r_{drag}	$147.27 \pm 0.47 \quad (+0.1\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_{Λ}	$0.790^{+0.067}_{-0.018} \quad (+8.4\sigma)$	k_{D}	$0.14053 \pm 0.00051 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.9 \pm 1.1 \quad (-0.5\sigma)$
Ω_{m}	$0.210^{+0.018}_{-0.067} \quad (-8.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16102 \pm 0.00026 \quad (-0.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7061.9 \pm 5.3 \quad (-0.2\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1430 \pm 0.0019 \quad (-0.1\sigma)$	z_{eq}	$3401 \pm 46 \quad (-0.1\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.121^{+0.019}_{-0.0097} \quad (+55.5\sigma)$	k_{eq}	$0.01038 \pm 0.00014 \quad (-0.1\sigma)$	χ_{CMB}^2	$7481.6 \pm 5.4 \quad (-0.4\sigma)$
σ_8	$0.959^{+0.11}_{-0.055} \quad (+17.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8131 \pm 0.0086 \quad (+0.1\sigma)$		
S_8	$0.787^{+0.030}_{-0.042} \quad (-2.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4494 \pm 0.0045 \quad (+0.1\sigma)$		
$\bar{\chi}_{\mathrm{eff}}^2 = 7489.13; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.13; R - 1 = 0.01149$					

18.16 base_w_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02223 \pm 0.00021 \quad (+0.4\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.424^{+0.014}_{-0.023} \quad (-3.7\sigma)$	$H(0.15)$	$82.2^{+6.6}_{-2.9} \quad (+16.4\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1191 \pm 0.0016 \quad (-0.7\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.635^{+0.017}_{-0.013} \quad (+3.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$544^{+22}_{-63} \quad (-16.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04099 \pm 0.00046 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$1.034^{+0.028}_{-0.020} \quad (+4.1\sigma)$	$H(0.38)$	$84.5^{+1.1}_{-0.70} \quad (+4.3\sigma)$
τ	$0.0538^{+0.0043}_{-0.0084} \quad (-0.0\sigma)$	$r_{\mathrm{drag}} h$	$125^{+20}_{-9} \quad (+22.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1379^{+36}_{-97} \quad (-13.3\sigma)$
w_0	$-1.52^{+0.19}_{-0.35}$	$\langle d^2 \rangle^{1/2}$	$2.482^{+0.030}_{-0.027} \quad (+1.4\sigma)$	$H(0.51)$	$88.6^{+1.1}_{-0.67} \quad (-2.3\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.039^{+0.011}_{-0.015} \quad (-0.2\sigma)$	z_{re}	$7.59^{+0.45}_{-0.87} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1830^{+36}_{-96} \quad (-11.5\sigma)$
n_{s}	$0.9666 \pm 0.0048 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.088^{+0.022}_{-0.031} \quad (-0.2\sigma)$	$H(0.61)$	$92.8 \pm 1.4 \quad (-7.9\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.875 \pm 0.011 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2161^{+34}_{-91} \quad (-10.3\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (-0.0\sigma)$	D_{40}	$1220 \pm 13 \quad (-0.7\sigma)$	$H(2.33)$	$231.5^{+1.1}_{-2.6} \quad (-5.4\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5709 \pm 41 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5740^{+16}_{-22} \quad (-2.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2531 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.481 \pm 0.015 \quad (+2.4\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$813.9 \pm 5.1 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.892^{+0.098}_{-0.051} \quad (+27.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.562^{+0.056}_{-0.040} \quad (+13.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9666 \pm 0.0048 \quad (+0.5\sigma)$	$\sigma_8(0.38)$	$0.796^{+0.091}_{-0.045} \quad (+29.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.450 \quad (-0.0\sigma)$	Y_{P}	$0.245336^{+0.000094}_{-0.000079} \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.579^{+0.070}_{-0.046} \quad (+19.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246662^{+0.000094}_{-0.000080} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.745^{+0.085}_{-0.042} \quad (+29.7\sigma)$
A^{kSZ}	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.612 \pm 0.040 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.581^{+0.076}_{-0.046} \quad (+23.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.574^{+0.057}_{-0.14} \quad (-7.8\sigma)$	$\sigma_8(0.61)$	$0.708^{+0.081}_{-0.039} \quad (+29.4\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1090.02 \pm 0.35 \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.355^{+0.039}_{-0.017} \quad (+27.8\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.76 \pm 0.36 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.036}_{-0.017} \quad (+22.9\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04119 \pm 0.00045 \quad (+0.3\sigma)$	f_{2000}^{143}	$30.4 \pm 3.0 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.904 \pm 0.034 \quad (+0.5\sigma)$	f_{2000}^{217}	$107.2 \pm 2.1 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.55 \pm 0.45 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.2 \quad (-0.2\sigma)$
H_0	$> 80.4 \quad (+25.9\sigma)$	r_{drag}	$147.48 \pm 0.37 \quad (+0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.0 \pm 1.1 \quad (-0.6\sigma)$
Ω_{Λ}	$0.795^{+0.063}_{-0.018} \quad (+11.8\sigma)$	k_{D}	$0.14035 \pm 0.00045 \quad (-0.3\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (-0.1\sigma)$
Ω_{m}	$0.205^{+0.018}_{-0.063} \quad (-11.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16099 \pm 0.00026 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.52 \pm 0.88 \quad (-0.9\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1420 \pm 0.0015 \quad (-0.6\sigma)$	z_{eq}	$3378 \pm 35 \quad (-0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.0 \pm 5.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.121^{+0.018}_{-0.0096} \quad (+56.2\sigma)$	k_{eq}	$0.01031 \pm 0.00011 \quad (-0.6\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.953^{+0.096}_{-0.052} \quad (+23.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8174 \pm 0.0067 \quad (+0.7\sigma)$	χ_{CMB}^2	$7490.1 \pm 5.4 \quad (-0.4\sigma)$
S_8	$0.775^{+0.025}_{-0.042} \quad (-3.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0034 \quad (+0.7\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7497.68; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.33; R - 1 = 0.02078$$

18.17 base_w_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022361	0.02233 ± 0.00016 (+0.3 σ)	σ_8	1.060	$0.952^{+0.11}_{-0.051}$ (+19.0 σ)	$100\theta_{\text{eq}}$	0.8166	0.8160 ± 0.0058 (+0.2 σ)
$\Omega_c h^2$	0.11924	0.1194 ± 0.0014 (-0.2 σ)	S_8	0.7367	$0.776^{+0.025}_{-0.039}$ (-3.1 σ)	$100\theta_{\text{s,eq}}$	0.45110	0.4508 ± 0.0030 (+0.2 σ)
$100\theta_{\text{MC}}$	1.040932	1.04091 ± 0.00032 (+0.1 σ)	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4035	$0.425^{+0.014}_{-0.021}$ (-3.1 σ)	$H(0.15)$	88.79	$82.1^{+6.7}_{-2.8}$ (+17.7 σ)
τ	0.0528	0.0523 ± 0.0077 (-0.1 σ)	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6540	$0.635^{+0.021}_{-0.014}$ (+3.6 σ)	$D_{\text{M}}(0.15)$	482.4	546^{+21}_{-65} (-18.4 σ)
w_0	-1.916	$-1.52^{+0.18}_{-0.39}$	$\sigma_8/h^{0.5}$	1.0650	$1.034^{+0.034}_{-0.021}$ (+4.1 σ)	$H(0.38)$	84.89	$84.46^{+0.97}_{-0.54}$ (+4.1 σ)
$\ln(10^{10} A_{\text{s}})$	3.0380	3.037 ± 0.016 (-0.1 σ)	$r_{\text{drag}} h$	146.0	125^{+20}_{-9} (+24.0 σ)	$D_{\text{M}}(0.38)$	1286	1381^{+34}_{-98} (-14.4 σ)
n_{s}	0.96761	0.9665 ± 0.0044 (+0.2 σ)	$\langle d^2 \rangle^{1/2}$	2.5066	$2.481^{+0.041}_{-0.032}$ (+1.7 σ)	$H(0.51)$	87.21	$88.6^{+1.2}_{-0.74}$ (-3.4 σ)
y_{cal}	1.00017	1.0003 ± 0.0025 (-0.1 σ)	z_{re}	7.45	$7.41^{+0.80}_{-0.70}$ (-0.1 σ)	$D_{\text{M}}(0.51)$	1740	1832^{+33}_{-97} (-12.4 σ)
A_{100}^{PS}	230.4	238 ± 25 (-0.1 σ)	$10^9 A_{\text{s}}$	2.0863	2.085 ± 0.033 (-0.1 σ)	$H(0.61)$	90.60	$92.8^{+1.8}_{-2.0}$ (-9.9 σ)
A_{143}^{PS}	43.8	39 ± 8 (-0.1 σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8772	1.877 ± 0.012 (-0.1 σ)	$D_{\text{M}}(0.61)$	2078	2163^{+31}_{-91} (-11.0 σ)
A_{217}^{PS}	105.9	103 ± 10 (+0.0 σ)	D_{40}	1217.6	1221 ± 13 (-0.4 σ)	$H(2.33)$	229.95	$231.83^{+0.87}_{-2.5}$ (-5.3 σ)
A_{217}^{CIB}	40.9	39 ± 7 (-0.1 σ)	D_{220}	5718.9	5719 ± 38 (+0.0 σ)	$D_{\text{M}}(2.33)$	5727.8	5739^{+11}_{-19} (-2.5 σ)
A_{143}^{tSZ}	6.01	$3.9^{+1.9}_{-2.5}$ (+0.0 σ)	D_{810}	2534.2	2534 ± 14 (-0.1 σ)	$f\sigma_8(0.15)$	0.5003	$0.482^{+0.018}_{-0.016}$ (+3.0 σ)
$r_{143 \times 217}^{\text{PS}}$	0.718	0.66 ± 0.13 (+0.1 σ)	D_{1420}	815.93	815.3 ± 4.8 (-0.1 σ)	$\sigma_8(0.15)$	0.999	$0.891^{+0.11}_{-0.050}$ (+21.6 σ)
$r_{143 \times 217}^{\text{CIB}}$	0.692	$0.55^{+0.38}_{-0.20}$ (-0.0 σ)	D_{2000}	230.76	230.4 ± 1.6 (+0.1 σ)	$f\sigma_8(0.38)$	0.632	$0.562^{+0.065}_{-0.040}$ (+12.9 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.53	—	$n_{\text{s},0.002}$	0.96761	0.9665 ± 0.0044 (+0.2 σ)	$\sigma_8(0.38)$	0.895	$0.795^{+0.098}_{-0.045}$ (+23.5 σ)
A^{kSZ}	0.84	$4.6^{+1.7}_{-4.4}$ (-0.0 σ)	Y_{P}	0.245392	$0.245378^{+0.000065}_{-0.000058}$ (+0.3 σ)	$f\sigma_8(0.51)$	0.663	$0.579^{+0.079}_{-0.045}$ (+17.6 σ)
A_{100}^{dust}	1.001	1.01 ± 0.20 (-0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246719	$0.246705^{+0.000065}_{-0.000059}$ (+0.3 σ)	$\sigma_8(0.51)$	0.837	$0.744^{+0.092}_{-0.041}$ (+23.8 σ)
A_{143}^{dust}	0.943	0.96 ± 0.18 (-0.0 σ)	$10^5 \text{D}/\text{H}$	2.5871	2.593 ± 0.029 (-0.3 σ)	$f\sigma_8(0.61)$	0.670	$0.581^{+0.085}_{-0.045}$ (+20.6 σ)
A_{217}^{dust}	0.977	0.98 ± 0.10 (+0.0 σ)	Age/Gyr	13.437	$13.571^{+0.049}_{-0.14}$ (-9.3 σ)	$\sigma_8(0.61)$	0.794	$0.707^{+0.086}_{-0.039}$ (+23.7 σ)
$A_{143 \times 217}^{\text{dust}}$	1.037	1.03 ± 0.16 (-0.0 σ)	z_*	1089.863	1089.92 ± 0.27 (-0.3 σ)	$f\sigma_8(2.33)$	0.3961	$0.355^{+0.041}_{-0.018}$ (+23.0 σ)
c_{100}	0.99782	0.9975 ± 0.0011 (+0.0 σ)	r_*	144.635	144.62 ± 0.31 (+0.1 σ)	$\sigma_8(2.33)$	0.3968	$0.358^{+0.038}_{-0.017}$ (+19.8 σ)
c_{217}	1.00110	1.0011 ± 0.0016 (-0.0 σ)	$100\theta_*$	1.041112	1.04110 ± 0.00031 (+0.1 σ)	f_{2000}^{143}	28.86	29.3 ± 2.8 (-0.2 σ)
c_{TE}	0.99588	0.9958 ± 0.0049 (-0.2 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8924	13.891 ± 0.029 (+0.1 σ)	f_{2000}^{217}	105.98	106.6 ± 1.9 (-0.2 σ)
c_{EE}	0.99188	0.9917 ± 0.0050 (-0.1 σ)	z_{drag}	1059.856	1059.81 ± 0.32 (+0.2 σ)	$f_{2000}^{143 \times 217}$	31.53	31.8 ± 2.0 (-0.2 σ)
H_0	99.1	> 80.2 (+28.4 σ)	r_{drag}	147.303	147.29 ± 0.31 (+0.1 σ)	χ_{simall}^2	395.73	396.7 ± 1.5 (-0.1 σ)
Ω_{Λ}	0.8551	$0.793^{+0.064}_{-0.017}$ (+12.6 σ)	k_{D}	0.140636	0.14062 ± 0.00035 (+0.0 σ)	χ_{lowl}^2	22.18	22.57 ± 0.82 (-0.6 σ)
Ω_{m}	0.1449	$0.207^{+0.017}_{-0.064}$ (-12.6 σ)	$100\theta_{\text{D}}$	0.160796	0.16083 ± 0.00019 (-0.2 σ)	χ_{CamSpec}^2	11498.2	11513.3 ± 5.6 (-0.2 σ)
$\Omega_{\text{m}} h^2$	0.14224	0.1424 ± 0.0013 (-0.2 σ)	z_{eq}	3383.8	3387 ± 31 (-0.2 σ)	χ_{prior}^2	1.93	7.8 ± 3.4 (-0.0 σ)
$\Omega_{\text{m}} h^3$	0.1409	$0.121^{+0.019}_{-0.0090}$ (+79.4 σ)	k_{eq}	0.010328	0.010337 ± 0.000094 (-0.2 σ)	χ_{CMB}^2	11916.1	11932.6 ± 5.8 (-0.4 σ)

Best-fit $\chi_{\text{eff}}^2 = 11918.08$; $\Delta\chi_{\text{eff}}^2 = -2.68$; $\bar{\chi}_{\text{eff}}^2 = 11940.42$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.04$; $R - 1 = 0.01476$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.73 (Δ -0.16) commander_dx12_v3.2.29: 22.18 (Δ -0.83) CamSpec like_10.7HM_1400_unified: 11498.24 (Δ -1.41)

18.18 base_w_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02235 \pm 0.00015 \quad (+0.4\sigma)$	S_8	$0.770^{+0.022}_{-0.039} \quad (-4.5\sigma)$	$H(0.15)$	$82.6^{+6.3}_{-2.8} \quad (+21.2\sigma)$
$\Omega_c h^2$	$0.1191 \pm 0.0012 \quad (-0.5\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.422^{+0.012}_{-0.021} \quad (-4.5\sigma)$	$D_M(0.15)$	$541^{+22}_{-60} \quad (-22.0\sigma)$
$100\theta_{MC}$	$1.04093 \pm 0.00031 \quad (+0.2\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.634^{+0.017}_{-0.012} \quad (+4.3\sigma)$	$H(0.38)$	$84.65^{+0.88}_{-0.51} \quad (+5.3\sigma)$
τ	$0.0516 \pm 0.0073 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$1.032^{+0.028}_{-0.018} \quad (+5.1\sigma)$	$D_M(0.38)$	$1372^{+34}_{-90} \quad (-17.2\sigma)$
w_0	$-1.54^{+0.17}_{-0.35}$	$r_{\text{drag}} h$	$126^{+20}_{-10} \quad (+28.8\sigma)$	$H(0.51)$	$88.7^{+1.1}_{-0.71} \quad (-3.5\sigma)$
$\ln(10^{10} A_s)$	$3.035 \pm 0.014 \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.476^{+0.030}_{-0.025} \quad (+1.8\sigma)$	$D_M(0.51)$	$1823^{+34}_{-89} \quad (-14.9\sigma)$
n_s	$0.9671 \pm 0.0041 \quad (+0.3\sigma)$	z_{re}	$7.33^{+0.77}_{-0.67} \quad (-0.4\sigma)$	$H(0.61)$	$92.8^{+1.4}_{-1.8} \quad (-10.9\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s$	$2.080 \pm 0.030 \quad (-0.4\sigma)$	$D_M(0.61)$	$2154^{+32}_{-84} \quad (-13.3\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.875 \pm 0.011 \quad (-0.4\sigma)$	$H(2.33)$	$231.41^{+0.85}_{-2.3} \quad (-6.7\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1219 \pm 12 \quad (-0.7\sigma)$	$D_M(2.33)$	$5735^{+11}_{-17} \quad (-3.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 38 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.480^{+0.015}_{-0.013} \quad (+3.4\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2532 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.894^{+0.096}_{-0.048} \quad (+27.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$815.1 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.563^{+0.058}_{-0.036} \quad (+16.6\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.799^{+0.089}_{-0.043} \quad (+28.7\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.38}_{-0.19} \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9671 \pm 0.0041 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.580^{+0.072}_{-0.041} \quad (+23.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245385^{+0.000063}_{-0.000057} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.747^{+0.083}_{-0.040} \quad (+28.5\sigma)$
A^{kSZ}	$4.7^{+2.3}_{-3.9} \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246711^{+0.000063}_{-0.000057} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.583^{+0.077}_{-0.042} \quad (+27.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	10^5D/H	$2.590 \pm 0.029 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.710^{+0.078}_{-0.037} \quad (+28.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	Age/Gyr	$13.557^{+0.050}_{-0.13} \quad (-10.6\sigma)$	$f\sigma_8(2.33)$	$0.356^{+0.037}_{-0.017} \quad (+26.6\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.87 \pm 0.26 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.035}_{-0.017} \quad (+22.1\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.68 \pm 0.28 \quad (+0.4\sigma)$	f_{2000}^{143}	$29.4 \pm 2.8 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00031 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.6 \pm 1.9 \quad (-0.2\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.897 \pm 0.026 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.9 \pm 2.0 \quad (-0.2\sigma)$
c_{TE}	$0.9960 \pm 0.0049 \quad (-0.1\sigma)$	z_{drag}	$1059.82 \pm 0.33 \quad (+0.3\sigma)$	χ_{lensing}^2	$8.75 \pm 0.84 \quad (-0.8\sigma)$
c_{EE}	$0.9918 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.36 \pm 0.28 \quad (+0.3\sigma)$	χ_{small}^2	$396.6 \pm 1.3 \quad (-0.2\sigma)$
H_0	$> 81.0 \quad (+33.7\sigma)$	k_D	$0.14057 \pm 0.00033 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.42 \pm 0.74 \quad (-0.9\sigma)$
Ω_Λ	$0.799^{+0.059}_{-0.021} \quad (+15.2\sigma)$	$100\theta_D$	$0.16082 \pm 0.00019 \quad (-0.2\sigma)$	χ_{CamSpec}^2	$11513.1 \pm 5.4 \quad (-0.2\sigma)$
Ω_m	$0.201^{+0.021}_{-0.059} \quad (-15.2\sigma)$	z_{eq}	$3380 \pm 27 \quad (-0.5\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1421 \pm 0.0011 \quad (-0.5\sigma)$	k_{eq}	$0.010316 \pm 0.000083 \quad (-0.5\sigma)$	χ_{CMB}^2	$11940.9 \pm 5.8 \quad (-0.5\sigma)$
$\Omega_m h^3$	$0.122^{+0.018}_{-0.0087} \quad (+82.1\sigma)$	$100\theta_{\text{eq}}$	$0.8173 \pm 0.0052 \quad (+0.5\sigma)$		
σ_8	$0.955^{+0.095}_{-0.048} \quad (+24.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4515 \pm 0.0026 \quad (+0.5\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 11948.65$; $\Delta\bar{\chi}_{\text{eff}}^2 = -2.80$; $R - 1 = 0.02333$

18.19 base_w_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02232 \pm 0.00014 \quad (-0.7\sigma)$	S_8	$0.809 \pm 0.015 \quad (-0.0\sigma)$	$H(0.15)$	$76.36 \pm 0.98 \quad (+6.1\sigma)$
$\Omega_c h^2$	$0.1196 \pm 0.0014 \quad (+1.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4434 \pm 0.0085 \quad (-0.0\sigma)$	$D_M(0.15)$	$601 \pm 11 \quad (-7.3\sigma)$
$100\theta_{MC}$	$1.04089 \pm 0.00032 \quad (-0.6\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.619 \pm 0.010 \quad (+2.7\sigma)$	$H(0.38)$	$83.85 \pm 0.41 \quad (+1.5\sigma)$
τ	$0.0522 \pm 0.0073 \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$1.007 \pm 0.015 \quad (+2.8\sigma)$	$D_M(0.38)$	$1466 \pm 17 \quad (-5.6\sigma)$
w_0	$-1.199^{+0.063}_{-0.055}$	$r_{\text{drag}} h$	$108.3 \pm 2.5 \quad (+7.6\sigma)$	$H(0.51)$	$89.56 \pm 0.36 \quad (-1.4\sigma)$
$\ln(10^{10} A_s)$	$3.038^{+0.016}_{-0.015} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.460 \pm 0.031 \quad (+1.8\sigma)$	$D_M(0.51)$	$1916 \pm 18 \quad (-4.8\sigma)$
n_s	$0.9659 \pm 0.0043 \quad (-0.8\sigma)$	z_{re}	$7.42^{+0.79}_{-0.69} \quad (-0.4\sigma)$	$H(0.61)$	$94.59^{+0.43}_{-0.38} \quad (-4.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_s$	$2.086^{+0.034}_{-0.031} \quad (-0.2\sigma)$	$D_M(0.61)$	$2242 \pm 18 \quad (-4.2\sigma)$
A_{100}^{PS}	$239 \pm 24 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.879 \pm 0.012 \quad (+0.6\sigma)$	$H(2.33)$	$233.79 \pm 0.89 \quad (-2.0\sigma)$
A_{143}^{PS}	$39^{+8}_{-9} \quad (+0.1\sigma)$	D_{40}	$1225 \pm 13 \quad (+0.4\sigma)$	$D_M(2.33)$	$5749 \pm 10 \quad (-0.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5721 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.467 \pm 0.010 \quad (+2.4\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.802 \pm 0.018 \quad (+8.7\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$815.8^{+4.5}_{-5.0} \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.507 \pm 0.014 \quad (+5.8\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.12 \quad (-0.0\sigma)$	D_{2000}	$230.4^{+1.5}_{-1.7} \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.713 \pm 0.016 \quad (+9.3\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.39}_{-0.19} \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9659 \pm 0.0043 \quad (-0.8\sigma)$	$f\sigma_8(0.51)$	$0.512 \pm 0.014 \quad (+7.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P	$0.245372 \pm 0.000058 \quad (-0.7\sigma)$	$\sigma_8(0.51)$	$0.667 \pm 0.015 \quad (+9.3\sigma)$
A^{kSZ}	$4.8^{+2.3}_{-4.0} \quad (+0.1\sigma)$	Y_P^{BBN}	$0.246699 \pm 0.000058 \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.509 \pm 0.015 \quad (+8.5\sigma)$
A_{100}^{dust}	$1.00^{+0.21}_{-0.18} \quad (-0.1\sigma)$	10^5D/H	$2.596 \pm 0.027 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.634 \pm 0.014 \quad (+9.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	Age/Gyr	$13.693 \pm 0.031 \quad (-3.7\sigma)$	$f\sigma_8(2.33)$	$0.3200 \pm 0.0068 \quad (+9.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.26 \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.3260 \pm 0.0060 \quad (+7.5\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.57 \pm 0.32 \quad (-1.1\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.1\sigma)$	$100\theta_*$	$1.04108 \pm 0.00032 \quad (-0.6\sigma)$	f_{2000}^{217}	$106.8 \pm 2.0 \quad (+0.1\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.887 \pm 0.030 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.1\sigma)$
c_{TE}	$0.9961 \pm 0.0049 \quad (-0.2\sigma)$	z_{drag}	$1059.78 \pm 0.30 \quad (-0.4\sigma)$	χ_{small}^2	$396.7 \pm 1.3 \quad (-0.2\sigma)$
c_{EE}	$0.9918 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.25 \pm 0.33 \quad (-1.0\sigma)$	χ_{lowl}^2	$22.85 \pm 0.85 \quad (+0.4\sigma)$
H_0	$73.5 \pm 1.7 \quad (+9.4\sigma)$	k_D	$0.14066 \pm 0.00036 \quad (+0.7\sigma)$	χ_{CamSpec}^2	$11513.7 \pm 5.3 \quad (-0.4\sigma)$
Ω_Λ	$0.736 \pm 0.012 \quad (+5.2\sigma)$	$100\theta_D$	$0.16084 \pm 0.00018 \quad (+0.3\sigma)$	χ_{H073p45}^2	$1.0 \pm 1.4 \quad (-4.2\sigma)$
Ω_m	$0.264 \pm 0.012 \quad (-5.2\sigma)$	z_{eq}	$3392 \pm 32 \quad (+1.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1426 \pm 0.0013 \quad (+1.2\sigma)$	k_{eq}	$0.010352 \pm 0.000097 \quad (+1.2\sigma)$	χ_{CMB}^2	$11933.2 \pm 5.5 \quad (-0.5\sigma)$
$\Omega_m h^3$	$0.1049 \pm 0.0026 \quad (+28.3\sigma)$	$100\theta_{\text{eq}}$	$0.8150 \pm 0.0060 \quad (-1.2\sigma)$		
σ_8	$0.863 \pm 0.019 \quad (+7.9\sigma)$	$100\theta_{s,\text{eq}}$	$0.4503 \pm 0.0031 \quad (-1.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 11941.94$; $\Delta\bar{\chi}_{\text{eff}}^2 = -12.32$; $R - 1 = 0.08175$

18.20 base_w_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02234 \pm 0.00015 \quad (+0.3\sigma)$	σ_8	$0.953^{+0.11}_{-0.052} \quad (+20.7\sigma)$	$100\theta_{\text{eq}}$	$0.8161 \pm 0.0058 \quad (+0.2\sigma)$
$\Omega_c h^2$	$0.1194 \pm 0.0013 \quad (-0.2\sigma)$	S_8	$0.777^{+0.025}_{-0.039} \quad (-3.1\sigma)$	$100\theta_{\text{s,eq}}$	$0.4509 \pm 0.0030 \quad (+0.2\sigma)$
$100\theta_{\text{MC}}$	$1.04092 \pm 0.00031 \quad (+0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.426^{+0.014}_{-0.021} \quad (-3.1\sigma)$	$H(0.15)$	$82.0^{+6.8}_{-2.8} \quad (+17.7\sigma)$
τ	$0.0540^{+0.0045}_{-0.0076} \quad (-0.1\sigma)$	$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.636^{+0.021}_{-0.014} \quad (+3.7\sigma)$	$D_{\text{M}}(0.15)$	$546^{+22}_{-65} \quad (-18.4\sigma)$
w_0	$-1.52^{+0.18}_{-0.39}$	$\sigma_8/h^{0.5}$	$1.035^{+0.035}_{-0.021} \quad (+4.3\sigma)$	$H(0.38)$	$84.47^{+0.98}_{-0.54} \quad (+4.1\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.040^{+0.011}_{-0.015} \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$125^{+20}_{-9} \quad (+23.9\sigma)$	$D_{\text{M}}(0.38)$	$1381^{+34}_{-99} \quad (-14.4\sigma)$
n_{s}	$0.9667 \pm 0.0044 \quad (+0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.484^{+0.040}_{-0.031} \quad (+1.7\sigma)$	$H(0.51)$	$88.6^{+1.2}_{-0.74} \quad (-3.3\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.1\sigma)$	z_{re}	$7.60^{+0.51}_{-0.76} \quad (-0.1\sigma)$	$D_{\text{M}}(0.51)$	$1833^{+33}_{-97} \quad (-12.4\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.092^{+0.023}_{-0.032} \quad (-0.1\sigma)$	$H(0.61)$	$92.8 \pm 1.5 \quad (-9.9\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.877 \pm 0.012 \quad (-0.1\sigma)$	$D_{\text{M}}(0.61)$	$2164^{+31}_{-92} \quad (-11.0\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.0\sigma)$	D_{40}	$1221 \pm 13 \quad (-0.4\sigma)$	$H(2.33)$	$231.84^{+0.86}_{-2.6} \quad (-5.3\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{220}	$5719 \pm 38 \quad (+0.0\sigma)$	$D_{\text{M}}(2.33)$	$5738^{+11}_{-19} \quad (-2.5\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.482^{+0.019}_{-0.016} \quad (+3.0\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (+0.1\sigma)$	D_{1420}	$815.3 \pm 4.8 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.891^{+0.11}_{-0.051} \quad (+24.0\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.55^{+0.38}_{-0.20} \quad (-0.1\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.563^{+0.065}_{-0.040} \quad (+13.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$n_{\text{s},0.002}$	$0.9667 \pm 0.0044 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.796^{+0.099}_{-0.046} \quad (+26.7\sigma)$
A^{kSZ}	$4.6^{+1.7}_{-4.4} \quad (-0.0\sigma)$	Y_{P}	$0.245381 \pm 0.000061 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.579^{+0.080}_{-0.045} \quad (+18.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246707 \pm 0.000062 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.744^{+0.092}_{-0.042} \quad (+27.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.592 \pm 0.029 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.581^{+0.085}_{-0.046} \quad (+21.5\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	Age/Gyr	$13.571^{+0.049}_{-0.15} \quad (-9.3\sigma)$	$\sigma_8(0.61)$	$0.707^{+0.087}_{-0.039} \quad (+27.3\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_*	$1089.91 \pm 0.27 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.355^{+0.041}_{-0.018} \quad (+26.7\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	r_*	$144.62 \pm 0.31 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.358^{+0.038}_{-0.017} \quad (+23.0\sigma)$
c_{217}	$1.0010 \pm 0.0016 \quad (-0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00031 \quad (+0.1\sigma)$	f_{2000}^{143}	$29.2 \pm 2.8 \quad (-0.2\sigma)$
c_{TE}	$0.9957 \pm 0.0049 \quad (-0.2\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.891 \pm 0.029 \quad (+0.1\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (-0.2\sigma)$
c_{EE}	$0.9916 \pm 0.0050 \quad (-0.1\sigma)$	z_{drag}	$1059.82 \pm 0.32 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.0 \quad (-0.2\sigma)$
H_0	$> 80.1 \quad (+28.3\sigma)$	r_{drag}	$147.30 \pm 0.31 \quad (+0.0\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (-0.2\sigma)$
Ω_{Λ}	$0.793^{+0.065}_{-0.018} \quad (+12.6\sigma)$	k_{D}	$0.14063 \pm 0.00035 \quad (+0.0\sigma)$	χ_{lowl}^2	$22.57 \pm 0.83 \quad (-0.6\sigma)$
Ω_{m}	$0.207^{+0.018}_{-0.065} \quad (-12.6\sigma)$	$100\theta_{\text{D}}$	$0.16082 \pm 0.00019 \quad (-0.2\sigma)$	χ_{CamSpec}^2	$11513.1 \pm 5.6 \quad (-0.2\sigma)$
$\Omega_{\text{m}} h^2$	$0.1423 \pm 0.0013 \quad (-0.1\sigma)$	z_{eq}	$3386 \pm 31 \quad (-0.1\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\text{m}} h^3$	$0.121^{+0.019}_{-0.0092} \quad (+78.6\sigma)$	k_{eq}	$0.010335 \pm 0.000093 \quad (-0.1\sigma)$	χ_{CMB}^2	$11932.3 \pm 5.7 \quad (-0.4\sigma)$

$$\bar{\chi}_{\text{eff}}^2 = 11940.09; \Delta\bar{\chi}_{\text{eff}}^2 = -2.09; R - 1 = 0.01385$$

18.21 **base_w_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02236 \pm 0.00015 \quad (+0.4\sigma)$	S_8	$0.771^{+0.023}_{-0.039} \quad (-4.4\sigma)$	$H(0.15)$	$82.5^{+6.4}_{-2.9} \quad (+21.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1190 \pm 0.0012 \quad (-0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.422^{+0.012}_{-0.021} \quad (-4.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$542^{+23}_{-61} \quad (-22.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00030 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.634^{+0.018}_{-0.012} \quad (+4.3\sigma)$	$H(0.38)$	$84.67^{+0.90}_{-0.50} \quad (+5.4\sigma)$
τ	$0.0534^{+0.0042}_{-0.0073} \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$1.032^{+0.029}_{-0.018} \quad (+5.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1374^{+36}_{-92} \quad (-17.3\sigma)$
w_0	$-1.53^{+0.17}_{-0.36}$	$r_{\mathrm{drag}}h$	$126^{+20}_{-10} \quad (+28.9\sigma)$	$H(0.51)$	$88.7^{+1.1}_{-0.70} \quad (-3.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038^{+0.010}_{-0.014} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.478^{+0.029}_{-0.024} \quad (+1.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1824^{+35}_{-91} \quad (-15.0\sigma)$
n_{s}	$0.9674 \pm 0.0041 \quad (+0.4\sigma)$	z_{re}	$7.52^{+0.45}_{-0.74} \quad (-0.3\sigma)$	$H(0.61)$	$92.9^{+1.5}_{-1.8} \quad (-10.8\sigma)$
y_{cal}	$1.0002 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.086^{+0.021}_{-0.029} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2155^{+32}_{-86} \quad (-13.4\sigma)$
A_{100}^{PS}	$238 \pm 25 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.875 \pm 0.011 \quad (-0.4\sigma)$	$H(2.33)$	$231.41^{+0.85}_{-2.4} \quad (-6.7\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1219 \pm 12 \quad (-0.7\sigma)$	$D_{\mathrm{M}}(2.33)$	$5735^{+11}_{-18} \quad (-3.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 37 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.480^{+0.015}_{-0.013} \quad (+3.4\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2532 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.893^{+0.097}_{-0.049} \quad (+28.7\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$815.0 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.562^{+0.059}_{-0.037} \quad (+16.5\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.798^{+0.090}_{-0.044} \quad (+30.8\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.38}_{-0.19} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9674 \pm 0.0041 \quad (+0.4\sigma)$	$f\sigma_8(0.51)$	$0.579^{+0.072}_{-0.042} \quad (+23.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245388^{+0.000063}_{-0.000057} \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.746^{+0.084}_{-0.041} \quad (+30.8\sigma)$
A^{kSZ}	$4.7^{+2.3}_{-3.9} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246715^{+0.000063}_{-0.000057} \quad (+0.4\sigma)$	$f\sigma_8(0.61)$	$0.582^{+0.077}_{-0.043} \quad (+27.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.588 \pm 0.028 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.709^{+0.079}_{-0.038} \quad (+30.5\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.559^{+0.051}_{-0.13} \quad (-10.5\sigma)$	$f\sigma_8(2.33)$	$0.356^{+0.038}_{-0.017} \quad (+29.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.85 \pm 0.26 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.359^{+0.035}_{-0.017} \quad (+24.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.70 \pm 0.27 \quad (+0.4\sigma)$	f_{2000}^{143}	$29.3 \pm 2.8 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00030 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.5 \pm 1.9 \quad (-0.2\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.898 \pm 0.026 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.8 \pm 2.0 \quad (-0.2\sigma)$
c_{TE}	$0.9958 \pm 0.0049 \quad (-0.1\sigma)$	z_{drag}	$1059.83 \pm 0.32 \quad (+0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$8.76 \pm 0.85 \quad (-0.8\sigma)$
c_{EE}	$0.9917 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.37 \pm 0.28 \quad (+0.4\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.3\sigma)$
H_0	$> 80.7 \quad (+33.8\sigma)$	k_{D}	$0.14056 \pm 0.00033 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.41 \pm 0.75 \quad (-0.9\sigma)$
Ω_{Λ}	$0.797^{+0.060}_{-0.019} \quad (+15.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16081 \pm 0.00019 \quad (-0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.0 \pm 5.4 \quad (-0.2\sigma)$
Ω_{m}	$0.203^{+0.019}_{-0.060} \quad (-15.2\sigma)$	z_{eq}	$3378 \pm 27 \quad (-0.5\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (-0.5\sigma)$	k_{eq}	$0.010310 \pm 0.000082 \quad (-0.5\sigma)$	χ_{CMB}^2	$11940.6 \pm 5.7 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.121^{+0.018}_{-0.0090} \quad (+80.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8177 \pm 0.0051 \quad (+0.5\sigma)$		
σ_8	$0.954^{+0.096}_{-0.049} \quad (+25.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0026 \quad (+0.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 11948.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.91$; $R - 1 = 0.02464$

18.22 base_w_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02232 \pm 0.00014 \quad (-0.7\sigma)$	S_8	$0.810 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$76.35 \pm 0.98 \quad (+6.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0014 \quad (+1.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4438 \pm 0.0082 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$602 \pm 11 \quad (-7.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00032 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6192 \pm 0.0099 \quad (+2.7\sigma)$	$H(0.38)$	$83.86 \pm 0.40 \quad (+1.5\sigma)$
τ	$0.0537^{+0.0052}_{-0.0068} \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$1.008 \pm 0.014 \quad (+2.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1466 \pm 17 \quad (-5.6\sigma)$
w_0	$-1.198^{+0.062}_{-0.053}$	$r_{\mathrm{drag}}h$	$108.3 \pm 2.5 \quad (+7.6\sigma)$	$H(0.51)$	$89.58 \pm 0.35 \quad (-1.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.014} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.462 \pm 0.029 \quad (+1.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1916 \pm 18 \quad (-4.8\sigma)$
n_{s}	$0.9661 \pm 0.0041 \quad (-0.9\sigma)$	z_{re}	$7.59^{+0.52}_{-0.75} \quad (-0.4\sigma)$	$H(0.61)$	$94.60 \pm 0.40 \quad (-4.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.025}_{-0.030} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2242 \pm 18 \quad (-4.2\sigma)$
A_{100}^{PS}	$238 \pm 24 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.6\sigma)$	$H(2.33)$	$233.77 \pm 0.88 \quad (-2.0\sigma)$
A_{143}^{PS}	$39^{+8}_{-9} \quad (+0.1\sigma)$	D_{40}	$1225 \pm 12 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5749 \pm 10 \quad (-0.5\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (+0.1\sigma)$	D_{220}	$5722^{+40}_{-36} \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4676 \pm 0.0098 \quad (+2.4\sigma)$
A_{217}^{CIB}	$39 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.802 \pm 0.018 \quad (+9.4\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.5} \quad (+0.0\sigma)$	D_{1420}	$815.8^{+4.5}_{-5.0} \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.507 \pm 0.013 \quad (+5.9\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.12 \quad (-0.0\sigma)$	D_{2000}	$230.4^{+1.4}_{-1.7} \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.713 \pm 0.016 \quad (+10.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.40}_{-0.18} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9661 \pm 0.0041 \quad (-0.9\sigma)$	$f\sigma_8(0.51)$	$0.512 \pm 0.014 \quad (+7.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.245374 \pm 0.000056 \quad (-0.7\sigma)$	$\sigma_8(0.51)$	$0.668 \pm 0.015 \quad (+10.3\sigma)$
A^{kSZ}	$4.8^{+2.2}_{-4.1} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246700 \pm 0.000056 \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.509 \pm 0.014 \quad (+8.8\sigma)$
A_{100}^{dust}	$0.995^{+0.20}_{-0.18} \quad (-0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.595 \pm 0.026 \quad (+0.7\sigma)$	$\sigma_8(0.61)$	$0.635 \pm 0.014 \quad (+10.3\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.693 \pm 0.031 \quad (-3.7\sigma)$	$f\sigma_8(2.33)$	$0.3203 \pm 0.0067 \quad (+10.3\sigma)$
A_{217}^{dust}	$0.981^{+0.094}_{-0.11} \quad (+0.0\sigma)$	z_*	$1089.95 \pm 0.25 \quad (+1.0\sigma)$	$\sigma_8(2.33)$	$0.3263 \pm 0.0059 \quad (+8.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.15 \quad (+0.0\sigma)$	r_*	$144.58 \pm 0.32 \quad (-1.1\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (+0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (-0.1\sigma)$	$100\theta_*$	$1.04109 \pm 0.00032 \quad (-0.6\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.2\sigma)$
c_{217}	$1.0011 \pm 0.0015 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.029 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.1\sigma)$
c_{TE}	$0.9959 \pm 0.0049 \quad (-0.2\sigma)$	z_{drag}	$1059.79 \pm 0.29 \quad (-0.4\sigma)$	χ_{small}^2	$396.6 \pm 1.3 \quad (-0.3\sigma)$
c_{EE}	$0.9918 \pm 0.0049 \quad (-0.1\sigma)$	r_{drag}	$147.26 \pm 0.32 \quad (-1.0\sigma)$	χ_{lowl}^2	$22.86 \pm 0.82 \quad (+0.4\sigma)$
H_0	$73.5 \pm 1.7 \quad (+9.3\sigma)$	k_{D}	$0.14065 \pm 0.00035 \quad (+0.7\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.4 \pm 5.3 \quad (-0.4\sigma)$
Ω_{Λ}	$0.736 \pm 0.012 \quad (+5.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00017 \quad (+0.4\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$1.0 \pm 1.4 \quad (-4.2\sigma)$
Ω_{m}	$0.264 \pm 0.012 \quad (-5.2\sigma)$	z_{eq}	$3391 \pm 31 \quad (+1.2\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0013 \quad (+1.2\sigma)$	k_{eq}	$0.010349 \pm 0.000095 \quad (+1.2\sigma)$	χ_{CMB}^2	$11932.9 \pm 5.4 \quad (-0.5\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.1048 \pm 0.0025 \quad (+27.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8152 \pm 0.0058 \quad (-1.2\sigma)$		
σ_8	$0.864 \pm 0.018 \quad (+8.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4504 \pm 0.0030 \quad (-1.2\sigma)$		

 $\bar{\chi}_{\mathrm{eff}}^2 = 11941.58; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -12.43; R - 1 = 0.09840$

18.23 base_w_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022173	0.02217 ± 0.00020 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9895	0.992 ± 0.020 $(+0.8\sigma)$	$D_M(0.38)$	1524.8	1522 ± 17 (-0.9σ)
$\Omega_c h^2$	0.11961	0.1197 ± 0.0018 $(+0.6\sigma)$	$r_{\text{drag}} h$	100.45	$100.9^{+1.9}_{-2.3}$ $(+1.3\sigma)$	$H(0.51)$	89.543	$89.50^{+0.39}_{-0.34}$ (-0.6σ)
$100\theta_{\text{MC}}$	1.040921	1.04090 ± 0.00044 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4411	2.445 ± 0.040 $(+0.6\sigma)$	$D_M(0.51)$	1977.2	1974 ± 17 (-0.7σ)
τ	0.0528	0.0531 ± 0.0080 (-0.1σ)	z_{re}	7.56	7.57 ± 0.82 (-0.1σ)	$H(0.61)$	95.092	$95.02^{+0.49}_{-0.40}$ (-1.0σ)
w_0	-1.027	$-1.041^{+0.074}_{-0.060}$	$10^9 A_s$	2.0905	2.091 ± 0.034 (-0.0σ)	$D_M(0.61)$	2302.2	2299 ± 17 (-0.6σ)
$\ln(10^{10} A_s)$	3.0400	3.040 ± 0.016 (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8811	1.880 ± 0.013 $(+0.3\sigma)$	$H(2.33)$	235.70	235.65 ± 0.80 (-0.1σ)
n_s	0.9655	0.9649 ± 0.0051 (-0.4σ)	D_{40}	1227.4	1228 ± 14 $(+0.2\sigma)$	$D_M(2.33)$	5768.2	5768 ± 12 $(+0.1\sigma)$
y_{cal}	1.00058	1.0005 ± 0.0025 (-0.0σ)	D_{220}	5717.3	5716 ± 40 (-0.1σ)	$f\sigma_8(0.15)$	0.4594	0.461 ± 0.013 $(+0.8\sigma)$
A_{217}^{CIB}	49.6	48 ± 7 (-0.0σ)	D_{810}	2537.6	2536 ± 14 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7551	0.759 ± 0.022 $(+1.8\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.21	—	D_{1420}	815.8	815.0 ± 5.1 (-0.1σ)	$f\sigma_8(0.38)$	0.4799	$0.483^{+0.016}_{-0.018}$ $(+1.5\sigma)$
A_{143}^{tSZ}	6.99	5.1 ± 2.0 $(+0.0\sigma)$	D_{2000}	230.04	229.8 ± 1.8 (-0.1σ)	$\sigma_8(0.38)$	0.6694	0.673 ± 0.020 $(+1.9\sigma)$
A_{100}^{PS}	256.8	263 ± 28 (-0.0σ)	$n_{s,0.002}$	0.9655	0.9649 ± 0.0051 (-0.4σ)	$f\sigma_8(0.51)$	0.4791	$0.482^{+0.017}_{-0.019}$ $(+1.8\sigma)$
A_{143}^{PS}	48.2	49 ± 8 $(+0.0\sigma)$	Y_{P}	0.245315	$0.245310^{+0.000091}_{-0.000077}$ (-0.2σ)	$\sigma_8(0.51)$	0.6263	0.629 ± 0.018 $(+1.9\sigma)$
$A_{143 \times 217}^{\text{PS}}$	43.9	43 ± 9 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246641	$0.246636^{+0.000092}_{-0.000078}$ (-0.2σ)	$f\sigma_8(0.61)$	0.4743	$0.477^{+0.017}_{-0.019}$ $(+2.0\sigma)$
A_{217}^{PS}	117.7	115 ± 10 $(+0.1\sigma)$	$10^5 \text{D}/\text{H}$	2.6231	2.624 ± 0.038 $(+0.2\sigma)$	$\sigma_8(0.61)$	0.5959	0.599 ± 0.017 $(+1.8\sigma)$
A^{kSZ}	0.12	< 4.72 (-0.0σ)	Age/Gyr	13.7989	13.794 ± 0.035 (-0.4σ)	$f\sigma_8(2.33)$	0.3004	0.3018 ± 0.0084 $(+1.8\sigma)$
A_{100}^{dustTT}	8.86	9.0 ± 1.8 (-0.0σ)	z_*	1090.135	1090.15 ± 0.35 $(+0.4\sigma)$	$\sigma_8(2.33)$	0.3090	0.3102 ± 0.0071 $(+1.4\sigma)$
A_{143}^{dustTT}	10.82	10.7 ± 1.8 (-0.0σ)	r_*	144.683	144.66 ± 0.42 (-0.5σ)	f_{2000}^{143}	30.67	31.0 ± 2.9 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	19.34	18.3 ± 3.3 (-0.0σ)	$100\theta_*$	1.041129	1.04110 ± 0.00044 (-0.2σ)	$f_{2000}^{143 \times 217}$	33.38	33.4 ± 2.0 $(+0.0\sigma)$
A_{217}^{dustTT}	94.5	93.3 ± 7.3 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8967	13.895 ± 0.039 (-0.4σ)	f_{2000}^{217}	107.87	108.0 ± 1.9 $(+0.0\sigma)$
c_{100}	0.99965	0.99960 ± 0.00062 (-0.0σ)	z_{drag}	1059.437	1059.45 ± 0.43 (-0.1σ)	χ_{simall}^2	395.86	397.0 ± 1.8 (-0.1σ)
c_{217}	0.99829	0.99826 ± 0.00062 (-0.0σ)	r_{drag}	147.416	147.40 ± 0.43 (-0.4σ)	χ_{lowl}^2	23.15	23.3 ± 1.0 $(+0.2\sigma)$
H_0	68.14	$68.5^{+1.4}_{-1.7}$ $(+1.6\sigma)$	k_{D}	0.140374	0.14039 ± 0.00049 $(+0.3\sigma)$	χ_{plik}^2	759.1	771.5 ± 5.6 (-0.1σ)
Ω_Λ	0.6933	0.696 ± 0.012 $(+0.8\sigma)$	$100\theta_{\text{D}}$	0.161047	0.16105 ± 0.00025 $(+0.1\sigma)$	$\chi_{6\text{DF}}^2$	0.002	0.13 ± 0.19 $(+1.0\sigma)$
Ω_{m}	0.3067	0.304 ± 0.012 (-0.8σ)	z_{eq}	3388.2	3390 ± 41 $(+0.6\sigma)$	χ_{MGS}^2	1.54	1.9 ± 1.0 $(+1.0\sigma)$
$\Omega_{\text{m}} h^2$	0.14243	0.1425 ± 0.0017 $(+0.6\sigma)$	k_{eq}	0.010341	0.01035 ± 0.00012 $(+0.6\sigma)$	χ_{DR12BAO}^2	4.36	5.2 ± 1.5 $(+0.3\sigma)$
$\Omega_{\text{m}} h^3$	0.09705	$0.0976^{+0.0027}_{-0.0031}$ $(+3.8\sigma)$	$100\theta_{\text{eq}}$	0.8153	0.8149 ± 0.0076 (-0.6σ)	χ_{prior}^2	1.47	7.3 ± 3.7 (-0.0σ)
σ_8	0.8168	0.821 ± 0.024 $(+1.7\sigma)$	$100\theta_{\text{s,eq}}$	0.45056	0.4504 ± 0.0039 (-0.6σ)	χ_{BAO}^2	5.90	7.2 ± 1.9 $(+0.8\sigma)$
S_8	0.8260	0.826 ± 0.017 $(+0.3\sigma)$	$H(0.15)$	73.14	73.31 ± 0.87 $(+0.9\sigma)$	χ_{CMB}^2	1178.1	1191.8 ± 5.6 (-0.1σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4524	0.4524 ± 0.0094 $(+0.3\sigma)$	$D_M(0.15)$	637.7	636 ± 11 (-1.2σ)			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6079	0.609 ± 0.014 $(+0.8\sigma)$	$H(0.38)$	82.945	82.96 ± 0.35 (-0.0σ)			

Best-fit $\chi_{\text{eff}}^2 = 1185.52$; $\Delta\chi_{\text{eff}}^2 = -0.23$; $\bar{\chi}_{\text{eff}}^2 = 1206.32$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.29$; $R - 1 = 0.00799$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.54 (Δ 0.26) DR12BAO: 4.36 (Δ 0.18) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.03) commander_dx12_v3_2_29: 23.15 (Δ 0.32) plik_rd12_HM_v22_TT: 759.14 (Δ -0.96)

18.24 base_w_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022205	0.02217 ± 0.00020 (-0.2σ)	$\sigma_8/h^{0.5}$	0.9908	0.992 ± 0.014 $(+0.8\sigma)$	$D_M(0.38)$	1523.4	1521 ± 16 (-1.2σ)
$\Omega_c h^2$	0.11959	0.1197 ± 0.0014 $(+0.5\sigma)$	$r_{\text{drag}} h$	100.60	$101.0^{+1.9}_{-2.2}$ $(+1.7\sigma)$	$H(0.51)$	89.554	89.52 ± 0.31 (-0.4σ)
$100\theta_{\text{MC}}$	1.040857	1.04090 ± 0.00042 (-0.2σ)	$\langle d^2 \rangle^{1/2}$	2.4444	2.445 ± 0.027 $(+0.5\sigma)$	$D_M(0.51)$	1975.7	1973 ± 17 (-1.0σ)
τ	0.0542	0.0533 ± 0.0078 (-0.2σ)	z_{re}	7.70	7.59 ± 0.79 (-0.2σ)	$H(0.61)$	95.092	$95.03^{+0.40}_{-0.34}$ (-0.9σ)
w_0	-1.031	$-1.042^{+0.062}_{-0.052}$	$10^9 A_s$	2.0957	2.092 ± 0.031 (-0.2σ)	$D_M(0.61)$	2300.6	2298 ± 17 (-0.9σ)
$\ln(10^{10} A_s)$	3.0425	3.041 ± 0.015 (-0.2σ)	$10^9 A_s e^{-2\tau}$	1.8805	1.880 ± 0.011 $(+0.1\sigma)$	$H(2.33)$	235.66	235.59 ± 0.79 (-0.4σ)
n_s	0.96550	0.9649 ± 0.0045 (-0.3σ)	D_{40}	1227.6	1229 ± 12 $(+0.1\sigma)$	$D_M(2.33)$	5767.3	5768 ± 12 (-0.0σ)
y_{cal}	1.00028	1.0005 ± 0.0024 (-0.1σ)	D_{220}	5718.5	5718 ± 40 (-0.2σ)	$f\sigma_8(0.15)$	0.4600	0.4605 ± 0.0091 $(+0.7\sigma)$
A_{217}^{CIB}	48.6	48 ± 7 (-0.0σ)	D_{810}	2536.8	2536 ± 13 (-0.1σ)	$\sigma_8(0.15)$	0.7568	0.759 ± 0.017 $(+2.0\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.32	—	D_{1420}	815.6	815.0 ± 5.0 (-0.1σ)	$f\sigma_8(0.38)$	0.4809	$0.483^{+0.012}_{-0.013}$ $(+1.6\sigma)$
A_{143}^{tSZ}	7.02	$5.1^{+2.2}_{-2.0}$ $(+0.0\sigma)$	D_{2000}	230.08	229.8 ± 1.7 (-0.1σ)	$\sigma_8(0.38)$	0.6709	0.673 ± 0.015 $(+2.1\sigma)$
A_{100}^{PS}	254.1	263 ± 28 (-0.0σ)	$n_{s,0.002}$	0.96550	0.9649 ± 0.0045 (-0.3σ)	$f\sigma_8(0.51)$	0.4802	$0.482^{+0.013}_{-0.014}$ $(+2.0\sigma)$
A_{143}^{PS}	49.2	49 ± 8 $(+0.0\sigma)$	Y_{P}	0.245328	$0.245312^{+0.000090}_{-0.000074}$ (-0.2σ)	$\sigma_8(0.51)$	0.6278	0.630 ± 0.014 $(+2.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	46.9	43 ± 9 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246654	$0.246638^{+0.000091}_{-0.000074}$ (-0.2σ)	$f\sigma_8(0.61)$	0.4754	$0.477^{+0.013}_{-0.015}$ $(+2.3\sigma)$
A_{217}^{PS}	119.5	115 ± 10 $(+0.0\sigma)$	$10^5 \text{D}/\text{H}$	2.6170	2.623 ± 0.037 $(+0.2\sigma)$	$\sigma_8(0.61)$	0.5973	0.599 ± 0.013 $(+2.0\sigma)$
A^{kSZ}	0.01	< 4.72 (-0.0σ)	Age/Gyr	13.7956	13.793 ± 0.034 (-0.6σ)	$f\sigma_8(2.33)$	0.3012	0.3020 ± 0.0066 $(+1.9\sigma)$
A_{100}^{dustTT}	8.88	8.9 ± 1.9 (-0.0σ)	z_*	1090.093	1090.14 ± 0.31 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.3097	0.3104 ± 0.0056 $(+1.5\sigma)$
A_{143}^{dustTT}	10.80	10.7 ± 1.8 $(+0.0\sigma)$	r_*	144.663	144.67 ± 0.33 (-0.4σ)	f_{2000}^{143}	30.19	31.0 ± 2.9 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	19.36	18.3 ± 3.2 (-0.0σ)	$100\theta_*$	1.041056	1.04110 ± 0.00042 (-0.2σ)	$f_{2000}^{143 \times 217}$	33.12	33.4 ± 2.0 $(+0.0\sigma)$
A_{217}^{dustTT}	94.5	93.2 ± 7.2 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8958	13.896 ± 0.032 (-0.3σ)	f_{2000}^{217}	107.58	108.0 ± 1.9 $(+0.0\sigma)$
c_{100}	0.99966	0.99960 ± 0.00061 (-0.0σ)	z_{drag}	1059.513	1059.46 ± 0.44 (-0.1σ)	χ_{lensing}^2	8.734	9.35 ± 0.86 $(+0.1\sigma)$
c_{217}	0.99823	0.99826 ± 0.00062 (-0.0σ)	r_{drag}	147.385	147.40 ± 0.35 (-0.3σ)	χ_{simall}^2	396.05	397.0 ± 1.7 (-0.1σ)
H_0	68.25	$68.5^{+1.3}_{-1.5}$ $(+2.0\sigma)$	k_{D}	0.140431	0.14039 ± 0.00044 $(+0.2\sigma)$	χ_{lowl}^2	23.21	23.32 ± 0.89 $(+0.1\sigma)$
Ω_Λ	0.6943	0.696 ± 0.012 $(+1.2\sigma)$	$100\theta_{\text{D}}$	0.160992	0.16104 ± 0.00025 $(+0.1\sigma)$	χ_{plik}^2	759.0	770.9 ± 5.3 (-0.1σ)
Ω_{m}	0.3057	0.304 ± 0.012 (-1.2σ)	z_{eq}	3388.5	3389 ± 31 $(+0.5\sigma)$	$\chi_{6\text{DF}}^2$	0.000	0.13 ± 0.18 $(+1.0\sigma)$
$\Omega_{\text{m}} h^2$	0.14244	0.1425 ± 0.0013 $(+0.5\sigma)$	k_{eq}	0.010342	0.010345 ± 0.000095 $(+0.5\sigma)$	χ_{MGS}^2	1.61	1.92 ± 0.99 $(+1.4\sigma)$
$\Omega_{\text{m}} h^3$	0.09722	$0.0977^{+0.0023}_{-0.0026}$ $(+3.9\sigma)$	$100\theta_{\text{eq}}$	0.8152	0.8151 ± 0.0058 (-0.5σ)	χ_{DR12BAO}^2	4.33	5.1 ± 1.4 $(+0.2\sigma)$
σ_8	0.8186	0.821 ± 0.018 $(+1.9\sigma)$	$100\theta_{\text{s,eq}}$	0.45052	0.4505 ± 0.0030 (-0.5σ)	χ_{prior}^2	1.31	7.2 ± 3.6 (-0.0σ)
S_8	0.8264	0.825 ± 0.012 $(+0.1\sigma)$	$H(0.15)$	73.21	73.36 ± 0.85 $(+1.3\sigma)$	χ_{CMB}^2	1187.0	1200.6 ± 5.6 (-0.1σ)
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4526	0.4521 ± 0.0067 $(+0.1\sigma)$	$D_M(0.15)$	636.9	635 ± 10 (-1.6σ)	χ_{BAO}^2	5.94	7.2 ± 1.8 $(+0.8\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6087	0.6092 ± 0.0095 $(+0.8\sigma)$	$H(0.38)$	82.973	82.98 ± 0.34 $(+0.2\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 1194.29$; $\Delta\chi_{\text{eff}}^2 = -0.39$; $\bar{\chi}_{\text{eff}}^2 = 1214.98$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.25$; $R - 1 = 0.01126$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.03) MGS: 1.61 (Δ 0.39) DR12BAO: 4.33 (Δ -0.04) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.73 (Δ -0.14) simall_100x143_offlike5_EE_Aplanc
396.05 (Δ -0.05) commander_dx12_v3.2_29: 23.21 (Δ 0.25) plik_rd12_HM_v22.TT: 759.05 (Δ -0.75)

18.25 base_w_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00020 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.020 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522 \pm 17 \quad (-0.8\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0018 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$100.9^{+1.9}_{-2.3} \quad (+1.2\sigma)$	$H(0.51)$	$89.51^{+0.39}_{-0.34} \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00044 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.040 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	$1974 \pm 17 \quad (-0.7\sigma)$
τ	$0.0545^{+0.0050}_{-0.0082} \quad (-0.1\sigma)$	z_{re}	$7.72^{+0.56}_{-0.82} \quad (-0.1\sigma)$	$H(0.61)$	$95.03^{+0.49}_{-0.39} \quad (-1.0\sigma)$
w_0	$-1.040^{+0.074}_{-0.060}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.025}_{-0.034} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2299 \pm 17 \quad (-0.6\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.013 \quad (+0.3\sigma)$	$H(2.33)$	$235.64 \pm 0.81 \quad (-0.1\sigma)$
n_{s}	$0.9651 \pm 0.0051 \quad (-0.3\sigma)$	D_{40}	$1229 \pm 14 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5768 \pm 12 \quad (+0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5716 \pm 40 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.461 \pm 0.013 \quad (+0.8\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.759 \pm 0.022 \quad (+2.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.0 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.483^{+0.016}_{-0.018} \quad (+1.5\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.673 \pm 0.020 \quad (+2.0\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9651 \pm 0.0051 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.482^{+0.017}_{-0.019} \quad (+1.8\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.245312^{+0.000090}_{-0.000077} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.630 \pm 0.018 \quad (+2.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246638^{+0.000090}_{-0.000077} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.478^{+0.017}_{-0.020} \quad (+2.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.623 \pm 0.038 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.599 \pm 0.017 \quad (+2.0\sigma)$
A^{kSZ}	$< 4.68 \quad (-0.0\sigma)$	Age/Gyr	$13.794 \pm 0.035 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.3021 \pm 0.0084 \quad (+2.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.14 \pm 0.35 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3106 \pm 0.0070 \quad (+1.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.67 \pm 0.42 \quad (-0.5\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00044 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.3 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.896 \pm 0.040 \quad (-0.4\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.0\sigma)$
c_{100}	$0.99960 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.46 \pm 0.43 \quad (-0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.43 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.3 \pm 1.0 \quad (+0.2\sigma)$
H_0	$68.5^{+1.4}_{-1.6} \quad (+1.5\sigma)$	k_{D}	$0.14039 \pm 0.00049 \quad (+0.2\sigma)$	χ_{plik}^2	$771.3 \pm 5.6 \quad (-0.1\sigma)$
Ω_{Λ}	$0.696 \pm 0.012 \quad (+0.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00025 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.13 \pm 0.19 \quad (+1.0\sigma)$
Ω_{m}	$0.304 \pm 0.012 \quad (-0.8\sigma)$	z_{eq}	$3389 \pm 41 \quad (+0.6\sigma)$	χ_{MGS}^2	$1.88 \pm 0.99 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0017 \quad (+0.6\sigma)$	k_{eq}	$0.01034 \pm 0.00012 \quad (+0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.5 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0976^{+0.0027}_{-0.0031} \quad (+3.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8151 \pm 0.0076 \quad (-0.6\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.821 \pm 0.024 \quad (+1.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0039 \quad (-0.6\sigma)$	χ_{BAO}^2	$7.2 \pm 1.9 \quad (+0.8\sigma)$
S_8	$0.827 \pm 0.017 \quad (+0.3\sigma)$	$H(0.15)$	$73.31 \pm 0.87 \quad (+0.9\sigma)$	χ_{CMB}^2	$1191.6 \pm 5.5 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4527 \pm 0.0094 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$636 \pm 11 \quad (-1.2\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610 \pm 0.014 \quad (+0.9\sigma)$	$H(0.38)$	$82.96 \pm 0.35 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.07$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.31$; $R - 1 = 0.00764$

18.26 base_w_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02218 \pm 0.00020 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.014 \quad (+0.8\sigma)$	$D_M(0.38)$	$1521 \pm 16 \quad (-1.2\sigma)$
$\Omega_c h^2$	$0.1196 \pm 0.0013 \quad (+0.4\sigma)$	$r_{\text{drag}} h$	$101.0^{+1.9}_{-2.2} \quad (+1.6\sigma)$	$H(0.51)$	$89.54 \pm 0.31 \quad (-0.4\sigma)$
$100\theta_{\text{MC}}$	$1.04091 \pm 0.00042 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.027 \quad (+0.5\sigma)$	$D_M(0.51)$	$1973 \pm 17 \quad (-1.0\sigma)$
τ	$0.0546^{+0.0052}_{-0.0079} \quad (-0.2\sigma)$	z_{re}	$7.73^{+0.56}_{-0.79} \quad (-0.2\sigma)$	$H(0.61)$	$95.05^{+0.39}_{-0.33} \quad (-0.8\sigma)$
w_0	$-1.039^{+0.060}_{-0.052}$	$10^9 A_s$	$2.097^{+0.023}_{-0.031} \quad (-0.1\sigma)$	$D_M(0.61)$	$2298 \pm 17 \quad (-0.8\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.011}_{-0.015} \quad (-0.1\sigma)$	$10^9 A_s e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$235.57 \pm 0.79 \quad (-0.4\sigma)$
n_s	$0.9651 \pm 0.0044 \quad (-0.2\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.1\sigma)$	$D_M(2.33)$	$5767 \pm 12 \quad (-0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (-0.1\sigma)$	D_{220}	$5718 \pm 40 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4604 \pm 0.0091 \quad (+0.7\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.759^{+0.016}_{-0.018} \quad (+2.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$815.1 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.482^{+0.012}_{-0.013} \quad (+1.6\sigma)$
A_{143}^{tSZ}	$5.1^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{2000}	$229.9 \pm 1.7 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.673 \pm 0.015 \quad (+2.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9651 \pm 0.0044 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.482^{+0.013}_{-0.014} \quad (+2.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.245315^{+0.000089}_{-0.000073} \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.630 \pm 0.014 \quad (+2.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246641^{+0.000089}_{-0.000074} \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.477^{+0.013}_{-0.015} \quad (+2.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.622 \pm 0.037 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.599 \pm 0.013 \quad (+2.1\sigma)$
A^{kSZ}	$< 4.65 \quad (-0.0\sigma)$	Age/Gyr	$13.793 \pm 0.034 \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.3021 \pm 0.0066 \quad (+2.0\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.9 \quad (-0.0\sigma)$	z_*	$1090.12 \pm 0.31 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3105 \pm 0.0055 \quad (+1.5\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.69 \pm 0.33 \quad (-0.3\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.2 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00042 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.0\sigma)$
A_{217}^{dustTT}	$93.3 \pm 7.2 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.898 \pm 0.032 \quad (-0.3\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.0\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.47 \pm 0.43 \quad (-0.1\sigma)$	χ_{lensing}^2	$9.33 \pm 0.85 \quad (+0.2\sigma)$
c_{217}	$0.99826 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.42 \pm 0.35 \quad (-0.3\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.1\sigma)$
H_0	$68.5^{+1.3}_{-1.5} \quad (+2.0\sigma)$	k_{D}	$0.14038 \pm 0.00044 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.31 \pm 0.89 \quad (+0.1\sigma)$
Ω_{Λ}	$0.696 \pm 0.012 \quad (+1.1\sigma)$	$100\theta_{\text{D}}$	$0.16104 \pm 0.00025 \quad (+0.1\sigma)$	χ_{plik}^2	$770.9 \pm 5.3 \quad (-0.1\sigma)$
Ω_{m}	$0.304 \pm 0.012 \quad (-1.1\sigma)$	z_{eq}	$3387 \pm 31 \quad (+0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.13 \pm 0.18 \quad (+1.0\sigma)$
$\Omega_{\text{m}} h^2$	$0.1424 \pm 0.0013 \quad (+0.4\sigma)$	k_{eq}	$0.010338 \pm 0.000094 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.91 \pm 0.98 \quad (+1.4\sigma)$
$\Omega_{\text{m}} h^3$	$0.0975^{+0.0023}_{-0.0026} \quad (+3.7\sigma)$	$100\theta_{\text{eq}}$	$0.8155 \pm 0.0057 \quad (-0.4\sigma)$	χ_{DR12BAO}^2	$5.1 \pm 1.4 \quad (+0.2\sigma)$
σ_8	$0.821 \pm 0.018 \quad (+1.9\sigma)$	$100\theta_{\text{s,eq}}$	$0.4507 \pm 0.0029 \quad (-0.4\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.826 \pm 0.012 \quad (+0.1\sigma)$	$H(0.15)$	$73.35 \pm 0.85 \quad (+1.2\sigma)$	χ_{CMB}^2	$1200.4 \pm 5.6 \quad (-0.1\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4522 \pm 0.0067 \quad (+0.1\sigma)$	$D_M(0.15)$	$635 \pm 10 \quad (-1.6\sigma)$	χ_{BAO}^2	$7.1 \pm 1.7 \quad (+0.8\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6092 \pm 0.0095 \quad (+0.8\sigma)$	$H(0.38)$	$83.00 \pm 0.34 \quad (+0.2\sigma)$		

$\bar{\chi}_{\text{eff}}^2 = 1214.74$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.16$; $R - 1 = 0.01087$

18.33 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02232 \pm 0.00015 \quad (-0.1\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4498 \pm 0.0071 \quad (+0.1\sigma)$	$H(0.38)$	$83.09 \pm 0.32 \quad (+0.1\sigma)$
$\Omega_c h^2$	$0.1192 \pm 0.0013 \quad (+0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.605 \pm 0.010 \quad (+0.4\sigma)$	$D_M(0.38)$	$1522 \pm 17 \quad (-0.7\sigma)$
$100\theta_{MC}$	$1.04093 \pm 0.00031 \quad (-0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.986 \pm 0.015 \quad (+0.4\sigma)$	$H(0.51)$	$89.68 \pm 0.26 \quad (-0.3\sigma)$
τ	$0.0544^{+0.0047}_{-0.0084} \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$100.6^{+1.9}_{-2.2} \quad (+1.0\sigma)$	$D_M(0.51)$	$1974 \pm 17 \quad (-0.6\sigma)$
w_0	$-1.024^{+0.059}_{-0.051}$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.031 \quad (+0.3\sigma)$	$H(0.61)$	$95.23^{+0.35}_{-0.29} \quad (-0.6\sigma)$
$\ln(10^{10} A_s)$	$3.041^{+0.011}_{-0.016} \quad (-0.1\sigma)$	z_{re}	$7.67^{+0.53}_{-0.84} \quad (-0.1\sigma)$	$D_M(0.61)$	$2298 \pm 17 \quad (-0.5\sigma)$
n_s	$0.9669 \pm 0.0042 \quad (-0.1\sigma)$	$10^9 A_s$	$2.093^{+0.024}_{-0.034} \quad (-0.1\sigma)$	$H(2.33)$	$235.71 \pm 0.75 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0026 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.877 \pm 0.012 \quad (+0.1\sigma)$	$D_M(2.33)$	$5761.8 \pm 9.3 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (-0.0\sigma)$	D_{40}	$1224 \pm 12 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0096 \quad (+0.4\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5719 \pm 40 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.753 \pm 0.018 \quad (+1.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.478 \pm 0.013 \quad (+0.9\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$815.9 \pm 5.0 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.668 \pm 0.016 \quad (+1.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.7 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.477 \pm 0.014 \quad (+1.1\sigma)$
$r_{143 \times 217}^{\text{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9669 \pm 0.0042 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.625 \pm 0.015 \quad (+1.2\sigma)$
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	Y_P	$0.245375 \pm 0.000060 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.472 \pm 0.015 \quad (+1.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	$0.246701 \pm 0.000060 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.595 \pm 0.014 \quad (+1.2\sigma)$
A^{kSZ}	$4.7^{+2.0}_{-4.1} \quad (-0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.595 \pm 0.028 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2999 \pm 0.0072 \quad (+1.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.786 \pm 0.032 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3088 \pm 0.0061 \quad (+0.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (-0.0\sigma)$	z_*	$1089.91 \pm 0.26 \quad (+0.2\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.67 \pm 0.30 \quad (-0.2\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00031 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.896 \pm 0.028 \quad (-0.2\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.77 \pm 0.32 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.93 \pm 0.85 \quad (+0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.35 \pm 0.30 \quad (-0.2\sigma)$	χ_{CamSpec}^2	$11514.5 \pm 5.7 \quad (+0.0\sigma)$
c_{EE}	$0.9921 \pm 0.0049 \quad (-0.1\sigma)$	k_D	$0.14056 \pm 0.00035 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.13 \pm 0.20 \quad (+1.5\sigma)$
H_0	$68.3^{+1.3}_{-1.5} \quad (+1.2\sigma)$	$100\theta_D$	$0.16085 \pm 0.00019 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.78 \pm 0.99 \quad (+0.9\sigma)$
Ω_Λ	$0.695 \pm 0.012 \quad (+0.7\sigma)$	z_{eq}	$3382 \pm 29 \quad (+0.3\sigma)$	χ_{DR12BAO}^2	$4.9 \pm 1.4 \quad (+0.3\sigma)$
Ω_m	$0.305 \pm 0.012 \quad (-0.7\sigma)$	k_{eq}	$0.010324 \pm 0.000088 \quad (+0.3\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (+0.0\sigma)$
$\Omega_m h^2$	$0.1422 \pm 0.0012 \quad (+0.3\sigma)$	$100\theta_{\text{eq}}$	$0.8167 \pm 0.0054 \quad (-0.3\sigma)$	χ_{BAO}^2	$6.8 \pm 1.8 \quad (+0.9\sigma)$
$\Omega_m h^3$	$0.0971^{+0.0023}_{-0.0025} \quad (+3.2\sigma)$	$100\theta_{s,\text{eq}}$	$0.4512 \pm 0.0028 \quad (-0.3\sigma)$	χ_{CMB}^2	$11934.2 \pm 5.7 \quad (+0.0\sigma)$
σ_8	$0.815 \pm 0.019 \quad (+1.0\sigma)$	$H(0.15)$	$73.28 \pm 0.87 \quad (+0.8\sigma)$		
S_8	$0.821 \pm 0.013 \quad (+0.1\sigma)$	$D_M(0.15)$	$637 \pm 10 \quad (-1.0\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 11948.94; \Delta\bar{\chi}_{\text{eff}}^2 = 0.95; R - 1 = 0.01259$$

18.35 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022194	0.02218 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.6142	0.613 ± 0.011	$D_M(0.38)$	1507.0	1507 ± 11
$\Omega_c h^2$	0.12001	0.1199 ± 0.0016	$\sigma_8/h^{0.5}$	0.9991	0.998 ± 0.016	$H(0.51)$	89.513	89.51 ± 0.36
$100\theta_{MC}$	1.040912	1.04090 ± 0.00044	$r_{drag}h$	102.71	102.7 ± 1.3	$D_M(0.51)$	1958.9	1959 ± 11
τ	0.0527	0.0525 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4545	2.454 ± 0.035	$H(0.61)$	94.902	94.90 ± 0.39
w_0	-1.0848	-1.084 ± 0.043	z_{re}	7.55	7.51 ± 0.82	$D_M(0.61)$	2284.3	2285 ± 12
$\ln(10^{10} A_s)$	3.0406	3.040 ± 0.017	$10^9 A_s$	2.0917	2.090 ± 0.035	$H(2.33)$	235.20	235.18 ± 0.77
n_s	0.96520	0.9645 ± 0.0048	$10^9 A_s e^{-2\tau}$	1.8824	1.881 ± 0.012	$D_M(2.33)$	5763.0	5764 ± 12
α_{JLA}	0.1420	0.1420 ± 0.0066	D_{40}	1227.4	1229 ± 14	$f\sigma_8(0.15)$	0.4646	0.464 ± 0.011
β_{JLA}	3.116	3.118 ± 0.081	D_{220}	5714.9	5717 ± 41	$\sigma_8(0.15)$	0.7723	0.771 ± 0.015
y_{cal}	1.00044	1.0004 ± 0.0025	D_{810}	2537.8	2536 ± 14	$f\sigma_8(0.38)$	0.4908	0.490 ± 0.013
A_{217}^{CIB}	49.1	48 ± 7	D_{1420}	816.0	815.0 ± 5.1	$\sigma_8(0.38)$	0.6850	0.684 ± 0.013
$\xi^{tSZ \times CIB}$	0.25	—	D_{2000}	230.24	229.9 ± 1.8	$f\sigma_8(0.51)$	0.4916	0.491 ± 0.013
A_{143}^{tSZ}	7.01	5.1 ± 2.0	$n_{s,0.002}$	0.96520	0.9645 ± 0.0048	$\sigma_8(0.51)$	0.6409	0.640 ± 0.012
A_{100}^{PS}	254.9	263 ± 28	Y_P	0.245323	$0.245316^{+0.000092}_{-0.000076}$	$f\sigma_8(0.61)$	0.4874	0.487 ± 0.013
A_{143}^{PS}	48.1	49 ± 8	Y_P^{BBN}	0.246649	$0.246642^{+0.000092}_{-0.000077}$	$\sigma_8(0.61)$	0.6097	0.609 ± 0.011
$A_{143 \times 217}^{PS}$	44.8	43 ± 9	$10^5 D/H$	2.6191	2.621 ± 0.038	$f\sigma_8(2.33)$	0.3074	0.3069 ± 0.0055
A_{217}^{PS}	118.4	115 ± 10	Age/Gyr	13.7656	13.768 ± 0.028	$\sigma_8(2.33)$	0.31497	0.3145 ± 0.0047
A^{kSZ}	0.00	< 4.76	z_*	1090.143	1090.15 ± 0.33	f_{2000}^{143}	30.22	30.9 ± 2.9
A_{100}^{dustTT}	8.92	8.9 ± 1.8	r_*	144.565	144.60 ± 0.38	$f_{2000}^{143 \times 217}$	33.03	33.3 ± 2.0
A_{143}^{dustTT}	10.76	10.7 ± 1.8	$100\theta_*$	1.041115	1.04111 ± 0.00044	f_{2000}^{217}	107.53	107.9 ± 1.9
$A_{143 \times 217}^{dustTT}$	19.15	18.3 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.8855	13.889 ± 0.036	χ_{small}^2	395.87	396.9 ± 1.7
A_{217}^{dustTT}	94.2	93.5 ± 7.4	z_{drag}	1059.513	1059.50 ± 0.44	χ_{lowl}^2	23.12	23.3 ± 1.0
c_{100}	0.99963	0.99960 ± 0.00062	r_{drag}	147.288	147.32 ± 0.40	χ_{plik}^2	758.6	771.0 ± 5.4
c_{217}	0.99825	0.99825 ± 0.00062	k_D	0.140524	0.14048 ± 0.00047	$\chi_{H073p45}^2$	5.01	5.4 ± 2.5
H_0	69.73	69.71 ± 0.93	$100\theta_D$	0.161004	0.16102 ± 0.00026	χ_{JLA}^2	696.56	699.0 ± 2.6
Ω_Λ	0.7063	0.7062 ± 0.0078	z_{eq}	3398.1	3396 ± 36	χ_{6DF}^2	0.118	0.17 ± 0.18
Ω_m	0.2937	0.2938 ± 0.0078	k_{eq}	0.010371	0.01036 ± 0.00011	χ_{MGS}^2	2.67	2.73 ± 0.74
$\Omega_m h^2$	0.14284	0.1427 ± 0.0015	$100\theta_{eq}$	0.8135	0.8140 ± 0.0067	$\chi_{DR12BAO}^2$	4.52	5.1 ± 1.0
$\Omega_m h^3$	0.09961	0.0995 ± 0.0018	$100\theta_{s,eq}$	0.44964	0.4499 ± 0.0035	χ_{prior}^2	1.41	7.3 ± 3.7
σ_8	0.8343	0.833 ± 0.016	$H(0.15)$	74.08	74.06 ± 0.56	χ_{BAO}^2	7.31	8.0 ± 1.6
S_8	0.8256	0.824 ± 0.016	$D_M(0.15)$	626.5	626.8 ± 6.4	χ_{CMB}^2	1177.6	1191.3 ± 5.4
$\sigma_8 \Omega_m^{0.5}$	0.4522	0.4515 ± 0.0089	$H(0.38)$	83.185	83.17 ± 0.35			

Best-fit $\chi_{eff}^2 = 1887.89$; $\bar{\chi}_{eff}^2 = 1910.92$; $R - 1 = 0.00727$
 χ_{eff}^2 : BAO - 6DF: 0.12 MGS: 2.67 DR12BAO: 4.52 CMB - small-100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 23.12 plik_rd12_HM_v22.TT: 758.61
Hubble - H073p45: 5.01 SN - JLA December_2013: 696.56

18.36 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022209	0.02220 ± 0.00020 (-0.6σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6129	0.6119 ± 0.0083 $(+1.9\sigma)$	$D_{\mathrm{M}}(0.38)$	1506.3	1507 ± 11 (-1.9σ)
$\Omega_{\mathrm{c}}h^2$	0.11977	0.1197 ± 0.0013 $(+1.5\sigma)$	$\sigma_8/h^{0.5}$	0.9973	0.996 ± 0.012 $(+1.9\sigma)$	$H(0.51)$	89.545	89.54 ± 0.32 (-1.3σ)
$100\theta_{\mathrm{MC}}$	1.040854	1.04090 ± 0.00044 (-0.6σ)	$r_{\mathrm{drag}}h$	102.79	102.7 ± 1.3 $(+2.7\sigma)$	$D_{\mathrm{M}}(0.51)$	1958.0	1959 ± 11 (-1.5σ)
τ	0.0529	0.0525 ± 0.0077 (-0.8σ)	$\langle d^2 \rangle^{1/2}$	2.4511	2.450 ± 0.025 $(+1.2\sigma)$	$H(0.61)$	94.928	94.93 ± 0.34 (-2.3σ)
w_0	-1.0830	-1.081 ± 0.038	z_{re}	7.55	7.49 ± 0.79 (-0.7σ)	$D_{\mathrm{M}}(0.61)$	2283.2	2284 ± 12 (-1.2σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0404	3.039 ± 0.015 (-0.6σ)	10^9A_{s}	2.0914	2.089 ± 0.031 (-0.6σ)	$H(2.33)$	235.07	235.10 ± 0.69 (-0.3σ)
n_{s}	0.96558	0.9647 ± 0.0043 (-0.9σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8815	1.880 ± 0.011 $(+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	5762.6	5763 ± 12 $(+0.4\sigma)$
y_{cal}	1.00047	1.0004 ± 0.0025 (-0.2σ)	D_{40}	1226.7	1229 ± 12 $(+0.3\sigma)$	$f\sigma_8(0.15)$	0.4632	0.4625 ± 0.0082 $(+2.0\sigma)$
α_{JLA}	0.1421	0.1420 ± 0.0066	D_{220}	5717.4	5719 ± 41 (-0.4σ)	$\sigma_8(0.15)$	0.7711	0.770 ± 0.012 $(+4.0\sigma)$
β_{JLA}	3.113	3.117 ± 0.082	D_{810}	2537.7	2536 ± 14 (-0.2σ)	$f\sigma_8(0.38)$	0.4895	0.4886 ± 0.0099 $(+3.6\sigma)$
A_{217}^{CIB}	48.3	48 ± 7 (-0.0σ)	D_{1420}	816.1	814.9 ± 5.1 (-0.4σ)	$\sigma_8(0.38)$	0.6842	0.683 ± 0.011 $(+3.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.37	—	D_{2000}	230.26	229.8 ± 1.8 (-0.5σ)	$f\sigma_8(0.51)$	0.4904	0.489 ± 0.010 $(+4.3\sigma)$
A_{143}^{tSZ}	7.07	5.1 ± 2.0 (-0.1σ)	$n_{\mathrm{s},0.002}$	0.96558	0.9647 ± 0.0043 (-0.9σ)	$\sigma_8(0.51)$	0.6402	0.6390 ± 0.0097 $(+3.8\sigma)$
A_{100}^{PS}	253.2	263 ± 28 $(+0.1\sigma)$	Y_{P}	0.245330	$0.245321_{-0.000075}^{+0.000089}$ (-0.7σ)	$f\sigma_8(0.61)$	0.4863	0.485 ± 0.010 $(+4.7\sigma)$
A_{143}^{PS}	49.7	49 ± 8 $(+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246656	$0.246647_{-0.000075}^{+0.000089}$ (-0.7σ)	$\sigma_8(0.61)$	0.6090	0.6078 ± 0.0091 $(+3.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	48.0	43 ± 9 $(+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	2.6162	2.619 ± 0.037 $(+0.6\sigma)$	$f\sigma_8(2.33)$	0.30713	0.3065 ± 0.0045 $(+3.5\sigma)$
A_{217}^{PS}	119.7	115 ± 10 $(+0.1\sigma)$	Age/Gyr	13.7654	13.767 ± 0.028 (-0.8σ)	$\sigma_8(2.33)$	0.31475	0.3142 ± 0.0039 $(+2.6\sigma)$
A^{kSZ}	0.01	< 4.83 $(+0.1\sigma)$	z_*	1090.103	1090.12 ± 0.31 $(+1.1\sigma)$	f_{2000}^{143}	30.08	30.9 ± 2.9 $(+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.84	8.9 ± 1.8 $(+0.0\sigma)$	r_*	144.615	144.63 ± 0.32 (-1.1σ)	$f_{2000}^{143 \times 217}$	33.04	33.3 ± 2.0 $(+0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.75	10.7 ± 1.8 $(+0.0\sigma)$	$100\theta_*$	1.041063	1.04110 ± 0.00043 (-0.6σ)	f_{2000}^{217}	107.47	107.9 ± 1.9 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.49	18.3 ± 3.3 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8910	13.892 ± 0.031 (-1.0σ)	$\chi_{\mathrm{lensing}}^2$	8.717	9.22 ± 0.78 (-0.2σ)
$A_{217}^{\mathrm{dustTT}}$	94.7	93.4 ± 7.3 $(+0.0\sigma)$	z_{drag}	1059.551	1059.51 ± 0.44 (-0.4σ)	χ_{simall}^2	395.86	396.8 ± 1.6 (-0.4σ)
c_{100}	0.99966	0.99961 ± 0.00061 (-0.1σ)	r_{drag}	147.332	147.36 ± 0.34 (-0.9σ)	χ_{lowl}^2	23.06	23.27 ± 0.87 $(+0.5\sigma)$
c_{217}	0.99823	0.99825 ± 0.00062 $(+0.0\sigma)$	k_{D}	0.140488	0.14045 ± 0.00044 $(+0.5\sigma)$	χ_{plik}^2	758.81	770.9 ± 5.2 (-0.3σ)
H_0	69.77	69.72 ± 0.91 $(+3.5\sigma)$	$100\theta_{\mathrm{D}}$	0.160982	0.16101 ± 0.00026 $(+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	4.92	5.4 ± 2.5 (-2.8σ)
Ω_{Λ}	0.7070	0.7065 ± 0.0078 $(+1.8\sigma)$	z_{eq}	3392.8	3392 ± 30 $(+1.4\sigma)$	χ_{JLA}^2	696.55	698.9 ± 2.6 (-64.4σ)
Ω_{m}	0.2930	0.2935 ± 0.0078 (-1.8σ)	k_{eq}	0.010355	0.010352 ± 0.000091 $(+1.4\sigma)$	χ_{6DF}^2	0.131	0.18 ± 0.18 $(+3.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14262	0.1426 ± 0.0012 $(+1.4\sigma)$	$100\theta_{\mathrm{eq}}$	0.8145	0.8147 ± 0.0055 (-1.5σ)	χ_{MGS}^2	2.76	2.77 ± 0.75 $(+2.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09951	0.0994 ± 0.0017 $(+7.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45013	0.4502 ± 0.0029 (-1.5σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.50	4.96 ± 0.90 $(+1.4\sigma)$
σ_8	0.8330	0.832 ± 0.013 $(+3.8\sigma)$	$H(0.15)$	74.12	74.08 ± 0.56 $(+2.0\sigma)$	χ_{prior}^2	1.34	7.2 ± 3.6 (-0.0σ)
S_8	0.8232	0.822 ± 0.012 $(+0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	626.2	626.6 ± 6.3 (-2.7σ)	χ_{CMB}^2	1186.4	1200.3 ± 5.4 (-0.4σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4509	0.4504 ± 0.0066 $(+0.7\sigma)$	$H(0.38)$	83.222	83.21 ± 0.32 (-0.1σ)	χ_{BAO}^2	7.38	7.9 ± 1.6 $(+3.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 1896.64$; $\Delta\chi_{\mathrm{eff}}^2 = -16.17$; $\bar{\chi}_{\mathrm{eff}}^2 = 1919.63$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -13.41$; $R - 1 = 0.00916$
 χ_{eff}^2 : BAO - 6DF: 0.13 (Δ 0.13) MGS: 2.76 (Δ 1.08) DR12BAO: 4.50 (Δ 1.00) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.72 (Δ -0.23) simall_100x143_offlike5_EE_Aplanck.395.86 (Δ -0.97) commander_dx12_v3.2_29: 23.05 (Δ 0.47) plik_rd12_HM_v22.TT: 758.81 (Δ -2.01) Hubble - H073p45: 4.92 (Δ -5.68) SN - JLA December_2013: 696.55 (Δ -10.04)

18.37 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02219 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.614 ± 0.011	$D_M(0.38)$	1507 ± 11
$\Omega_c h^2$	0.1199 ± 0.0016	$\sigma_8/h^{0.5}$	0.999 ± 0.016	$H(0.51)$	89.52 ± 0.36
$100\theta_{MC}$	1.04091 ± 0.00044	$r_{drag}h$	102.7 ± 1.3	$D_M(0.51)$	1959 ± 11
τ	$0.0542^{+0.0047}_{-0.0082}$	$\langle d^2 \rangle^{1/2}$	2.456 ± 0.034	$H(0.61)$	94.91 ± 0.39
w_0	-1.083 ± 0.043	z_{re}	$7.68^{+0.52}_{-0.82}$	$D_M(0.61)$	2285 ± 12
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.016}$	$10^9 A_s$	$2.096^{+0.024}_{-0.035}$	$H(2.33)$	235.16 ± 0.77
n_s	0.9647 ± 0.0048	$10^9 A_s e^{-2\tau}$	1.881 ± 0.012	$D_M(2.33)$	5763 ± 12
α_{JLA}	0.1420 ± 0.0066	D_{40}	1229 ± 14	$f\sigma_8(0.15)$	0.464 ± 0.011
β_{JLA}	3.118 ± 0.081	D_{220}	5717 ± 41	$\sigma_8(0.15)$	0.772 ± 0.015
y_{cal}	1.0004 ± 0.0026	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.490 ± 0.013
A_{217}^{CIB}	47 ± 7	D_{1420}	815.0 ± 5.1	$\sigma_8(0.38)$	0.685 ± 0.013
$\xi^{tSZ \times CIB}$	—	D_{2000}	229.9 ± 1.8	$f\sigma_8(0.51)$	0.491 ± 0.013
A_{143}^{tSZ}	5.1 ± 2.0	$n_{s,0.002}$	0.9647 ± 0.0048	$\sigma_8(0.51)$	0.641 ± 0.012
A_{100}^{PS}	262 ± 28	Y_P	$0.245318^{+0.000091}_{-0.000076}$	$f\sigma_8(0.61)$	0.487 ± 0.013
A_{143}^{PS}	48 ± 8	Y_P^{BBN}	$0.246644^{+0.000091}_{-0.000076}$	$\sigma_8(0.61)$	0.609 ± 0.011
$A_{143 \times 217}^{PS}$	43 ± 9	$10^5 D/H$	2.620 ± 0.038	$f\sigma_8(2.33)$	0.3073 ± 0.0055
A_{217}^{PS}	115 ± 10	Age/Gyr	13.767 ± 0.028	$\sigma_8(2.33)$	0.3149 ± 0.0046
A^{kSZ}	< 4.72	z_*	1090.14 ± 0.33	f_{2000}^{143}	30.8 ± 2.9
A_{100}^{dustTT}	8.9 ± 1.8	r_*	144.61 ± 0.38	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
A_{143}^{dustTT}	10.7 ± 1.8	$100\theta_*$	1.04112 ± 0.00043	f_{2000}^{217}	107.9 ± 1.9
$A_{143 \times 217}^{dustTT}$	18.3 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.890 ± 0.036	χ_{simall}^2	396.8 ± 1.8
A_{217}^{dustTT}	93.5 ± 7.3	z_{drag}	1059.51 ± 0.44	χ_{lowl}^2	23.3 ± 1.0
c_{100}	0.99960 ± 0.00061	r_{drag}	147.33 ± 0.40	χ_{plik}^2	770.9 ± 5.3
c_{217}	0.99825 ± 0.00062	k_D	0.14047 ± 0.00047	$\chi_{H073p45}^2$	5.4 ± 2.5
H_0	69.71 ± 0.93	$100\theta_D$	0.16102 ± 0.00026	χ_{JLA}^2	698.9 ± 2.6
Ω_Λ	0.7062 ± 0.0078	z_{eq}	3395 ± 36	χ_{6DF}^2	0.17 ± 0.18
Ω_m	0.2938 ± 0.0078	k_{eq}	0.01036 ± 0.00011	χ_{MGS}^2	2.74 ± 0.74
$\Omega_m h^2$	0.1427 ± 0.0015	$100\theta_{eq}$	0.8142 ± 0.0067	$\chi_{DR12BAO}^2$	5.1 ± 1.0
$\Omega_m h^3$	0.0995 ± 0.0018	$100\theta_{s,eq}$	0.4500 ± 0.0035	χ_{prior}^2	7.3 ± 3.7
σ_8	0.834 ± 0.016	$H(0.15)$	74.06 ± 0.56	χ_{BAO}^2	8.0 ± 1.6
S_8	0.825 ± 0.016	$D_M(0.15)$	626.8 ± 6.4	χ_{CMB}^2	1191.0 ± 5.3
$\sigma_8 \Omega_m^{0.5}$	0.4519 ± 0.0089	$H(0.38)$	83.19 ± 0.35		

$$\bar{\chi}_{\text{eff}}^2 = 1910.63; R - 1 = 0.00797$$

18.38 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00020 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6121 \pm 0.0083 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1507 \pm 11 \quad (-1.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0013 \quad (+1.4\sigma)$	$\sigma_8/h^{0.5}$	$0.996 \pm 0.012 \quad (+1.9\sigma)$	$H(0.51)$	$89.56 \pm 0.31 \quad (-1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00043 \quad (-0.6\sigma)$	$r_{\mathrm{drag}}h$	$102.7 \pm 1.3 \quad (+2.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1959 \pm 11 \quad (-1.5\sigma)$
τ	$0.0540^{+0.0046}_{-0.0079} \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.452 \pm 0.025 \quad (+1.3\sigma)$	$H(0.61)$	$94.95 \pm 0.34 \quad (-2.2\sigma)$
w_0	-1.079 ± 0.038	z_{re}	$7.65^{+0.51}_{-0.79} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2284 \pm 12 \quad (-1.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.015} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}$	$2.094^{+0.022}_{-0.031} \quad (-0.5\sigma)$	$H(2.33)$	$235.06 \pm 0.69 \quad (-0.3\sigma)$
n_{s}	$0.9650 \pm 0.0043 \quad (-0.9\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 12 \quad (+0.4\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.2\sigma)$	D_{40}	$1228 \pm 12 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4625 \pm 0.0082 \quad (+1.9\sigma)$
α_{JLA}	0.1419 ± 0.0066	D_{220}	$5719 \pm 41 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.770 \pm 0.012 \quad (+4.1\sigma)$
β_{JLA}	3.116 ± 0.082	D_{810}	$2535 \pm 14 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4885 \pm 0.0099 \quad (+3.6\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$814.9 \pm 5.1 \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.683 \pm 0.011 \quad (+4.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.9 \pm 1.8 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.489 \pm 0.010 \quad (+4.3\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9650 \pm 0.0043 \quad (-0.9\sigma)$	$\sigma_8(0.51)$	$0.6393 \pm 0.0097 \quad (+4.0\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.1\sigma)$	Y_{P}	$0.245323^{+0.000088}_{-0.000075} \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.485 \pm 0.010 \quad (+4.7\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246650^{+0.000088}_{-0.000075} \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6081 \pm 0.0091 \quad (+3.9\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.618 \pm 0.037 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.3067 \pm 0.0045 \quad (+3.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.767 \pm 0.028 \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3145 \pm 0.0038 \quad (+2.7\sigma)$
A^{kSZ}	$< 4.81 \quad (+0.1\sigma)$	z_*	$1090.10 \pm 0.30 \quad (+1.0\sigma)$	f_{2000}^{143}	$30.8 \pm 2.9 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.65 \pm 0.32 \quad (-1.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00043 \quad (-0.6\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.894 \pm 0.030 \quad (-0.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.20 \pm 0.78 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	z_{drag}	$1059.52 \pm 0.44 \quad (-0.4\sigma)$	χ_{simall}^2	$396.7 \pm 1.6 \quad (-0.4\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.1\sigma)$	r_{drag}	$147.38 \pm 0.34 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.26 \pm 0.87 \quad (+0.5\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14044 \pm 0.00043 \quad (+0.5\sigma)$	χ_{plik}^2	$770.8 \pm 5.2 \quad (-0.3\sigma)$
H_0	$69.70 \pm 0.91 \quad (+3.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00026 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.4 \pm 2.5 \quad (-2.8\sigma)$
Ω_{Λ}	$0.7066 \pm 0.0078 \quad (+1.8\sigma)$	z_{eq}	$3389 \pm 29 \quad (+1.4\sigma)$	χ_{JLA}^2	$698.8 \pm 2.6 \quad (-65.9\sigma)$
Ω_{m}	$0.2934 \pm 0.0078 \quad (-1.8\sigma)$	k_{eq}	$0.010345 \pm 0.000089 \quad (+1.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.18 \pm 0.18 \quad (+3.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0012 \quad (+1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8151 \pm 0.0054 \quad (-1.4\sigma)$	χ_{MGS}^2	$2.78 \pm 0.75 \quad (+2.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0993 \pm 0.0016 \quad (+7.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0028 \quad (-1.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.92 \pm 0.89 \quad (+1.4\sigma)$
σ_8	$0.832 \pm 0.013 \quad (+3.9\sigma)$	$H(0.15)$	$74.09 \pm 0.56 \quad (+2.0\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.1\sigma)$
S_8	$0.822 \pm 0.012 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$626.7 \pm 6.4 \quad (-2.7\sigma)$	χ_{CMB}^2	$1200.0 \pm 5.4 \quad (-0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0067 \quad (+0.7\sigma)$	$H(0.38)$	$83.23 \pm 0.32 \quad (-0.1\sigma)$	χ_{BAO}^2	$7.9 \pm 1.6 \quad (+3.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1919.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -13.61$; $R - 1 = 0.00910$

18.39 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022407	0.02239 ± 0.00014	$\Omega_m h^3$	0.10004	0.0999 ± 0.0017	$D_M(0.15)$	624.9	625.5 ± 6.5
$\Omega_c h^2$	0.12001	0.1199 ± 0.0012	σ_8	0.8358	0.834 ± 0.014	$H(0.38)$	83.366	83.34 ± 0.29
$100\theta_{MC}$	1.040974	1.04095 ± 0.00030	S_8	0.8254	0.824 ± 0.013	$D_M(0.38)$	1503.3	1504 ± 11
τ	0.0545	0.0544 ± 0.0080	$\sigma_8 \Omega_m^{0.5}$	0.4521	0.4515 ± 0.0072	$H(0.51)$	89.690	89.67 ± 0.28
w_0	-1.0843	-1.082 ± 0.038	$\sigma_8 \Omega_m^{0.25}$	0.6147	0.6137 ± 0.0093	$D_M(0.51)$	1954.2	1955 ± 11
$\ln(10^{10} A_s)$	3.0450	3.045 ± 0.016	$\sigma_8/h^{0.5}$	0.9995	0.998 ± 0.014	$H(0.61)$	95.077	95.07 ± 0.30
n_s	0.96665	0.9654 ± 0.0041	$r_{drag} h$	102.83	102.8 ± 1.4	$D_M(0.61)$	2279.0	2280 ± 12
α_{JLA}	0.1420	0.1420 ± 0.0066	$\langle d^2 \rangle^{1/2}$	2.4555	2.456 ± 0.029	$H(2.33)$	235.42	235.41 ± 0.62
β_{JLA}	3.117	3.119 ± 0.081	z_{re}	7.68	7.65 ± 0.81	$D_M(2.33)$	5753.2	5754.4 ± 9.0
y_{cal}	1.00045	1.0007 ± 0.0025	$10^9 A_s$	2.1011	2.100 ± 0.034	$f\sigma_8(0.15)$	0.4646	0.4638 ± 0.0088
A_{217}^{CIB}	45.4	47 ± 7	$10^9 A_s e^{-2\tau}$	1.8842	1.884 ± 0.012	$\sigma_8(0.15)$	0.7737	0.772 ± 0.013
$\xi^{tSZ \times CIB}$	0.72	—	D_{40}	1227.0	1230 ± 12	$f\sigma_8(0.38)$	0.4911	0.490 ± 0.011
A_{143}^{tSZ}	7.07	$5.5_{-1.9}^{+2.1}$	D_{220}	5730.6	5737 ± 39	$\sigma_8(0.38)$	0.6865	0.685 ± 0.012
A_{100}^{PS}	247.7	258 ± 28	D_{810}	2541.6	2540 ± 14	$f\sigma_8(0.51)$	0.4920	0.491 ± 0.011
A_{143}^{PS}	51.2	46 ± 8	D_{1420}	818.77	817.6 ± 4.7	$\sigma_8(0.51)$	0.6423	0.641 ± 0.011
$A_{143 \times 217}^{PS}$	54.7	43 ± 9	D_{2000}	231.56	231.1 ± 1.5	$f\sigma_8(0.61)$	0.4879	0.487 ± 0.011
A_{217}^{PS}	122.7	115 ± 10	$n_{s,0.002}$	0.96665	0.9654 ± 0.0041	$\sigma_8(0.61)$	0.6110	0.610 ± 0.010
A^{kSZ}	0.01	< 4.15	Y_P	0.245410	0.245401 ± 0.000055	$f\sigma_8(2.33)$	0.3082	0.3075 ± 0.0050
A_{100}^{dustTT}	8.80	8.9 ± 1.8	Y_P^{BBN}	0.246736	0.246728 ± 0.000055	$\sigma_8(2.33)$	0.31579	0.3152 ± 0.0044
A_{143}^{dustTT}	11.08	10.9 ± 1.8	$10^5 D/H$	2.5787	2.582 ± 0.026	f_{2000}^{143}	28.37	29.3 ± 2.7
$A_{143 \times 217}^{dustTT}$	20.27	18.6 ± 3.3	Age/Gyr	13.7426	13.747 ± 0.023	$f_{2000}^{143 \times 217}$	31.79	32.1 ± 1.8
A_{217}^{dustTT}	95.7	93.7 ± 7.3	z_*	1089.874	1089.89 ± 0.25	f_{2000}^{217}	106.31	106.9 ± 1.8
A_{100}^{dustTE}	0.1140	0.115 ± 0.038	r_*	144.400	144.43 ± 0.27	χ_{small}^2	396.06	397.1 ± 2.0
$A_{100 \times 143}^{dustTE}$	0.1348	0.135 ± 0.029	$100\theta_*$	1.041149	1.04113 ± 0.00030	χ_{lowl}^2	23.01	23.29 ± 0.87
$A_{100 \times 217}^{dustTE}$	0.480	0.481 ± 0.086	$D_M(z_*)/\text{Gpc}$	13.8693	13.873 ± 0.025	χ_{plik}^2	2344.3	2358.9 ± 5.9
A_{143}^{dustTE}	0.226	0.225 ± 0.053	z_{drag}	1060.009	1059.97 ± 0.29	$\chi_{H073p45}^2$	4.50	5.0 ± 2.5
$A_{143 \times 217}^{dustTE}$	0.665	0.666 ± 0.080	r_{drag}	147.049	147.09 ± 0.27	χ_{JLA}^2	696.62	698.9 ± 2.6
A_{217}^{dustTE}	2.085	2.08 ± 0.27	k_D	0.140941	0.14088 ± 0.00031	χ_{6DF}^2	0.135	0.18 ± 0.19
c_{100}	0.99973	0.99967 ± 0.00061	$100\theta_D$	0.160715	0.16074 ± 0.00017	χ_{MGS}^2	2.76	2.77 ± 0.76
c_{217}	0.99817	0.99819 ± 0.00062	z_{eq}	3403.4	3401 ± 27	$\chi_{DR12BAO}^2$	4.54	4.98 ± 0.87
H_0	69.93	69.86 ± 0.94	k_{eq}	0.010387	0.010380 ± 0.000082	χ_{prior}^2	1.56	11.6 ± 4.5
Ω_Λ	0.7074	0.7069 ± 0.0079	$100\theta_{eq}$	0.8132	0.8136 ± 0.0051	χ_{BAO}^2	7.44	7.9 ± 1.6
Ω_m	0.2926	0.2931 ± 0.0079	$100\theta_{s,eq}$	0.44932	0.4495 ± 0.0026	χ_{CMB}^2	2763.3	2779.3 ± 5.9
$\Omega_m h^2$	0.14306	0.1430 ± 0.0011	$H(0.15)$	74.27	74.22 ± 0.57			

Best-fit $\chi_{eff}^2 = 3473.47$; $\bar{\chi}_{eff}^2 = 3502.78$; $R - 1 = 0.01464$
 χ_{eff}^2 : BAO - 6DF: 0.14 MGS: 2.76 DR12BAO: 4.54 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3_2_29: 23.01 plik_rd12_HM_v22b_TTTEEE: 2344.29 Hubble - H073p45: 4.50 SN - JLA December_2013: 696.62

18.40 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022427	0.02240 ± 0.00014 (-0.7σ)	$\Omega_{\mathrm{m}}h^3$	0.09975	0.0998 ± 0.0015 $(+11.5\sigma)$	$D_{\mathrm{M}}(0.15)$	625.2	625.3 ± 6.4 (-3.6σ)
$\Omega_{\mathrm{c}}h^2$	0.11970	0.1197 ± 0.0010 $(+1.3\sigma)$	σ_8	0.8329	0.832 ± 0.012 $(+3.9\sigma)$	$H(0.38)$	83.408	83.38 ± 0.28 $(+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	1.040957	1.04096 ± 0.00030 (-0.6σ)	S_8	0.8225	0.822 ± 0.010 $(+0.4\sigma)$	$D_{\mathrm{M}}(0.38)$	1503.4	1504 ± 11 (-2.6σ)
τ	0.0545	0.0540 ± 0.0076 (-0.6σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4505	0.4502 ± 0.0057 $(+0.4\sigma)$	$H(0.51)$	89.747	89.71 ± 0.25 (-1.1σ)
w_0	-1.0777	-1.079 ± 0.036	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6126	0.6121 ± 0.0072 $(+1.8\sigma)$	$D_{\mathrm{M}}(0.51)$	1954.1	1955 ± 11 (-2.2σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0454	3.043 ± 0.015 (-0.4σ)	$\sigma_8/h^{0.5}$	0.9965	0.996 ± 0.011 $(+1.8\sigma)$	$H(0.61)$	95.138	95.10 ± 0.28 (-2.4σ)
n_{s}	0.96658	0.9657 ± 0.0038 (-0.7σ)	$r_{\mathrm{drag}}h$	102.77	102.8 ± 1.4 $(+3.7\sigma)$	$D_{\mathrm{M}}(0.61)$	2278.6	2279 ± 12 (-1.9σ)
y_{cal}	1.00089	1.0006 ± 0.0025 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4520	2.452 ± 0.023 $(+1.1\sigma)$	$H(2.33)$	235.32	235.33 ± 0.58 (-0.8σ)
α_{JLA}	0.1420	0.1419 ± 0.0066	z_{re}	7.68	7.61 ± 0.77 (-0.5σ)	$D_{\mathrm{M}}(2.33)$	5752.3	5753.6 ± 8.8 $(+0.2\sigma)$
β_{JLA}	3.115	3.119 ± 0.080	$10^9 A_{\mathrm{s}}$	2.1018	$2.097^{+0.028}_{-0.032}$ (-0.4σ)	$f\sigma_8(0.15)$	0.4625	0.4623 ± 0.0069 $(+1.8\sigma)$
A_{217}^{CIB}	46.3	47 ± 7 $(+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8846	1.883 ± 0.011 $(+0.4\sigma)$	$\sigma_8(0.15)$	0.7711	0.771 ± 0.011 $(+4.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.58	—	D_{40}	1228.6	1229 ± 11 $(+0.3\sigma)$	$f\sigma_8(0.38)$	0.4887	0.4885 ± 0.0087 $(+3.5\sigma)$
A_{143}^{tSZ}	7.13	5.5 ± 1.9 $(+0.0\sigma)$	D_{220}	5741.6	5737 ± 39 (-0.3σ)	$\sigma_8(0.38)$	0.6843	0.684 ± 0.010 $(+4.2\sigma)$
A_{100}^{PS}	249.2	257 ± 28 (-0.0σ)	D_{810}	2543.1	2539 ± 14 (-0.1σ)	$f\sigma_8(0.51)$	0.4896	0.4894 ± 0.0091 $(+4.3\sigma)$
A_{143}^{PS}	49.4	46 ± 8 $(+0.1\sigma)$	D_{1420}	819.15	817.5 ± 4.7 (-0.3σ)	$\sigma_8(0.51)$	0.6404	0.6398 ± 0.0094 $(+4.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	51.2	42 ± 9 $(+0.0\sigma)$	D_{2000}	231.63	231.0 ± 1.5 (-0.3σ)	$f\sigma_8(0.61)$	0.4856	0.4854 ± 0.0092 $(+4.7\sigma)$
A_{217}^{PS}	121.3	115 ± 10 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.96658	0.9657 ± 0.0038 (-0.7σ)	$\sigma_8(0.61)$	0.6092	0.6087 ± 0.0088 $(+4.0\sigma)$
A^{kSZ}	0.01	< 4.27 $(+0.0\sigma)$	Y_{P}	0.245418	0.245405 ± 0.000054 (-0.7σ)	$f\sigma_8(2.33)$	0.30734	0.3070 ± 0.0044 $(+3.9\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.80	8.9 ± 1.8 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246744	0.246732 ± 0.000054 (-0.7σ)	$\sigma_8(2.33)$	0.31513	0.3148 ± 0.0039 $(+3.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	11.03	10.9 ± 1.8 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.5749	2.580 ± 0.026 $(+0.7\sigma)$	f_{2000}^{143}	28.56	29.4 ± 2.7 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.09	18.6 ± 3.3 $(+0.0\sigma)$	Age/Gyr	13.7430	13.746 ± 0.023 (-1.4σ)	$f_{2000}^{143 \times 217}$	31.86	32.1 ± 1.9 $(+0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	95.6	93.6 ± 7.2 $(+0.0\sigma)$	z_*	1089.821	1089.86 ± 0.23 $(+1.1\sigma)$	f_{2000}^{217}	106.52	106.9 ± 1.8 $(+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	0.1134	0.114 ± 0.038 $(+0.0\sigma)$	r_*	144.465	144.47 ± 0.24 (-1.1σ)	$\chi_{\mathrm{lensing}}^2$	8.709	9.10 ± 0.68 (-0.1σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1347	0.135 ± 0.029 (-0.0σ)	$100\theta_*$	1.041138	1.04114 ± 0.00030 (-0.5σ)	χ_{simall}^2	396.06	397.0 ± 1.8 (-0.3σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.483	0.481 ± 0.086 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8757	13.876 ± 0.022 (-1.0σ)	χ_{lowl}^2	23.04	23.21 ± 0.78 $(+0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	0.224	0.224 ± 0.052 (-0.0σ)	z_{drag}	1060.047	1059.99 ± 0.29 (-0.5σ)	χ_{plik}^2	2344.2	2358.8 ± 5.8 (-0.3σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.667 ± 0.080 (-0.0σ)	r_{drag}	147.107	147.13 ± 0.24 (-0.9σ)	$\chi_{\mathrm{H073p45}}^2$	4.67	5.0 ± 2.5 (-3.6σ)
$A_{217}^{\mathrm{dustTE}}$	2.081	2.09 ± 0.27 $(+0.1\sigma)$	k_{D}	0.140894	0.14085 ± 0.00029 $(+0.5\sigma)$	χ_{JLA}^2	696.43	698.8 ± 2.5 (-68.9σ)
c_{100}	0.99973	0.99967 ± 0.00061 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.160696	0.16073 ± 0.00017 $(+0.4\sigma)$	χ_{6DF}^2	0.133	0.19 ± 0.19 $(+5.2\sigma)$
c_{217}	0.99820	0.99819 ± 0.00062 $(+0.0\sigma)$	z_{eq}	3396.5	3397 ± 23 $(+1.3\sigma)$	χ_{MGS}^2	2.76	2.81 ± 0.76 $(+3.0\sigma)$
H_0	69.86	69.86 ± 0.93 $(+4.5\sigma)$	k_{eq}	0.010366	0.010368 ± 0.000072 $(+1.3\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.45	4.91 ± 0.84 $(+1.2\sigma)$
Ω_{Λ}	0.7075	0.7072 ± 0.0079 $(+2.6\sigma)$	$100\theta_{\mathrm{eq}}$	0.81451	0.8144 ± 0.0044 (-1.3σ)	χ_{prior}^2	1.74	11.6 ± 4.5 $(+0.0\sigma)$
Ω_{m}	0.2925	0.2928 ± 0.0079 (-2.6σ)	$100\theta_{\mathrm{s,eq}}$	0.44998	0.4499 ± 0.0023 (-1.3σ)	χ_{CMB}^2	2772.0	2788.1 ± 6.0 (-0.4σ)
$\Omega_{\mathrm{m}}h^2$	0.14277	0.14279 ± 0.00098 $(+1.3\sigma)$	$H(0.15)$	74.26	74.24 ± 0.57 $(+2.8\sigma)$	χ_{BAO}^2	7.34	7.9 ± 1.6 $(+4.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 3482.22$; $\Delta\chi_{\mathrm{eff}}^2 = -16.38$; $\bar{\chi}_{\mathrm{eff}}^2 = 3511.42$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -13.45$; $R - 1 = 0.02202$
 χ_{eff}^2 : BAO - 6DF: 0.13 (Δ 0.13) MGS: 2.76 (Δ 1.15) DR12BAO: 4.45 (Δ 0.85) CMB - smicadx12.Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.71 (Δ -0.04) simall_100x143_offlike5_EE_Aplanck: 396.06 (Δ -0.87) commander_dx12.v3.2.29: 23.04 (Δ 0.40) plik_rd12_HM_v22b_TTTEEE: 2344.24 (Δ -2.12) Hubble - H073p45: 4.67 (Δ -5.73) SN - JLA December.2013: 696.43 (Δ -10.17)

18.41 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02239 ± 0.00014	$\Omega_{\mathrm{m}}h^3$	0.0999 ± 0.0017	$D_{\mathrm{M}}(0.15)$	625.5 ± 6.5
$\Omega_{\mathrm{c}}h^2$	0.1199 ± 0.0012	σ_8	0.835 ± 0.014	$H(0.38)$	83.34 ± 0.29
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00030	S_8	0.825 ± 0.013	$D_{\mathrm{M}}(0.38)$	1504 ± 11
τ	$0.0556^{+0.0053}_{-0.0083}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4519 ± 0.0071	$H(0.51)$	89.68 ± 0.28
w_0	-1.081 ± 0.038	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6142 ± 0.0091	$D_{\mathrm{M}}(0.51)$	1955 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.016}$	$\sigma_8/h^{0.5}$	0.999 ± 0.013	$H(0.61)$	95.07 ± 0.30
n_{s}	0.9655 ± 0.0040	$r_{\mathrm{drag}}h$	102.8 ± 1.4	$D_{\mathrm{M}}(0.61)$	2280 ± 12
α_{JLA}	0.1420 ± 0.0066	$\langle d^2 \rangle^{1/2}$	2.459 ± 0.028	$H(2.33)$	235.40 ± 0.61
β_{JLA}	3.119 ± 0.081	z_{re}	$7.78^{+0.58}_{-0.82}$	$D_{\mathrm{M}}(2.33)$	5754.2 ± 9.0
y_{cal}	1.0007 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.105^{+0.025}_{-0.035}$	$f\sigma_8(0.15)$	0.4642 ± 0.0087
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.012	$\sigma_8(0.15)$	0.773 ± 0.013
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	1230 ± 12	$f\sigma_8(0.38)$	0.490 ± 0.011
A_{143}^{tSZ}	5.5 ± 1.9	D_{220}	5736 ± 39	$\sigma_8(0.38)$	0.686 ± 0.012
A_{100}^{PS}	257 ± 28	D_{810}	2540 ± 14	$f\sigma_8(0.51)$	0.491 ± 0.011
A_{143}^{PS}	46 ± 8	D_{1420}	817.5 ± 4.7	$\sigma_8(0.51)$	0.642 ± 0.011
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{2000}	231.1 ± 1.5	$f\sigma_8(0.61)$	0.487 ± 0.011
A_{217}^{PS}	115 ± 10	$n_{\mathrm{s},0.002}$	0.9655 ± 0.0040	$\sigma_8(0.61)$	0.610 ± 0.010
A^{kSZ}	< 4.13	Y_{P}	$0.245402^{+0.000057}_{-0.000052}$	$f\sigma_8(2.33)$	0.3078 ± 0.0050
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246729^{+0.000058}_{-0.000052}$	$\sigma_8(2.33)$	0.3156 ± 0.0043
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$10^5 \mathrm{D}/\mathrm{H}$	2.582 ± 0.026	f_{2000}^{143}	29.3 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$\mathrm{Age}/\mathrm{Gyr}$	13.746 ± 0.023	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	z_*	1089.89 ± 0.25	f_{2000}^{217}	106.9 ± 1.8
$A_{100}^{\mathrm{dust}TE}$	0.115 ± 0.038	r_*	144.44 ± 0.27	χ_{small}^2	397.1 ± 2.0
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	$100\theta_*$	1.04113 ± 0.00030	χ_{lowl}^2	23.31 ± 0.87
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.481 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.873 ± 0.025	χ_{plik}^2	2358.7 ± 5.9
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	z_{drag}	1059.98 ± 0.29	$\chi_{\mathrm{H073p45}}^2$	5.0 ± 2.5
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.080	r_{drag}	147.09 ± 0.27	χ_{JLA}^2	698.9 ± 2.6
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14088 ± 0.00031	$\chi_{6\mathrm{DF}}^2$	0.18 ± 0.19
c_{100}	0.99967 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16074 ± 0.00017	χ_{MGS}^2	2.78 ± 0.76
c_{217}	0.99819 ± 0.00062	z_{eq}	3401 ± 27	$\chi_{\mathrm{DR12BAO}}^2$	4.97 ± 0.87
H_0	69.86 ± 0.94	k_{eq}	0.010379 ± 0.000082	χ_{prior}^2	11.6 ± 4.5
Ω_{Λ}	0.7069 ± 0.0079	$100\theta_{\mathrm{eq}}$	0.8137 ± 0.0050	χ_{BAO}^2	7.9 ± 1.6
Ω_{m}	0.2931 ± 0.0079	$100\theta_{\mathrm{s,eq}}$	0.4496 ± 0.0026	χ_{CMB}^2	2779.1 ± 5.8
$\Omega_{\mathrm{m}}h^2$	0.1429 ± 0.0011	$H(0.15)$	74.22 ± 0.57		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3502.55; R - 1 = 0.01555$$

18.42 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240 \pm 0.00014 \quad (-0.7\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0997 \pm 0.0015 \quad (+11.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$625.4 \pm 6.4 \quad (-3.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0010 \quad (+1.3\sigma)$	σ_8	$0.833 \pm 0.012 \quad (+4.0\sigma)$	$H(0.38)$	$83.39 \pm 0.28 \quad (+0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04097 \pm 0.00030 \quad (-0.6\sigma)$	S_8	$0.822 \pm 0.010 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504 \pm 11 \quad (-2.6\sigma)$
τ	$0.0551^{+0.0051}_{-0.0079} \quad (-0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4504 \pm 0.0057 \quad (+0.5\sigma)$	$H(0.51)$	$89.72 \pm 0.25 \quad (-1.1\sigma)$
w_0	-1.078 ± 0.036	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6124 \pm 0.0072 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1955 \pm 11 \quad (-2.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.011}_{-0.015} \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.996 \pm 0.010 \quad (+1.8\sigma)$	$H(0.61)$	$95.12 \pm 0.27 \quad (-2.4\sigma)$
n_{s}	$0.9658 \pm 0.0038 \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$102.8 \pm 1.4 \quad (+3.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2279 \pm 12 \quad (-1.9\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.453 \pm 0.022 \quad (+1.1\sigma)$	$H(2.33)$	$235.31 \pm 0.58 \quad (-0.8\sigma)$
α_{JLA}	0.1419 ± 0.0066	z_{re}	$7.72^{+0.56}_{-0.79} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5753.3 \pm 8.7 \quad (+0.1\sigma)$
β_{JLA}	3.118 ± 0.080	$10^9 A_{\mathrm{s}}$	$2.101^{+0.023}_{-0.032} \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4624 \pm 0.0069 \quad (+1.8\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.771 \pm 0.011 \quad (+4.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1229 \pm 11 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4886 \pm 0.0087 \quad (+3.6\sigma)$
A_{143}^{tSZ}	$5.6 \pm 1.9 \quad (+0.0\sigma)$	D_{220}	$5736 \pm 39 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.684 \pm 0.010 \quad (+4.3\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4895 \pm 0.0091 \quad (+4.3\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$817.4 \pm 4.7 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6401 \pm 0.0093 \quad (+4.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 1.5 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4855 \pm 0.0092 \quad (+4.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9658 \pm 0.0038 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.6090 \pm 0.0087 \quad (+4.2\sigma)$
A^{kSZ}	$< 4.27 \quad (+0.0\sigma)$	Y_{P}	$0.245407 \pm 0.000054 \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3072 \pm 0.0044 \quad (+4.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246733 \pm 0.000054 \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3150 \pm 0.0038 \quad (+3.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.580 \pm 0.026 \quad (+0.7\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.746 \pm 0.023 \quad (-1.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.6 \pm 7.2 \quad (+0.0\sigma)$	z_*	$1089.85 \pm 0.23 \quad (+1.0\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.48 \pm 0.24 \quad (-1.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.09 \pm 0.68 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$100\theta_*$	$1.04115 \pm 0.00029 \quad (-0.5\sigma)$	χ_{simall}^2	$396.9 \pm 1.8 \quad (-0.3\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.086 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.877 \pm 0.022 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.21 \pm 0.78 \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.052 \quad (-0.0\sigma)$	z_{drag}	$1059.99 \pm 0.30 \quad (-0.5\sigma)$	χ_{plik}^2	$2358.7 \pm 5.8 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.667 \pm 0.080 \quad (+0.0\sigma)$	r_{drag}	$147.13 \pm 0.24 \quad (-0.9\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.0 \pm 2.5 \quad (-3.6\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (+0.1\sigma)$	k_{D}	$0.14085 \pm 0.00029 \quad (+0.5\sigma)$	χ_{JLA}^2	$698.8 \pm 2.5 \quad (-69.7\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16073 \pm 0.00017 \quad (+0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.19 \pm 0.19 \quad (+5.3\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3396 \pm 23 \quad (+1.2\sigma)$	χ_{MGS}^2	$2.81 \pm 0.76 \quad (+3.0\sigma)$
H_0	$69.85 \pm 0.93 \quad (+4.5\sigma)$	k_{eq}	$0.010365 \pm 0.000071 \quad (+1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.89 \pm 0.84 \quad (+1.2\sigma)$
Ω_{Λ}	$0.7073 \pm 0.0079 \quad (+2.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8146 \pm 0.0044 \quad (-1.3\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{m}	$0.2927 \pm 0.0079 \quad (-2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4500 \pm 0.0022 \quad (-1.3\sigma)$	χ_{CMB}^2	$2787.9 \pm 5.9 \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14275 \pm 0.00097 \quad (+1.2\sigma)$	$H(0.15)$	$74.24 \pm 0.57 \quad (+2.8\sigma)$	χ_{BAO}^2	$7.9 \pm 1.6 \quad (+4.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 3511.18; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -13.60; R - 1 = 0.02300$$

18.43 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022184	0.02218 ± 0.00020	$\sigma_8/h^{0.5}$	0.9902	0.989 ± 0.016	$D_{\text{M}}(0.38)$	1524.9	1525 ± 10
$\Omega_{\text{c}}h^2$	0.11970	0.1195 ± 0.0015	$r_{\text{drag}}h$	100.43	100.5 ± 1.2	$H(0.51)$	89.531	89.55 ± 0.34
$100\theta_{\text{MC}}$	1.040889	1.04092 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.4422	2.441 ± 0.034	$D_{\text{M}}(0.51)$	1977.4	1977 ± 12
τ	0.0527	0.0531 ± 0.0081	z_{re}	7.54	7.57 ± 0.83	$H(0.61)$	95.080	95.10 ± 0.35
w_0	-1.0287	-1.027 ± 0.037	$10^9 A_{\text{s}}$	2.0903	2.091 ± 0.035	$D_{\text{M}}(0.61)$	2302.4	2302 ± 12
$\ln(10^{10} A_{\text{s}})$	3.0399	3.040 ± 0.017	$10^9 A_{\text{s}} e^{-2\tau}$	1.8813	1.880 ± 0.012	$H(2.33)$	235.75	235.66 ± 0.75
n_{s}	0.96541	0.9651 ± 0.0047	D_{40}	1227.5	1228 ± 13	$D_{\text{M}}(2.33)$	5768.3	5768 ± 12
y_{cal}	1.00054	1.0005 ± 0.0025	D_{220}	5717.4	5719 ± 41	$f\sigma_8(0.15)$	0.4599	0.459 ± 0.011
A_{217}^{CIB}	49.7	48 ± 7	D_{810}	2537.7	2536 ± 14	$\sigma_8(0.15)$	0.7556	0.754 ± 0.014
$\xi^{\text{tSZ} \times \text{CIB}}$	0.17	—	D_{1420}	815.9	815.0 ± 5.1	$f\sigma_8(0.38)$	0.4805	0.479 ± 0.012
A_{143}^{tSZ}	7.09	5.1 ± 2.0	D_{2000}	230.10	229.8 ± 1.8	$\sigma_8(0.38)$	0.6698	0.669 ± 0.012
A_{100}^{PS}	257.4	263 ± 28	$n_{\text{s},0.002}$	0.96541	0.9651 ± 0.0047	$f\sigma_8(0.51)$	0.4796	0.479 ± 0.012
A_{143}^{PS}	47.0	49 ± 8	Y_{P}	0.245319	$0.245312^{+0.000095}_{-0.000077}$	$\sigma_8(0.51)$	0.6267	0.626 ± 0.011
$A_{143 \times 217}^{\text{PS}}$	42.9	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246646	$0.246638^{+0.000095}_{-0.000077}$	$f\sigma_8(0.61)$	0.4748	0.474 ± 0.012
A_{217}^{PS}	117.5	115 ± 10	$10^5 D/\text{H}$	2.6209	2.623 ± 0.039	$\sigma_8(0.61)$	0.5962	0.595 ± 0.010
A^{kSZ}	0.04	< 4.88	Age/Gyr	13.7985	13.799 ± 0.029	$f\sigma_8(2.33)$	0.3006	0.3002 ± 0.0051
A_{100}^{dustTT}	8.84	8.9 ± 1.8	z_*	1090.128	1090.12 ± 0.33	$\sigma_8(2.33)$	0.30912	0.3089 ± 0.0044
A_{143}^{dustTT}	10.75	10.7 ± 1.8	r_*	144.651	144.71 ± 0.37	f_{2000}^{143}	30.40	31.1 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.02	18.3 ± 3.3	$100\theta_*$	1.041087	1.04112 ± 0.00043	$f_{2000}^{143 \times 217}$	33.24	33.5 ± 2.0
A_{217}^{dustTT}	94.1	93.4 ± 7.4	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8942	13.899 ± 0.036	f_{2000}^{217}	107.71	108.0 ± 1.9
c_{100}	0.99967	0.99962 ± 0.00061	z_{drag}	1059.475	1059.45 ± 0.45	χ_{small}^2	395.85	397.0 ± 1.8
c_{217}	0.99827	0.99826 ± 0.00063	r_{drag}	147.379	147.44 ± 0.39	χ_{lowl}^2	23.15	23.3 ± 1.0
H_0	68.15	68.16 ± 0.83	k_{D}	0.140421	0.14035 ± 0.00047	χ_{plik}^2	759.1	771.6 ± 5.4
Ω_{Λ}	0.6931	0.6935 ± 0.0078	$100\theta_{\text{D}}$	0.161022	0.16105 ± 0.00026	χ_{JLA}^2	1034.715	1035.4 ± 1.0
Ω_{m}	0.3069	0.3065 ± 0.0078	z_{eq}	3390.6	3386 ± 35	$\chi_{6\text{DF}}^2$	0.0022	0.049 ± 0.068
$\Omega_{\text{m}}h^2$	0.14253	0.1423 ± 0.0015	k_{eq}	0.010348	0.01033 ± 0.00011	χ_{MGS}^2	1.54	1.64 ± 0.61
$\Omega_{\text{m}}h^3$	0.09713	0.0970 ± 0.0016	$100\theta_{\text{eq}}$	0.8148	0.8158 ± 0.0066	χ_{DR12BAO}^2	4.45	4.9 ± 1.5
σ_8	0.8174	0.816 ± 0.015	$100\theta_{\text{s,eq}}$	0.45032	0.4508 ± 0.0034	χ_{prior}^2	1.44	7.3 ± 3.7
S_8	0.8267	0.825 ± 0.017	$H(0.15)$	73.13	73.15 ± 0.54	χ_{BAO}^2	6.00	6.6 ± 1.3
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4528	0.4517 ± 0.0090	$D_{\text{M}}(0.15)$	637.7	637.6 ± 6.1	χ_{CMB}^2	1178.1	1191.9 ± 5.5
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6084	0.607 ± 0.011	$H(0.38)$	82.933	82.95 ± 0.34			

Best-fit $\chi_{\text{eff}}^2 = 2220.25$; $\bar{\chi}_{\text{eff}}^2 = 2241.16$; $R - 1 = 0.00635$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 4.45 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.85 commander_dx12_v3.2.29: 23.15 plik_rd12_HM_v22_TT: 759.09
SN - JLA Pantheon18: 1034.71

18.45 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02218 ± 0.00020	$\sigma_8/h^{0.5}$	0.990 ± 0.016	$D_M(0.38)$	1524 ± 10
$\Omega_c h^2$	0.1195 ± 0.0015	$r_{\text{drag}} h$	100.5 ± 1.2	$H(0.51)$	89.56 ± 0.33
$100\theta_{\text{MC}}$	1.04092 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.443 ± 0.033	$D_M(0.51)$	1977 ± 12
τ	$0.0546^{+0.0048}_{-0.0084}$	z_{re}	$7.72^{+0.55}_{-0.83}$	$H(0.61)$	95.11 ± 0.35
w_0	-1.026 ± 0.037	$10^9 A_s$	$2.097^{+0.024}_{-0.034}$	$D_M(0.61)$	2302 ± 12
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.880 ± 0.012	$H(2.33)$	235.65 ± 0.75
n_s	0.9653 ± 0.0047	D_{40}	1228 ± 13	$D_M(2.33)$	5768 ± 12
y_{cal}	1.0005 ± 0.0025	D_{220}	5719 ± 41	$f\sigma_8(0.15)$	0.459 ± 0.011
A_{217}^{CIB}	48 ± 7	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.755 ± 0.014
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815.0 ± 5.1	$f\sigma_8(0.38)$	0.480 ± 0.012
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.8 ± 1.8	$\sigma_8(0.38)$	0.670 ± 0.012
A_{100}^{PS}	263 ± 28	$n_{s,0.002}$	0.9653 ± 0.0047	$f\sigma_8(0.51)$	0.479 ± 0.012
A_{143}^{PS}	49 ± 8	Y_{P}	$0.245315^{+0.000094}_{-0.000076}$	$\sigma_8(0.51)$	0.627 ± 0.011
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	$0.246641^{+0.000094}_{-0.000076}$	$f\sigma_8(0.61)$	0.474 ± 0.012
A_{217}^{PS}	115 ± 10	$10^5 \text{D}/\text{H}$	2.622 ± 0.038	$\sigma_8(0.61)$	0.596 ± 0.010
A^{kSZ}	< 4.83	Age/Gyr	13.799 ± 0.029	$f\sigma_8(2.33)$	0.3006 ± 0.0050
A_{100}^{dustTT}	8.9 ± 1.8	z_*	1090.11 ± 0.33	$\sigma_8(2.33)$	0.3092 ± 0.0043
A_{143}^{dustTT}	10.7 ± 1.8	r_*	144.72 ± 0.37	f_{2000}^{143}	31.0 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$100\theta_*$	1.04113 ± 0.00043	$f_{2000}^{143 \times 217}$	33.4 ± 2.0
A_{217}^{dustTT}	93.4 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.900 ± 0.035	f_{2000}^{217}	108.0 ± 1.9
c_{100}	0.99962 ± 0.00061	z_{drag}	1059.46 ± 0.45	χ_{simall}^2	396.9 ± 1.8
c_{217}	0.99825 ± 0.00063	r_{drag}	147.45 ± 0.39	χ_{lowl}^2	23.3 ± 1.0
H_0	68.16 ± 0.83	k_{D}	0.14035 ± 0.00047	χ_{plik}^2	771.4 ± 5.4
Ω_{Λ}	0.6936 ± 0.0078	$100\theta_{\text{D}}$	0.16104 ± 0.00026	χ_{JLA}^2	1035.42 ± 0.99
Ω_{m}	0.3064 ± 0.0078	z_{eq}	3385 ± 35	$\chi_{6\text{DF}}^2$	0.049 ± 0.068
$\Omega_{\text{m}} h^2$	0.1423 ± 0.0015	k_{eq}	0.01033 ± 0.00011	χ_{MGS}^2	1.65 ± 0.61
$\Omega_{\text{m}} h^3$	0.0970 ± 0.0016	$100\theta_{\text{eq}}$	0.8160 ± 0.0066	χ_{DR12BAO}^2	4.8 ± 1.4
σ_8	0.817 ± 0.015	$100\theta_{\text{s,eq}}$	0.4509 ± 0.0034	χ_{prior}^2	7.3 ± 3.7
S_8	0.825 ± 0.016	$H(0.15)$	73.16 ± 0.54	χ_{BAO}^2	6.5 ± 1.3
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4521 ± 0.0090	$D_M(0.15)$	637.6 ± 6.1	χ_{CMB}^2	1191.6 ± 5.4
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.608 ± 0.011	$H(0.38)$	82.96 ± 0.34		

$$\bar{\chi}_{\text{eff}}^2 = 2240.85; R - 1 = 0.00444$$

18.46 base_w_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00020 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 10 \quad (-0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0012 \quad (+0.5\sigma)$	$r_{\mathrm{drag}}h$	$100.6 \pm 1.2 \quad (+1.0\sigma)$	$H(0.51)$	$89.56 \pm 0.30 \quad (-0.4\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00043 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.444 \pm 0.024 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 11 \quad (-0.6\sigma)$
τ	$0.0548^{+0.0051}_{-0.0080} \quad (-0.2\sigma)$	z_{re}	$7.74^{+0.56}_{-0.79} \quad (-0.2\sigma)$	$H(0.61)$	$95.11 \pm 0.31 \quad (-0.7\sigma)$
w_0	-1.028 ± 0.033	$10^9 A_{\mathrm{s}}$	$2.098^{+0.023}_{-0.031} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 12 \quad (-0.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015} \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$235.64 \pm 0.67 \quad (-0.1\sigma)$
n_{s}	$0.9651 \pm 0.0043 \quad (-0.3\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5768 \pm 12 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5721 \pm 40 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4593 \pm 0.0078 \quad (+0.7\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.756 \pm 0.011 \quad (+1.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$815.1 \pm 5.1 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4801 \pm 0.0091 \quad (+1.2\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6701 \pm 0.0097 \quad (+1.5\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9651 \pm 0.0043 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4793 \pm 0.0093 \quad (+1.5\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.245317^{+0.000092}_{-0.000075} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6270 \pm 0.0089 \quad (+1.5\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246643^{+0.000092}_{-0.000075} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4745 \pm 0.0092 \quad (+1.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.621 \pm 0.038 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5966 \pm 0.0083 \quad (+1.4\sigma)$
A^{kSZ}	$< 4.90 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.798 \pm 0.029 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.3008 \pm 0.0042 \quad (+1.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.11 \pm 0.31 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3094 \pm 0.0036 \quad (+1.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.71 \pm 0.31 \quad (-0.4\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00042 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.030 \quad (-0.3\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00062 \quad (-0.0\sigma)$	z_{drag}	$1059.47 \pm 0.44 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.24 \pm 0.74 \quad (+0.0\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.44 \pm 0.33 \quad (-0.3\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (-0.1\sigma)$
H_0	$68.20 \pm 0.82 \quad (+1.2\sigma)$	k_{D}	$0.14036 \pm 0.00043 \quad (+0.2\sigma)$	χ_{lowl}^2	$23.34 \pm 0.88 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6939 \pm 0.0077 \quad (+0.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{plik}^2	$771.1 \pm 5.2 \quad (-0.1\sigma)$
Ω_{m}	$0.3061 \pm 0.0077 \quad (-0.7\sigma)$	z_{eq}	$3385 \pm 28 \quad (+0.5\sigma)$	χ_{JLA}^2	$1035.38 \pm 0.93 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1423 \pm 0.0012 \quad (+0.5\sigma)$	k_{eq}	$0.010332 \pm 0.000087 \quad (+0.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.065 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0970 \pm 0.0015 \quad (+2.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8159 \pm 0.0053 \quad (-0.5\sigma)$	χ_{MGS}^2	$1.67 \pm 0.60 \quad (+0.7\sigma)$
σ_8	$0.818 \pm 0.012 \quad (+1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4509 \pm 0.0027 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.2 \quad (+0.1\sigma)$
S_8	$0.826 \pm 0.012 \quad (+0.2\sigma)$	$H(0.15)$	$73.18 \pm 0.53 \quad (+0.7\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4522 \pm 0.0067 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.3 \pm 6.1 \quad (-1.0\sigma)$	χ_{CMB}^2	$1200.6 \pm 5.4 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6080 \pm 0.0080 \quad (+0.7\sigma)$	$H(0.38)$	$82.97 \pm 0.32 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.5 \pm 1.1 \quad (+0.4\sigma)$

 $\bar{\chi}_{\mathrm{eff}}^2 = 2249.69; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.06; R - 1 = 0.00980$

18.47 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022402	0.02239 ± 0.00014	σ_8	0.8195	0.819 ± 0.013	$D_M(0.15)$	635.7	636.3 ± 6.0
$\Omega_c h^2$	0.11974	0.1197 ± 0.0012	S_8	0.8269	0.827 ± 0.013	$H(0.38)$	83.118	83.09 ± 0.28
$100\theta_{MC}$	1.040938	1.04096 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4529	0.4529 ± 0.0072	$D_M(0.38)$	1520.7	1522 ± 10
τ	0.0545	0.0549 ± 0.0078	$\sigma_8 \Omega_m^{0.25}$	0.6092	0.6089 ± 0.0090	$H(0.51)$	89.707	89.69 ± 0.25
w_0	-1.0300	-1.028 ± 0.033	$\sigma_8/h^{0.5}$	0.9911	0.991 ± 0.013	$D_M(0.51)$	1972.2	1973 ± 11
$\ln(10^{10} A_s)$	3.0451	3.045 ± 0.016	$r_{drag} h$	100.60	100.5 ± 1.2	$H(0.61)$	95.250	95.25 ± 0.27
n_s	0.96644	0.9660 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.4455	2.446 ± 0.028	$D_M(0.61)$	2296.6	2298 ± 11
y_{cal}	1.00092	1.0006 ± 0.0025	z_{re}	7.68	7.71 ± 0.79	$H(2.33)$	235.98	236.01 ± 0.61
A_{217}^{CIB}	47.2	47 ± 7	$10^9 A_s$	2.1012	2.101 ± 0.034	$D_M(2.33)$	5758.2	5758.9 ± 8.8
$\xi^{tSZ \times CIB}$	0.42	—	$10^9 A_s e^{-2\tau}$	1.8844	1.882 ± 0.011	$f\sigma_8(0.15)$	0.4602	0.4600 ± 0.0084
A_{143}^{tSZ}	7.25	$5.5_{-1.9}^{+2.1}$	D_{40}	1229.0	1229 ± 12	$\sigma_8(0.15)$	0.7577	0.757 ± 0.012
A_{100}^{PS}	250.0	258 ± 28	D_{220}	5738.5	5734 ± 38	$f\sigma_8(0.38)$	0.4812	0.4808 ± 0.0097
A_{143}^{PS}	47.2	46 ± 8	D_{810}	2542.6	2539 ± 13	$\sigma_8(0.38)$	0.6718	0.671 ± 0.011
$A_{143 \times 217}^{PS}$	47.4	42 ± 9	D_{1420}	818.90	817.5 ± 4.8	$f\sigma_8(0.51)$	0.4805	0.4800 ± 0.0099
A_{217}^{PS}	119.8	115 ± 10	D_{2000}	231.47	231.0 ± 1.6	$\sigma_8(0.51)$	0.6286	0.6279 ± 0.0099
A^{kSZ}	0.00	< 4.15	$n_{s,0.002}$	0.96644	0.9660 ± 0.0040	$f\sigma_8(0.61)$	0.4758	0.4753 ± 0.0098
A_{100}^{dustTT}	8.82	8.9 ± 1.8	Y_P	0.245408	$0.245401_{-0.000050}^{+0.000057}$	$\sigma_8(0.61)$	0.5981	0.5974 ± 0.0093
A_{143}^{dustTT}	10.97	10.9 ± 1.8	Y_P^{BBN}	0.246735	$0.246728_{-0.000051}^{+0.000058}$	$f\sigma_8(2.33)$	0.30157	0.3012 ± 0.0047
$A_{143 \times 217}^{dustTT}$	19.69	18.6 ± 3.3	$10^5 D/H$	2.5796	2.582 ± 0.026	$\sigma_8(2.33)$	0.31016	0.3098 ± 0.0041
A_{217}^{dustTT}	95.0	93.7 ± 7.3	Age/Gyr	13.7741	13.777 ± 0.022	f_{2000}^{143}	28.75	29.3 ± 2.7
A_{100}^{dustTE}	0.1136	0.114 ± 0.038	z_*	1089.856	1089.87 ± 0.24	$f_{2000}^{143 \times 217}$	31.96	32.1 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1353	0.135 ± 0.029	r_*	144.474	144.49 ± 0.26	f_{2000}^{217}	106.67	106.9 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.482	0.481 ± 0.085	$100\theta_*$	1.041124	1.04114 ± 0.00029	χ_{small}^2	396.06	397.2 ± 2.0
A_{143}^{dustTE}	0.225	0.225 ± 0.055	$D_M(z_*)/\text{Gpc}$	13.8768	13.878 ± 0.025	χ_{lowl}^2	23.11	23.27 ± 0.86
$A_{143 \times 217}^{dustTE}$	0.665	0.666 ± 0.080	z_{drag}	1060.009	1059.96 ± 0.29	χ_{plik}^2	2344.5	2359.3 ± 5.8
A_{217}^{dustTE}	2.083	2.08 ± 0.26	r_{drag}	147.123	147.14 ± 0.27	χ_{JLA}^2	1034.741	1035.39 ± 0.96
c_{100}	0.99971	0.99967 ± 0.00061	k_D	0.140855	0.14083 ± 0.00030	χ_{6DF}^2	0.0002	0.048 ± 0.066
c_{217}	0.99818	0.99819 ± 0.00062	$100\theta_D$	0.160727	0.16075 ± 0.00017	χ_{MGS}^2	1.61	1.64 ± 0.60
H_0	68.38	68.31 ± 0.82	z_{eq}	3396.7	3396 ± 26	$\chi_{DR12BAO}^2$	4.35	4.8 ± 1.2
Ω_Λ	0.6946	0.6939 ± 0.0076	k_{eq}	0.010367	0.010366 ± 0.000080	χ_{prior}^2	1.86	11.5 ± 4.5
Ω_m	0.3054	0.3061 ± 0.0076	$100\theta_{eq}$	0.81438	0.8145 ± 0.0049	χ_{BAO}^2	5.96	6.5 ± 1.0
$\Omega_m h^2$	0.14279	0.1428 ± 0.0011	$100\theta_{s,eq}$	0.44992	0.4500 ± 0.0025	χ_{CMB}^2	2763.7	2779.8 ± 5.8
$\Omega_m h^3$	0.09763	0.0975 ± 0.0014	$H(0.15)$	73.34	73.30 ± 0.52			

Best-fit $\chi_{eff}^2 = 3806.25$; $\bar{\chi}_{eff}^2 = 3833.20$; $R - 1 = 0.00703$

χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.61 DR12BAO: 4.35 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3_2_29: 23.11 plik_rd12_HM_v22b_TTTEEE: 2344.51 SN - JLA Pantheon18: 1034.74

18.49 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02239 ± 0.00014	σ_8	0.819 ± 0.013	$D_M(0.15)$	636.3 ± 6.0
$\Omega_c h^2$	0.1197 ± 0.0012	S_8	0.827 ± 0.013	$H(0.38)$	83.10 ± 0.28
$100\theta_{MC}$	1.04096 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4532 ± 0.0071	$D_M(0.38)$	1522 ± 10
τ	$0.0559^{+0.0054}_{-0.0083}$	$\sigma_8 \Omega_m^{0.25}$	0.6093 ± 0.0088	$H(0.51)$	89.70 ± 0.25
w_0	-1.028 ± 0.033	$\sigma_8/h^{0.5}$	0.991 ± 0.013	$D_M(0.51)$	1973 ± 11
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.016}$	$r_{\text{drag}} h$	100.5 ± 1.2	$H(0.61)$	95.25 ± 0.27
n_s	0.9660 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.448 ± 0.028	$D_M(0.61)$	2298 ± 11
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.82^{+0.60}_{-0.81}$	$H(2.33)$	236.00 ± 0.61
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.105^{+0.026}_{-0.035}$	$D_M(2.33)$	5758.7 ± 8.8
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.882 ± 0.011	$f\sigma_8(0.15)$	0.4603 ± 0.0083
A_{143}^{tSZ}	5.5 ± 2.0	D_{40}	1229 ± 12	$\sigma_8(0.15)$	0.757 ± 0.012
A_{100}^{PS}	258 ± 28	D_{220}	5734 ± 38	$f\sigma_8(0.38)$	0.4811 ± 0.0096
A_{143}^{PS}	46 ± 8	D_{810}	2539 ± 13	$\sigma_8(0.38)$	0.672 ± 0.011
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.5 ± 4.8	$f\sigma_8(0.51)$	0.4804 ± 0.0098
A_{217}^{PS}	115 ± 10	D_{2000}	231.0 ± 1.6	$\sigma_8(0.51)$	0.6284 ± 0.0098
A^{kSZ}	< 4.13	$n_{s,0.002}$	0.9660 ± 0.0040	$f\sigma_8(0.61)$	0.4756 ± 0.0098
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	Y_P	$0.245402^{+0.000057}_{-0.000050}$	$\sigma_8(0.61)$	0.5978 ± 0.0092
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	$0.246729^{+0.000057}_{-0.000050}$	$f\sigma_8(2.33)$	0.3014 ± 0.0046
$A_{143 \times 217}^{\text{dust}TT}$	18.6 ± 3.3	10^5D/H	2.582 ± 0.026	$\sigma_8(2.33)$	0.3101 ± 0.0040
$A_{217}^{\text{dust}TT}$	93.7 ± 7.3	Age/Gyr	13.776 ± 0.022	f_{2000}^{143}	29.3 ± 2.7
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.87 ± 0.24	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.029	r_*	144.49 ± 0.26	f_{2000}^{217}	106.9 ± 1.8
$A_{100 \times 217}^{\text{dust}TE}$	0.481 ± 0.085	$100\theta_*$	1.04114 ± 0.00029	χ_{small}^2	397.2 ± 2.0
$A_{143}^{\text{dust}TE}$	0.225 ± 0.055	$D_M(z_*)/\text{Gpc}$	13.878 ± 0.025	χ_{lowl}^2	23.28 ± 0.86
$A_{143 \times 217}^{\text{dust}TE}$	0.666 ± 0.080	z_{drag}	1059.96 ± 0.29	χ_{plik}^2	2359.1 ± 5.8
$A_{217}^{\text{dust}TE}$	2.08 ± 0.26	r_{drag}	147.14 ± 0.27	χ_{JLA}^2	1035.39 ± 0.96
c_{100}	0.99966 ± 0.00061	k_D	0.14083 ± 0.00030	$\chi_{6\text{DF}}^2$	0.047 ± 0.066
c_{217}	0.99819 ± 0.00062	$100\theta_D$	0.16075 ± 0.00017	χ_{MGS}^2	1.64 ± 0.60
H_0	68.31 ± 0.82	z_{eq}	3396 ± 26	χ_{DR12BAO}^2	4.8 ± 1.2
Ω_Λ	0.6940 ± 0.0076	k_{eq}	0.010365 ± 0.000080	χ_{prior}^2	11.5 ± 4.5
Ω_m	0.3060 ± 0.0076	$100\theta_{\text{eq}}$	0.8146 ± 0.0049	χ_{BAO}^2	6.5 ± 1.0
$\Omega_m h^2$	0.1428 ± 0.0011	$100\theta_{s,\text{eq}}$	0.4500 ± 0.0025	χ_{CMB}^2	2779.6 ± 5.7
$\Omega_m h^3$	0.0975 ± 0.0014	$H(0.15)$	73.30 ± 0.52		

$$\bar{\chi}_{\text{eff}}^2 = 3832.98; R - 1 = 0.00746$$

18.50 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02240 \pm 0.00014 \quad (-0.3\sigma)$	σ_8	$0.819 \pm 0.011 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.1 \pm 5.9 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0010 \quad (+0.5\sigma)$	S_8	$0.826 \pm 0.010 \quad (+0.2\sigma)$	$H(0.38)$	$83.12 \pm 0.26 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04097 \pm 0.00029 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4526 \pm 0.0057 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1521.1 \pm 9.9 \quad (-0.9\sigma)$
τ	$0.0558^{+0.0055}_{-0.0077} \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6087 \pm 0.0069 \quad (+0.7\sigma)$	$H(0.51)$	$89.72 \pm 0.23 \quad (-0.4\sigma)$
w_0	-1.027 ± 0.031	$\sigma_8/h^{0.5}$	$0.990 \pm 0.010 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1973 \pm 11 \quad (-0.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.015} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$100.6 \pm 1.2 \quad (+1.2\sigma)$	$H(0.61)$	$95.27 \pm 0.24 \quad (-0.8\sigma)$
n_{s}	$0.9661 \pm 0.0038 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.022 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2297 \pm 11 \quad (-0.6\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	z_{re}	$7.80^{+0.59}_{-0.76} \quad (-0.1\sigma)$	$H(2.33)$	$235.96 \pm 0.58 \quad (-0.3\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.024}_{-0.031} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5758.2 \pm 8.5 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4597 \pm 0.0066 \quad (+0.7\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1229 \pm 11 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.757 \pm 0.010 \quad (+1.5\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5735 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4805 \pm 0.0079 \quad (+1.3\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6711 \pm 0.0091 \quad (+1.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$817.5 \pm 4.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4798 \pm 0.0082 \quad (+1.6\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6280 \pm 0.0084 \quad (+1.6\sigma)$
A^{kSZ}	$< 4.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9661 \pm 0.0038 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4751 \pm 0.0082 \quad (+1.7\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.245405^{+0.000055}_{-0.000050} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5975 \pm 0.0079 \quad (+1.5\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246731^{+0.000056}_{-0.000050} \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.3013 \pm 0.0040 \quad (+1.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.581 \pm 0.025 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3100 \pm 0.0035 \quad (+1.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.4 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.775 \pm 0.022 \quad (-0.5\sigma)$	f_{2000}^{143}	$29.3 \pm 2.7 \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.85 \pm 0.23 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.51 \pm 0.23 \quad (-0.4\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.480 \pm 0.086 \quad (-0.0\sigma)$	$100\theta_*$	$1.04115 \pm 0.00029 \quad (-0.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.11 \pm 0.61 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.225 \pm 0.055 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.879 \pm 0.022 \quad (-0.4\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.664 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.98 \pm 0.29 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.27 \pm 0.80 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	r_{drag}	$147.16 \pm 0.24 \quad (-0.3\sigma)$	χ_{plik}^2	$2359.0 \pm 5.6 \quad (-0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14082 \pm 0.00029 \quad (+0.2\sigma)$	χ_{JLA}^2	$1035.36 \pm 0.92 \quad (+1.2\sigma)$
c_{217}	$0.99819 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00017 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.046 \pm 0.064 \quad (+0.0\sigma)$
H_0	$68.33 \pm 0.81 \quad (+1.5\sigma)$	z_{eq}	$3394 \pm 23 \quad (+0.5\sigma)$	χ_{MGS}^2	$1.67 \pm 0.59 \quad (+1.0\sigma)$
Ω_{Λ}	$0.6943 \pm 0.0075 \quad (+0.9\sigma)$	k_{eq}	$0.010359 \pm 0.000070 \quad (+0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.0 \quad (+0.1\sigma)$
Ω_{m}	$0.3057 \pm 0.0075 \quad (-0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8149 \pm 0.0043 \quad (-0.5\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14267 \pm 0.00096 \quad (+0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4502 \pm 0.0022 \quad (-0.5\sigma)$	χ_{CMB}^2	$2788.4 \pm 5.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0975 \pm 0.0013 \quad (+3.9\sigma)$	$H(0.15)$	$73.32 \pm 0.52 \quad (+0.9\sigma)$	χ_{BAO}^2	$6.42 \pm 0.91 \quad (+0.5\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 3841.79$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.05$; $R - 1 = 0.01215$

18.51 base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022151	0.02219 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.6135	0.606 ± 0.011	$H(0.38)$	82.860	82.98 ± 0.34
$\Omega_c h^2$	0.12025	0.1194 ± 0.0015	$\sigma_8/h^{0.5}$	0.9976	0.987 ± 0.016	$D_M(0.38)$	1525.4	1524 ± 10
$100\theta_{MC}$	1.040924	1.04098 ± 0.00043	$r_{drag}h$	100.43	100.5 ± 1.2	$H(0.51)$	89.447	89.59 ± 0.33
τ	0.0540	0.0532 ± 0.0078	$\langle d^2 \rangle^{1/2}$	2.4599	2.436 ± 0.034	$D_M(0.51)$	1978.3	1977 ± 11
w_0	-1.0374	-1.024 ± 0.037	z_{re}	7.69	7.57 ± 0.80	$H(0.61)$	94.995	95.14 ± 0.35
$\ln(10^{10} A_s)$	3.0460	3.039 ± 0.016	$10^9 A_s$	2.1031	2.088 ± 0.034	$D_M(0.61)$	2303.6	2301 ± 12
n_s	0.96375	0.9660 ± 0.0048	$10^9 A_s e^{-2\tau}$	1.8880	1.877 ± 0.012	$H(2.33)$	235.96	235.68 ± 0.75
y_{cal}	1.00232	1.0005 ± 0.0025	D_{40}	1234.6	1225 ± 13	$D_M(2.33)$	5769.7	5767 ± 12
A_{100}^{PS}	245.2	243 ± 25	D_{220}	5730.3	5709 ± 41	$f\sigma_8(0.15)$	0.4646	0.458 ± 0.011
A_{143}^{PS}	38.9	41 ± 8	D_{810}	2543.3	2533 ± 14	$\sigma_8(0.15)$	0.7614	0.753 ± 0.014
A_{217}^{PS}	99.3	101 ± 10	D_{1420}	817.0	814.6 ± 5.2	$f\sigma_8(0.38)$	0.4855	0.478 ± 0.012
A_{217}^{CIB}	45.0	41 ± 7	D_{2000}	230.42	229.7 ± 1.8	$\sigma_8(0.38)$	0.6747	0.668 ± 0.012
A_{143}^{tSZ}	5.17	$3.7_{-2.6}^{+1.8}$	$n_{s,0.002}$	0.96375	0.9660 ± 0.0048	$f\sigma_8(0.51)$	0.4845	0.478 ± 0.012
$r_{143 \times 217}^{PS}$	0.560	0.65 ± 0.13	Y_P	0.245306	$0.245319_{-0.000075}^{+0.000092}$	$\sigma_8(0.51)$	0.6311	0.625 ± 0.011
$r_{143 \times 217}^{CIB}$	0.703	$0.58_{-0.13}^{+0.42}$	Y_P^{BBN}	0.246632	$0.246646_{-0.000075}^{+0.000092}$	$f\sigma_8(0.61)$	0.4796	0.473 ± 0.012
$\xi^{tSZ \times CIB}$	0.00	—	$10^5 D/H$	2.6272	2.620 ± 0.038	$\sigma_8(0.61)$	0.6003	0.595 ± 0.010
A^{kSZ}	2.3	—	Age/Gyr	13.7980	13.797 ± 0.028	$f\sigma_8(2.33)$	0.3026	0.2998 ± 0.0051
A_{100}^{dust}	1.029	1.01 ± 0.19	z_*	1090.218	1090.10 ± 0.33	$\sigma_8(2.33)$	0.31086	0.3085 ± 0.0044
A_{143}^{dust}	0.987	0.98 ± 0.17	r_*	144.535	144.72 ± 0.37	f_{2000}^{143}	31.33	30.7 ± 3.0
A_{217}^{dust}	0.965	0.97 ± 0.10	$100\theta_*$	1.041127	1.04118 ± 0.00043	f_{2000}^{217}	108.07	107.5 ± 2.0
$A_{143 \times 217}^{dust}$	1.017	1.03 ± 0.16	$D_M(z_*)/Gpc$	13.8825	13.899 ± 0.035	$f_{2000}^{143 \times 217}$	33.18	32.9 ± 2.1
c_{100}	0.99756	0.9975 ± 0.0011	z_{drag}	1059.437	1059.48 ± 0.44	χ_{simall}^2	396.06	396.9 ± 1.7
c_{217}	1.00140	1.0012 ± 0.0016	r_{drag}	147.271	147.44 ± 0.39	χ_{lowl}^2	23.45	23.05 ± 0.98
H_0	68.19	68.14 ± 0.83	k_D	0.140509	0.14036 ± 0.00046	$\chi_{CamSpec}^2$	7049.7	7063.4 ± 5.4
Ω_Λ	0.6924	0.6935 ± 0.0078	$100\theta_D$	0.161057	0.16104 ± 0.00026	χ_{JLA}^2	1034.747	1035.42 ± 0.98
Ω_m	0.3076	0.3065 ± 0.0078	z_{eq}	3402.9	3384 ± 35	χ_{6DF}^2	0.0035	0.049 ± 0.068
$\Omega_m h^2$	0.14304	0.1423 ± 0.0015	k_{eq}	0.010386	0.01033 ± 0.00011	χ_{MGS}^2	1.47	1.64 ± 0.61
$\Omega_m h^3$	0.09754	0.0969 ± 0.0016	$100\theta_{eq}$	0.8126	0.8161 ± 0.0066	$\chi_{DR12BAO}^2$	4.86	4.8 ± 1.4
σ_8	0.8238	0.815 ± 0.015	$100\theta_{s,eq}$	0.44917	0.4510 ± 0.0034	χ_{prior}^2	3.04	7.7 ± 3.5
S_8	0.8342	0.824 ± 0.016	$H(0.15)$	73.11	73.16 ± 0.53	χ_{BAO}^2	6.33	6.5 ± 1.3
$\sigma_8 \Omega_m^{0.5}$	0.4569	0.4511 ± 0.0090	$D_M(0.15)$	637.6	637.7 ± 6.1	χ_{CMB}^2	7469.2	7483.4 ± 5.4

Best-fit $\chi_{eff}^2 = 8513.28$; $\bar{\chi}_{eff}^2 = 8532.92$; $R - 1 = 0.00642$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.47 DR12BAO: 4.86 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3.2_29: 23.45 CamSpec like_10.7HM: 7049.66
SN - JLA Pantheon18: 1034.75

18.52 base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00020 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.7\sigma)$	$H(0.51)$	$89.56 \pm 0.29 \quad (-0.5\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0012 \quad (+0.6\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 11 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04096 \pm 0.00043 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.442 \pm 0.024 \quad (+0.5\sigma)$	$H(0.61)$	$95.11 \pm 0.31 \quad (-0.8\sigma)$
τ	$0.0540 \pm 0.0074 \quad (-0.2\sigma)$	z_{re}	$7.66 \pm 0.75 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 12 \quad (-0.4\sigma)$
w_0	-1.028 ± 0.033	$10^9 A_{\mathrm{s}}$	$2.093^{+0.027}_{-0.031} \quad (-0.2\sigma)$	$H(2.33)$	$235.71 \pm 0.68 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041 \pm 0.014 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5767 \pm 12 \quad (+0.1\sigma)$
n_{s}	$0.9655 \pm 0.0044 \quad (-0.4\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4593 \pm 0.0078 \quad (+0.7\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	D_{220}	$5712 \pm 41 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.755 \pm 0.011 \quad (+1.4\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4800 \pm 0.0090 \quad (+1.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$814.7 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6697 \pm 0.0097 \quad (+1.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4792 \pm 0.0092 \quad (+1.5\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9655 \pm 0.0044 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6267 \pm 0.0090 \quad (+1.3\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.0\sigma)$	Y_{P}	$0.245319^{+0.000088}_{-0.000074} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4744 \pm 0.0092 \quad (+1.6\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246646^{+0.000089}_{-0.000074} \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5962 \pm 0.0084 \quad (+1.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.14} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.620 \pm 0.037 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.3006 \pm 0.0042 \quad (+1.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.796 \pm 0.028 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3092 \pm 0.0036 \quad (+0.9\sigma)$
A^{kSZ}	—	z_*	$1090.11 \pm 0.30 \quad (+0.4\sigma)$	f_{2000}^{143}	$30.6 \pm 3.0 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.68 \pm 0.31 \quad (-0.4\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00042 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.9 \pm 2.1 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.896 \pm 0.030 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.34 \pm 0.80 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.49 \pm 0.44 \quad (-0.1\sigma)$	χ_{small}^2	$397.0 \pm 1.7 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.40 \pm 0.33 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.17 \pm 0.87 \quad (+0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14040 \pm 0.00043 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.8 \pm 5.1 \quad (-0.1\sigma)$
H_0	$68.19 \pm 0.82 \quad (+1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.38 \pm 0.93 \quad (+1.0\sigma)$
Ω_{Λ}	$0.6936 \pm 0.0076 \quad (+0.6\sigma)$	z_{eq}	$3388 \pm 29 \quad (+0.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.065 \quad (-0.0\sigma)$
Ω_{m}	$0.3064 \pm 0.0076 \quad (-0.6\sigma)$	k_{eq}	$0.010340 \pm 0.000087 \quad (+0.5\sigma)$	χ_{MGS}^2	$1.65 \pm 0.60 \quad (+0.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0012 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8155 \pm 0.0053 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0971 \pm 0.0015 \quad (+2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4506 \pm 0.0027 \quad (-0.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.817 \pm 0.012 \quad (+1.3\sigma)$	$H(0.15)$	$73.18 \pm 0.53 \quad (+0.7\sigma)$	χ_{CMB}^2	$7492.3 \pm 5.3 \quad (-0.1\sigma)$
S_8	$0.826 \pm 0.012 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.4 \pm 6.0 \quad (-0.9\sigma)$	χ_{BAO}^2	$6.5 \pm 1.1 \quad (+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4522 \pm 0.0066 \quad (+0.3\sigma)$	$H(0.38)$	$82.97 \pm 0.31 \quad (-0.0\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6079 \pm 0.0080 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 10 \quad (-0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8541.75$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.26$; $R - 1 = 0.00879$

18.53 base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02220 ± 0.00020	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.607 ± 0.011	$H(0.38)$	82.99 ± 0.34
$\Omega_{\mathrm{c}}h^2$	0.1194 ± 0.0015	$\sigma_8/h^{0.5}$	0.988 ± 0.016	$D_{\mathrm{M}}(0.38)$	1524 ± 10
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00043	$r_{\mathrm{drag}}h$	100.5 ± 1.2	$H(0.51)$	89.59 ± 0.33
τ	$0.0545^{+0.0048}_{-0.0082}$	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.033	$D_{\mathrm{M}}(0.51)$	1977 ± 11
w_0	-1.024 ± 0.037	z_{re}	$7.71^{+0.54}_{-0.80}$	$H(0.61)$	95.14 ± 0.35
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.024}_{-0.034}$	$D_{\mathrm{M}}(0.61)$	2301 ± 12
n_{s}	0.9661 ± 0.0048	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.012	$H(2.33)$	235.67 ± 0.75
y_{cal}	1.0005 ± 0.0025	D_{40}	1225 ± 13	$D_{\mathrm{M}}(2.33)$	5767 ± 12
A_{100}^{PS}	242 ± 25	D_{220}	5709 ± 40	$f\sigma_8(0.15)$	0.458 ± 0.011
A_{143}^{PS}	40 ± 8	D_{810}	2533 ± 14	$\sigma_8(0.15)$	0.754 ± 0.014
A_{217}^{PS}	101 ± 10	D_{1420}	814.6 ± 5.2	$f\sigma_8(0.38)$	0.479 ± 0.012
A_{217}^{CIB}	41 ± 7	D_{2000}	229.7 ± 1.8	$\sigma_8(0.38)$	0.669 ± 0.012
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	$n_{\mathrm{s},0.002}$	0.9661 ± 0.0048	$f\sigma_8(0.51)$	0.478 ± 0.012
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	Y_{P}	$0.245321^{+0.000092}_{-0.000075}$	$\sigma_8(0.51)$	0.626 ± 0.011
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.14}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246647^{+0.000092}_{-0.000075}$	$f\sigma_8(0.61)$	0.473 ± 0.012
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.619 ± 0.038	$\sigma_8(0.61)$	0.595 ± 0.010
A^{kSZ}	—	$\mathrm{Age}/\mathrm{Gyr}$	13.797 ± 0.028	$f\sigma_8(2.33)$	0.3001 ± 0.0050
A_{100}^{dust}	1.01 ± 0.19	z_*	1090.09 ± 0.33	$\sigma_8(2.33)$	0.3089 ± 0.0043
A_{143}^{dust}	0.98 ± 0.17	r_*	144.72 ± 0.37	f_{2000}^{143}	30.6 ± 3.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04118 ± 0.00043	f_{2000}^{217}	107.4 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.900 ± 0.035	$f_{2000}^{143 \times 217}$	32.8 ± 2.1
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.49 ± 0.44	χ_{simall}^2	396.9 ± 1.7
c_{217}	1.0012 ± 0.0016	r_{drag}	147.45 ± 0.39	χ_{lowl}^2	23.07 ± 0.98
H_0	68.14 ± 0.83	k_{D}	0.14036 ± 0.00046	$\chi_{\mathrm{CamSpec}}^2$	7063.2 ± 5.4
Ω_{Λ}	0.6935 ± 0.0078	$100\theta_{\mathrm{D}}$	0.16103 ± 0.00026	χ_{JLA}^2	1035.42 ± 0.97
Ω_{m}	0.3065 ± 0.0078	z_{eq}	3384 ± 35	$\chi_{6\mathrm{DF}}^2$	0.049 ± 0.067
$\Omega_{\mathrm{m}}h^2$	0.1422 ± 0.0015	k_{eq}	0.01033 ± 0.00011	χ_{MGS}^2	1.64 ± 0.61
$\Omega_{\mathrm{m}}h^3$	0.0969 ± 0.0016	$100\theta_{\mathrm{eq}}$	0.8162 ± 0.0066	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.4
σ_8	0.816 ± 0.015	$100\theta_{\mathrm{s,eq}}$	0.4510 ± 0.0034	χ_{prior}^2	7.7 ± 3.5
S_8	0.824 ± 0.016	$H(0.15)$	73.16 ± 0.53	χ_{BAO}^2	6.5 ± 1.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515 ± 0.0089	$D_{\mathrm{M}}(0.15)$	637.7 ± 6.1	χ_{CMB}^2	7483.1 ± 5.3

$\bar{\chi}_{\mathrm{eff}}^2 = 8532.67$; $R - 1 = 0.00753$

18.54 base_w_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00020 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.7\sigma)$	$H(0.51)$	$89.57 \pm 0.29 \quad (-0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0012 \quad (+0.5\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1976 \pm 11 \quad (-0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04096 \pm 0.00043 \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.443 \pm 0.024 \quad (+0.5\sigma)$	$H(0.61)$	$95.12 \pm 0.31 \quad (-0.8\sigma)$
τ	$0.0549^{+0.0052}_{-0.0078} \quad (-0.2\sigma)$	z_{re}	$7.76^{+0.57}_{-0.76} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 12 \quad (-0.4\sigma)$
w_0	-1.027 ± 0.033	$10^9 A_{\mathrm{s}}$	$2.096^{+0.022}_{-0.031} \quad (-0.2\sigma)$	$H(2.33)$	$235.70 \pm 0.68 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015} \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5767 \pm 12 \quad (+0.1\sigma)$
n_{s}	$0.9656 \pm 0.0044 \quad (-0.3\sigma)$	D_{40}	$1226 \pm 12 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4594 \pm 0.0078 \quad (+0.7\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5711 \pm 40 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.756 \pm 0.011 \quad (+1.4\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4801 \pm 0.0090 \quad (+1.3\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (-0.0\sigma)$	D_{1420}	$814.6 \pm 5.2 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6700 \pm 0.0096 \quad (+1.4\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4793 \pm 0.0092 \quad (+1.5\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9656 \pm 0.0044 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6269 \pm 0.0089 \quad (+1.4\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.0\sigma)$	Y_{P}	$0.245321^{+0.000088}_{-0.000074} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4745 \pm 0.0092 \quad (+1.6\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246647^{+0.000088}_{-0.000074} \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5965 \pm 0.0083 \quad (+1.4\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.14} \quad (-0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.037 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.3007 \pm 0.0042 \quad (+1.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.796 \pm 0.028 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3094 \pm 0.0036 \quad (+1.0\sigma)$
A^{kSZ}	—	z_*	$1090.10 \pm 0.30 \quad (+0.4\sigma)$	f_{2000}^{143}	$30.6 \pm 3.0 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.69 \pm 0.31 \quad (-0.4\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.0\sigma)$
A_{143}^{dust}	$0.97 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00042 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.897 \pm 0.030 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.30 \pm 0.76 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.50 \pm 0.44 \quad (-0.1\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	r_{drag}	$147.41 \pm 0.33 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.16 \pm 0.88 \quad (+0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14039 \pm 0.00043 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.8 \pm 5.1 \quad (-0.1\sigma)$
H_0	$68.19 \pm 0.81 \quad (+1.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00026 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.37 \pm 0.92 \quad (+1.0\sigma)$
Ω_{Λ}	$0.6937 \pm 0.0076 \quad (+0.6\sigma)$	z_{eq}	$3387 \pm 28 \quad (+0.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.065 \quad (+0.0\sigma)$
Ω_{m}	$0.3063 \pm 0.0076 \quad (-0.6\sigma)$	k_{eq}	$0.010337 \pm 0.000086 \quad (+0.5\sigma)$	χ_{MGS}^2	$1.65 \pm 0.60 \quad (+0.7\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0012 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8157 \pm 0.0053 \quad (-0.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0971 \pm 0.0014 \quad (+2.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0027 \quad (-0.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.817 \pm 0.012 \quad (+1.4\sigma)$	$H(0.15)$	$73.18 \pm 0.53 \quad (+0.6\sigma)$	χ_{CMB}^2	$7492.2 \pm 5.3 \quad (-0.1\sigma)$
S_8	$0.826 \pm 0.012 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$637.4 \pm 6.0 \quad (-0.9\sigma)$	χ_{BAO}^2	$6.5 \pm 1.1 \quad (+0.5\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4523 \pm 0.0066 \quad (+0.3\sigma)$	$H(0.38)$	$82.98 \pm 0.31 \quad (-0.0\sigma)$		
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6081 \pm 0.0079 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1524 \pm 10 \quad (-0.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8541.57$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.22$; $R - 1 = 0.00916$

18.55 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022333	0.02232 ± 0.00015	$\sigma_8 \Omega_m^{0.5}$	0.4496	0.4494 ± 0.0074	$H(0.38)$	83.093	83.09 ± 0.28
$\Omega_c h^2$	0.11922	0.1192 ± 0.0012	$\sigma_8 \Omega_m^{0.25}$	0.6042	0.6042 ± 0.0093	$D_M(0.38)$	1523.4	1523 ± 10
$100\theta_{MC}$	1.040965	1.04093 ± 0.00031	$\sigma_8/h^{0.5}$	0.9839	0.984 ± 0.014	$H(0.51)$	89.720	89.70 ± 0.26
τ	0.0533	0.0532 ± 0.0077	$r_{\text{drag}} h$	100.36	100.5 ± 1.2	$D_M(0.51)$	1975.0	1974 ± 11
w_0	-1.0166	-1.020 ± 0.034	$\langle d^2 \rangle^{1/2}$	2.4297	2.431 ± 0.030	$H(0.61)$	95.282	95.25 ± 0.27
$\ln(10^{10} A_s)$	3.0390	3.039 ± 0.016	z_{re}	7.57	7.54 ± 0.79	$D_M(0.61)$	2299.3	2299 ± 11
n_s	0.96719	0.9668 ± 0.0041	$10^9 A_s$	2.0884	2.088 ± 0.034	$H(2.33)$	235.76	235.72 ± 0.62
y_{cal}	1.00050	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8774	1.877 ± 0.011	$D_M(2.33)$	5761.0	5761.7 ± 9.1
A_{100}^{PS}	233.9	239 ± 24	D_{40}	1223.3	1224 ± 12	$f\sigma_8(0.15)$	0.4558	0.4559 ± 0.0087
A_{143}^{PS}	39.1	39 ± 8	D_{220}	5720.1	5721 ± 39	$\sigma_8(0.15)$	0.7508	0.751 ± 0.013
A_{217}^{PS}	102.1	102 ± 10	D_{810}	2535.6	2535 ± 14	$f\sigma_8(0.38)$	0.4759	0.476 ± 0.010
A_{217}^{CIB}	44.4	40 ± 7	D_{1420}	816.43	815.9 ± 4.9	$\sigma_8(0.38)$	0.6657	0.666 ± 0.011
A_{143}^{tSZ}	6.56	$3.9_{-2.5}^{+1.9}$	D_{2000}	230.53	230.3 ± 1.6	$f\sigma_8(0.51)$	0.4751	0.476 ± 0.010
$r_{143 \times 217}^{\text{PS}}$	0.597	0.66 ± 0.13	$n_{s,0.002}$	0.96719	0.9668 ± 0.0041	$\sigma_8(0.51)$	0.6231	0.623 ± 0.010
$r_{143 \times 217}^{\text{CIB}}$	0.756	$0.56_{-0.16}^{+0.41}$	Y_{P}	0.245381	$0.245375_{-0.000055}^{+0.000062}$	$f\sigma_8(0.61)$	0.4704	0.471 ± 0.010
$\xi^{\text{tSZ} \times \text{CIB}}$	0.08	—	$Y_{\text{P}}^{\text{BBN}}$	0.246707	$0.246701_{-0.000056}^{+0.000062}$	$\sigma_8(0.61)$	0.5929	0.5932 ± 0.0097
A^{kSZ}	0.06	$4.7_{-4.1}^{+2.0}$	$10^5 \text{D}/\text{H}$	2.5924	2.595 ± 0.028	$f\sigma_8(2.33)$	0.29901	0.2992 ± 0.0048
A_{100}^{dust}	1.014	1.01 ± 0.19	Age/Gyr	13.7863	13.787 ± 0.023	$\sigma_8(2.33)$	0.30791	0.3080 ± 0.0042
A_{143}^{dust}	0.966	0.96 ± 0.18	z_*	1089.897	1089.91 ± 0.25	f_{2000}^{143}	29.87	29.6 ± 2.8
A_{217}^{dust}	0.967	0.97 ± 0.10	r_*	144.662	144.67 ± 0.28	f_{2000}^{217}	106.72	106.8 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.011	1.03 ± 0.16	$100\theta_*$	1.041150	1.04112 ± 0.00031	$f_{2000}^{143 \times 217}$	31.99	32.1 ± 2.0
c_{100}	0.99766	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.8945	13.896 ± 0.027	χ_{small}^2	395.88	396.9 ± 1.6
c_{217}	1.00123	1.0011 ± 0.0016	z_{drag}	1059.780	1059.77 ± 0.32	χ_{lowl}^2	22.80	22.94 ± 0.85
c_{TE}	0.99644	0.9966 ± 0.0049	r_{drag}	147.341	147.35 ± 0.29	χ_{CamSpec}^2	11499.9	11514.5 ± 5.6
c_{EE}	0.99222	0.9922 ± 0.0049	k_{D}	0.140576	0.14055 ± 0.00034	χ_{JLA}^2	1034.719	1035.39 ± 0.94
H_0	68.11	68.19 ± 0.83	$100\theta_{\text{D}}$	0.160841	0.16085 ± 0.00019	$\chi_{6\text{DF}}^2$	0.0022	0.048 ± 0.065
Ω_{Λ}	0.6935	0.6941 ± 0.0076	z_{eq}	3382.6	3382 ± 27	χ_{MGS}^2	1.54	1.66 ± 0.60
Ω_{m}	0.3065	0.3059 ± 0.0076	k_{eq}	0.010324	0.010323 ± 0.000084	χ_{DR12BAO}^2	4.10	4.6 ± 1.1
$\Omega_{\text{m}} h^2$	0.14219	0.1422 ± 0.0012	$100\theta_{\text{eq}}$	0.8167	0.8168 ± 0.0052	χ_{prior}^2	2.16	7.8 ± 3.4
$\Omega_{\text{m}} h^3$	0.09685	0.0969 ± 0.0015	$100\theta_{\text{s,eq}}$	0.45121	0.4512 ± 0.0027	χ_{BAO}^2	5.64	6.26 ± 0.97
σ_8	0.8120	0.813 ± 0.014	$H(0.15)$	73.20	73.23 ± 0.53	χ_{CMB}^2	11918.5	11934.4 ± 5.7
S_8	0.8208	0.820 ± 0.014	$D_M(0.15)$	637.5	637.1 ± 6.1			

Best-fit $\chi_{\text{eff}}^2 = 12961.06$; $\bar{\chi}_{\text{eff}}^2 = 12983.86$; $R - 1 = 0.00833$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.54 DR12BAO: 4.10 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.88 commander_dx12_v3.2.29: 22.80 CamSpec like_10.7HM_1400_unified: 11499.86 SN - JLA Pantheon18: 1034.72

18.56 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02232 \pm 0.00015 \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4507 \pm 0.0059 \quad (+0.2\sigma)$	$H(0.38)$	$83.07 \pm 0.27 \quad (+0.1\sigma)$
$\Omega_c h^2$	$0.1194 \pm 0.0011 \quad (+0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6061 \pm 0.0072 \quad (+0.6\sigma)$	$D_M(0.38)$	$1522 \pm 10 \quad (-0.7\sigma)$
$100\theta_{MC}$	$1.04091 \pm 0.00031 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.987 \pm 0.010 \quad (+0.6\sigma)$	$H(0.51)$	$89.68 \pm 0.24 \quad (-0.3\sigma)$
τ	$0.0542 \pm 0.0071 \quad (-0.2\sigma)$	$r_{drag} h$	$100.5 \pm 1.2 \quad (+1.0\sigma)$	$D_M(0.51)$	$1974 \pm 11 \quad (-0.6\sigma)$
w_0	-1.024 ± 0.031	$\langle d^2 \rangle^{1/2}$	$2.437 \pm 0.022 \quad (+0.4\sigma)$	$H(0.61)$	$95.22 \pm 0.25 \quad (-0.7\sigma)$
$\ln(10^{10} A_s)$	$3.041 \pm 0.014 \quad (-0.1\sigma)$	z_{re}	$7.65 \pm 0.72 \quad (-0.2\sigma)$	$D_M(0.61)$	$2299 \pm 11 \quad (-0.5\sigma)$
n_s	$0.9663 \pm 0.0039 \quad (-0.3\sigma)$	$10^9 A_s$	$2.094 \pm 0.030 \quad (-0.1\sigma)$	$H(2.33)$	$235.75 \pm 0.59 \quad (-0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$D_M(2.33)$	$5762.0 \pm 8.8 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 11 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4575 \pm 0.0068 \quad (+0.6\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.754 \pm 0.010 \quad (+1.2\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4782 \pm 0.0081 \quad (+1.1\sigma)$
A_{217}^{CIB}	$40_{-8}^{+7} \quad (+0.0\sigma)$	D_{1420}	$816.0 \pm 4.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6683 \pm 0.0093 \quad (+1.2\sigma)$
A_{143}^{tSZ}	$3.9_{-2.5}^{+2.0} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4774 \pm 0.0084 \quad (+1.3\sigma)$
$r_{143 \times 217}^{PS}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$n_{s,0.002}$	$0.9663 \pm 0.0039 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6254 \pm 0.0086 \quad (+1.2\sigma)$
$r_{143 \times 217}^{CIB}$	$0.56_{-0.15}^{+0.42} \quad (+0.0\sigma)$	Y_P	$0.245374_{-0.000055}^{+0.000060} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4728 \pm 0.0084 \quad (+1.5\sigma)$
$\xi^{tSZ \times CIB}$	—	Y_P^{BBN}	$0.246700_{-0.000055}^{+0.000061} \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5951 \pm 0.0081 \quad (+1.2\sigma)$
A^{kSZ}	$4.6_{-4.3}^{+1.9} \quad (+0.0\sigma)$	$10^5 D/H$	$2.595 \pm 0.027 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.3001 \pm 0.0041 \quad (+1.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.786 \pm 0.023 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3089 \pm 0.0036 \quad (+0.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.93 \pm 0.24 \quad (+0.3\sigma)$	f_{2000}^{143}	$29.6 \pm 2.9 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.63 \pm 0.25 \quad (-0.4\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{dust}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00030 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.892 \pm 0.024 \quad (-0.4\sigma)$	$\chi_{lensing}^2$	$9.24 \pm 0.74 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.77 \pm 0.31 \quad (-0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.1\sigma)$
c_{TE}	$0.9966 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.26 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.07 \pm 0.80 \quad (+0.2\sigma)$
c_{EE}	$0.9921 \pm 0.0050 \quad (-0.0\sigma)$	k_D	$0.14059 \pm 0.00032 \quad (+0.2\sigma)$	$\chi_{CamSpec}^2$	$11514.1 \pm 5.5 \quad (-0.0\sigma)$
H_0	$68.25 \pm 0.82 \quad (+1.3\sigma)$	$100\theta_D$	$0.16085 \pm 0.00019 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.35 \pm 0.89 \quad (+1.3\sigma)$
Ω_Λ	$0.6943 \pm 0.0076 \quad (+0.7\sigma)$	z_{eq}	$3386 \pm 24 \quad (+0.4\sigma)$	χ_{6DF}^2	$0.047 \pm 0.064 \quad (+0.1\sigma)$
Ω_m	$0.3057 \pm 0.0076 \quad (-0.7\sigma)$	k_{eq}	$0.010334 \pm 0.000074 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.67 \pm 0.60 \quad (+0.8\sigma)$
$\Omega_m h^2$	$0.1423 \pm 0.0010 \quad (+0.4\sigma)$	$100\theta_{eq}$	$0.8161 \pm 0.0045 \quad (-0.5\sigma)$	$\chi_{DR12BAO}^2$	$4.60 \pm 0.99 \quad (+0.1\sigma)$
$\Omega_m h^3$	$0.0971 \pm 0.0014 \quad (+3.3\sigma)$	$100\theta_{s,eq}$	$0.4509 \pm 0.0023 \quad (-0.4\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.815 \pm 0.011 \quad (+1.2\sigma)$	$H(0.15)$	$73.26 \pm 0.52 \quad (+0.8\sigma)$	χ_{CMB}^2	$11943.3 \pm 5.7 \quad (-0.1\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.2\sigma)$	$D_M(0.15)$	$636.8 \pm 6.0 \quad (-1.0\sigma)$	χ_{BAO}^2	$6.32 \pm 0.90 \quad (+0.5\sigma)$

$$\bar{\chi}_{eff}^2 = 12992.76; \Delta\bar{\chi}_{eff}^2 = 0.37; R - 1 = 0.01319$$

18.57 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4498 ± 0.0073	$H(0.38)$	83.09 ± 0.28
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0012	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6049 ± 0.0091	$D_{\mathrm{M}}(0.38)$	1523 ± 10
$100\theta_{\mathrm{MC}}$	1.04093 ± 0.00031	$\sigma_8/h^{0.5}$	0.985 ± 0.013	$H(0.51)$	89.71 ± 0.26
τ	$0.0546^{+0.0048}_{-0.0079}$	$r_{\mathrm{drag}}h$	100.5 ± 1.2	$D_{\mathrm{M}}(0.51)$	1974 ± 11
w_0	-1.020 ± 0.033	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.028	$H(0.61)$	95.26 ± 0.27
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	z_{re}	$7.69^{+0.54}_{-0.78}$	$D_{\mathrm{M}}(0.61)$	2299 ± 11
n_{s}	0.9669 ± 0.0041	$10^9 A_{\mathrm{s}}$	$2.093^{+0.024}_{-0.033}$	$H(2.33)$	235.71 ± 0.62
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$D_{\mathrm{M}}(2.33)$	5761.5 ± 9.0
A_{100}^{PS}	239 ± 24	D_{40}	1224 ± 12	$f\sigma_8(0.15)$	0.4564 ± 0.0085
A_{143}^{PS}	39 ± 8	D_{220}	5721 ± 39	$\sigma_8(0.15)$	0.752 ± 0.012
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$f\sigma_8(0.38)$	0.4768 ± 0.0099
A_{217}^{CIB}	40 ± 7	D_{1420}	815.9 ± 4.9	$\sigma_8(0.38)$	0.667 ± 0.011
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{2000}	230.4 ± 1.6	$f\sigma_8(0.51)$	0.476 ± 0.010
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0041	$\sigma_8(0.51)$	0.624 ± 0.010
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.41}_{-0.16}$	Y_{P}	$0.245376^{+0.000062}_{-0.000055}$	$f\sigma_8(0.61)$	0.471 ± 0.010
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246703^{+0.000062}_{-0.000055}$	$\sigma_8(0.61)$	0.5940 ± 0.0094
A^{kSZ}	$4.6^{+2.0}_{-4.2}$	$10^5 \mathrm{D}/\mathrm{H}$	2.594 ± 0.028	$f\sigma_8(2.33)$	0.2996 ± 0.0047
A_{100}^{dust}	1.01 ± 0.19	$\mathrm{Age}/\mathrm{Gyr}$	13.787 ± 0.023	$\sigma_8(2.33)$	0.3085 ± 0.0040
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.90 ± 0.25	f_{2000}^{143}	29.6 ± 2.8
A_{217}^{dust}	0.97 ± 0.10	r_*	144.67 ± 0.28	f_{2000}^{217}	106.8 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04112 ± 0.00031	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.896 ± 0.027	χ_{simall}^2	396.8 ± 1.6
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.78 ± 0.32	χ_{lowl}^2	22.96 ± 0.85
c_{TE}	0.9965 ± 0.0049	r_{drag}	147.36 ± 0.29	$\chi_{\mathrm{CamSpec}}^2$	11514.4 ± 5.6
c_{EE}	0.9921 ± 0.0049	k_{D}	0.14056 ± 0.00034	χ_{JLA}^2	1035.39 ± 0.93
H_0	68.19 ± 0.83	$100\theta_{\mathrm{D}}$	0.16085 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.048 ± 0.065
Ω_{Λ}	0.6941 ± 0.0076	z_{eq}	3382 ± 28	χ_{MGS}^2	1.67 ± 0.60
Ω_{m}	0.3059 ± 0.0076	k_{eq}	0.010322 ± 0.000084	$\chi_{\mathrm{DR12BAO}}^2$	4.5 ± 1.0
$\Omega_{\mathrm{m}}h^2$	0.1422 ± 0.0012	$100\theta_{\mathrm{eq}}$	0.8169 ± 0.0052	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.0969 ± 0.0015	$100\theta_{\mathrm{s,eq}}$	0.4513 ± 0.0027	χ_{BAO}^2	6.25 ± 0.97
σ_8	0.814 ± 0.013	$H(0.15)$	73.24 ± 0.53	χ_{CMB}^2	11934.1 ± 5.6
S_8	0.821 ± 0.013	$D_{\mathrm{M}}(0.15)$	637.1 ± 6.0		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12983.61; R - 1 = 0.00895$$

18.58 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02232 \pm 0.00014 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4508 \pm 0.0059 \quad (+0.2\sigma)$	$H(0.38)$	$83.08 \pm 0.27 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0010 \quad (+0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6063 \pm 0.0071 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(0.38)$	$1522 \pm 10 \quad (-0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00031 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.987 \pm 0.010 \quad (+0.6\sigma)$	$H(0.51)$	$89.68 \pm 0.24 \quad (-0.3\sigma)$
τ	$0.0550^{+0.0053}_{-0.0074} \quad (-0.2\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+1.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1974 \pm 11 \quad (-0.6\sigma)$
w_0	-1.023 ± 0.031	$\langle d^2 \rangle^{1/2}$	$2.438 \pm 0.022 \quad (+0.4\sigma)$	$H(0.61)$	$95.23 \pm 0.25 \quad (-0.7\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.014} \quad (-0.1\sigma)$	z_{re}	$7.74^{+0.57}_{-0.73} \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2299 \pm 11 \quad (-0.5\sigma)$
n_{s}	$0.9664 \pm 0.0039 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.030} \quad (-0.1\sigma)$	$H(2.33)$	$235.74 \pm 0.59 \quad (-0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761.8 \pm 8.8 \quad (+0.0\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (+0.0\sigma)$	D_{40}	$1226 \pm 11 \quad (+0.1\sigma)$	$f\sigma_8(0.15)$	$0.4576 \pm 0.0068 \quad (+0.6\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.0\sigma)$	D_{220}	$5724 \pm 39 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.754 \pm 0.010 \quad (+1.3\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4783 \pm 0.0081 \quad (+1.1\sigma)$
A_{217}^{CIB}	$40^{+7}_{-7} \quad (+0.0\sigma)$	D_{1420}	$816.0 \pm 4.9 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6686 \pm 0.0092 \quad (+1.3\sigma)$
A_{143}^{tSZ}	$3.9^{+2.0}_{-2.5} \quad (-0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4776 \pm 0.0084 \quad (+1.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9664 \pm 0.0039 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6257 \pm 0.0085 \quad (+1.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15} \quad (+0.0\sigma)$	Y_{P}	$0.245375 \pm 0.000058 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4729 \pm 0.0084 \quad (+1.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246701 \pm 0.000058 \quad (-0.2\sigma)$	$\sigma_8(0.61)$	$0.5954 \pm 0.0080 \quad (+1.3\sigma)$
A^{kSZ}	$4.6^{+1.9}_{-4.3} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.595 \pm 0.027 \quad (+0.2\sigma)$	$f\sigma_8(2.33)$	$0.3002 \pm 0.0040 \quad (+1.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.786 \pm 0.023 \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3090 \pm 0.0035 \quad (+0.9\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	z_*	$1089.92 \pm 0.23 \quad (+0.3\sigma)$	f_{2000}^{143}	$29.6 \pm 2.9 \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.64 \pm 0.25 \quad (-0.4\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00031 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.893 \pm 0.024 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.20 \pm 0.69 \quad (-0.1\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1059.78 \pm 0.31 \quad (-0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.26 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.07 \pm 0.80 \quad (+0.2\sigma)$
c_{EE}	$0.9921 \pm 0.0050 \quad (-0.0\sigma)$	k_{D}	$0.14059 \pm 0.00032 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.0 \pm 5.5 \quad (-0.0\sigma)$
H_0	$68.24 \pm 0.82 \quad (+1.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.35 \pm 0.88 \quad (+1.3\sigma)$
Ω_{Λ}	$0.6943 \pm 0.0076 \quad (+0.7\sigma)$	z_{eq}	$3385 \pm 24 \quad (+0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.047 \pm 0.064 \quad (+0.2\sigma)$
Ω_{m}	$0.3057 \pm 0.0076 \quad (-0.7\sigma)$	k_{eq}	$0.010331 \pm 0.000073 \quad (+0.4\sigma)$	χ_{MGS}^2	$1.68 \pm 0.60 \quad (+0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1423 \pm 0.0010 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8163 \pm 0.0045 \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.58 \pm 0.97 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0971 \pm 0.0014 \quad (+3.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0023 \quad (-0.4\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.816 \pm 0.011 \quad (+1.2\sigma)$	$H(0.15)$	$73.26 \pm 0.52 \quad (+0.8\sigma)$	χ_{CMB}^2	$11943.1 \pm 5.6 \quad (-0.1\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$636.8 \pm 6.0 \quad (-1.0\sigma)$	χ_{BAO}^2	$6.30 \pm 0.89 \quad (+0.5\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.59; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.34; R - 1 = 0.01370$$

18.59 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022206	0.02220 ± 0.00020	$\sigma_8/h^{0.5}$	0.9958	0.994 ± 0.016	$D_{\text{M}}(0.38)$	1511.7	1511.9 ± 9.4
$\Omega_{\text{c}}h^2$	0.11980	0.1197 ± 0.0015	$r_{\text{drag}}h$	102.07	102.1 ± 1.1	$H(0.51)$	89.548	89.57 ± 0.35
$100\theta_{\text{MC}}$	1.040896	1.04093 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.4495	2.448 ± 0.034	$D_{\text{M}}(0.51)$	1963.6	1964 ± 11
τ	0.0531	0.0530 ± 0.0080	z_{re}	7.58	7.55 ± 0.82	$H(0.61)$	94.981	95.00 ± 0.36
w_0	-1.0670	-1.064 ± 0.034	$10^9 A_{\text{s}}$	2.0921	2.091 ± 0.035	$D_{\text{M}}(0.61)$	2288.8	2289 ± 11
$\ln(10^{10} A_{\text{s}})$	3.0408	3.040 ± 0.017	$10^9 A_{\text{s}} e^{-2\tau}$	1.8814	1.881 ± 0.012	$H(2.33)$	235.31	235.27 ± 0.76
n_{s}	0.96558	0.9650 ± 0.0047	D_{40}	1226.7	1229 ± 13	$D_{\text{M}}(2.33)$	5763.7	5764 ± 12
y_{cal}	1.00039	1.0005 ± 0.0025	D_{220}	5715.9	5721 ± 40	$f\sigma_8(0.15)$	0.4626	0.461 ± 0.010
A_{217}^{CIB}	48.5	48 ± 7	D_{810}	2537.5	2537 ± 14	$\sigma_8(0.15)$	0.7670	0.765 ± 0.013
$\xi^{\text{tSZ} \times \text{CIB}}$	0.34	—	D_{1420}	816.00	815.3 ± 5.0	$f\sigma_8(0.38)$	0.4872	0.486 ± 0.012
A_{143}^{tSZ}	7.01	5.1 ± 2.0	D_{2000}	230.24	230.0 ± 1.7	$\sigma_8(0.38)$	0.6803	0.679 ± 0.011
A_{100}^{PS}	254.0	262 ± 28	$n_{\text{s},0.002}$	0.96558	0.9650 ± 0.0047	$f\sigma_8(0.51)$	0.4875	0.486 ± 0.012
A_{143}^{PS}	49.3	48 ± 8	Y_{P}	0.245328	$0.245323^{+0.000090}_{-0.000073}$	$\sigma_8(0.51)$	0.6365	0.635 ± 0.010
$A_{143 \times 217}^{\text{PS}}$	47.2	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.246655	$0.246650^{+0.000091}_{-0.000073}$	$f\sigma_8(0.61)$	0.4832	0.482 ± 0.011
A_{217}^{PS}	119.5	115 ± 10	$10^5 \text{D}/\text{H}$	2.6168	2.618 ± 0.037	$\sigma_8(0.61)$	0.6055	0.6043 ± 0.0098
A^{kSZ}	0.00	< 4.70	Age/Gyr	13.7738	13.775 ± 0.027	$f\sigma_8(2.33)$	0.30535	0.3048 ± 0.0048
A_{100}^{dustTT}	8.92	8.9 ± 1.8	z_*	1090.110	1090.11 ± 0.32	$\sigma_8(2.33)$	0.31322	0.3127 ± 0.0042
A_{143}^{dustTT}	10.83	10.7 ± 1.8	r_*	144.607	144.65 ± 0.37	f_{2000}^{143}	30.14	30.8 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	19.45	18.3 ± 3.3	$100\theta_*$	1.041101	1.04113 ± 0.00043	$f_{2000}^{143 \times 217}$	33.09	33.3 ± 2.0
A_{217}^{dustTT}	94.8	93.5 ± 7.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8898	13.894 ± 0.035	f_{2000}^{217}	107.53	107.9 ± 1.9
c_{100}	0.99965	0.99960 ± 0.00062	z_{drag}	1059.551	1059.52 ± 0.43	χ_{small}^2	395.89	397.0 ± 1.8
c_{217}	0.99826	0.99825 ± 0.00062	r_{drag}	147.326	147.37 ± 0.38	χ_{lowl}^2	23.08	23.28 ± 0.99
H_0	69.28	69.25 ± 0.75	k_{D}	0.140492	0.14044 ± 0.00046	χ_{plik}^2	758.8	771.1 ± 5.3
Ω_{Λ}	0.7028	0.7028 ± 0.0070	$100\theta_{\text{D}}$	0.160991	0.16101 ± 0.00025	χ_{H073p45}^2	6.30	6.6 ± 2.3
Ω_{m}	0.2972	0.2972 ± 0.0070	z_{eq}	3393.6	3390 ± 35	χ_{JLA}^2	1036.11	1036.6 ± 1.9
$\Omega_{\text{m}}h^2$	0.14265	0.1425 ± 0.0015	k_{eq}	0.010358	0.01035 ± 0.00011	$\chi_{6\text{DF}}^2$	0.056	0.098 ± 0.11
$\Omega_{\text{m}}h^3$	0.09884	0.0987 ± 0.0015	$100\theta_{\text{eq}}$	0.8144	0.8151 ± 0.0065	χ_{MGS}^2	2.35	2.41 ± 0.64
σ_8	0.8289	0.827 ± 0.015	$100\theta_{\text{s,eq}}$	0.45006	0.4504 ± 0.0033	χ_{DR12BAO}^2	4.30	4.78 ± 0.97
S_8	0.8250	0.823 ± 0.016	$H(0.15)$	73.828	73.82 ± 0.49	χ_{prior}^2	1.36	7.3 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4519	0.4509 ± 0.0089	$D_{\text{M}}(0.15)$	629.6	629.8 ± 5.4	χ_{BAO}^2	6.70	7.3 ± 1.2
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6120	0.611 ± 0.011	$H(0.38)$	83.142	83.15 ± 0.35	χ_{CMB}^2	1177.8	1191.4 ± 5.4

Best-fit $\chi_{\text{eff}}^2 = 2228.28$; $\bar{\chi}_{\text{eff}}^2 = 2249.11$; $R - 1 = 0.00515$
 χ_{eff}^2 : BAO - 6DF: 0.06 MGS: 2.35 DR12BAO: 4.30 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.89 commander_dx12_v3.2.29: 23.08 plik_rd12_HM_v22_TT: 758.84
Hubble - H073p45: 6.30 SN - JLA Pantheon18: 1036.11

18.60 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022224	0.02221 ± 0.00019 (-0.6σ)	$\sigma_8/h^{0.5}$	0.9924	0.993 ± 0.011 $(+1.6\sigma)$	$D_{\text{M}}(0.38)$	1510.7	1511.5 ± 9.3 (-1.3σ)
$\Omega_{\text{c}}h^2$	0.11947	0.1196 ± 0.0013 $(+1.4\sigma)$	$r_{\text{drag}}h$	102.15	102.1 ± 1.1 $(+2.0\sigma)$	$H(0.51)$	89.615	89.58 ± 0.31 (-1.2σ)
$100\theta_{\text{MC}}$	1.040930	1.04093 ± 0.00043 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4440	2.447 ± 0.024 $(+1.1\sigma)$	$D_{\text{M}}(0.51)$	1962.3	1963 ± 10 (-1.0σ)
τ	0.0529	0.0532 ± 0.0076 (-0.7σ)	z_{re}	7.55	7.57 ± 0.77 (-0.6σ)	$H(0.61)$	95.045	95.02 ± 0.32 (-1.9σ)
w_0	-1.0626	-1.064 ± 0.031	$10^9 A_{\text{s}}$	2.0901	2.092 ± 0.031 (-0.5σ)	$D_{\text{M}}(0.61)$	2287.2	2288 ± 11 (-0.8σ)
$\ln(10^{10} A_{\text{s}})$	3.0398	3.040 ± 0.015 (-0.5σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8801	1.880 ± 0.011 $(+0.4\sigma)$	$H(2.33)$	235.16	235.23 ± 0.68 (-0.1σ)
n_{s}	0.96567	0.9650 ± 0.0043 (-0.9σ)	D_{40}	1226.9	1229 ± 12 $(+0.4\sigma)$	$D_{\text{M}}(2.33)$	5762.1	5763 ± 12 $(+0.4\sigma)$
y_{cal}	1.00046	1.0005 ± 0.0025 (-0.2σ)	D_{220}	5721.3	5722 ± 40 (-0.3σ)	$f\sigma_8(0.15)$	0.4602	0.4610 ± 0.0077 $(+1.7\sigma)$
A_{217}^{CIB}	50.3	48 ± 7 $(+0.0\sigma)$	D_{810}	2537.0	2536 ± 13 (-0.1σ)	$\sigma_8(0.15)$	0.7646	0.765 ± 0.010 $(+3.1\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.09	—	D_{1420}	815.8	815.3 ± 5.0 (-0.4σ)	$f\sigma_8(0.38)$	0.4847	0.4854 ± 0.0088 $(+3.0\sigma)$
A_{143}^{tSZ}	7.18	5.1 ± 2.0 (-0.1σ)	D_{2000}	230.14	229.9 ± 1.7 (-0.4σ)	$\sigma_8(0.38)$	0.6783	0.6787 ± 0.0091 $(+3.1\sigma)$
A_{100}^{PS}	256.1	263 ± 28 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.96567	0.9650 ± 0.0043 (-0.9σ)	$f\sigma_8(0.51)$	0.4852	0.4858 ± 0.0090 $(+3.5\sigma)$
A_{143}^{PS}	45.4	48 ± 8 $(+0.1\sigma)$	Y_{P}	0.245336	$0.245327^{+0.000088}_{-0.000073}$ (-0.6σ)	$\sigma_8(0.51)$	0.6348	0.6351 ± 0.0084 $(+3.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	40.4	43 ± 9 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246662	$0.246653^{+0.000088}_{-0.000073}$ (-0.6σ)	$f\sigma_8(0.61)$	0.4810	0.4815 ± 0.0088 $(+3.8\sigma)$
A_{217}^{PS}	116.4	115 ± 10 $(+0.0\sigma)$	$10^5 \text{D}/\text{H}$	2.6133	2.616 ± 0.037 $(+0.6\sigma)$	$\sigma_8(0.61)$	0.6039	0.6042 ± 0.0079 $(+2.9\sigma)$
A^{kSZ}	0.00	< 4.70 $(+0.1\sigma)$	Age/Gyr	13.7719	13.774 ± 0.027 (-0.5σ)	$f\sigma_8(2.33)$	0.30462	0.3047 ± 0.0039 $(+2.8\sigma)$
A_{100}^{dustTT}	8.84	8.9 ± 1.8 $(+0.0\sigma)$	z_*	1090.059	1090.09 ± 0.30 $(+1.0\sigma)$	$\sigma_8(2.33)$	0.31264	0.3127 ± 0.0034 $(+2.0\sigma)$
A_{143}^{dustTT}	10.79	10.7 ± 1.8 $(+0.0\sigma)$	r_*	144.680	144.66 ± 0.31 (-1.1σ)	χ_{lensing}^2	8.675	9.19 ± 0.74 (-0.3σ)
$A_{143 \times 217}^{\text{dustTT}}$	18.91	18.3 ± 3.3 (-0.0σ)	$100\theta_*$	1.041131	1.04113 ± 0.00042 (-0.5σ)	χ_{simall}^2	395.85	396.9 ± 1.6 (-0.4σ)
A_{217}^{dustTT}	93.7	93.5 ± 7.3 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8964	13.895 ± 0.030 (-0.9σ)	χ_{lowl}^2	23.07	23.27 ± 0.88 $(+0.5\sigma)$
c_{100}	0.99964	0.99960 ± 0.00061 (-0.1σ)	z_{drag}	1059.551	1059.53 ± 0.43 (-0.3σ)	χ_{plik}^2	758.91	770.9 ± 5.1 (-0.3σ)
c_{217}	0.99827	0.99825 ± 0.00062 $(+0.0\sigma)$	r_{drag}	147.395	147.38 ± 0.33 (-0.9σ)	χ_{H073p45}^2	6.23	6.5 ± 2.3 (-2.2σ)
H_0	69.31	69.27 ± 0.74 $(+2.6\sigma)$	k_{D}	0.140436	0.14043 ± 0.00043 $(+0.5\sigma)$	χ_{JLA}^2	1036.03	1036.6 ± 1.8 $(+9.6\sigma)$
Ω_{Λ}	0.7037	0.7031 ± 0.0069 $(+1.3\sigma)$	$100\theta_{\text{D}}$	0.160979	0.16100 ± 0.00025 $(+0.3\sigma)$	$\chi_{6\text{DF}}^2$	0.067	0.10 ± 0.11 $(+1.9\sigma)$
Ω_{m}	0.2963	0.2969 ± 0.0069 (-1.3σ)	z_{eq}	3386.1	3388 ± 29 $(+1.3\sigma)$	χ_{MGS}^2	2.43	2.44 ± 0.63 $(+1.4\sigma)$
$\Omega_{\text{m}}h^2$	0.14234	0.1424 ± 0.0012 $(+1.3\sigma)$	k_{eq}	0.010335	0.010341 ± 0.000088 $(+1.3\sigma)$	χ_{DR12BAO}^2	4.18	4.66 ± 0.78 $(+1.1\sigma)$
$\Omega_{\text{m}}h^3$	0.09865	0.0987 ± 0.0014 $(+6.1\sigma)$	$100\theta_{\text{eq}}$	0.8158	0.8154 ± 0.0053 (-1.4σ)	χ_{prior}^2	1.55	7.2 ± 3.6 (-0.0σ)
σ_8	0.8261	0.827 ± 0.011 $(+3.0\sigma)$	$100\theta_{\text{s,eq}}$	0.45080	0.4506 ± 0.0028 (-1.4σ)	χ_{CMB}^2	1186.5	1200.2 ± 5.3 (-0.4σ)
S_8	0.8211	0.822 ± 0.012 $(+0.7\sigma)$	$H(0.15)$	73.877	73.84 ± 0.49 $(+1.4\sigma)$	χ_{BAO}^2	6.68	7.2 ± 1.1 $(+2.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4497	0.4504 ± 0.0066 $(+0.7\sigma)$	$D_{\text{M}}(0.15)$	629.3	629.6 ± 5.3 (-2.0σ)			
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6095	0.6102 ± 0.0079 $(+1.7\sigma)$	$H(0.38)$	83.209	83.17 ± 0.32 (-0.2σ)			

Best-fit $\chi_{\text{eff}}^2 = 2237.00$; $\Delta\chi_{\text{eff}}^2 = -4.01$; $\bar{\chi}_{\text{eff}}^2 = 2257.74$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.52$; $R - 1 = 0.00918$
 χ_{eff}^2 : BAO - 6DF: 0.07 (Δ 0.07) MGS: 2.43 (Δ 0.68) DR12BAO: 4.18 (Δ 0.75) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.68 (Δ -0.32) simall_100x143_offlike5_EE_Aplanck: 395.85 (Δ -1.04) commander_dx12.v3.2.29: 23.07 (Δ 0.47) plik_rd12_HM.v22_TT: 758.91 (Δ -1.93) Hubble - H073p45: 6.23 (Δ -4.09) SN - JLA Pantheon18: 1036.03 (Δ 1.24)

18.61 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02221 ± 0.00020	$\sigma_8/h^{0.5}$	0.995 ± 0.015	$D_M(0.38)$	1511.8 ± 9.4
$\Omega_c h^2$	0.1196 ± 0.0015	$r_{\text{drag}} h$	102.1 ± 1.1	$H(0.51)$	89.58 ± 0.34
$100\theta_{\text{MC}}$	1.04094 ± 0.00044	$\langle d^2 \rangle^{1/2}$	2.451 ± 0.033	$D_M(0.51)$	1964 ± 11
τ	$0.0545^{+0.0048}_{-0.0082}$	z_{re}	$7.71^{+0.53}_{-0.83}$	$H(0.61)$	95.01 ± 0.35
w_0	-1.064 ± 0.034	$10^9 A_s$	$2.097^{+0.024}_{-0.035}$	$D_M(0.61)$	2289 ± 11
$\ln(10^{10} A_s)$	$3.043^{+0.012}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.881 ± 0.012	$H(2.33)$	235.26 ± 0.76
n_s	0.9651 ± 0.0047	D_{40}	1229 ± 13	$D_M(2.33)$	5763 ± 12
y_{cal}	1.0005 ± 0.0025	D_{220}	5721 ± 40	$f\sigma_8(0.15)$	0.462 ± 0.010
A_{217}^{CIB}	48 ± 7	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.766 ± 0.013
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815.3 ± 5.0	$f\sigma_8(0.38)$	0.486 ± 0.012
A_{143}^{tSZ}	5.2 ± 2.0	D_{2000}	230.0 ± 1.7	$\sigma_8(0.38)$	0.680 ± 0.011
A_{100}^{PS}	262 ± 28	$n_{s,0.002}$	0.9651 ± 0.0047	$f\sigma_8(0.51)$	0.487 ± 0.012
A_{143}^{PS}	48 ± 8	Y_{P}	$0.245326^{+0.000089}_{-0.000073}$	$\sigma_8(0.51)$	0.636 ± 0.010
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	$0.246652^{+0.000089}_{-0.000073}$	$f\sigma_8(0.61)$	0.482 ± 0.011
A_{217}^{PS}	115 ± 10	$10^5 \text{D}/\text{H}$	2.617 ± 0.037	$\sigma_8(0.61)$	0.6050 ± 0.0096
A^{kSZ}	< 4.65	Age/Gyr	13.774 ± 0.027	$f\sigma_8(2.33)$	0.3051 ± 0.0046
A_{100}^{dustTT}	9.0 ± 1.8	z_*	1090.09 ± 0.32	$\sigma_8(2.33)$	0.3131 ± 0.0040
A_{143}^{dustTT}	10.7 ± 1.8	r_*	144.66 ± 0.37	f_{2000}^{143}	30.8 ± 2.9
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$100\theta_*$	1.04114 ± 0.00043	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
A_{217}^{dustTT}	93.5 ± 7.3	$D_M(z_*)/\text{Gpc}$	13.894 ± 0.035	f_{2000}^{217}	107.8 ± 1.9
c_{100}	0.99960 ± 0.00062	z_{drag}	1059.53 ± 0.43	χ_{simall}^2	396.9 ± 1.8
c_{217}	0.99825 ± 0.00062	r_{drag}	147.38 ± 0.38	χ_{lowl}^2	23.29 ± 0.99
H_0	69.25 ± 0.75	k_{D}	0.14044 ± 0.00046	χ_{plik}^2	770.9 ± 5.3
Ω_{Λ}	0.7028 ± 0.0070	$100\theta_{\text{D}}$	0.16100 ± 0.00025	χ_{H073p45}^2	6.6 ± 2.3
Ω_{m}	0.2972 ± 0.0070	z_{eq}	3389 ± 35	χ_{JLA}^2	1036.6 ± 1.9
$\Omega_{\text{m}} h^2$	0.1425 ± 0.0014	k_{eq}	0.01034 ± 0.00011	$\chi_{6\text{DF}}^2$	0.099 ± 0.11
$\Omega_{\text{m}} h^3$	0.0987 ± 0.0015	$100\theta_{\text{eq}}$	0.8153 ± 0.0065	χ_{MGS}^2	2.42 ± 0.65
σ_8	0.828 ± 0.014	$100\theta_{\text{s,eq}}$	0.4505 ± 0.0033	χ_{DR12BAO}^2	4.76 ± 0.95
S_8	0.824 ± 0.016	$H(0.15)$	73.82 ± 0.49	χ_{prior}^2	7.3 ± 3.6
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4513 ± 0.0088	$D_M(0.15)$	629.8 ± 5.4	χ_{BAO}^2	7.3 ± 1.2
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.611 ± 0.011	$H(0.38)$	83.16 ± 0.35	χ_{CMB}^2	1191.1 ± 5.3

$$\bar{\chi}_{\text{eff}}^2 = 2248.83; R - 1 = 0.00554$$

18.62 base_w_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02222 \pm 0.00019 \quad (-0.5\sigma)$	$r_{\text{drag}}h$	$102.1 \pm 1.1 \quad (+2.0\sigma)$	$D_{\text{M}}(0.51)$	$1963 \pm 10 \quad (-1.0\sigma)$
$\Omega_{\text{c}}h^2$	$0.1195 \pm 0.0012 \quad (+1.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.449 \pm 0.024 \quad (+1.1\sigma)$	$H(0.61)$	$95.04 \pm 0.31 \quad (-1.9\sigma)$
$100\theta_{\text{MC}}$	$1.04094 \pm 0.00043 \quad (-0.5\sigma)$	z_{re}	$7.69^{+0.52}_{-0.80} \quad (-0.6\sigma)$	$D_{\text{M}}(0.61)$	$2288 \pm 11 \quad (-0.8\sigma)$
τ	$0.0544^{+0.0048}_{-0.0079} \quad (-0.6\sigma)$	$10^9 A_{\text{s}}$	$2.096^{+0.022}_{-0.031} \quad (-0.4\sigma)$	$H(2.33)$	$235.20 \pm 0.67 \quad (-0.1\sigma)$
w_0	-1.062 ± 0.031	$10^9 A_{\text{s}} e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.4\sigma)$	$D_{\text{M}}(2.33)$	$5763 \pm 12 \quad (+0.4\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.043^{+0.011}_{-0.015} \quad (-0.4\sigma)$	D_{40}	$1228 \pm 12 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4609 \pm 0.0077 \quad (+1.7\sigma)$
n_{s}	$0.9652 \pm 0.0042 \quad (-0.8\sigma)$	D_{220}	$5722 \pm 40 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.765 \pm 0.010 \quad (+3.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.2\sigma)$	D_{810}	$2536 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4854 \pm 0.0088 \quad (+3.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$815.3 \pm 5.0 \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.6790 \pm 0.0091 \quad (+3.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{2000}	$230.0 \pm 1.7 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4858 \pm 0.0089 \quad (+3.5\sigma)$
A_{143}^{tSZ}	$5.2 \pm 2.0 \quad (-0.1\sigma)$	$n_{\text{s},0.002}$	$0.9652 \pm 0.0042 \quad (-0.8\sigma)$	$\sigma_8(0.51)$	$0.6354 \pm 0.0083 \quad (+3.1\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (+0.0\sigma)$	Y_{P}	$0.245330^{+0.000086}_{-0.000072} \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4815 \pm 0.0088 \quad (+3.8\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.246656^{+0.000087}_{-0.000073} \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6045 \pm 0.0078 \quad (+3.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$10^5 \text{D}/\text{H}$	$2.615 \pm 0.036 \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	$0.3049 \pm 0.0039 \quad (+2.9\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Age/Gyr	$13.773 \pm 0.027 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3129 \pm 0.0034 \quad (+2.1\sigma)$
A^{kSZ}	$< 4.65 \quad (+0.0\sigma)$	z_*	$1090.07 \pm 0.30 \quad (+0.9\sigma)$	f_{2000}^{143}	$30.8 \pm 2.9 \quad (+0.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.68 \pm 0.31 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.2\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04114 \pm 0.00043 \quad (-0.5\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.896 \pm 0.030 \quad (-0.9\sigma)$	χ_{lensing}^2	$9.17 \pm 0.72 \quad (-0.3\sigma)$
A_{217}^{dustTT}	$93.5 \pm 7.3 \quad (+0.0\sigma)$	z_{drag}	$1059.54 \pm 0.43 \quad (-0.3\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.4\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.1\sigma)$	r_{drag}	$147.40 \pm 0.33 \quad (-0.8\sigma)$	χ_{lowl}^2	$23.26 \pm 0.88 \quad (+0.5\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14042 \pm 0.00042 \quad (+0.5\sigma)$	χ_{plik}^2	$770.7 \pm 5.1 \quad (-0.4\sigma)$
H_0	$69.27 \pm 0.75 \quad (+2.6\sigma)$	$100\theta_{\text{D}}$	$0.16099 \pm 0.00025 \quad (+0.3\sigma)$	χ_{H073p45}^2	$6.5 \pm 2.3 \quad (-2.2\sigma)$
Ω_{Λ}	$0.7032 \pm 0.0069 \quad (+1.3\sigma)$	z_{eq}	$3386 \pm 28 \quad (+1.3\sigma)$	χ_{JLA}^2	$1036.5 \pm 1.8 \quad (+9.5\sigma)$
Ω_{m}	$0.2968 \pm 0.0069 \quad (-1.3\sigma)$	k_{eq}	$0.010336 \pm 0.000086 \quad (+1.3\sigma)$	$\chi_{6\text{DF}}^2$	$0.10 \pm 0.12 \quad (+2.0\sigma)$
$\Omega_{\text{m}}h^2$	$0.1424 \pm 0.0012 \quad (+1.3\sigma)$	$100\theta_{\text{eq}}$	$0.8158 \pm 0.0052 \quad (-1.3\sigma)$	χ_{MGS}^2	$2.46 \pm 0.63 \quad (+1.4\sigma)$
$\Omega_{\text{m}}h^3$	$0.0986 \pm 0.0013 \quad (+5.9\sigma)$	$100\theta_{\text{s,eq}}$	$0.4508 \pm 0.0027 \quad (-1.3\sigma)$	χ_{DR12BAO}^2	$4.63 \pm 0.76 \quad (+1.0\sigma)$
σ_8	$0.827 \pm 0.011 \quad (+3.1\sigma)$	$H(0.15)$	$73.85 \pm 0.49 \quad (+1.4\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.822 \pm 0.012 \quad (+0.7\sigma)$	$D_{\text{M}}(0.15)$	$629.6 \pm 5.4 \quad (-2.0\sigma)$	χ_{CMB}^2	$1200.0 \pm 5.3 \quad (-0.5\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.5}$	$0.4505 \pm 0.0066 \quad (+0.7\sigma)$	$H(0.38)$	$83.19 \pm 0.31 \quad (-0.2\sigma)$	χ_{BAO}^2	$7.2 \pm 1.1 \quad (+2.2\sigma)$
$\sigma_8 \Omega_{\text{m}}^{0.25}$	$0.6104 \pm 0.0078 \quad (+1.7\sigma)$	$D_{\text{M}}(0.38)$	$1511.3 \pm 9.3 \quad (-1.3\sigma)$		
$\sigma_8/h^{0.5}$	$0.994 \pm 0.011 \quad (+1.6\sigma)$	$H(0.51)$	$89.60 \pm 0.30 \quad (-1.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2257.48; \Delta\bar{\chi}_{\text{eff}}^2 = -3.69; R - 1 = 0.01061$$

18.63 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022427	0.02240 ± 0.00014	σ_8	0.8277	0.828 ± 0.013	$D_M(0.15)$	628.7	628.9 ± 5.3
$\Omega_c h^2$	0.11971	0.1198 ± 0.0012	S_8	0.8233	0.824 ± 0.013	$H(0.38)$	83.327	83.29 ± 0.28
$100\theta_{MC}$	1.040988	1.04097 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4510	0.4515 ± 0.0072	$D_M(0.38)$	1509.1	1509.6 ± 9.0
τ	0.0546	0.0548 ± 0.0079	$\sigma_8 \Omega_m^{0.25}$	0.6109	0.6116 ± 0.0089	$H(0.51)$	89.753	89.71 ± 0.26
w_0	-1.0606	-1.063 ± 0.031	$\sigma_8/h^{0.5}$	0.9939	0.995 ± 0.013	$D_M(0.51)$	1959.9	1960.6 ± 9.9
$\ln(10^{10} A_s)$	3.0442	3.045 ± 0.016	$r_{drag} h$	102.02	102.0 ± 1.1	$H(0.61)$	95.198	95.16 ± 0.27
n_s	0.96659	0.9658 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.4480	2.451 ± 0.029	$D_M(0.61)$	2284.3	2285 ± 10
y_{cal}	1.00033	1.0006 ± 0.0025	z_{re}	7.68	7.69 ± 0.79	$H(2.33)$	235.55	235.57 ± 0.60
A_{217}^{CIB}	47.0	47 ± 7	$10^9 A_s$	2.0992	$2.101^{+0.031}_{-0.035}$	$D_M(2.33)$	5753.4	5754.9 ± 8.8
$\xi^{tSZ \times CIB}$	0.52	—	$10^9 A_s e^{-2\tau}$	1.8821	1.882 ± 0.011	$f\sigma_8(0.15)$	0.4613	0.4620 ± 0.0084
A_{143}^{tSZ}	7.14	$5.5^{+2.1}_{-1.9}$	D_{40}	1227.2	1229 ± 12	$\sigma_8(0.15)$	0.7659	0.767 ± 0.012
A_{100}^{PS}	249.5	258 ± 28	D_{220}	5734.0	5735 ± 39	$f\sigma_8(0.38)$	0.4856	0.4864 ± 0.0096
A_{143}^{PS}	48.8	45 ± 8	D_{810}	2539.9	2539 ± 13	$\sigma_8(0.38)$	0.6795	0.680 ± 0.010
$A_{143 \times 217}^{PS}$	49.7	42 ± 9	D_{1420}	818.16	817.6 ± 4.7	$f\sigma_8(0.51)$	0.4860	0.4868 ± 0.0097
A_{217}^{PS}	120.0	115 ± 10	D_{2000}	231.33	231.1 ± 1.6	$\sigma_8(0.51)$	0.6359	0.6364 ± 0.0095
A^{kSZ}	0.01	< 4.12	$n_{s,0.002}$	0.96659	0.9658 ± 0.0040	$f\sigma_8(0.61)$	0.4818	0.4825 ± 0.0096
A_{100}^{dustTT}	8.85	8.9 ± 1.8	Y_P	0.245418	$0.245406^{+0.000057}_{-0.000051}$	$\sigma_8(0.61)$	0.6050	0.6054 ± 0.0089
A_{143}^{dustTT}	11.02	10.9 ± 1.8	Y_P^{BBN}	0.246745	$0.246732^{+0.000057}_{-0.000051}$	$f\sigma_8(2.33)$	0.30515	0.3053 ± 0.0044
$A_{143 \times 217}^{dustTT}$	19.94	18.6 ± 3.3	$10^5 D/H$	2.5749	2.580 ± 0.026	$\sigma_8(2.33)$	0.31322	0.3134 ± 0.0039
A_{217}^{dustTT}	95.0	93.7 ± 7.3	Age/Gyr	13.7518	13.755 ± 0.021	f_{2000}^{143}	28.72	29.3 ± 2.7
A_{100}^{dustTE}	0.1138	0.114 ± 0.038	z_*	1089.821	1089.86 ± 0.24	$f_{2000}^{143 \times 217}$	31.94	32.0 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1344	0.135 ± 0.030	r_*	144.463	144.47 ± 0.26	f_{2000}^{217}	106.43	106.9 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.482	0.481 ± 0.085	$100\theta_*$	1.041169	1.04115 ± 0.00030	χ_{small}^2	396.06	397.2 ± 2.0
A_{143}^{dustTE}	0.224	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8750	13.876 ± 0.025	χ_{lowl}^2	23.05	23.25 ± 0.87
$A_{143 \times 217}^{dustTE}$	0.664	0.665 ± 0.080	z_{drag}	1060.047	1059.99 ± 0.29	χ_{plik}^2	2344.5	2359.1 ± 5.8
A_{217}^{dustTE}	2.086	2.08 ± 0.27	r_{drag}	147.105	147.12 ± 0.27	$\chi_{H073p45}^2$	6.09	6.3 ± 2.2
c_{100}	0.99971	0.99967 ± 0.00061	k_D	0.140896	0.14086 ± 0.00030	χ_{JLA}^2	1035.90	1036.5 ± 1.9
c_{217}	0.99819	0.99819 ± 0.00062	$100\theta_D$	0.160700	0.16073 ± 0.00017	χ_{6DF}^2	0.055	0.09 ± 0.11
H_0	69.35	69.35 ± 0.75	z_{eq}	3396.6	3398 ± 26	χ_{MGS}^2	2.35	2.40 ± 0.62
Ω_Λ	0.7031	0.7029 ± 0.0068	k_{eq}	0.010367	0.010370 ± 0.000080	$\chi_{DR12BAO}^2$	4.21	4.65 ± 0.73
Ω_m	0.2969	0.2971 ± 0.0068	$100\theta_{eq}$	0.81451	0.8143 ± 0.0049	χ_{prior}^2	1.68	11.5 ± 4.5
$\Omega_m h^2$	0.14278	0.1428 ± 0.0011	$100\theta_{s,eq}$	0.44997	0.4499 ± 0.0025	χ_{BAO}^2	6.61	7.1 ± 1.1
$\Omega_m h^3$	0.09902	0.0991 ± 0.0013	$H(0.15)$	73.955	73.93 ± 0.48	χ_{CMB}^2	2763.6	2779.5 ± 5.8

Best-fit $\chi_{eff}^2 = 3813.86$; $\bar{\chi}_{eff}^2 = 3841.02$; $R - 1 = 0.00783$

χ_{eff}^2 : BAO - 6DF: 0.06 MGS: 2.35 DR12BAO: 4.21 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3_2_29: 23.05 plik_rd12_HM_v22b_TTTEEE: 2344.47 Hubble - H073p45: 6.09 SN - JLA Pantheon18: 1035.90

18.64 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022427	0.02241 ± 0.00014 (-0.7σ)	σ_8	0.8281	0.827 ± 0.010 $(+3.0\sigma)$	$D_{\mathrm{M}}(0.15)$	628.7	628.7 ± 5.3 (-2.6σ)
$\Omega_{\mathrm{c}}h^2$	0.11967	0.1197 ± 0.0010 $(+1.3\sigma)$	S_8	0.8237	0.823 ± 0.011 $(+0.5\sigma)$	$H(0.38)$	83.328	83.32 ± 0.27 $(+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	1.040978	1.04098 ± 0.00030 (-0.5σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512	0.4506 ± 0.0058 $(+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	1509.1	1509.2 ± 9.0 (-1.9σ)
τ	0.0552	0.0545 ± 0.0073 (-0.5σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6112	0.6105 ± 0.0069 $(+1.6\sigma)$	$H(0.51)$	89.755	89.74 ± 0.24 (-1.1σ)
w_0	-1.0602	-1.061 ± 0.029	$\sigma_8/h^{0.5}$	0.9944	0.993 ± 0.010 $(+1.5\sigma)$	$D_{\mathrm{M}}(0.51)$	1959.9	1960.1 ± 9.8 (-1.5σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0457	3.044 ± 0.014 (-0.4σ)	$r_{\mathrm{drag}}h$	102.02	102.1 ± 1.1 $(+2.7\sigma)$	$H(0.61)$	95.199	95.18 ± 0.25 (-2.0σ)
n_{s}	0.96671	0.9660 ± 0.0038 (-0.6σ)	$\langle d^2 \rangle^{1/2}$	2.4493	2.448 ± 0.022 $(+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	2284.3	2285 ± 10 (-1.3σ)
y_{cal}	1.00050	1.0006 ± 0.0025 (-0.1σ)	z_{re}	7.75	7.66 ± 0.74 (-0.5σ)	$H(2.33)$	235.53	235.51 ± 0.56 (-0.5σ)
A_{217}^{CIB}	46.6	47 ± 7 (-0.0σ)	$10^9 A_{\mathrm{s}}$	2.1025	2.099 ± 0.030 (-0.4σ)	$D_{\mathrm{M}}(2.33)$	5753.5	5754.3 ± 8.6 $(+0.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.52	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8827	1.882 ± 0.011 $(+0.3\sigma)$	$f\sigma_8(0.15)$	0.4614	0.4609 ± 0.0067 $(+1.6\sigma)$
A_{143}^{tSZ}	7.19	5.5 ± 1.9 $(+0.0\sigma)$	D_{40}	1227.5	1229 ± 11 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7664	0.7655 ± 0.0098 $(+3.2\sigma)$
A_{100}^{PS}	249.2	258 ± 27 (-0.0σ)	D_{220}	5736.0	5736 ± 39 (-0.3σ)	$f\sigma_8(0.38)$	0.4858	0.4854 ± 0.0078 $(+2.9\sigma)$
A_{143}^{PS}	48.4	45 ± 8 $(+0.1\sigma)$	D_{810}	2540.8	2539 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6799	0.6792 ± 0.0087 $(+3.2\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	49.5	42 ± 9 $(+0.0\sigma)$	D_{1420}	818.47	817.5 ± 4.8 (-0.3σ)	$f\sigma_8(0.51)$	0.4862	0.4857 ± 0.0080 $(+3.4\sigma)$
A_{217}^{PS}	120.6	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.43	231.1 ± 1.6 (-0.3σ)	$\sigma_8(0.51)$	0.6362	0.6356 ± 0.0080 $(+3.1\sigma)$
A^{kSZ}	0.01	< 4.17 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.96671	0.9660 ± 0.0038 (-0.6σ)	$f\sigma_8(0.61)$	0.4820	0.4815 ± 0.0080 $(+3.7\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.82	8.9 ± 1.8 $(+0.1\sigma)$	Y_{P}	0.245418	$0.245409_{-0.000049}^{+0.000057}$ (-0.7σ)	$\sigma_8(0.61)$	0.6053	0.6047 ± 0.0075 $(+3.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.97	10.9 ± 1.8 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246745	$0.246736_{-0.000050}^{+0.000057}$ (-0.7σ)	$f\sigma_8(2.33)$	0.30534	0.3050 ± 0.0038 $(+3.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.94	18.6 ± 3.3 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.5749	2.579 ± 0.025 $(+0.7\sigma)$	$\sigma_8(2.33)$	0.31343	0.3131 ± 0.0034 $(+2.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	95.3	93.8 ± 7.4 $(+0.0\sigma)$	Age/Gyr	13.7523	13.754 ± 0.021 (-1.0σ)	$\chi_{\mathrm{lensing}}^2$	8.697	9.09 ± 0.65 (-0.1σ)
$A_{100}^{\mathrm{dustTE}}$	0.1144	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.818	1089.84 ± 0.23 $(+1.0\sigma)$	χ_{small}^2	396.19	397.0 ± 1.7 (-0.3σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1346	0.135 ± 0.030 (-0.0σ)	r_*	144.472	144.49 ± 0.24 (-1.0σ)	χ_{lowl}^2	23.05	23.20 ± 0.78 $(+0.3\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.480	0.481 ± 0.085 (-0.0σ)	$100\theta_*$	1.041156	1.04116 ± 0.00029 (-0.5σ)	χ_{plik}^2	2344.4	2359.1 ± 5.7 (-0.3σ)
$A_{143}^{\mathrm{dustTE}}$	0.225	0.224 ± 0.054 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8761	13.878 ± 0.022 (-0.9σ)	$\chi_{\mathrm{H073p45}}^2$	6.10	6.3 ± 2.2 (-2.8σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.665 ± 0.081 (-0.0σ)	z_{drag}	1060.047	1060.00 ± 0.29 (-0.4σ)	χ_{JLA}^2	1035.89	1036.5 ± 1.8 $(+9.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.081	2.08 ± 0.27 $(+0.1\sigma)$	r_{drag}	147.114	147.14 ± 0.24 (-0.9σ)	χ_{6DF}^2	0.055	0.097 ± 0.11 $(+2.5\sigma)$
c_{100}	0.99974	0.99966 ± 0.00061 (-0.0σ)	k_{D}	0.140886	0.14085 ± 0.00028 $(+0.5\sigma)$	χ_{MGS}^2	2.35	2.42 ± 0.62 $(+2.0\sigma)$
c_{217}	0.99819	0.99818 ± 0.00062 $(+0.0\sigma)$	$100\theta_{\mathrm{D}}$	0.160699	0.16072 ± 0.00017 $(+0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.20	4.58 ± 0.65 $(+0.8\sigma)$
H_0	69.35	69.36 ± 0.75 $(+3.3\sigma)$	z_{eq}	3395.7	3395 ± 23 $(+1.2\sigma)$	χ_{prior}^2	1.64	11.6 ± 4.5 (-0.0σ)
Ω_{Λ}	0.7032	0.7032 ± 0.0067 $(+1.8\sigma)$	k_{eq}	0.010364	0.010362 ± 0.000071 $(+1.2\sigma)$	χ_{CMB}^2	2772.3	2788.3 ± 5.8 (-0.3σ)
Ω_{m}	0.2968	0.2968 ± 0.0067 (-1.8σ)	$100\theta_{\mathrm{eq}}$	0.81466	0.8148 ± 0.0044 (-1.2σ)	χ_{BAO}^2	6.60	7.1 ± 1.1 $(+2.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14274	0.14271 ± 0.00098 $(+1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45005	0.4501 ± 0.0023 (-1.2σ)			
$\Omega_{\mathrm{m}}h^3$	0.09899	0.0990 ± 0.0013 $(+8.9\sigma)$	$H(0.15)$	73.954	73.95 ± 0.48 $(+2.0\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 3822.55$; $\Delta\chi_{\mathrm{eff}}^2 = -4.28$; $\bar{\chi}_{\mathrm{eff}}^2 = 3849.70$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.39$; $R - 1 = 0.00999$
 χ_{eff}^2 : BAO - 6DF: 0.06 (Δ 0.05) MGS: 2.35 (Δ 0.81) DR12BAO: 4.20 (Δ 0.51) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.70 (Δ -0.04) small_100x143_offlike5_EE_Aplanck. 396.19 (Δ -0.73) commander_dx12_v3.2.29: 23.05 (Δ 0.37) plik_rd12_HM.v22b_TTTEEE: 2344.38 (Δ -1.80) Hubble - H073p45: 6.10 (Δ -4.54) SN - JLA Pantheon18: 1035.89 (Δ 1.05)

18.65 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02240 ± 0.00014	σ_8	0.829 ± 0.012	$D_M(0.15)$	628.9 ± 5.3
$\Omega_c h^2$	0.1198 ± 0.0012	S_8	0.825 ± 0.013	$H(0.38)$	83.30 ± 0.28
$100\theta_{MC}$	1.04097 ± 0.00030	$\sigma_8 \Omega_m^{0.5}$	0.4518 ± 0.0071	$D_M(0.38)$	1509.5 ± 9.0
τ	$0.0558^{+0.0053}_{-0.0082}$	$\sigma_8 \Omega_m^{0.25}$	0.6120 ± 0.0088	$H(0.51)$	89.72 ± 0.26
w_0	-1.062 ± 0.031	$\sigma_8/h^{0.5}$	0.996 ± 0.013	$D_M(0.51)$	1960.6 ± 9.9
$\ln(10^{10} A_s)$	$3.047^{+0.012}_{-0.017}$	$r_{\text{drag}} h$	102.0 ± 1.1	$H(0.61)$	95.16 ± 0.27
n_s	0.9659 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.453 ± 0.028	$D_M(0.61)$	2285 ± 10
y_{cal}	1.0006 ± 0.0025	z_{re}	$7.80^{+0.58}_{-0.80}$	$H(2.33)$	235.56 ± 0.60
A_{217}^{CIB}	47 ± 7	$10^9 A_s$	$2.105^{+0.025}_{-0.036}$	$D_M(2.33)$	5754.7 ± 8.8
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	1.882 ± 0.011	$f\sigma_8(0.15)$	0.4623 ± 0.0083
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{40}	1229 ± 12	$\sigma_8(0.15)$	0.767 ± 0.012
A_{100}^{PS}	257 ± 28	D_{220}	5735 ± 39	$f\sigma_8(0.38)$	0.4867 ± 0.0095
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 13	$\sigma_8(0.38)$	0.681 ± 0.010
$A_{143 \times 217}^{\text{PS}}$	42 ± 9	D_{1420}	817.6 ± 4.7	$f\sigma_8(0.51)$	0.4871 ± 0.0096
A_{217}^{PS}	115 ± 10	D_{2000}	231.1 ± 1.6	$\sigma_8(0.51)$	0.6369 ± 0.0093
A^{kSZ}	< 4.10	$n_{s,0.002}$	0.9659 ± 0.0040	$f\sigma_8(0.61)$	0.4828 ± 0.0095
$A_{100}^{\text{dust}TT}$	8.9 ± 1.8	Y_P	$0.245407^{+0.000057}_{-0.000051}$	$\sigma_8(0.61)$	0.6059 ± 0.0087
$A_{143}^{\text{dust}TT}$	10.9 ± 1.8	Y_P^{BBN}	$0.246733^{+0.000057}_{-0.000051}$	$f\sigma_8(2.33)$	0.3056 ± 0.0043
$A_{143 \times 217}^{\text{dust}TT}$	18.6 ± 3.3	$10^5 D/H$	2.580 ± 0.026	$\sigma_8(2.33)$	0.3137 ± 0.0038
$A_{217}^{\text{dust}TT}$	93.7 ± 7.3	Age/Gyr	13.755 ± 0.021	f_{2000}^{143}	29.2 ± 2.7
$A_{100}^{\text{dust}TE}$	0.114 ± 0.038	z_*	1089.86 ± 0.24	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
$A_{100 \times 143}^{\text{dust}TE}$	0.135 ± 0.029	r_*	144.47 ± 0.26	f_{2000}^{217}	106.8 ± 1.7
$A_{100 \times 217}^{\text{dust}TE}$	0.481 ± 0.086	$100\theta_*$	1.04115 ± 0.00030	χ_{small}^2	397.1 ± 2.0
$A_{143}^{\text{dust}TE}$	0.224 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.876 ± 0.025	χ_{lowl}^2	23.26 ± 0.87
$A_{143 \times 217}^{\text{dust}TE}$	0.665 ± 0.080	z_{drag}	1060.00 ± 0.29	χ_{plik}^2	2358.9 ± 5.8
$A_{217}^{\text{dust}TE}$	2.08 ± 0.27	r_{drag}	147.12 ± 0.27	χ_{H073p45}^2	6.3 ± 2.2
c_{100}	0.99967 ± 0.00061	k_D	0.14086 ± 0.00030	χ_{JLA}^2	1036.5 ± 1.8
c_{217}	0.99819 ± 0.00062	$100\theta_D$	0.16073 ± 0.00017	$\chi_{6\text{DF}}^2$	0.09 ± 0.11
H_0	69.35 ± 0.75	z_{eq}	3397 ± 26	χ_{MGS}^2	2.40 ± 0.62
Ω_Λ	0.7030 ± 0.0068	k_{eq}	0.010368 ± 0.000080	χ_{DR12BAO}^2	4.64 ± 0.73
Ω_m	0.2970 ± 0.0068	$100\theta_{\text{eq}}$	0.8144 ± 0.0049	χ_{prior}^2	11.5 ± 4.5
$\Omega_m h^2$	0.1428 ± 0.0011	$100\theta_{s,\text{eq}}$	0.4499 ± 0.0025	χ_{BAO}^2	7.1 ± 1.1
$\Omega_m h^3$	0.0990 ± 0.0013	$H(0.15)$	73.93 ± 0.48	χ_{CMB}^2	2779.3 ± 5.7

$\bar{\chi}_{\text{eff}}^2 = 3840.79$; $R - 1 = 0.00674$

18.66 base_w_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02241 \pm 0.00014 \quad (-0.6\sigma)$	S_8	$0.823 \pm 0.011 \quad (+0.5\sigma)$	$D_M(0.38)$	$1509.2 \pm 9.0 \quad (-1.9\sigma)$
$\Omega_c h^2$	$0.1196 \pm 0.0010 \quad (+1.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4507 \pm 0.0058 \quad (+0.5\sigma)$	$H(0.51)$	$89.75 \pm 0.24 \quad (-1.0\sigma)$
$100\theta_{MC}$	$1.04098 \pm 0.00030 \quad (-0.5\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6107 \pm 0.0069 \quad (+1.6\sigma)$	$D_M(0.51)$	$1960.1 \pm 9.8 \quad (-1.5\sigma)$
τ	$0.0554^{+0.0051}_{-0.0076} \quad (-0.4\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.010 \quad (+1.5\sigma)$	$H(0.61)$	$95.19 \pm 0.25 \quad (-2.0\sigma)$
w_0	-1.060 ± 0.029	$r_{\text{drag}} h$	$102.1 \pm 1.1 \quad (+2.7\sigma)$	$D_M(0.61)$	$2284 \pm 10 \quad (-1.3\sigma)$
$\ln(10^{10} A_s)$	$3.045^{+0.011}_{-0.015} \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.450 \pm 0.022 \quad (+1.0\sigma)$	$H(2.33)$	$235.50 \pm 0.56 \quad (-0.5\sigma)$
n_s	$0.9661 \pm 0.0038 \quad (-0.6\sigma)$	z_{re}	$7.75^{+0.56}_{-0.74} \quad (-0.4\sigma)$	$D_M(2.33)$	$5754.1 \pm 8.6 \quad (+0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s$	$2.102^{+0.023}_{-0.031} \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4610 \pm 0.0067 \quad (+1.6\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.011 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7658 \pm 0.0098 \quad (+3.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	$1229 \pm 11 \quad (+0.2\sigma)$	$f\sigma_8(0.38)$	$0.4854 \pm 0.0078 \quad (+2.9\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (+0.0\sigma)$	D_{220}	$5736 \pm 38 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6794 \pm 0.0086 \quad (+3.3\sigma)$
A_{100}^{PS}	$257 \pm 27 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4858 \pm 0.0080 \quad (+3.5\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$817.5 \pm 4.8 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6358 \pm 0.0080 \quad (+3.3\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.1 \pm 1.6 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4816 \pm 0.0080 \quad (+3.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9661 \pm 0.0038 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6049 \pm 0.0075 \quad (+3.2\sigma)$
A^{kSZ}	$< 4.14 \quad (-0.0\sigma)$	Y_P	$0.245410^{+0.000056}_{-0.000049} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3051 \pm 0.0037 \quad (+3.1\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246737^{+0.000056}_{-0.000050} \quad (-0.7\sigma)$	$\sigma_8(2.33)$	$0.3133 \pm 0.0033 \quad (+2.4\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.578 \pm 0.025 \quad (+0.7\sigma)$	f_{2000}^{143}	$29.3 \pm 2.7 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Age/Gyr	$13.754 \pm 0.021 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (+0.1\sigma)$
A_{217}^{dustTT}	$93.8 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.83 \pm 0.23 \quad (+1.0\sigma)$	f_{2000}^{217}	$106.8 \pm 1.7 \quad (+0.1\sigma)$
A_{100}^{dustTE}	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.50 \pm 0.23 \quad (-1.0\sigma)$	χ_{lensing}^2	$9.07 \pm 0.65 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00030 \quad (-0.5\sigma)$	χ_{simall}^2	$396.9 \pm 1.7 \quad (-0.3\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.481 \pm 0.085 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.879 \pm 0.022 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.20 \pm 0.79 \quad (+0.3\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.053 \quad (-0.0\sigma)$	z_{drag}	$1060.01 \pm 0.29 \quad (-0.4\sigma)$	χ_{plik}^2	$2358.9 \pm 5.7 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.665 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$147.15 \pm 0.24 \quad (-0.8\sigma)$	χ_{H073p45}^2	$6.3 \pm 2.2 \quad (-2.8\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (+0.1\sigma)$	k_D	$0.14084 \pm 0.00028 \quad (+0.5\sigma)$	χ_{JLA}^2	$1036.4 \pm 1.8 \quad (+9.1\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_D$	$0.16072 \pm 0.00017 \quad (+0.4\sigma)$	$\chi_{6\text{DF}}^2$	$0.097 \pm 0.11 \quad (+2.5\sigma)$
c_{217}	$0.99818 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3394 \pm 23 \quad (+1.2\sigma)$	χ_{MGS}^2	$2.43 \pm 0.62 \quad (+2.0\sigma)$
H_0	$69.35 \pm 0.75 \quad (+3.3\sigma)$	k_{eq}	$0.010359 \pm 0.000070 \quad (+1.2\sigma)$	χ_{DR12BAO}^2	$4.56 \pm 0.65 \quad (+0.8\sigma)$
Ω_Λ	$0.7033 \pm 0.0067 \quad (+1.8\sigma)$	$100\theta_{\text{eq}}$	$0.8150 \pm 0.0043 \quad (-1.2\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_m	$0.2967 \pm 0.0067 \quad (-1.8\sigma)$	$100\theta_{s,\text{eq}}$	$0.4502 \pm 0.0022 \quad (-1.2\sigma)$	χ_{CMB}^2	$2788.1 \pm 5.7 \quad (-0.4\sigma)$
$\Omega_m h^2$	$0.14267 \pm 0.00097 \quad (+1.2\sigma)$	$H(0.15)$	$73.95 \pm 0.48 \quad (+2.0\sigma)$	χ_{BAO}^2	$7.1 \pm 1.1 \quad (+2.8\sigma)$
$\Omega_m h^3$	$0.0989 \pm 0.0012 \quad (+8.7\sigma)$	$D_M(0.15)$	$628.8 \pm 5.3 \quad (-2.6\sigma)$		
σ_8	$0.828 \pm 0.010 \quad (+3.1\sigma)$	$H(0.38)$	$83.32 \pm 0.27 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 3849.47; \Delta\bar{\chi}_{\text{eff}}^2 = -3.54; R - 1 = 0.00919$$

18.67 base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022203	0.02222 ± 0.00020	$\sigma_8/h^{0.5}$	1.0025	0.993 ± 0.016	$H(0.51)$	89.519	89.62 ± 0.35
$\Omega_c h^2$	0.12017	0.1196 ± 0.0015	$r_{\text{drag}} h$	101.84	102.1 ± 1.1	$D_M(0.51)$	1965.5	1963 ± 10
$100\theta_{\text{MC}}$	1.040991	1.04101 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.4667	2.444 ± 0.034	$H(0.61)$	94.969	95.05 ± 0.36
τ	0.0574	0.0535 ± 0.0081	z_{re}	8.03	7.60 ± 0.82	$D_M(0.61)$	2290.7	2288 ± 11
w_0	-1.0671	-1.062 ± 0.035	$10^9 A_s$	2.1120	$2.090^{+0.032}_{-0.036}$	$H(2.33)$	235.56	235.28 ± 0.75
$\ln(10^{10} A_s)$	3.0502	3.040 ± 0.017	$10^9 A_s e^{-2\tau}$	1.8828	1.878 ± 0.012	$D_M(2.33)$	5763.6	5762 ± 12
n_s	0.96447	0.9660 ± 0.0048	D_{40}	1230.8	1225 ± 14	$f\sigma_8(0.15)$	0.4665	0.461 ± 0.011
y_{cal}	1.00099	1.0005 ± 0.0025	D_{220}	5716.8	5711 ± 40	$\sigma_8(0.15)$	0.7713	0.765 ± 0.014
A_{100}^{PS}	238.7	241 ± 25	D_{810}	2536.9	2534 ± 14	$f\sigma_8(0.38)$	0.4908	0.485 ± 0.012
A_{143}^{PS}	42.8	40 ± 8	D_{1420}	815.4	815.0 ± 5.1	$\sigma_8(0.38)$	0.6839	0.678 ± 0.012
A_{217}^{PS}	97.1	101 ± 10	D_{2000}	230.16	230.0 ± 1.8	$f\sigma_8(0.51)$	0.4909	0.485 ± 0.012
A_{217}^{CIB}	46.2	41^{+7}_{-8}	$n_{s,0.002}$	0.96447	0.9660 ± 0.0048	$\sigma_8(0.51)$	0.6398	0.635 ± 0.011
A_{143}^{tSZ}	5.70	$3.9^{+1.8}_{-2.6}$	Y_P	0.245327	$0.245333^{+0.000089}_{-0.000076}$	$f\sigma_8(0.61)$	0.4864	0.481 ± 0.012
$r_{143 \times 217}^{\text{PS}}$	0.566	0.65 ± 0.13	Y_P^{BBN}	0.246653	$0.246659^{+0.000089}_{-0.000077}$	$\sigma_8(0.61)$	0.6086	0.604 ± 0.010
$r_{143 \times 217}^{\text{CIB}}$	0.913	$0.58^{+0.41}_{-0.13}$	$10^5 D/H$	2.6173	2.614 ± 0.038	$f\sigma_8(2.33)$	0.30684	0.3046 ± 0.0049
$\xi^{\text{tSZ} \times \text{CIB}}$	0.29	—	Age/Gyr	13.7731	13.771 ± 0.027	$\sigma_8(2.33)$	0.31468	0.3126 ± 0.0043
A^{kSZ}	1.7	—	z_*	1090.145	1090.07 ± 0.33	f_{2000}^{143}	31.09	30.4 ± 3.0
A_{100}^{dust}	1.012	1.01 ± 0.19	r_*	144.514	144.65 ± 0.37	f_{2000}^{217}	107.40	107.3 ± 2.0
A_{143}^{dust}	1.003	0.98 ± 0.18	$100\theta_*$	1.041189	1.04121 ± 0.00042	$f_{2000}^{143 \times 217}$	32.58	32.6 ± 2.1
A_{217}^{dust}	0.954	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.8797	13.893 ± 0.035	χ_{simall}^2	396.83	397.0 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	0.931	1.03 ± 0.16	z_{drag}	1059.551	1059.57 ± 0.44	χ_{lowl}^2	23.38	23.02 ± 0.96
c_{100}	0.99751	0.9975 ± 0.0011	r_{drag}	147.233	147.37 ± 0.38	χ_{CamSpec}^2	7049.3	7063.1 ± 5.4
c_{217}	1.00152	1.0012 ± 0.0016	k_D	0.140590	0.14046 ± 0.00046	χ_{H073p45}^2	6.64	6.6 ± 2.3
H_0	69.17	69.26 ± 0.75	$100\theta_D$	0.160996	0.16099 ± 0.00025	χ_{JLA}^2	1035.92	1036.5 ± 1.9
Ω_Λ	0.7011	0.7030 ± 0.0069	z_{eq}	3402.3	3388 ± 35	$\chi_{6\text{DF}}^2$	0.036	0.099 ± 0.11
Ω_m	0.2989	0.2970 ± 0.0069	k_{eq}	0.010384	0.01034 ± 0.00011	χ_{MGS}^2	2.19	2.43 ± 0.64
$\Omega_m h^2$	0.14302	0.1424 ± 0.0015	$100\theta_{\text{eq}}$	0.8129	0.8155 ± 0.0065	χ_{DR12BAO}^2	4.41	4.71 ± 0.91
$\Omega_m h^3$	0.09893	0.0987 ± 0.0015	$100\theta_{s,\text{eq}}$	0.44928	0.4506 ± 0.0034	χ_{prior}^2	2.64	7.6 ± 3.5
σ_8	0.8338	0.826 ± 0.015	$H(0.15)$	73.738	73.84 ± 0.49	χ_{BAO}^2	6.64	7.2 ± 1.2
S_8	0.8322	0.822 ± 0.016	$D_M(0.15)$	630.5	629.7 ± 5.4	χ_{CMB}^2	7469.5	7483.1 ± 5.4
$\sigma_8 \Omega_m^{0.5}$	0.4558	0.4503 ± 0.0090	$H(0.38)$	83.090	83.20 ± 0.34			
$\sigma_8 \Omega_m^{0.25}$	0.6165	0.610 ± 0.011	$D_M(0.38)$	1513.4	1511.4 ± 9.3			

Best-fit $\chi_{\text{eff}}^2 = 8521.38$; $\bar{\chi}_{\text{eff}}^2 = 8541.10$; $R - 1 = 0.00624$
 χ_{eff}^2 : BAO - 6DF: 0.04 MGS: 2.19 DR12BAO: 4.41 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.83 commander_dx12_v3.2.29: 23.38 CamSpec like_10.7HM: 7049.34
Hubble - H073p45: 6.64 SN - JLA Pantheon18: 1035.92

18.68 base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02223 \pm 0.00020 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.011 \quad (+1.7\sigma)$	$H(0.51)$	$89.61 \pm 0.31 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0013 \quad (+1.5\sigma)$	$r_{\mathrm{drag}}h$	$102.1 \pm 1.1 \quad (+2.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1963 \pm 10 \quad (-1.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04100 \pm 0.00043 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.447 \pm 0.024 \quad (+1.2\sigma)$	$H(0.61)$	$95.04 \pm 0.32 \quad (-2.0\sigma)$
τ	$0.0540^{+0.0071}_{-0.0079} \quad (-0.6\sigma)$	z_{re}	$7.65 \pm 0.77 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2288 \pm 11 \quad (-0.8\sigma)$
w_0	-1.063 ± 0.032	$10^9 A_{\mathrm{s}}$	$2.093^{+0.028}_{-0.032} \quad (-0.4\sigma)$	$H(2.33)$	$235.28 \pm 0.67 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.014}_{-0.015} \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 12 \quad (+0.4\sigma)$
n_{s}	$0.9657 \pm 0.0044 \quad (-0.9\sigma)$	D_{40}	$1226 \pm 12 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4612 \pm 0.0078 \quad (+1.8\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5713 \pm 40 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.766 \pm 0.011 \quad (+3.2\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4857 \pm 0.0090 \quad (+3.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$815.0 \pm 5.1 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6791 \pm 0.0092 \quad (+3.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4861 \pm 0.0091 \quad (+3.5\sigma)$
A_{217}^{CIB}	$41^{+7}_{-8} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9657 \pm 0.0044 \quad (-0.9\sigma)$	$\sigma_8(0.51)$	$0.6355 \pm 0.0085 \quad (+3.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.7} \quad (+0.0\sigma)$	Y_{P}	$0.245334 \pm 0.000083 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4818 \pm 0.0090 \quad (+3.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246660 \pm 0.000083 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6046 \pm 0.0079 \quad (+3.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.39}_{-0.16} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.613 \pm 0.037 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.3049 \pm 0.0039 \quad (+2.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.770 \pm 0.027 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3130 \pm 0.0034 \quad (+2.1\sigma)$
A^{kSZ}	—	z_*	$1090.07 \pm 0.31 \quad (+1.0\sigma)$	f_{2000}^{143}	$30.4 \pm 2.9 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.64 \pm 0.31 \quad (-1.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.1\sigma)$	$100\theta_*$	$1.04120 \pm 0.00042 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 2.1 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.030 \quad (-1.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.25 \pm 0.76 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.57 \pm 0.44 \quad (-0.4\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	r_{drag}	$147.35 \pm 0.33 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.08 \pm 0.86 \quad (+0.5\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14048 \pm 0.00043 \quad (+0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.7 \pm 5.2 \quad (-0.3\sigma)$
H_0	$69.29 \pm 0.75 \quad (+2.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00025 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.5 \pm 2.3 \quad (-2.3\sigma)$
Ω_{Λ}	$0.7031 \pm 0.0068 \quad (+1.3\sigma)$	z_{eq}	$3390 \pm 29 \quad (+1.4\sigma)$	χ_{JLA}^2	$1036.6 \pm 1.8 \quad (+9.9\sigma)$
Ω_{m}	$0.2969 \pm 0.0068 \quad (-1.3\sigma)$	k_{eq}	$0.010345 \pm 0.000088 \quad (+1.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.10 \pm 0.11 \quad (+2.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0012 \quad (+1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8153 \pm 0.0053 \quad (-1.5\sigma)$	χ_{MGS}^2	$2.45 \pm 0.63 \quad (+1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0987 \pm 0.0014 \quad (+6.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0028 \quad (-1.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.64 \pm 0.76 \quad (+1.1\sigma)$
σ_8	$0.827 \pm 0.011 \quad (+3.0\sigma)$	$H(0.15)$	$73.86 \pm 0.48 \quad (+1.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.823 \pm 0.012 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$629.4 \pm 5.3 \quad (-2.1\sigma)$	χ_{CMB}^2	$7492.0 \pm 5.4 \quad (-0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4507 \pm 0.0066 \quad (+0.8\sigma)$	$H(0.38)$	$83.20 \pm 0.31 \quad (-0.2\sigma)$	χ_{BAO}^2	$7.2 \pm 1.1 \quad (+2.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6106 \pm 0.0079 \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511.1 \pm 9.2 \quad (-1.4\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8549.81; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.99; R - 1 = 0.01112$$

18.69 base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02223 ± 0.00020	$\sigma_8/h^{0.5}$	0.994 ± 0.016	$H(0.51)$	89.62 ± 0.35
$\Omega_{\mathrm{c}}h^2$	0.1195 ± 0.0015	$r_{\mathrm{drag}}h$	102.1 ± 1.1	$D_{\mathrm{M}}(0.51)$	1963 ± 10
$100\theta_{\mathrm{MC}}$	1.04102 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.446 ± 0.033	$H(0.61)$	95.06 ± 0.36
τ	$0.0549^{+0.0050}_{-0.0085}$	z_{re}	$7.74^{+0.56}_{-0.84}$	$D_{\mathrm{M}}(0.61)$	2288 ± 11
w_0	-1.061 ± 0.035	$10^9 A_{\mathrm{s}}$	$2.096^{+0.024}_{-0.036}$	$H(2.33)$	235.27 ± 0.75
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.017}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.878 ± 0.012	$D_{\mathrm{M}}(2.33)$	5761 ± 12
n_{s}	0.9661 ± 0.0048	D_{40}	1225 ± 13	$f\sigma_8(0.15)$	0.461 ± 0.011
y_{cal}	1.0005 ± 0.0025	D_{220}	5711 ± 40	$\sigma_8(0.15)$	0.765 ± 0.013
A_{100}^{PS}	241 ± 25	D_{810}	2534 ± 14	$f\sigma_8(0.38)$	0.485 ± 0.012
A_{143}^{PS}	40 ± 8	D_{1420}	815.0 ± 5.2	$\sigma_8(0.38)$	0.679 ± 0.012
A_{217}^{PS}	101 ± 10	D_{2000}	230.0 ± 1.8	$f\sigma_8(0.51)$	0.486 ± 0.012
A_{217}^{CIB}	40^{+7}_{-8}	$n_{\mathrm{s},0.002}$	0.9661 ± 0.0048	$\sigma_8(0.51)$	0.635 ± 0.011
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	Y_{P}	$0.245335^{+0.000088}_{-0.000076}$	$f\sigma_8(0.61)$	0.482 ± 0.012
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246661^{+0.000089}_{-0.000077}$	$\sigma_8(0.61)$	0.6045 ± 0.0098
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.13}$	$10^5 \mathrm{D}/\mathrm{H}$	2.613 ± 0.038	$f\sigma_8(2.33)$	0.3049 ± 0.0048
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	13.771 ± 0.026	$\sigma_8(2.33)$	0.3130 ± 0.0041
A^{kSZ}	—	z_*	1090.06 ± 0.33	f_{2000}^{143}	30.3 ± 3.0
A_{100}^{dust}	1.01 ± 0.19	r_*	144.66 ± 0.37	f_{2000}^{217}	107.2 ± 2.0
A_{143}^{dust}	0.98 ± 0.18	$100\theta_*$	1.04122 ± 0.00042	$f_{2000}^{143 \times 217}$	32.6 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.893 ± 0.035	χ_{simall}^2	397.0 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	z_{drag}	1059.57 ± 0.44	χ_{lowl}^2	23.03 ± 0.96
c_{100}	0.9975 ± 0.0011	r_{drag}	147.37 ± 0.38	$\chi_{\mathrm{CamSpec}}^2$	7062.9 ± 5.4
c_{217}	1.0012 ± 0.0016	k_{D}	0.14046 ± 0.00046	$\chi_{\mathrm{H073p45}}^2$	6.6 ± 2.3
H_0	69.26 ± 0.76	$100\theta_{\mathrm{D}}$	0.16099 ± 0.00025	χ_{JLA}^2	1036.5 ± 1.9
Ω_{Λ}	0.7030 ± 0.0070	z_{eq}	3388 ± 35	$\chi_{6\mathrm{DF}}^2$	0.10 ± 0.11
Ω_{m}	0.2970 ± 0.0070	k_{eq}	0.01034 ± 0.00011	χ_{MGS}^2	2.44 ± 0.64
$\Omega_{\mathrm{m}}h^2$	0.1424 ± 0.0015	$100\theta_{\mathrm{eq}}$	0.8156 ± 0.0065	$\chi_{\mathrm{DR12BAO}}^2$	4.70 ± 0.90
$\Omega_{\mathrm{m}}h^3$	0.0986 ± 0.0015	$100\theta_{\mathrm{s,eq}}$	0.4507 ± 0.0034	χ_{prior}^2	7.6 ± 3.4
σ_8	0.827 ± 0.015	$H(0.15)$	73.85 ± 0.49	χ_{BAO}^2	7.2 ± 1.2
S_8	0.823 ± 0.016	$D_{\mathrm{M}}(0.15)$	629.7 ± 5.4	χ_{CMB}^2	7482.9 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4507 ± 0.0089	$H(0.38)$	83.20 ± 0.34		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.611 ± 0.011	$D_{\mathrm{M}}(0.38)$	1511.3 ± 9.3		

$$\bar{\chi}_{\mathrm{eff}}^2 = 8540.87; R - 1 = 0.00534$$

18.70 base_w_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02223 \pm 0.00020 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.011 \quad (+1.7\sigma)$	$H(0.51)$	$89.62 \pm 0.30 \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0012 \quad (+1.4\sigma)$	$r_{\mathrm{drag}}h$	$102.1 \pm 1.1 \quad (+2.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1963 \pm 10 \quad (-1.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04100 \pm 0.00043 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.024 \quad (+1.2\sigma)$	$H(0.61)$	$95.06 \pm 0.32 \quad (-1.9\sigma)$
τ	$0.0550^{+0.0052}_{-0.0082} \quad (-0.5\sigma)$	z_{re}	$7.76^{+0.57}_{-0.80} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2287 \pm 11 \quad (-0.8\sigma)$
w_0	-1.062 ± 0.031	$10^9 A_{\mathrm{s}}$	$2.097^{+0.023}_{-0.032} \quad (-0.3\sigma)$	$H(2.33)$	$235.26 \pm 0.67 \quad (-0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.015} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761 \pm 12 \quad (+0.4\sigma)$
n_{s}	$0.9659 \pm 0.0044 \quad (-0.8\sigma)$	D_{40}	$1226 \pm 12 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4612 \pm 0.0078 \quad (+1.8\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5713 \pm 40 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.766 \pm 0.011 \quad (+3.2\sigma)$
A_{100}^{PS}	$241 \pm 25 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4857 \pm 0.0089 \quad (+3.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.0\sigma)$	D_{1420}	$815.0 \pm 5.1 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.6794 \pm 0.0092 \quad (+3.2\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.0 \pm 1.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4861 \pm 0.0091 \quad (+3.5\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9659 \pm 0.0044 \quad (-0.8\sigma)$	$\sigma_8(0.51)$	$0.6358 \pm 0.0084 \quad (+3.2\sigma)$
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.7} \quad (+0.0\sigma)$	Y_{P}	$0.245336 \pm 0.000082 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.4818 \pm 0.0090 \quad (+3.8\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246662 \pm 0.000082 \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6049 \pm 0.0079 \quad (+3.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.38}_{-0.16} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.612 \pm 0.037 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.3051 \pm 0.0039 \quad (+3.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.770 \pm 0.027 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3131 \pm 0.0034 \quad (+2.2\sigma)$
A^{kSZ}	—	z_*	$1090.06 \pm 0.30 \quad (+1.0\sigma)$	f_{2000}^{143}	$30.3 \pm 2.9 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.65 \pm 0.31 \quad (-1.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.1\sigma)$	$100\theta_*$	$1.04120 \pm 0.00042 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.1 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.893 \pm 0.030 \quad (-0.9\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.22 \pm 0.74 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.58 \pm 0.43 \quad (-0.3\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.37 \pm 0.33 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.06 \pm 0.86 \quad (+0.5\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14047 \pm 0.00042 \quad (+0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.6 \pm 5.2 \quad (-0.3\sigma)$
H_0	$69.29 \pm 0.75 \quad (+2.7\sigma)$	$100\theta_{\mathrm{D}}$	$0.16098 \pm 0.00025 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.5 \pm 2.3 \quad (-2.3\sigma)$
Ω_{Λ}	$0.7032 \pm 0.0068 \quad (+1.3\sigma)$	z_{eq}	$3388 \pm 28 \quad (+1.4\sigma)$	χ_{JLA}^2	$1036.5 \pm 1.8 \quad (+9.9\sigma)$
Ω_{m}	$0.2968 \pm 0.0068 \quad (-1.3\sigma)$	k_{eq}	$0.010341 \pm 0.000086 \quad (+1.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.10 \pm 0.11 \quad (+2.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1424 \pm 0.0012 \quad (+1.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8155 \pm 0.0053 \quad (-1.4\sigma)$	χ_{MGS}^2	$2.46 \pm 0.63 \quad (+1.4\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0987 \pm 0.0014 \quad (+6.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4507 \pm 0.0027 \quad (-1.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.61 \pm 0.74 \quad (+1.1\sigma)$
σ_8	$0.828 \pm 0.011 \quad (+3.1\sigma)$	$H(0.15)$	$73.87 \pm 0.49 \quad (+1.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.823 \pm 0.012 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$629.4 \pm 5.4 \quad (-2.1\sigma)$	χ_{CMB}^2	$7491.8 \pm 5.4 \quad (-0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4508 \pm 0.0066 \quad (+0.8\sigma)$	$H(0.38)$	$83.21 \pm 0.31 \quad (-0.2\sigma)$	χ_{BAO}^2	$7.2 \pm 1.1 \quad (+2.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6108 \pm 0.0079 \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.38)$	$1511.0 \pm 9.2 \quad (-1.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8549.61$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.12$; $R - 1 = 0.01012$

18.71 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022344	0.02233 ± 0.00015	$\sigma_8 \Omega_m^{0.5}$	0.4481	0.4480 ± 0.0071	$H(0.38)$	83.302	83.30 ± 0.28
$\Omega_c h^2$	0.11925	0.1193 ± 0.0012	$\sigma_8 \Omega_m^{0.25}$	0.6069	0.6071 ± 0.0088	$D_M(0.38)$	1510.6	1510.0 ± 9.3
$100\theta_{MC}$	1.040954	1.04094 ± 0.00030	$\sigma_8/h^{0.5}$	0.9883	0.989 ± 0.013	$H(0.51)$	89.741	89.72 ± 0.26
τ	0.0531	0.0529 ± 0.0078	$r_{\text{drag}} h$	101.96	102.1 ± 1.1	$D_M(0.51)$	1961.6	1961 ± 10
w_0	-1.0528	-1.056 ± 0.031	$\langle d^2 \rangle^{1/2}$	2.4352	2.436 ± 0.028	$H(0.61)$	95.189	95.16 ± 0.27
$\ln(10^{10} A_s)$	3.0387	3.038 ± 0.016	z_{re}	7.55	7.51 ± 0.80	$D_M(0.61)$	2286.0	2286 ± 10
n_s	0.96715	0.9667 ± 0.0042	$10^9 A_s$	2.0877	2.087 ± 0.033	$H(2.33)$	235.27	235.24 ± 0.60
y_{cal}	1.00045	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8772	1.877 ± 0.011	$D_M(2.33)$	5757.0	5757.5 ± 9.0
A_{100}^{PS}	233.8	240 ± 25	D_{40}	1222.9	1224 ± 12	$f\sigma_8(0.15)$	0.4577	0.4579 ± 0.0083
A_{143}^{PS}	39.3	39 ± 8	D_{220}	5720.1	5721 ± 39	$\sigma_8(0.15)$	0.7609	0.762 ± 0.012
A_{217}^{PS}	102.2	102 ± 10	D_{810}	2535.2	2535 ± 14	$f\sigma_8(0.38)$	0.4816	0.4821 ± 0.0095
A_{217}^{CIB}	44.2	40 ± 7	D_{1420}	816.32	816.0 ± 4.8	$\sigma_8(0.38)$	0.6751	0.676 ± 0.010
A_{143}^{tSZ}	6.58	$3.9_{-2.5}^{+1.9}$	D_{2000}	230.55	230.4 ± 1.6	$f\sigma_8(0.51)$	0.4820	0.4826 ± 0.0097
$r_{143 \times 217}^{\text{PS}}$	0.600	0.66 ± 0.13	$n_{s,0.002}$	0.96715	0.9667 ± 0.0042	$\sigma_8(0.51)$	0.6319	0.6324 ± 0.0095
$r_{143 \times 217}^{\text{CIB}}$	0.779	$0.56_{-0.19}^{+0.38}$	Y_{P}	0.245385	$0.245379_{-0.000056}^{+0.000062}$	$f\sigma_8(0.61)$	0.4778	0.4784 ± 0.0096
$\xi^{\text{tSZ} \times \text{CIB}}$	0.11	—	$Y_{\text{P}}^{\text{BBN}}$	0.246712	$0.246705_{-0.000056}^{+0.000062}$	$\sigma_8(0.61)$	0.6012	0.6017 ± 0.0089
A^{kSZ}	0.00	$4.7_{-4.0}^{+2.2}$	$10^5 D/H$	2.5904	2.593 ± 0.028	$f\sigma_8(2.33)$	0.30334	0.3036 ± 0.0044
A_{100}^{dust}	1.010	1.01 ± 0.20	Age/Gyr	13.7637	13.764 ± 0.022	$\sigma_8(2.33)$	0.31160	0.3118 ± 0.0039
A_{143}^{dust}	0.977	0.96 ± 0.18	z_*	1089.886	1089.90 ± 0.25	f_{2000}^{143}	29.74	29.6 ± 2.8
A_{217}^{dust}	0.971	0.97 ± 0.10	r_*	144.646	144.65 ± 0.27	f_{2000}^{217}	106.67	106.7 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.002	1.03 ± 0.16	$100\theta_*$	1.041144	1.04113 ± 0.00030	$f_{2000}^{143 \times 217}$	31.95	32.0 ± 2.0
c_{100}	0.99765	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.8930	13.894 ± 0.026	χ_{simall}^2	395.86	396.9 ± 1.6
c_{217}	1.00129	1.0011 ± 0.0016	z_{drag}	1059.818	1059.80 ± 0.32	χ_{lowl}^2	22.75	22.88 ± 0.84
c_{TE}	0.99636	0.9965 ± 0.0049	r_{drag}	147.320	147.33 ± 0.28	χ_{CamSpec}^2	11499.6	11514.4 ± 5.6
c_{EE}	0.99169	0.9919 ± 0.0050	k_{D}	0.140605	0.14059 ± 0.00033	χ_{H073p45}^2	6.53	6.5 ± 2.3
H_0	69.21	69.28 ± 0.77	$100\theta_{\text{D}}$	0.160825	0.16084 ± 0.00019	χ_{JLA}^2	1035.62	1036.4 ± 1.8
Ω_{Λ}	0.7030	0.7035 ± 0.0069	z_{eq}	3383.6	3384 ± 26	$\chi_{6\text{DF}}^2$	0.054	0.10 ± 0.12
Ω_{m}	0.2970	0.2965 ± 0.0069	k_{eq}	0.010327	0.010328 ± 0.000080	χ_{MGS}^2	2.35	2.47 ± 0.64
$\Omega_{\text{m}} h^2$	0.14224	0.1422 ± 0.0011	$100\theta_{\text{eq}}$	0.81659	0.8165 ± 0.0049	χ_{DR12BAO}^2	4.05	4.51 ± 0.71
$\Omega_{\text{m}} h^3$	0.09844	0.0986 ± 0.0014	$100\theta_{s,\text{eq}}$	0.45112	0.4511 ± 0.0025	χ_{prior}^2	2.19	7.8 ± 3.4
σ_8	0.8222	0.823 ± 0.013	$H(0.15)$	73.874	73.91 ± 0.49	χ_{BAO}^2	6.46	7.1 ± 1.2
S_8	0.8180	0.818 ± 0.013	$D_M(0.15)$	629.7	629.3 ± 5.5	χ_{CMB}^2	11918.2	11934.1 ± 5.7

Best-fit $\chi_{\text{eff}}^2 = 12969.03$; $\bar{\chi}_{\text{eff}}^2 = 12991.92$; $R - 1 = 0.00648$
 χ_{eff}^2 : BAO - 6DF: 0.05 MGS: 2.35 DR12BAO: 4.05 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3_2_29: 22.75 CamSpec like_10.7HM_1400_unified: 11499.61 Hubble - H073p45: 6.54 SN - JLA Pantheon18: 1035.62

18.72 **base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02233 \pm 0.00015 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6083 \pm 0.0070 \quad (+1.5\sigma)$	$H(0.51)$	$89.71 \pm 0.24 \quad (-1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0010 \quad (+1.2\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.010 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.51)$	$1961 \pm 10 \quad (-1.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00030 \quad (-0.5\sigma)$	$r_{\mathrm{drag}}h$	$102.1 \pm 1.1 \quad (+2.6\sigma)$	$H(0.61)$	$95.14 \pm 0.26 \quad (-2.0\sigma)$
τ	$0.0538 \pm 0.0074 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.022 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2285 \pm 10 \quad (-1.3\sigma)$
w_0	-1.059 ± 0.030	z_{re}	$7.60 \pm 0.74 \quad (-0.5\sigma)$	$H(2.33)$	$235.26 \pm 0.57 \quad (-0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.014 \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092 \pm 0.030 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757.7 \pm 8.8 \quad (+0.2\sigma)$
n_{s}	$0.9664 \pm 0.0040 \quad (-0.7\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4590 \pm 0.0067 \quad (+1.5\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1225 \pm 12 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.7632 \pm 0.0099 \quad (+3.0\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5724 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4834 \pm 0.0079 \quad (+2.8\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6771 \pm 0.0088 \quad (+3.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.1 \pm 4.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4838 \pm 0.0081 \quad (+3.3\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 1.6 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6337 \pm 0.0081 \quad (+2.9\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9664 \pm 0.0040 \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.4796 \pm 0.0081 \quad (+3.6\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245379^{+0.000062}_{-0.000056} \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6030 \pm 0.0076 \quad (+2.8\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246705^{+0.000062}_{-0.000056} \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.3042 \pm 0.0038 \quad (+2.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	$2.593 \pm 0.028 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3123 \pm 0.0034 \quad (+2.0\sigma)$
A^{kSZ}	$4.7^{+2.1}_{-4.1} \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.763 \pm 0.022 \quad (-1.0\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.91 \pm 0.24 \quad (+0.9\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.1\sigma)$	r_*	$144.63 \pm 0.25 \quad (-1.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04111 \pm 0.00029 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.13 \pm 0.67 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.023 \quad (-0.9\sigma)$	χ_{small}^2	$396.9 \pm 1.6 \quad (-0.3\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.80 \pm 0.32 \quad (-0.3\sigma)$	χ_{lowl}^2	$22.98 \pm 0.79 \quad (+0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.31 \pm 0.26 \quad (-0.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.9 \pm 5.6 \quad (-0.2\sigma)$
c_{TE}	$0.9964 \pm 0.0049 \quad (-0.0\sigma)$	k_{D}	$0.14061 \pm 0.00032 \quad (+0.5\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.4 \pm 2.3 \quad (-2.8\sigma)$
c_{EE}	$0.9919 \pm 0.0050 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083 \pm 0.00019 \quad (+0.3\sigma)$	χ_{JLA}^2	$1036.5 \pm 1.9 \quad (+10.0\sigma)$
H_0	$69.32 \pm 0.77 \quad (+3.3\sigma)$	z_{eq}	$3386 \pm 24 \quad (+1.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.11 \pm 0.12 \quad (+3.1\sigma)$
Ω_{Λ}	$0.7037 \pm 0.0068 \quad (+1.8\sigma)$	k_{eq}	$0.010334 \pm 0.000072 \quad (+1.2\sigma)$	χ_{MGS}^2	$2.48 \pm 0.64 \quad (+2.0\sigma)$
Ω_{m}	$0.2963 \pm 0.0068 \quad (-1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8162 \pm 0.0044 \quad (-1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.51 \pm 0.66 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14233 \pm 0.00099 \quad (+1.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4509 \pm 0.0023 \quad (-1.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0987 \pm 0.0013 \quad (+8.2\sigma)$	$H(0.15)$	$73.92 \pm 0.49 \quad (+2.0\sigma)$	χ_{CMB}^2	$11942.9 \pm 5.8 \quad (-0.3\sigma)$
σ_8	$0.825 \pm 0.011 \quad (+2.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$629.0 \pm 5.5 \quad (-2.6\sigma)$	χ_{BAO}^2	$7.1 \pm 1.2 \quad (+3.1\sigma)$
S_8	$0.819 \pm 0.011 \quad (+0.5\sigma)$	$H(0.38)$	$83.29 \pm 0.27 \quad (+0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4488 \pm 0.0058 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509.8 \pm 9.2 \quad (-1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 13000.66; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.98; R - 1 = 0.00726$$

18.73 **base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4485 ± 0.0070	$H(0.38)$	83.30 ± 0.28
$\Omega_{\mathrm{c}}h^2$	0.1192 ± 0.0012	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6078 ± 0.0086	$D_{\mathrm{M}}(0.38)$	1510.0 ± 9.3
$100\theta_{\mathrm{MC}}$	1.04094 ± 0.00030	$\sigma_8/h^{0.5}$	0.990 ± 0.012	$H(0.51)$	89.73 ± 0.26
τ	$0.0545^{+0.0048}_{-0.0080}$	$r_{\mathrm{drag}}h$	102.1 ± 1.1	$D_{\mathrm{M}}(0.51)$	1961 ± 10
w_0	-1.056 ± 0.031	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.027	$H(0.61)$	95.17 ± 0.27
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	z_{re}	$7.67^{+0.54}_{-0.79}$	$D_{\mathrm{M}}(0.61)$	2286 ± 10
n_{s}	0.9669 ± 0.0042	$10^9 A_{\mathrm{s}}$	$2.093^{+0.024}_{-0.033}$	$H(2.33)$	235.23 ± 0.61
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.011	$D_{\mathrm{M}}(2.33)$	5757.3 ± 9.1
A_{100}^{PS}	239 ± 25	D_{40}	1224 ± 12	$f\sigma_8(0.15)$	0.4584 ± 0.0082
A_{143}^{PS}	39 ± 8	D_{220}	5720 ± 39	$\sigma_8(0.15)$	0.762 ± 0.011
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$f\sigma_8(0.38)$	0.4826 ± 0.0094
A_{217}^{CIB}	40 ± 7	D_{1420}	815.9 ± 4.8	$\sigma_8(0.38)$	0.677 ± 0.010
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	D_{2000}	230.4 ± 1.6	$f\sigma_8(0.51)$	0.4830 ± 0.0096
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9669 ± 0.0042	$\sigma_8(0.51)$	0.6332 ± 0.0092
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.38}_{-0.19}$	Y_{P}	$0.245380^{+0.000062}_{-0.000056}$	$f\sigma_8(0.61)$	0.4789 ± 0.0095
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707^{+0.000063}_{-0.000057}$	$\sigma_8(0.61)$	0.6025 ± 0.0086
A^{kSZ}	$4.7^{+2.1}_{-4.1}$	$10^5 \mathrm{D}/\mathrm{H}$	2.592 ± 0.028	$f\sigma_8(2.33)$	0.3039 ± 0.0043
A_{100}^{dust}	1.01 ± 0.20	$\mathrm{Age}/\mathrm{Gyr}$	13.764 ± 0.022	$\sigma_8(2.33)$	0.3122 ± 0.0037
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.90 ± 0.25	f_{2000}^{143}	29.5 ± 2.8
A_{217}^{dust}	0.98 ± 0.10	r_*	144.66 ± 0.27	f_{2000}^{217}	106.7 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04113 ± 0.00030	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.894 ± 0.026	χ_{simall}^2	396.8 ± 1.6
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.80 ± 0.32	χ_{lowl}^2	22.89 ± 0.85
c_{TE}	0.9964 ± 0.0049	r_{drag}	147.33 ± 0.28	$\chi_{\mathrm{CamSpec}}^2$	11514.2 ± 5.6
c_{EE}	0.9919 ± 0.0050	k_{D}	0.14059 ± 0.00033	$\chi_{\mathrm{H073p45}}^2$	6.5 ± 2.3
H_0	69.28 ± 0.77	$100\theta_{\mathrm{D}}$	0.16083 ± 0.00019	χ_{JLA}^2	1036.4 ± 1.8
Ω_{Λ}	0.7036 ± 0.0069	z_{eq}	3383 ± 26	$\chi_{6\mathrm{DF}}^2$	0.10 ± 0.12
Ω_{m}	0.2964 ± 0.0069	k_{eq}	0.010326 ± 0.000081	χ_{MGS}^2	2.47 ± 0.64
$\Omega_{\mathrm{m}}h^2$	0.1422 ± 0.0011	$100\theta_{\mathrm{eq}}$	0.8167 ± 0.0050	$\chi_{\mathrm{DR12BAO}}^2$	4.50 ± 0.71
$\Omega_{\mathrm{m}}h^3$	0.0985 ± 0.0014	$100\theta_{\mathrm{s,eq}}$	0.4512 ± 0.0026	χ_{prior}^2	7.8 ± 3.4
σ_8	0.824 ± 0.012	$H(0.15)$	73.91 ± 0.49	χ_{BAO}^2	7.1 ± 1.2
S_8	0.819 ± 0.013	$D_{\mathrm{M}}(0.15)$	629.3 ± 5.5	χ_{CMB}^2	11933.9 ± 5.6

$$\bar{\chi}_{\mathrm{eff}}^2 = 12991.69; R - 1 = 0.00727$$

18.74 base_w_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02234 \pm 0.00015 \quad (-0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6086 \pm 0.0069 \quad (+1.5\sigma)$	$H(0.51)$	$89.72 \pm 0.24 \quad (-1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0010 \quad (+1.2\sigma)$	$\sigma_8/h^{0.5}$	$0.991 \pm 0.010 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1961 \pm 10 \quad (-1.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00030 \quad (-0.4\sigma)$	$r_{\mathrm{drag}}h$	$102.1 \pm 1.1 \quad (+2.6\sigma)$	$H(0.61)$	$95.16 \pm 0.25 \quad (-1.9\sigma)$
τ	$0.0549^{+0.0051}_{-0.0076} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.442 \pm 0.022 \quad (+1.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2285 \pm 10 \quad (-1.3\sigma)$
w_0	-1.058 ± 0.030	z_{re}	$7.72^{+0.56}_{-0.74} \quad (-0.4\sigma)$	$H(2.33)$	$235.24 \pm 0.57 \quad (-0.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.014} \quad (-0.3\sigma)$	10^9A_{s}	$2.096^{+0.023}_{-0.030} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5757.5 \pm 8.8 \quad (+0.2\sigma)$
n_{s}	$0.9666 \pm 0.0040 \quad (-0.7\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.010 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4591 \pm 0.0067 \quad (+1.5\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1225 \pm 12 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7635 \pm 0.0099 \quad (+3.1\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5723 \pm 38 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4834 \pm 0.0079 \quad (+2.8\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6775 \pm 0.0087 \quad (+3.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$816.0 \pm 4.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4839 \pm 0.0081 \quad (+3.4\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.5 \pm 1.6 \quad (-0.3\sigma)$	$\sigma_8(0.51)$	$0.6341 \pm 0.0080 \quad (+3.1\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9666 \pm 0.0040 \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.4797 \pm 0.0081 \quad (+3.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.245380^{+0.000062}_{-0.000055} \quad (-0.6\sigma)$	$\sigma_8(0.61)$	$0.6033 \pm 0.0075 \quad (+3.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246707^{+0.000062}_{-0.000055} \quad (-0.6\sigma)$	$f\sigma_8(2.33)$	$0.3044 \pm 0.0038 \quad (+2.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5\mathrm{D}/\mathrm{H}$	$2.592 \pm 0.028 \quad (+0.6\sigma)$	$\sigma_8(2.33)$	$0.3126 \pm 0.0033 \quad (+2.2\sigma)$
A^{kSZ}	$4.7^{+1.9}_{-4.3} \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.763 \pm 0.022 \quad (-1.0\sigma)$	f_{2000}^{143}	$29.5 \pm 2.8 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.90 \pm 0.24 \quad (+0.9\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.1\sigma)$	r_*	$144.64 \pm 0.24 \quad (-0.9\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00029 \quad (-0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.09 \pm 0.62 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.893 \pm 0.023 \quad (-0.9\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.81 \pm 0.32 \quad (-0.3\sigma)$	χ_{lowl}^2	$22.97 \pm 0.79 \quad (+0.4\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.32 \pm 0.26 \quad (-0.8\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.9 \pm 5.6 \quad (-0.2\sigma)$
c_{TE}	$0.9964 \pm 0.0049 \quad (-0.0\sigma)$	k_{D}	$0.14060 \pm 0.00032 \quad (+0.5\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.4 \pm 2.3 \quad (-2.8\sigma)$
c_{EE}	$0.9919 \pm 0.0050 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16083 \pm 0.00019 \quad (+0.3\sigma)$	χ_{JLA}^2	$1036.4 \pm 1.8 \quad (+9.9\sigma)$
H_0	$69.31 \pm 0.77 \quad (+3.3\sigma)$	z_{eq}	$3385 \pm 23 \quad (+1.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.11 \pm 0.12 \quad (+3.2\sigma)$
Ω_{Λ}	$0.7037 \pm 0.0069 \quad (+1.8\sigma)$	k_{eq}	$0.010330 \pm 0.000071 \quad (+1.1\sigma)$	χ_{MGS}^2	$2.48 \pm 0.64 \quad (+2.0\sigma)$
Ω_{m}	$0.2963 \pm 0.0069 \quad (-1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8164 \pm 0.0044 \quad (-1.2\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.50 \pm 0.66 \quad (+1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14228 \pm 0.00098 \quad (+1.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0023 \quad (-1.2\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0986 \pm 0.0013 \quad (+8.0\sigma)$	$H(0.15)$	$73.93 \pm 0.49 \quad (+2.0\sigma)$	χ_{CMB}^2	$11942.8 \pm 5.7 \quad (-0.3\sigma)$
σ_8	$0.825 \pm 0.010 \quad (+3.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$629.1 \pm 5.5 \quad (-2.6\sigma)$	χ_{BAO}^2	$7.1 \pm 1.2 \quad (+3.2\sigma)$
S_8	$0.820 \pm 0.011 \quad (+0.5\sigma)$	$H(0.38)$	$83.30 \pm 0.27 \quad (+0.2\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4490 \pm 0.0058 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1509.7 \pm 9.2 \quad (-1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 13000.46; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.08; R - 1 = 0.00765$$

18.75 base_w_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022163	0.02215 ± 0.00022 (+0.2 σ)	$\sigma_8/h^{0.5}$	1.0756	$1.041^{+0.036}_{-0.026}$ (+3.2 σ)	$D_M(0.15)$	480.6	547^{+21}_{-66} (−12.7 σ)
$\Omega_c h^2$	0.12011	0.1201 ± 0.0021 (−0.1 σ)	$r_{\text{drag}} h$	147.3	125^{+20}_{-8} (+16.5 σ)	$H(0.38)$	84.30	$84.1^{+1.1}_{-0.90}$ (+2.7 σ)
$100\theta_{\text{MC}}$	1.040873	1.04084 ± 0.00046 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.5287	$2.498^{+0.047}_{-0.041}$ (+1.3 σ)	$D_M(0.38)$	1288	1386^{+36}_{-99} (−9.9 σ)
τ	0.0528	0.0518 ± 0.0081 (−0.0 σ)	z_{re}	7.51	7.41 ± 0.83 (−0.1 σ)	$H(0.51)$	86.59	$88.2^{+1.3}_{-0.86}$ (−2.6 σ)
w_0	−1.972	$-1.55^{+0.20}_{-0.39}$	$10^9 A_s$	2.0891	2.085 ± 0.034 (−0.0 σ)	$D_M(0.51)$	1745	1839^{+37}_{-98} (−8.5 σ)
$\ln(10^{10} A_s)$	3.0393	3.037 ± 0.016 (−0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8795	1.879 ± 0.014 (−0.1 σ)	$H(0.61)$	90.02	$92.5^{+1.7}_{-1.9}$ (−7.3 σ)
n_s	0.9632	0.9631 ± 0.0056 (+0.1 σ)	D_{40}	1226.3	1228 ± 15 (−0.3 σ)	$D_M(0.61)$	2085	2171^{+36}_{-92} (−7.6 σ)
y_{cal}	1.00014	1.0004 ± 0.0025 (+0.0 σ)	D_{220}	5711.2	5710 ± 42 (+0.1 σ)	$H(2.33)$	230.38	$232.1^{+1.4}_{-2.7}$ (−3.5 σ)
A_{100}^{PS}	249.8	254 ± 26 (−0.0 σ)	D_{810}	2530.7	2531 ± 14 (−0.0 σ)	$D_M(2.33)$	5739.8	5749^{+18}_{-23} (−1.8 σ)
A_{143}^{tSZ}	6.15	$3.8^{+1.8}_{-2.6}$ (+0.0 σ)	D_{1420}	812.4	812.5 ± 5.1 (−0.0 σ)	$f\sigma_8(0.15)$	0.5097	0.488 ± 0.021 (+2.2 σ)
A^{kSZ}	0.4	—	D_{2000}	229.29	229.2 ± 1.8 (+0.2 σ)	$\sigma_8(0.15)$	1.014	$0.897^{+0.11}_{-0.054}$ (+19.7 σ)
A_{100}^{dust}	1.003	1.01 ± 0.19 (+0.0 σ)	$n_{s,0.002}$	0.9632	0.9631 ± 0.0056 (+0.1 σ)	$f\sigma_8(0.38)$	0.647	$0.570^{+0.064}_{-0.046}$ (+9.6 σ)
A_{143}^{power}	11.68	$10.2^{+2.1}_{-2.4}$ (−0.1 σ)	Y_{P}	0.245310	$0.24530^{+0.00010}_{-0.000082}$ (+0.2 σ)	$\sigma_8(0.38)$	0.908	$0.800^{+0.098}_{-0.048}$ (+22.8 σ)
A_{217}^{power}	11.02	$8.0^{+1.7}_{-2.9}$ (−0.1 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.246637	$0.24663^{+0.00010}_{-0.000082}$ (+0.2 σ)	$f\sigma_8(0.51)$	0.679	$0.586^{+0.079}_{-0.050}$ (+13.5 σ)
$A_{143 \times 217}^{\text{power}}$	7.34	$4.1^{+1.7}_{-2.8}$ (−0.1 σ)	10^5D/H	2.6250	2.628 ± 0.042 (−0.2 σ)	$\sigma_8(0.51)$	0.848	$0.748^{+0.092}_{-0.043}$ (+23.5 σ)
$\gamma_{143}^{\text{power}}$	1.341	$1.34^{+0.41}_{-0.54}$ (+0.0 σ)	Age/Gyr	13.456	$13.591^{+0.058}_{-0.15}$ (−6.6 σ)	$f\sigma_8(0.61)$	0.685	$0.587^{+0.085}_{-0.050}$ (+16.1 σ)
$\gamma_{217}^{\text{power}}$	1.35	$1.39^{+0.76}_{-0.57}$ (+0.0 σ)	z_*	1090.192	1090.21 ± 0.40 (−0.2 σ)	$\sigma_8(0.61)$	0.804	$0.710^{+0.086}_{-0.040}$ (+23.7 σ)
$\gamma_{143 \times 217}^{\text{power}}$	1.27	1.34 ± 0.59 (+0.0 σ)	r_*	144.560	144.56 ± 0.48 (+0.1 σ)	$f\sigma_8(2.33)$	0.4002	$0.356^{+0.041}_{-0.018}$ (+23.4 σ)
c_{100}	0.99813	0.9978 ± 0.0011 (+0.0 σ)	$100\theta_*$	1.041073	1.04105 ± 0.00046 (+0.1 σ)	$\sigma_8(2.33)$	0.4007	$0.359^{+0.038}_{-0.018}$ (+20.2 σ)
c_{217}	0.99899	$0.9994^{+0.0013}_{-0.0017}$ (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8857	13.886 ± 0.044 (+0.1 σ)	f_{2000}^{143}	22.97	23 ± 3 (−0.1 σ)
H_0	99.98	> 80.2 (+19.7 σ)	z_{drag}	1059.475	1059.44 ± 0.45 (+0.2 σ)	f_{2000}^{217}	16.62	16.6 ± 2.0 (−0.1 σ)
Ω_Λ	0.8570	$0.792^{+0.066}_{-0.017}$ (+8.6 σ)	r_{drag}	147.292	147.30 ± 0.48 (+0.0 σ)	$f_{2000}^{143 \times 217}$	10.95	10.8 ± 2.1 (−0.2 σ)
Ω_m	0.1430	$0.208^{+0.017}_{-0.066}$ (−8.6 σ)	k_{D}	0.14049	0.14047 ± 0.00052 (+0.0 σ)	χ_{small}^2	395.78	396.8 ± 1.6 (−0.0 σ)
$\Omega_m h^2$	0.14292	0.1429 ± 0.0020 (−0.1 σ)	$100\theta_{\text{D}}$	0.161037	0.16105 ± 0.00026 (−0.2 σ)	χ_{lowl}^2	22.79	23.1 ± 1.1 (−0.5 σ)
$\Omega_m h^3$	0.1429	$0.121^{+0.019}_{-0.0095}$ (+56.4 σ)	z_{eq}	3399.9	3400 ± 47 (−0.1 σ)	χ_{CamSpec}^2	6702.39	6715.0 ± 5.1 (−0.2 σ)
σ_8	1.075	$0.959^{+0.11}_{-0.055}$ (+16.5 σ)	k_{eq}	0.010377	0.01038 ± 0.00014 (−0.1 σ)	χ_{prior}^2	1.19	5.2 ± 2.9 (−0.0 σ)
S_8	0.7425	$0.783^{+0.030}_{-0.042}$ (−2.2 σ)	$100\theta_{\text{eq}}$	0.8131	0.8131 ± 0.0089 (+0.1 σ)	χ_{CMB}^2	7121.0	7135.0 ± 5.3 (−0.4 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4067	$0.429^{+0.016}_{-0.023}$ (−2.2 σ)	$100\theta_{s,\text{eq}}$	0.44943	0.4494 ± 0.0046 (+0.1 σ)			
$\sigma_8 \Omega_m^{0.25}$	0.6613	$0.640^{+0.023}_{-0.018}$ (+2.7 σ)	$H(0.15)$	88.73	$81.8^{+6.7}_{-2.9}$ (+12.2 σ)			

Best-fit $\chi_{\text{eff}}^2 = 7122.16$; $\Delta\chi_{\text{eff}}^2 = -2.96$; $\bar{\chi}_{\text{eff}}^2 = 7140.23$; $\Delta\bar{\chi}_{\text{eff}}^2 = -1.98$; $R - 1 = 0.00669$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.78 (Δ -0.00) commander_dx12_v3.2.29: 22.79 (Δ -0.91) CamSpec like_10.7cleaned: 6702.39 (Δ -2.04)

19 w+wa

19.1 base_w_wa_plikHM_TT_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022172	0.02213 ± 0.00021 (-0.4σ)	$\sigma_8 \Omega_m^{0.25}$	0.6089	0.609 ± 0.014 $(+0.9\sigma)$	$H(0.38)$	84.71	$84.8^{+1.2}_{-1.1}$ $(+5.2\sigma)$
$\Omega_c h^2$	0.12035	0.1206 ± 0.0019 $(+1.3\sigma)$	$\sigma_8/h^{0.5}$	0.9899	0.990 ± 0.020 $(+0.7\sigma)$	$D_M(0.38)$	1527.0	1527 ± 17 (-0.3σ)
$100\theta_{MC}$	1.040791	1.04078 ± 0.00046 (-0.5σ)	$r_{drag}h$	95.60	$95.5^{+3.1}_{-4.1}$ (-4.5σ)	$H(0.51)$	91.42	91.4 ± 1.2 $(+6.2\sigma)$
τ	0.0530	0.0516 ± 0.0081 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4660	2.469 ± 0.042 $(+1.5\sigma)$	$D_M(0.51)$	1969.8	1969 ± 18 (-1.1σ)
w_0	-0.617	$-0.59^{+0.29}_{-0.26}$	z_{re}	7.57	$7.42^{+0.84}_{-0.75}$ (-0.3σ)	$H(0.61)$	96.82	96.8 ± 1.2 $(+6.2\sigma)$
w_a	-1.20	-1.33 ± 0.79	$10^9 A_s$	2.0932	2.089 ± 0.035 (-0.1σ)	$D_M(0.61)$	2288.5	2288 ± 18 (-1.5σ)
$\ln(10^{10} A_s)$	3.0413	3.039 ± 0.017 (-0.1σ)	$10^9 A_s e^{-2\tau}$	1.8827	1.884 ± 0.013 $(+0.6\sigma)$	$H(2.33)$	233.96	$234.0^{+1.1}_{-1.3}$ (-2.2σ)
n_s	0.9644	0.9630 ± 0.0053 (-0.8σ)	D_{40}	1228.6	1232 ± 14 $(+0.5\sigma)$	$D_M(2.33)$	5754.1	5757 ± 14 (-0.8σ)
y_{cal}	1.00010	1.0004 ± 0.0025 (-0.1σ)	D_{220}	5710.0	5714 ± 41 (-0.2σ)	$f\sigma_8(0.15)$	0.4487	0.449 ± 0.014 (-0.7σ)
A_{217}^{CIB}	48.3	48 ± 7 (-0.0σ)	D_{810}	2536.0	2536 ± 14 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7361	$0.736^{+0.023}_{-0.026}$ (-1.4σ)
$\xi^{tSZ \times CIB}$	0.37	—	D_{1420}	815.1	814.4 ± 5.0 (-0.2σ)	$f\sigma_8(0.38)$	0.4595	$0.460^{+0.020}_{-0.022}$ (-2.0σ)
A_{143}^{tSZ}	6.99	5.1 ± 2.0 $(+0.0\sigma)$	D_{2000}	230.03	229.7 ± 1.8 (-0.1σ)	$\sigma_8(0.38)$	0.6535	$0.653^{+0.020}_{-0.023}$ (-1.3σ)
A_{100}^{PS}	253.4	262 ± 28 (-0.0σ)	$n_{s,0.002}$	0.9644	0.9630 ± 0.0053 (-0.8σ)	$f\sigma_8(0.51)$	0.4597	$0.460^{+0.020}_{-0.023}$ (-1.9σ)
A_{143}^{PS}	49.9	49 ± 8 $(+0.1\sigma)$	Y_P	0.245314	$0.24529^{+0.00010}_{-0.000079}$ (-0.4σ)	$\sigma_8(0.51)$	0.6122	$0.612^{+0.019}_{-0.021}$ (-1.2σ)
$A_{143 \times 217}^{PS}$	48.0	44 ± 9 $(+0.1\sigma)$	Y_P^{BBN}	0.246641	$0.24662^{+0.00010}_{-0.000080}$ (-0.4σ)	$f\sigma_8(0.61)$	0.4569	$0.458^{+0.020}_{-0.022}$ (-1.7σ)
A_{217}^{PS}	119.8	115 ± 10 $(+0.1\sigma)$	$10^5 D/H$	2.6233	2.631 ± 0.040 $(+0.4\sigma)$	$\sigma_8(0.61)$	0.5830	$0.583^{+0.017}_{-0.019}$ (-1.2σ)
A^{kSZ}	0.01	< 4.70 (-0.0σ)	Age/Gyr	13.7748	13.777 ± 0.035 (-1.0σ)	$f\sigma_8(2.33)$	0.2963	$0.2960^{+0.0078}_{-0.0088}$ (-0.4σ)
A_{100}^{dustTT}	8.90	8.9 ± 1.8 (-0.0σ)	z_*	1090.201	1090.28 ± 0.37 $(+0.8\sigma)$	$\sigma_8(2.33)$	0.3014	$0.3010^{+0.0078}_{-0.0090}$ (-2.0σ)
A_{143}^{dustTT}	10.75	10.7 ± 1.8 (-0.0σ)	r_*	144.493	144.47 ± 0.43 (-1.1σ)	f_{2000}^{143}	30.14	31.0 ± 2.9 $(+0.0\sigma)$
$A_{143 \times 217}^{dustTT}$	19.42	18.3 ± 3.3 $(+0.0\sigma)$	$100\theta_*$	1.041002	1.04099 ± 0.00045 (-0.5σ)	$f_{2000}^{143 \times 217}$	33.07	33.4 ± 2.0 $(+0.1\sigma)$
A_{217}^{dustTT}	94.6	93.5 ± 7.4 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8802	13.878 ± 0.041 (-1.0σ)	f_{2000}^{217}	107.46	108.0 ± 1.9 $(+0.0\sigma)$
c_{100}	0.99965	0.99960 ± 0.00061 (-0.0σ)	z_{drag}	1059.513	1059.42 ± 0.44 (-0.2σ)	χ_{small}^2	395.89	396.9 ± 1.7 (-0.1σ)
c_{217}	0.99825	0.99825 ± 0.00062 (-0.0σ)	r_{drag}	147.220	147.21 ± 0.44 (-0.9σ)	χ_{lowl}^2	23.46	23.8 ± 1.2 $(+0.8\sigma)$
H_0	64.94	$64.9^{+2.1}_{-2.8}$ (-5.0σ)	k_D	0.14058	0.14055 ± 0.00050 $(+0.6\sigma)$	χ_{plik}^2	758.0	770.5 ± 5.3 (-0.3σ)
Ω_Λ	0.6605	0.658 ± 0.026 (-4.3σ)	$100\theta_D$	0.161005	0.16106 ± 0.00026 $(+0.1\sigma)$	χ_{6DF}^2	0.316	0.56 ± 0.60 $(+6.5\sigma)$
Ω_m	0.3395	0.342 ± 0.026 $(+4.3\sigma)$	z_{eq}	3405.7	3410 ± 42 $(+1.3\sigma)$	χ_{MGS}^2	0.63	0.89 ± 0.88 (-0.9σ)
$\Omega_m h^2$	0.14316	0.1433 ± 0.0018 $(+1.3\sigma)$	k_{eq}	0.010395	0.01041 ± 0.00013 $(+1.3\sigma)$	$\chi_{DR12BAO}^2$	3.49	5.0 ± 1.5 $(+0.1\sigma)$
$\Omega_m h^3$	0.09297	$0.0930^{+0.0033}_{-0.0041}$ (-6.2σ)	$100\theta_{eq}$	0.8120	0.8113 ± 0.0079 (-1.3σ)	χ_{prior}^2	1.32	7.2 ± 3.6 (-0.1σ)
σ_8	0.7977	$0.798^{+0.024}_{-0.027}$ (-1.2σ)	$100\theta_{s,eq}$	0.44886	0.4485 ± 0.0041 (-1.3σ)	χ_{BAO}^2	4.43	6.4 ± 1.9 $(+0.2\sigma)$
S_8	0.8486	0.850 ± 0.022 $(+2.0\sigma)$	$H(0.15)$	73.09	73.14 ± 0.92 $(+0.6\sigma)$	χ_{CMB}^2	1177.3	1191.2 ± 5.5 (-0.2σ)
$\sigma_8 \Omega_m^{0.5}$	0.4648	0.466 ± 0.012 $(+2.0\sigma)$	$D_M(0.15)$	651.6	652 ± 14 $(+2.3\sigma)$			

Best-fit $\chi_{eff}^2 = 1183.08$; $\Delta\chi_{eff}^2 = -2.67$; $\bar{\chi}_{eff}^2 = 1204.85$; $\Delta\bar{\chi}_{eff}^2 = -1.18$; $R - 1 = 0.00724$

χ_{eff}^2 : BAO - 6DF: 0.32 (Δ 0.29) MGS: 0.62 (Δ -0.65) DR12BAO: 3.49 (Δ -0.70) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.00) commander_dx12_v3_2_29: 23.46 (Δ 0.64) plik_rd12_HM_v22_TT: 757.98 (Δ -2.12)

19.2 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022196	0.02216 ± 0.00020 (-0.2σ)	$\sigma_8 \Omega_m^{0.25}$	0.6047	0.6046 ± 0.0098 $(+0.0\sigma)$	$H(0.38)$	84.55	84.7 ± 1.1 $(+5.7\sigma)$
$\Omega_c h^2$	0.11973	0.1199 ± 0.0014 $(+0.7\sigma)$	$\sigma_8/h^{0.5}$	0.9841	0.984 ± 0.014 (-0.1σ)	$D_M(0.38)$	1527.2	1528 ± 17 (-0.4σ)
$100\theta_{MC}$	1.040926	1.04083 ± 0.00044 (-0.3σ)	$r_{drag}h$	96.12	$95.7^{+3.3}_{-4.1}$ (-4.7σ)	$H(0.51)$	91.30	91.5 ± 1.2 $(+6.9\sigma)$
τ	0.0525	0.0512 ± 0.0080 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4508	2.455 ± 0.027 $(+0.9\sigma)$	$D_M(0.51)$	1970.8	1970 ± 17 (-1.3σ)
w_0	-0.662	-0.61 ± 0.27	z_{re}	7.51	7.36 ± 0.82 (-0.5σ)	$H(0.61)$	96.75	96.9 ± 1.2 $(+7.1\sigma)$
w_a	-1.01	-1.21 ± 0.76	$10^9 A_s$	2.0882	2.084 ± 0.032 (-0.5σ)	$D_M(0.61)$	2289.8	2289 ± 18 (-1.8σ)
$\ln(10^{10} A_s)$	3.0389	3.037 ± 0.015 (-0.5σ)	$10^9 A_s e^{-2\tau}$	1.8801	1.881 ± 0.011 $(+0.2\sigma)$	$H(2.33)$	234.01	$233.9^{+1.1}_{-1.4}$ (-2.8σ)
n_s	0.96570	0.9641 ± 0.0045 (-0.4σ)	D_{40}	1225.7	1229 ± 12 $(+0.1\sigma)$	$D_M(2.33)$	5752.4	5755 ± 14 (-1.1σ)
y_{cal}	1.00014	1.0003 ± 0.0024 (-0.2σ)	D_{220}	5712.1	5715 ± 41 (-0.2σ)	$f\sigma_8(0.15)$	0.4463	0.445 ± 0.012 (-1.8σ)
A_{217}^{CIB}	48.8	48 ± 7 (-0.0σ)	D_{810}	2535.8	2535 ± 13 (-0.2σ)	$\sigma_8(0.15)$	0.7336	$0.732^{+0.022}_{-0.024}$ (-2.9σ)
$\xi^{tSZ \times CIB}$	0.30	—	D_{1420}	815.40	814.4 ± 5.0 (-0.3σ)	$f\sigma_8(0.38)$	0.4577	$0.456^{+0.019}_{-0.021}$ (-3.7σ)
A_{143}^{tSZ}	7.06	5.1 ± 2.0 (-0.0σ)	D_{2000}	230.09	229.6 ± 1.8 (-0.2σ)	$\sigma_8(0.38)$	0.6513	$0.650^{+0.019}_{-0.021}$ (-2.7σ)
A_{100}^{PS}	254.4	263 ± 28 (-0.0σ)	$n_{s,0.002}$	0.96570	0.9641 ± 0.0045 (-0.4σ)	$f\sigma_8(0.51)$	0.4577	$0.456^{+0.019}_{-0.021}$ (-3.7σ)
A_{143}^{PS}	48.8	49 ± 8 $(+0.0\sigma)$	Y_P	0.245324	$0.245306^{+0.000095}_{-0.000075}$ (-0.2σ)	$\sigma_8(0.51)$	0.6103	$0.609^{+0.017}_{-0.019}$ (-2.5σ)
$A_{143 \times 217}^{PS}$	46.1	43 ± 9 $(+0.0\sigma)$	Y_P^{BBN}	0.246650	$0.246632^{+0.000096}_{-0.000075}$ (-0.2σ)	$f\sigma_8(0.61)$	0.4547	0.453 ± 0.019 (-3.5σ)
A_{217}^{PS}	118.8	$115^{+11}_{-9.8}$ $(+0.0\sigma)$	$10^5 D/H$	2.6187	2.626 ± 0.038 $(+0.2\sigma)$	$\sigma_8(0.61)$	0.5811	$0.580^{+0.016}_{-0.018}$ (-2.4σ)
A^{kSZ}	0.01	< 4.75 $(+0.0\sigma)$	Age/Gyr	13.7765	13.779 ± 0.034 (-1.1σ)	$f\sigma_8(2.33)$	0.2953	$0.2945^{+0.0071}_{-0.0080}$ (-1.4σ)
A_{100}^{dustTT}	8.88	8.9 ± 1.9 $(+0.0\sigma)$	z_*	1090.116	1090.18 ± 0.32 $(+0.5\sigma)$	$\sigma_8(2.33)$	0.3011	$0.2999^{+0.0076}_{-0.0086}$ (-2.8σ)
A_{143}^{dustTT}	10.84	10.7 ± 1.8 $(+0.0\sigma)$	r_*	144.633	144.61 ± 0.33 (-0.6σ)	f_{2000}^{143}	30.19	31.1 ± 2.9 $(+0.0\sigma)$
$A_{143 \times 217}^{dustTT}$	19.47	18.3 ± 3.3 $(+0.0\sigma)$	$100\theta_*$	1.041123	1.04104 ± 0.00044 (-0.3σ)	$f_{2000}^{143 \times 217}$	33.06	33.5 ± 2.0 $(+0.1\sigma)$
A_{217}^{dustTT}	94.6	93.4 ± 7.2 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8921	13.891 ± 0.032 (-0.5σ)	f_{2000}^{217}	107.48	108.0 ± 1.9 $(+0.0\sigma)$
c_{100}	0.99965	0.99960 ± 0.00061 (-0.0σ)	z_{drag}	1059.513	1059.44 ± 0.44 (-0.1σ)	$\chi_{lensing}^2$	8.80	9.4 ± 1.0 $(+0.2\sigma)$
c_{217}	0.99825	0.99824 ± 0.00063 (-0.0σ)	r_{drag}	147.356	147.35 ± 0.35 (-0.5σ)	χ_{small}^2	395.81	396.8 ± 1.5 (-0.2σ)
H_0	65.23	$64.9^{+2.2}_{-2.8}$ (-5.3σ)	k_D	0.140453	0.14043 ± 0.00044 $(+0.3\sigma)$	χ_{lowl}^2	23.18	23.52 ± 0.93 $(+0.3\sigma)$
Ω_Λ	0.6649	0.660 ± 0.026 (-4.4σ)	$100\theta_D$	0.161010	0.16104 ± 0.00026 $(+0.1\sigma)$	χ_{plik}^2	758.58	770.6 ± 5.2 (-0.2σ)
Ω_m	0.3351	0.340 ± 0.026 $(+4.4\sigma)$	z_{eq}	3391.6	3395 ± 32 $(+0.7\sigma)$	χ_{6DF}^2	0.254	0.55 ± 0.59 $(+6.9\sigma)$
$\Omega_m h^2$	0.14257	0.1427 ± 0.0013 $(+0.7\sigma)$	k_{eq}	0.010352	0.010363 ± 0.000097 $(+0.7\sigma)$	χ_{MGS}^2	0.72	0.91 ± 0.89 (-0.8σ)
$\Omega_m h^3$	0.09300	$0.0927^{+0.0033}_{-0.0040}$ (-7.2σ)	$100\theta_{eq}$	0.8147	0.8139 ± 0.0059 (-0.7σ)	$\chi_{DR12BAO}^2$	3.34	4.9 ± 1.5 $(+0.0\sigma)$
σ_8	0.7948	0.793 ± 0.024 (-2.7σ)	$100\theta_{s,eq}$	0.45025	0.4499 ± 0.0030 (-0.7σ)	χ_{prior}^2	1.36	7.2 ± 3.6 (-0.0σ)
S_8	0.8400	0.842 ± 0.016 $(+1.5\sigma)$	$H(0.15)$	73.05	73.07 ± 0.89 $(+0.6\sigma)$	χ_{CMB}^2	1186.4	1200.3 ± 5.4 (-0.2σ)
$\sigma_8 \Omega_m^{0.5}$	0.4601	0.4613 ± 0.0088 $(+1.5\sigma)$	$D_M(0.15)$	650.6	652 ± 15 $(+2.5\sigma)$	χ_{BAO}^2	4.31	6.3 ± 1.9 $(+0.1\sigma)$

Best-fit $\chi_{eff}^2 = 1192.04$; $\Delta\chi_{eff}^2 = -2.65$; $\bar{\chi}_{eff}^2 = 1213.89$; $\Delta\bar{\chi}_{eff}^2 = -0.84$; $R - 1 = 0.01045$

χ_{eff}^2 : BAO - 6DF: 0.25 (Δ 0.23) MGS: 0.72 (Δ -0.50) DR12BAO: 3.34 (Δ -1.03) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.80 (Δ -0.08) small_100x143_offlike5_EE_Aplanc. 395.81 (Δ -0.28) commander_dx12_v3.2_29: 23.18 (Δ 0.22) plik_rd12_HM_v22.TT: 758.58 (Δ -1.23)

19.3 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02214 \pm 0.00021 \quad (-0.4\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.610 \pm 0.014 \quad (+0.9\sigma)$	$H(0.38)$	$84.8^{+1.2}_{-1.1} \quad (+5.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1205 \pm 0.0019 \quad (+1.3\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.020 \quad (+0.8\sigma)$	$D_{\text{M}}(0.38)$	$1527 \pm 17 \quad (-0.3\sigma)$
$100\theta_{\text{MC}}$	$1.04079 \pm 0.00046 \quad (-0.5\sigma)$	$r_{\text{drag}}h$	$95.6^{+3.1}_{-4.1} \quad (-4.5\sigma)$	$H(0.51)$	$91.4 \pm 1.2 \quad (+6.1\sigma)$
τ	$0.0535^{+0.0044}_{-0.0082} \quad (-0.2\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.472 \pm 0.042 \quad (+1.5\sigma)$	$D_{\text{M}}(0.51)$	$1969 \pm 18 \quad (-1.1\sigma)$
w_0	$-0.59^{+0.29}_{-0.26}$	z_{re}	$7.62^{+0.50}_{-0.83} \quad (-0.2\sigma)$	$H(0.61)$	$96.8 \pm 1.2 \quad (+6.1\sigma)$
w_a	-1.31 ± 0.79	$10^9 A_{\text{s}}$	$2.097^{+0.024}_{-0.033} \quad (+0.0\sigma)$	$D_{\text{M}}(0.61)$	$2288 \pm 18 \quad (-1.5\sigma)$
$\ln(10^{10} A_{\text{s}})$	$3.043^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.884 \pm 0.013 \quad (+0.6\sigma)$	$H(2.33)$	$234.0^{+1.1}_{-1.3} \quad (-2.2\sigma)$
n_{s}	$0.9632 \pm 0.0053 \quad (-0.8\sigma)$	D_{40}	$1232 \pm 14 \quad (+0.5\sigma)$	$D_{\text{M}}(2.33)$	$5757 \pm 14 \quad (-0.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5714 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.449 \pm 0.014 \quad (-0.7\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.1\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.737^{+0.023}_{-0.026} \quad (-1.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	$814.4 \pm 5.1 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.460^{+0.020}_{-0.022} \quad (-2.1\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.654^{+0.020}_{-0.023} \quad (-1.5\sigma)$
A_{100}^{PS}	$262 \pm 28 \quad (-0.0\sigma)$	$n_{\text{s},0.002}$	$0.9632 \pm 0.0053 \quad (-0.8\sigma)$	$f\sigma_8(0.51)$	$0.461^{+0.020}_{-0.023} \quad (-2.0\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	Y_{P}	$0.24530^{+0.00010}_{-0.000080} \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.613^{+0.019}_{-0.021} \quad (-1.4\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.24662^{+0.00010}_{-0.000080} \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.458^{+0.020}_{-0.022} \quad (-1.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.1\sigma)$	$10^5 \text{D}/\text{H}$	$2.630 \pm 0.040 \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.584^{+0.017}_{-0.019} \quad (-1.3\sigma)$
A^{kSZ}	$< 4.66 \quad (-0.0\sigma)$	Age/Gyr	$13.777 \pm 0.035 \quad (-1.0\sigma)$	$f\sigma_8(2.33)$	$0.2964^{+0.0078}_{-0.0088} \quad (-0.4\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.26 \pm 0.37 \quad (+0.8\sigma)$	$\sigma_8(2.33)$	$0.3015^{+0.0077}_{-0.0089} \quad (-2.1\sigma)$
A_{143}^{dustTT}	$10.7 \pm 1.8 \quad (-0.0\sigma)$	r_*	$144.48 \pm 0.43 \quad (-1.1\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04100 \pm 0.00045 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.1\sigma)$
A_{217}^{dustTT}	$93.4 \pm 7.4 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.879 \pm 0.041 \quad (-1.0\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.1\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.43 \pm 0.44 \quad (-0.2\sigma)$	χ_{small}^2	$396.7 \pm 1.6 \quad (-0.2\sigma)$
c_{217}	$0.99824 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.22 \pm 0.44 \quad (-0.9\sigma)$	χ_{lowl}^2	$23.8 \pm 1.2 \quad (+0.8\sigma)$
H_0	$64.9^{+2.1}_{-2.8} \quad (-5.0\sigma)$	k_{D}	$0.14055 \pm 0.00050 \quad (+0.6\sigma)$	χ_{plik}^2	$770.3 \pm 5.3 \quad (-0.3\sigma)$
Ω_{Λ}	$0.659 \pm 0.026 \quad (-4.3\sigma)$	$100\theta_{\text{D}}$	$0.16105 \pm 0.00026 \quad (+0.1\sigma)$	$\chi_{6\text{DF}}^2$	$0.56 \pm 0.60 \quad (+6.6\sigma)$
Ω_{m}	$0.341 \pm 0.026 \quad (+4.3\sigma)$	z_{eq}	$3408 \pm 42 \quad (+1.2\sigma)$	χ_{MGS}^2	$0.89 \pm 0.88 \quad (-0.9\sigma)$
$\Omega_{\text{m}}h^2$	$0.1433 \pm 0.0018 \quad (+1.2\sigma)$	k_{eq}	$0.01040 \pm 0.00013 \quad (+1.2\sigma)$	χ_{DR12BAO}^2	$5.0 \pm 1.5 \quad (+0.1\sigma)$
$\Omega_{\text{m}}h^3$	$0.0930^{+0.0033}_{-0.0041} \quad (-6.3\sigma)$	$100\theta_{\text{eq}}$	$0.8116 \pm 0.0079 \quad (-1.2\sigma)$	χ_{prior}^2	$7.2 \pm 3.6 \quad (-0.0\sigma)$
σ_8	$0.799^{+0.024}_{-0.027} \quad (-1.3\sigma)$	$100\theta_{\text{s,eq}}$	$0.4486 \pm 0.0041 \quad (-1.2\sigma)$	χ_{BAO}^2	$6.4 \pm 1.9 \quad (+0.2\sigma)$
S_8	$0.851 \pm 0.022 \quad (+2.0\sigma)$	$H(0.15)$	$73.13 \pm 0.92 \quad (+0.5\sigma)$	χ_{CMB}^2	$1190.9 \pm 5.4 \quad (-0.2\sigma)$
$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.466 \pm 0.012 \quad (+2.0\sigma)$	$D_{\text{M}}(0.15)$	$652 \pm 14 \quad (+2.3\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 1204.53; \Delta\bar{\chi}_{\text{eff}}^2 = -1.22; R - 1 = 0.00721$$

19.4 base_w_wa_plikHM_TT_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02217 \pm 0.00020 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6048 \pm 0.0098 \quad (+0.0\sigma)$	$H(0.38)$	$84.7 \pm 1.1 \quad (+5.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1198 \pm 0.0013 \quad (+0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.984 \pm 0.014 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528 \pm 17 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04085 \pm 0.00044 \quad (-0.3\sigma)$	$r_{\mathrm{drag}}h$	$95.7^{+3.3}_{-4.1} \quad (-4.7\sigma)$	$H(0.51)$	$91.5 \pm 1.3 \quad (+6.9\sigma)$
τ	$0.0532^{+0.0043}_{-0.0080} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.456 \pm 0.027 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1971 \pm 17 \quad (-1.2\sigma)$
w_0	-0.61 ± 0.27	z_{re}	$7.58^{+0.47}_{-0.82} \quad (-0.4\sigma)$	$H(0.61)$	$96.9 \pm 1.2 \quad (+7.1\sigma)$
w_{a}	$-1.18^{+0.82}_{-0.74}$	$10^9 A_{\mathrm{s}}$	$2.091^{+0.021}_{-0.030} \quad (-0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289 \pm 18 \quad (-1.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.040^{+0.010}_{-0.014} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.1\sigma)$	$H(2.33)$	$233.9^{+1.2}_{-1.4} \quad (-2.8\sigma)$
n_{s}	$0.9645 \pm 0.0045 \quad (-0.4\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5755 \pm 14 \quad (-1.1\sigma)$
y_{cal}	$1.0003 \pm 0.0024 \quad (-0.2\sigma)$	D_{220}	$5715 \pm 41 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.445 \pm 0.013 \quad (-1.8\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.732 \pm 0.023 \quad (-3.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.4 \pm 5.0 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.456^{+0.019}_{-0.021} \quad (-3.7\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (+0.0\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.650 \pm 0.020 \quad (-2.8\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9645 \pm 0.0045 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.456 \pm 0.020 \quad (-3.8\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	Y_{P}	$0.245310^{+0.000094}_{-0.000075} \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.609 \pm 0.018 \quad (-2.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43^{+9}_{-10} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246636^{+0.000094}_{-0.000076} \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.454 \pm 0.020 \quad (-3.6\sigma)$
A_{217}^{PS}	$115^{+11}_{-9.8} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.624 \pm 0.038 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.580 \pm 0.017 \quad (-2.5\sigma)$
A^{kSZ}	$< 4.72 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.780 \pm 0.035 \quad (-1.1\sigma)$	$f\sigma_8(2.33)$	$0.2947^{+0.0072}_{-0.0080} \quad (-1.4\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	z_*	$1090.15 \pm 0.32 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3004^{+0.0076}_{-0.0086} \quad (-2.9\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.64 \pm 0.33 \quad (-0.5\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.2 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00044 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.4 \pm 7.2 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.894 \pm 0.031 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.0 \pm 1.9 \quad (+0.0\sigma)$
c_{100}	$0.99960 \pm 0.00061 \quad (-0.0\sigma)$	z_{drag}	$1059.46 \pm 0.44 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.4 \pm 1.0 \quad (+0.3\sigma)$
c_{217}	$0.99824 \pm 0.00062 \quad (-0.0\sigma)$	r_{drag}	$147.38 \pm 0.35 \quad (-0.4\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (-0.3\sigma)$
H_0	$65.0^{+2.2}_{-2.8} \quad (-5.4\sigma)$	k_{D}	$0.14041 \pm 0.00044 \quad (+0.3\sigma)$	χ_{lowl}^2	$23.50 \pm 0.93 \quad (+0.3\sigma)$
Ω_{Λ}	$0.661 \pm 0.026 \quad (-4.4\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00026 \quad (+0.1\sigma)$	χ_{plik}^2	$770.5 \pm 5.2 \quad (-0.2\sigma)$
Ω_{m}	$0.339 \pm 0.026 \quad (+4.4\sigma)$	z_{eq}	$3392 \pm 31 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.54 \pm 0.60 \quad (+7.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0013 \quad (+0.6\sigma)$	k_{eq}	$0.010352 \pm 0.000093 \quad (+0.6\sigma)$	χ_{MGS}^2	$0.91 \pm 0.89 \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0926^{+0.0034}_{-0.0040} \quad (-7.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8146 \pm 0.0057 \quad (-0.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.5 \quad (+0.0\sigma)$
σ_8	$0.793 \pm 0.024 \quad (-2.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4502 \pm 0.0029 \quad (-0.6\sigma)$	χ_{prior}^2	$7.3 \pm 3.6 \quad (-0.0\sigma)$
S_8	$0.842 \pm 0.016 \quad (+1.5\sigma)$	$H(0.15)$	$73.05 \pm 0.89 \quad (+0.5\sigma)$	χ_{CMB}^2	$1200.0 \pm 5.3 \quad (-0.2\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4612 \pm 0.0088 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$652 \pm 15 \quad (+2.5\sigma)$	χ_{BAO}^2	$6.3 \pm 1.9 \quad (+0.1\sigma)$
$\bar{\chi}_{\mathrm{eff}}^2 = 1213.56; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -1.01; R - 1 = 0.01398$					

19.5 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022395	0.02236 ± 0.00014 (-0.5σ)	$\Omega_m h^3$	0.09287	$0.0930^{+0.0032}_{-0.0039}$ (-11.8σ)	$H(0.15)$	73.19	73.24 ± 0.88 $(+0.8\sigma)$
$\Omega_c h^2$	0.12001	0.1203 ± 0.0013 $(+1.0\sigma)$	σ_8	0.7948	$0.795^{+0.022}_{-0.025}$ (-2.0σ)	$D_M(0.15)$	651.2	652 ± 14 $(+2.8\sigma)$
$100\theta_{MC}$	1.040930	1.04089 ± 0.00031 (-0.4σ)	S_8	0.8454	0.848 ± 0.017 $(+1.8\sigma)$	$H(0.38)$	84.95	85.0 ± 1.1 $(+6.9\sigma)$
τ	0.0546	0.0538 ± 0.0078 (-0.3σ)	$\sigma_8 \Omega_m^{0.5}$	0.4631	0.4642 ± 0.0094 $(+1.8\sigma)$	$D_M(0.38)$	1524.6	1524 ± 17 (-0.5σ)
w_0	-0.603	-0.58 ± 0.27	$\sigma_8 \Omega_m^{0.25}$	0.6067	0.608 ± 0.010 $(+0.4\sigma)$	$H(0.51)$	91.71	91.7 ± 1.2 $(+8.7\sigma)$
w_a	-1.20	-1.32 ± 0.76	$\sigma_8/h^{0.5}$	0.9865	0.988 ± 0.015 $(+0.3\sigma)$	$D_M(0.51)$	1966.1	1965 ± 17 (-1.6σ)
$\ln(10^{10} A_s)$	3.0454	3.044 ± 0.016 (-0.1σ)	$r_{drag} h$	95.47	$95.4^{+3.2}_{-3.9}$ (-5.4σ)	$H(0.61)$	97.14	97.1 ± 1.2 $(+9.2\sigma)$
n_s	0.96636	0.9645 ± 0.0042 (-0.6σ)	$\langle d^2 \rangle^{1/2}$	2.4606	2.466 ± 0.032 $(+1.2\sigma)$	$D_M(0.61)$	2283.8	2283 ± 18 (-2.1σ)
y_{cal}	1.00057	1.0005 ± 0.0025 (-0.0σ)	z_{re}	7.68	7.60 ± 0.79 (-0.3σ)	$H(2.33)$	234.06	$234.1^{+1.0}_{-1.3}$ (-3.4σ)
A_{217}^{CIB}	45.5	47 ± 7 $(+0.0\sigma)$	$10^9 A_s$	2.1018	2.099 ± 0.033 (-0.1σ)	$D_M(2.33)$	5742.5	5746 ± 11 (-1.5σ)
$\xi^{tSZ \times CIB}$	0.69	—	$10^9 A_s e^{-2\tau}$	1.8846	1.884 ± 0.011 $(+0.4\sigma)$	$f\sigma_8(0.15)$	0.4460	$0.446^{+0.011}_{-0.013}$ (-1.5σ)
A_{143}^{tSZ}	7.02	$5.5^{+2.1}_{-1.9}$ (-0.0σ)	D_{40}	1228.1	1232 ± 12 $(+0.4\sigma)$	$\sigma_8(0.15)$	0.7335	$0.734^{+0.021}_{-0.024}$ (-2.3σ)
A_{100}^{PS}	248.1	258 ± 28 $(+0.0\sigma)$	D_{220}	5732.4	5731 ± 38 (-0.1σ)	$f\sigma_8(0.38)$	0.4563	$0.457^{+0.017}_{-0.021}$ (-3.2σ)
A_{143}^{PS}	51.1	46 ± 8 $(+0.1\sigma)$	D_{810}	2541.5	2539 ± 13 (-0.0σ)	$\sigma_8(0.38)$	0.6514	$0.652^{+0.019}_{-0.021}$ (-2.1σ)
$A_{143 \times 217}^{PS}$	54.0	42 ± 9 $(+0.0\sigma)$	D_{1420}	818.52	816.8 ± 4.8 (-0.2σ)	$f\sigma_8(0.51)$	0.4565	$0.457^{+0.018}_{-0.021}$ (-3.2σ)
A_{217}^{PS}	122.4	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.50	230.9 ± 1.6 (-0.2σ)	$\sigma_8(0.51)$	0.6105	$0.611^{+0.017}_{-0.019}$ (-1.9σ)
A^{kSZ}	0.01	< 4.20 (-0.0σ)	$n_{s,0.002}$	0.96636	0.9645 ± 0.0042 (-0.6σ)	$f\sigma_8(0.61)$	0.4538	$0.455^{+0.018}_{-0.020}$ (-2.9σ)
A_{100}^{dustTT}	8.79	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245405	$0.245388^{+0.000059}_{-0.000053}$ (-0.5σ)	$\sigma_8(0.61)$	0.5814	$0.582^{+0.016}_{-0.018}$ (-1.9σ)
A_{143}^{dustTT}	11.00	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.246732	$0.246714^{+0.000059}_{-0.000053}$ (-0.5σ)	$f\sigma_8(2.33)$	0.2958	$0.2957^{+0.0072}_{-0.0081}$ (-0.9σ)
$A_{143 \times 217}^{dustTT}$	20.17	18.6 ± 3.3 (-0.0σ)	$10^5 D/H$	2.5808	2.589 ± 0.027 $(+0.5\sigma)$	$\sigma_8(2.33)$	0.3011	$0.3008^{+0.0075}_{-0.0086}$ (-2.4σ)
A_{217}^{dustTT}	95.7	93.7 ± 7.4 (-0.0σ)	Age/Gyr	13.7528	13.755 ± 0.030 (-1.6σ)	f_{2000}^{143}	28.50	29.4 ± 2.7 $(+0.1\sigma)$
A_{100}^{dustTE}	0.1149	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.889	1089.96 ± 0.26 $(+0.7\sigma)$	$f_{2000}^{143 \times 217}$	31.83	32.1 ± 1.8 $(+0.1\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1349	0.134 ± 0.029 (-0.0σ)	r_*	144.409	144.37 ± 0.29 (-0.8σ)	f_{2000}^{217}	106.35	106.9 ± 1.8 $(+0.1\sigma)$
$A_{100 \times 217}^{dustTE}$	0.483	0.482 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041107	1.04108 ± 0.00031 (-0.4σ)	χ_{simall}^2	396.05	397.0 ± 1.8 (-0.1σ)
A_{143}^{dustTE}	0.226	0.225 ± 0.054 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8707	13.867 ± 0.027 (-0.8σ)	χ_{lowl}^2	23.24	23.63 ± 0.94 $(+0.6\sigma)$
$A_{143 \times 217}^{dustTE}$	0.665	0.667 ± 0.080 $(+0.0\sigma)$	z_{drag}	1060.009	1059.92 ± 0.30 (-0.3σ)	χ_{plik}^2	2343.6	2358.5 ± 5.8 (-0.2σ)
A_{217}^{dustTE}	2.086	2.09 ± 0.27 (-0.0σ)	r_{drag}	147.059	147.03 ± 0.29 (-0.8σ)	χ_{6DF}^2	0.329	0.57 ± 0.61 $(+7.7\sigma)$
c_{100}	0.99973	0.99967 ± 0.00061 $(+0.0\sigma)$	k_D	0.140919	0.14092 ± 0.00032 $(+0.5\sigma)$	χ_{MGS}^2	0.63	0.87 ± 0.86 (-0.9σ)
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	$100\theta_D$	0.160724	0.16077 ± 0.00017 $(+0.2\sigma)$	$\chi_{DR12BAO}^2$	3.45	4.9 ± 1.5 $(+0.0\sigma)$
H_0	64.92	$64.9^{+2.1}_{-2.7}$ (-6.2σ)	z_{eq}	3403.1	3409 ± 29 $(+0.9\sigma)$	χ_{prior}^2	1.56	11.5 ± 4.5 (-0.0σ)
Ω_Λ	0.6606	0.658 ± 0.025 (-5.0σ)	k_{eq}	0.010387	0.010403 ± 0.000088 $(+0.9\sigma)$	χ_{BAO}^2	4.40	6.3 ± 1.8 $(+0.1\sigma)$
Ω_m	0.3394	0.342 ± 0.025 $(+5.0\sigma)$	$100\theta_{eq}$	0.8132	0.8121 ± 0.0054 (-1.0σ)	χ_{CMB}^2	2762.9	2779.1 ± 5.8 (-0.2σ)
$\Omega_m h^2$	0.14305	0.1433 ± 0.0012 $(+0.9\sigma)$	$100\theta_{s,eq}$	0.44932	0.4488 ± 0.0028 (-0.9σ)			

Best-fit $\chi_{eff}^2 = 2768.85$; $\Delta\chi_{eff}^2 = -3.07$; $\bar{\chi}_{eff}^2 = 2796.92$; $\Delta\bar{\chi}_{eff}^2 = -0.99$; $R - 1 = 0.01402$
 χ_{eff}^2 : BAO - 6DF: 0.33 (Δ 0.30) MGS: 0.62 (Δ -0.59) DR12BAO: 3.45 (Δ -0.96) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.15) commander_dx12_v3_2_29: 23.24 (Δ 0.37) plik_rd12_HM_v22b_TTTEEE: 2343.59 (Δ -1.91)

19.6 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022408	0.02238 ± 0.00014 (-0.3σ)	$\Omega_m h^3$	0.09286	$0.0928^{+0.0032}_{-0.0039}$ (-11.9σ)	$H(0.15)$	73.10	73.20 ± 0.87 $(+0.7\sigma)$
$\Omega_c h^2$	0.11969	0.1199 ± 0.0011 $(+0.6\sigma)$	σ_8	0.7917	$0.792^{+0.021}_{-0.024}$ (-3.0σ)	$D_M(0.15)$	651.2	651 ± 14 $(+3.0\sigma)$
$100\theta_{MC}$	1.040950	1.04092 ± 0.00031 (-0.3σ)	S_8	0.8396	0.842 ± 0.014 $(+1.6\sigma)$	$H(0.38)$	84.79	85.0 ± 1.1 $(+7.2\sigma)$
τ	0.0530	0.0529 ± 0.0075 (-0.4σ)	$\sigma_8 \Omega_m^{0.5}$	0.4599	0.4612 ± 0.0078 $(+1.6\sigma)$	$D_M(0.38)$	1526.2	1525 ± 17 (-0.5σ)
w_0	-0.635	-0.59 ± 0.27	$\sigma_8 \Omega_m^{0.25}$	0.6034	0.6043 ± 0.0084 (-0.1σ)	$H(0.51)$	91.58	91.7 ± 1.2 $(+9.0\sigma)$
w_a	-1.07	-1.24 ± 0.74	$\sigma_8/h^{0.5}$	0.9817	0.983 ± 0.013 (-0.3σ)	$D_M(0.51)$	1968.5	1966 ± 17 (-1.6σ)
$\ln(10^{10} A_s)$	3.0408	3.041 ± 0.015 (-0.4σ)	$r_{drag} h$	95.71	$95.6^{+3.2}_{-4.0}$ (-5.7σ)	$H(0.61)$	97.05	97.1 ± 1.2 $(+9.6\sigma)$
n_s	0.96706	0.9652 ± 0.0039 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4480	2.455 ± 0.024 $(+0.8\sigma)$	$D_M(0.61)$	2286.5	2284 ± 17 (-2.2σ)
y_{cal}	1.00045	1.0004 ± 0.0025 (-0.2σ)	z_{re}	7.51	7.50 ± 0.76 (-0.5σ)	$H(2.33)$	234.19	$234.1^{+1.1}_{-1.3}$ (-3.8σ)
A_{217}^{CIB}	46.6	47 ± 7 (-0.0σ)	$10^9 A_s$	2.0922	2.092 ± 0.031 (-0.4σ)	$D_M(2.33)$	5742.7	5744 ± 11 (-1.6σ)
$\xi^{tSZ \times CIB}$	0.52	—	$10^9 A_s e^{-2\tau}$	1.8818	1.882 ± 0.010 $(+0.1\sigma)$	$f\sigma_8(0.15)$	0.4444	$0.444^{+0.011}_{-0.013}$ (-2.2σ)
A_{143}^{tSZ}	7.16	$5.5^{+2.1}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1225.3	1229 ± 11 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7307	$0.731^{+0.021}_{-0.024}$ (-3.3σ)
A_{100}^{PS}	249.2	258 ± 28 (-0.0σ)	D_{220}	5729.1	5732 ± 38 (-0.2σ)	$f\sigma_8(0.38)$	0.4549	$0.455^{+0.017}_{-0.020}$ (-4.3σ)
A_{143}^{PS}	48.6	46 ± 8 (-0.0σ)	D_{810}	2539.7	2538 ± 13 (-0.2σ)	$\sigma_8(0.38)$	0.6489	$0.649^{+0.018}_{-0.020}$ (-3.1σ)
$A_{143 \times 217}^{PS}$	49.7	42 ± 9 (-0.0σ)	D_{1420}	818.18	816.7 ± 4.8 (-0.3σ)	$f\sigma_8(0.51)$	0.4548	$0.455^{+0.018}_{-0.021}$ (-4.4σ)
A_{217}^{PS}	120.6	115 ± 10 (-0.0σ)	D_{2000}	231.36	230.8 ± 1.6 (-0.2σ)	$\sigma_8(0.51)$	0.6081	$0.608^{+0.016}_{-0.019}$ (-2.9σ)
A^{kSZ}	0.00	< 4.32 $(+0.0\sigma)$	$n_{s,0.002}$	0.96706	0.9652 ± 0.0039 (-0.3σ)	$f\sigma_8(0.61)$	0.4519	$0.452^{+0.017}_{-0.020}$ (-4.1σ)
A_{100}^{dustTT}	8.85	8.9 ± 1.8 $(+0.0\sigma)$	Y_P	0.245411	$0.245397^{+0.000057}_{-0.000052}$ (-0.3σ)	$\sigma_8(0.61)$	0.5791	$0.579^{+0.015}_{-0.017}$ (-2.7σ)
A_{143}^{dustTT}	11.02	10.9 ± 1.8 (-0.0σ)	Y_P^{BBN}	0.246737	$0.246723^{+0.000057}_{-0.000052}$ (-0.3σ)	$f\sigma_8(2.33)$	0.2945	$0.2946^{+0.0069}_{-0.0077}$ (-1.6σ)
$A_{143 \times 217}^{dustTT}$	19.87	18.6 ± 3.2 $(+0.0\sigma)$	$10^5 D/H$	2.5784	2.584 ± 0.026 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.3004	$0.3001^{+0.0074}_{-0.0084}$ (-3.2σ)
A_{217}^{dustTT}	95.2	93.7 ± 7.2 $(+0.0\sigma)$	Age/Gyr	13.7575	13.756 ± 0.030 (-1.5σ)	f_{2000}^{143}	28.64	29.5 ± 2.7 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1139	0.115 ± 0.038 $(+0.0\sigma)$	z_*	1089.844	1089.90 ± 0.24 $(+0.5\sigma)$	$f_{2000}^{143 \times 217}$	31.89	32.1 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	0.1346	0.134 ± 0.029 (-0.0σ)	r_*	144.481	144.45 ± 0.25 (-0.5σ)	f_{2000}^{217}	106.47	106.9 ± 1.8 $(+0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	0.481	0.479 ± 0.084 (-0.0σ)	$100\theta_*$	1.041125	1.04111 ± 0.00031 (-0.3σ)	$\chi_{lensing}^2$	8.766	9.28 ± 0.87 $(+0.3\sigma)$
A_{143}^{dustTE}	0.225	0.224 ± 0.053 (-0.0σ)	$D_M(z_*)/\text{Gpc}$	13.8774	13.875 ± 0.023 (-0.5σ)	χ_{small}^2	395.82	396.8 ± 1.5 (-0.2σ)
$A_{143 \times 217}^{dustTE}$	0.666	0.666 ± 0.081 (-0.0σ)	z_{drag}	1060.009	1059.95 ± 0.30 (-0.2σ)	χ_{lowl}^2	23.02	23.44 ± 0.82 $(+0.2\sigma)$
A_{217}^{dustTE}	2.082	2.08 ± 0.27 (-0.0σ)	r_{drag}	147.129	147.11 ± 0.25 (-0.5σ)	χ_{plik}^2	2344.2	2358.6 ± 5.7 (-0.2σ)
c_{100}	0.99971	0.99966 ± 0.00061 (-0.0σ)	k_D	0.140855	0.14085 ± 0.00030 $(+0.3\sigma)$	χ_{6DF}^2	0.313	0.56 ± 0.61 $(+8.4\sigma)$
c_{217}	0.99819	0.99819 ± 0.00063 $(+0.0\sigma)$	$100\theta_D$	0.160720	0.16075 ± 0.00017 $(+0.2\sigma)$	χ_{MGS}^2	0.63	0.89 ± 0.87 (-0.9σ)
H_0	65.05	$65.0^{+2.2}_{-2.7}$ (-6.5σ)	z_{eq}	3395.8	3400 ± 25 $(+0.6\sigma)$	$\chi_{DR12BAO}^2$	3.35	4.8 ± 1.5 $(+0.0\sigma)$
Ω_Λ	0.6627	0.660 ± 0.025 (-5.2σ)	k_{eq}	0.010364	0.010377 ± 0.000075 $(+0.6\sigma)$	χ_{prior}^2	1.68	11.5 ± 4.5 (-0.0σ)
Ω_m	0.3373	0.340 ± 0.025 $(+5.2\sigma)$	$100\theta_{eq}$	0.81457	0.8137 ± 0.0046 (-0.6σ)	χ_{CMB}^2	2771.8	2788.1 ± 5.9 (-0.2σ)
$\Omega_m h^2$	0.14275	0.1429 ± 0.0010 $(+0.6\sigma)$	$100\theta_{s,eq}$	0.45002	0.4496 ± 0.0024 (-0.6σ)	χ_{BAO}^2	4.28	6.3 ± 1.9 $(+0.1\sigma)$

Best-fit $\chi_{eff}^2 = 2777.81$; $\Delta\chi_{eff}^2 = -2.88$; $\bar{\chi}_{eff}^2 = 2805.90$; $\Delta\bar{\chi}_{eff}^2 = -0.95$; $R - 1 = 0.01750$

χ_{eff}^2 : BAO - 6DF: 0.31 (Δ 0.28) MGS: 0.62 (Δ -0.59) DR12BAO: 3.35 (Δ -1.07) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.77 (Δ 0.04) simall_100x143_offlike5_EE_Aplanck 395.82 (Δ -0.70) commander_dx12_v3.2_29: 23.02 (Δ 0.12) plik_rd12_HM_v22b.TTTEEE: 2344.24 (Δ -1.08)

19.7 base_w_wa_plikHM_TTTEE_lowl_lowE_BAO_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02236 \pm 0.00014 \quad (-0.5\sigma)$	$\Omega_m h^3$	$0.0929^{+0.0032}_{-0.0039} \quad (-11.9\sigma)$	$H(0.15)$	$73.23 \pm 0.88 \quad (+0.7\sigma)$
$\Omega_c h^2$	$0.1202 \pm 0.0013 \quad (+0.9\sigma)$	σ_8	$0.796^{+0.022}_{-0.025} \quad (-2.1\sigma)$	$D_M(0.15)$	$652 \pm 14 \quad (+2.9\sigma)$
$100\theta_{MC}$	$1.04090 \pm 0.00031 \quad (-0.4\sigma)$	S_8	$0.848 \pm 0.017 \quad (+1.9\sigma)$	$H(0.38)$	$85.0 \pm 1.1 \quad (+6.9\sigma)$
τ	$0.0551^{+0.0049}_{-0.0083} \quad (-0.2\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4646 \pm 0.0094 \quad (+1.9\sigma)$	$D_M(0.38)$	$1524 \pm 17 \quad (-0.5\sigma)$
w_0	-0.58 ± 0.27	$\sigma_8 \Omega_m^{0.25}$	$0.608 \pm 0.010 \quad (+0.4\sigma)$	$H(0.51)$	$91.7 \pm 1.2 \quad (+8.7\sigma)$
w_a	-1.31 ± 0.76	$\sigma_8/h^{0.5}$	$0.988 \pm 0.015 \quad (+0.3\sigma)$	$D_M(0.51)$	$1966 \pm 17 \quad (-1.6\sigma)$
$\ln(10^{10} A_s)$	$3.046^{+0.012}_{-0.016} \quad (-0.1\sigma)$	$r_{\text{drag}} h$	$95.4^{+3.1}_{-4.0} \quad (-5.4\sigma)$	$H(0.61)$	$97.1 \pm 1.2 \quad (+9.2\sigma)$
n_s	$0.9647 \pm 0.0042 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.468 \pm 0.031 \quad (+1.3\sigma)$	$D_M(0.61)$	$2283 \pm 18 \quad (-2.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.73^{+0.55}_{-0.81} \quad (-0.2\sigma)$	$H(2.33)$	$234.1^{+1.0}_{-1.3} \quad (-3.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_s$	$2.104^{+0.025}_{-0.034} \quad (-0.1\sigma)$	$D_M(2.33)$	$5745 \pm 11 \quad (-1.5\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	$10^9 A_s e^{-2\tau}$	$1.884 \pm 0.011 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.447^{+0.011}_{-0.013} \quad (-1.5\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (-0.0\sigma)$	D_{40}	$1232 \pm 12 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.735^{+0.021}_{-0.024} \quad (-2.4\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (+0.0\sigma)$	D_{220}	$5731 \pm 38 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.457^{+0.018}_{-0.021} \quad (-3.3\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.652^{+0.019}_{-0.021} \quad (-2.2\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{1420}	$816.8 \pm 4.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.458^{+0.018}_{-0.021} \quad (-3.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{2000}	$230.9 \pm 1.6 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.611^{+0.017}_{-0.019} \quad (-2.1\sigma)$
A^{kSZ}	$< 4.18 \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9647 \pm 0.0042 \quad (-0.6\sigma)$	$f\sigma_8(0.61)$	$0.455^{+0.018}_{-0.020} \quad (-3.0\sigma)$
$A_{100}^{\text{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245389^{+0.000059}_{-0.000053} \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.582^{+0.016}_{-0.018} \quad (-2.0\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246716^{+0.000059}_{-0.000053} \quad (-0.5\sigma)$	$f\sigma_8(2.33)$	$0.2959 \pm 0.0076 \quad (-1.0\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	$10^5 D/H$	$2.588 \pm 0.027 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3011^{+0.0075}_{-0.0086} \quad (-2.6\sigma)$
$A_{217}^{\text{dust}TT}$	$93.7 \pm 7.4 \quad (-0.0\sigma)$	Age/Gyr	$13.755^{+0.028}_{-0.031} \quad (-1.6\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.0\sigma)$
$A_{100}^{\text{dust}TE}$	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.26 \quad (+0.7\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.1\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.38 \pm 0.29 \quad (-0.8\sigma)$	f_{2000}^{217}	$106.9 \pm 1.7 \quad (+0.1\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.482 \pm 0.085 \quad (+0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00031 \quad (-0.4\sigma)$	χ_{simall}^2	$397.0 \pm 1.9 \quad (-0.2\sigma)$
$A_{143}^{\text{dust}TE}$	$0.225 \pm 0.054 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.868 \pm 0.027 \quad (-0.8\sigma)$	χ_{lowl}^2	$23.64 \pm 0.94 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.667 \pm 0.080 \quad (+0.0\sigma)$	z_{drag}	$1059.93 \pm 0.30 \quad (-0.3\sigma)$	χ_{plik}^2	$2358.3 \pm 5.7 \quad (-0.2\sigma)$
$A_{217}^{\text{dust}TE}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.04 \pm 0.29 \quad (-0.7\sigma)$	$\chi_{6\text{DF}}^2$	$0.57 \pm 0.61 \quad (+7.9\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	k_D	$0.14091 \pm 0.00032 \quad (+0.5\sigma)$	χ_{MGS}^2	$0.87 \pm 0.86 \quad (-0.9\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_D$	$0.16076 \pm 0.00017 \quad (+0.2\sigma)$	χ_{DR12BAO}^2	$4.9 \pm 1.5 \quad (+0.0\sigma)$
H_0	$64.9^{+2.1}_{-2.7} \quad (-6.2\sigma)$	z_{eq}	$3408 \pm 29 \quad (+0.9\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_Λ	$0.658 \pm 0.025 \quad (-5.1\sigma)$	k_{eq}	$0.010401 \pm 0.000088 \quad (+0.9\sigma)$	χ_{BAO}^2	$6.3 \pm 1.8 \quad (+0.1\sigma)$
Ω_m	$0.342 \pm 0.025 \quad (+5.1\sigma)$	$100\theta_{\text{eq}}$	$0.8123 \pm 0.0054 \quad (-0.9\sigma)$	χ_{CMB}^2	$2778.9 \pm 5.8 \quad (-0.2\sigma)$
$\Omega_m h^2$	$0.1432 \pm 0.0012 \quad (+0.9\sigma)$	$100\theta_{s,\text{eq}}$	$0.4489 \pm 0.0028 \quad (-0.9\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 2796.70; \Delta\bar{\chi}_{\text{eff}}^2 = -1.01; R - 1 = 0.01451$$

19.8 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02238 \pm 0.00014 \quad (-0.3\sigma)$	$\Omega_m h^3$	$0.0928^{+0.0032}_{-0.0039} \quad (-12.0\sigma)$	$H(0.15)$	$73.18 \pm 0.87 \quad (+0.6\sigma)$
$\Omega_c h^2$	$0.1198 \pm 0.0011 \quad (+0.6\sigma)$	σ_8	$0.792^{+0.021}_{-0.024} \quad (-3.1\sigma)$	$D_M(0.15)$	$652 \pm 14 \quad (+3.1\sigma)$
$100\theta_{MC}$	$1.04093 \pm 0.00031 \quad (-0.3\sigma)$	S_8	$0.842 \pm 0.014 \quad (+1.6\sigma)$	$H(0.38)$	$85.0 \pm 1.1 \quad (+7.2\sigma)$
τ	$0.0543^{+0.0047}_{-0.0078} \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4613 \pm 0.0078 \quad (+1.6\sigma)$	$D_M(0.38)$	$1525 \pm 17 \quad (-0.4\sigma)$
w_0	-0.60 ± 0.27	$\sigma_8 \Omega_m^{0.25}$	$0.6045 \pm 0.0084 \quad (-0.1\sigma)$	$H(0.51)$	$91.7 \pm 1.2 \quad (+9.0\sigma)$
w_a	-1.22 ± 0.74	$\sigma_8/h^{0.5}$	$0.983 \pm 0.013 \quad (-0.2\sigma)$	$D_M(0.51)$	$1967 \pm 17 \quad (-1.6\sigma)$
$\ln(10^{10} A_s)$	$3.043^{+0.010}_{-0.015} \quad (-0.3\sigma)$	$r_{drag} h$	$95.6^{+3.2}_{-4.0} \quad (-5.8\sigma)$	$H(0.61)$	$97.1 \pm 1.2 \quad (+9.6\sigma)$
n_s	$0.9655 \pm 0.0039 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.457 \pm 0.023 \quad (+0.9\sigma)$	$D_M(0.61)$	$2284 \pm 17 \quad (-2.2\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.2\sigma)$	z_{re}	$7.64^{+0.51}_{-0.78} \quad (-0.4\sigma)$	$H(2.33)$	$234.1^{+1.1}_{-1.3} \quad (-3.8\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s$	$2.097^{+0.022}_{-0.031} \quad (-0.3\sigma)$	$D_M(2.33)$	$5744 \pm 11 \quad (-1.6\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^9 A_s e^{-2\tau}$	$1.881 \pm 0.010 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.444^{+0.011}_{-0.012} \quad (-2.2\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.0\sigma)$	D_{40}	$1229 \pm 11 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.731^{+0.021}_{-0.023} \quad (-3.4\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (-0.0\sigma)$	D_{220}	$5731 \pm 38 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.455^{+0.017}_{-0.020} \quad (-4.4\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2537 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.650^{+0.018}_{-0.020} \quad (-3.2\sigma)$
$A_{143 \times 217}^{PS}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{1420}	$816.7 \pm 4.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.455^{+0.018}_{-0.021} \quad (-4.5\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$230.8 \pm 1.6 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.609^{+0.017}_{-0.019} \quad (-3.0\sigma)$
A^{kSZ}	$< 4.31 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9655 \pm 0.0039 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.452^{+0.017}_{-0.020} \quad (-4.2\sigma)$
A_{100}^{dustTT}	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P	$0.245399^{+0.000057}_{-0.000051} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.580^{+0.015}_{-0.017} \quad (-2.9\sigma)$
A_{143}^{dustTT}	$10.9 \pm 1.8 \quad (-0.0\sigma)$	Y_P^{BBN}	$0.246725^{+0.000057}_{-0.000051} \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2948 \pm 0.0073 \quad (-1.7\sigma)$
$A_{143 \times 217}^{dustTT}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	$10^5 D/H$	$2.583 \pm 0.026 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3003^{+0.0075}_{-0.0084} \quad (-3.3\sigma)$
A_{217}^{dustTT}	$93.7 \pm 7.3 \quad (+0.0\sigma)$	Age/Gyr	$13.757 \pm 0.030 \quad (-1.5\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.0\sigma)$
A_{100}^{dustTE}	$0.115 \pm 0.038 \quad (+0.0\sigma)$	z_*	$1089.89 \pm 0.23 \quad (+0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.0\sigma)$
$A_{100 \times 143}^{dustTE}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	r_*	$144.47 \pm 0.24 \quad (-0.5\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (-0.0\sigma)$
$A_{100 \times 217}^{dustTE}$	$0.479 \pm 0.084 \quad (-0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00031 \quad (-0.3\sigma)$	$\chi_{lensing}^2$	$9.29 \pm 0.89 \quad (+0.4\sigma)$
A_{143}^{dustTE}	$0.224 \pm 0.053 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.876 \pm 0.023 \quad (-0.4\sigma)$	χ_{small}^2	$396.7 \pm 1.6 \quad (-0.3\sigma)$
$A_{143 \times 217}^{dustTE}$	$0.667 \pm 0.080 \quad (-0.0\sigma)$	z_{drag}	$1059.95 \pm 0.30 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.43 \pm 0.83 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.12 \pm 0.25 \quad (-0.4\sigma)$	χ_{plik}^2	$2358.5 \pm 5.7 \quad (-0.2\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	k_D	$0.14084 \pm 0.00029 \quad (+0.2\sigma)$	χ_{6DF}^2	$0.56 \pm 0.61 \quad (+8.7\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	$100\theta_D$	$0.16075 \pm 0.00017 \quad (+0.2\sigma)$	χ_{MGS}^2	$0.89 \pm 0.87 \quad (-1.0\sigma)$
H_0	$65.0^{+2.2}_{-2.7} \quad (-6.6\sigma)$	z_{eq}	$3398 \pm 24 \quad (+0.6\sigma)$	$\chi_{DR12BAO}^2$	$4.8 \pm 1.5 \quad (+0.0\sigma)$
Ω_Λ	$0.660 \pm 0.026 \quad (-5.3\sigma)$	k_{eq}	$0.010372 \pm 0.000073 \quad (+0.6\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_m	$0.340 \pm 0.026 \quad (+5.3\sigma)$	$100\theta_{eq}$	$0.8141 \pm 0.0045 \quad (-0.6\sigma)$	χ_{CMB}^2	$2787.9 \pm 5.8 \quad (-0.2\sigma)$
$\Omega_m h^2$	$0.1429 \pm 0.0010 \quad (+0.6\sigma)$	$100\theta_{s,eq}$	$0.4498 \pm 0.0023 \quad (-0.6\sigma)$	χ_{BAO}^2	$6.3 \pm 1.9 \quad (+0.2\sigma)$

$$\bar{\chi}_{eff}^2 = 2805.65; \Delta\bar{\chi}_{eff}^2 = -1.07; R - 1 = 0.01782$$

19.9 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022183	0.02214 ± 0.00021	$\sigma_8 \Omega_m^{0.5}$	0.4571	0.458 ± 0.011	$H(0.38)$	83.67	83.70 ± 0.69
$\Omega_c h^2$	0.12068	0.1209 ± 0.0018	$\sigma_8 \Omega_m^{0.25}$	0.6194	0.620 ± 0.013	$D_M(0.38)$	1500.3	1499 ± 14
$100\theta_{MC}$	1.040847	1.04080 ± 0.00045	$\sigma_8/h^{0.5}$	1.0064	1.008 ± 0.019	$H(0.51)$	89.89	89.85 ± 0.57
τ	0.0523	0.0519 ± 0.0079	$r_{\text{drag}} h$	102.36	102.4 ± 1.4	$D_M(0.51)$	1949.9	1949 ± 16
w_0	-1.010	-0.998 ± 0.10	$\langle d^2 \rangle^{1/2}$	2.4726	2.478 ± 0.041	$H(0.61)$	95.160	95.07 ± 0.50
w_a	-0.314	$-0.40^{+0.48}_{-0.38}$	z_{re}	7.51	$7.46^{+0.82}_{-0.74}$	$D_M(0.61)$	2274.1	2273 ± 17
$\ln(10^{10} A_s)$	3.0415	3.041 ± 0.016	$10^9 A_s$	2.0937	2.092 ± 0.033	$H(2.33)$	234.70	234.67 ± 0.98
n_s	0.9641	0.9625 ± 0.0051	$10^9 A_s e^{-2\tau}$	1.8857	1.886 ± 0.013	$D_M(2.33)$	5758.8	5762 ± 13
α_{JLA}	0.1417	0.1417 ± 0.0066	D_{40}	1229.7	1233 ± 14	$f\sigma_8(0.15)$	0.4661	0.467 ± 0.011
β_{JLA}	3.111	3.113 ± 0.080	D_{220}	5713.3	5714 ± 41	$\sigma_8(0.15)$	0.7770	0.778 ± 0.016
y_{cal}	1.00040	1.0004 ± 0.0025	D_{810}	2538.9	2537 ± 14	$f\sigma_8(0.38)$	0.4925	0.494 ± 0.013
A_{217}^{CIB}	48.0	48 ± 7	D_{1420}	816.1	814.5 ± 5.0	$\sigma_8(0.38)$	0.6895	0.691 ± 0.014
$\xi^{\text{tSZ} \times \text{CIB}}$	0.47	—	D_{2000}	230.38	229.8 ± 1.8	$f\sigma_8(0.51)$	0.4942	0.496 ± 0.014
A_{143}^{tSZ}	6.99	5.1 ± 2.0	$n_{s,0.002}$	0.9641	0.9625 ± 0.0051	$\sigma_8(0.51)$	0.6452	0.646 ± 0.013
A_{100}^{PS}	251.6	263 ± 28	Y_P	0.245319	$0.245296^{+0.000096}_{-0.000080}$	$f\sigma_8(0.61)$	0.4908	0.492 ± 0.014
A_{143}^{PS}	51.0	49 ± 8	Y_P^{BBN}	0.246645	$0.246622^{+0.000096}_{-0.000080}$	$\sigma_8(0.61)$	0.6138	0.615 ± 0.012
$A_{143 \times 217}^{\text{PS}}$	50.5	44 ± 9	$10^5 D/H$	2.6212	2.630 ± 0.040	$f\sigma_8(2.33)$	0.3100	$0.3103^{+0.0066}_{-0.0057}$
A_{217}^{PS}	120.5	115 ± 10	Age/Gyr	13.7465	13.749 ± 0.035	$\sigma_8(2.33)$	0.31606	0.3161 ± 0.0048
A^{kSZ}	0.05	< 4.71	z_*	1090.217	1090.29 ± 0.36	f_{2000}^{143}	29.93	30.9 ± 2.9
A_{100}^{dustTT}	8.91	8.9 ± 1.8	r_*	144.399	144.39 ± 0.42	$f_{2000}^{143 \times 217}$	33.00	33.4 ± 2.0
A_{143}^{dustTT}	10.70	10.7 ± 1.8	$100\theta_*$	1.041047	1.04100 ± 0.00045	f_{2000}^{217}	107.38	107.9 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	19.53	18.2 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.8706	13.870 ± 0.039	χ_{small}^2	395.83	396.9 ± 1.6
A_{217}^{dustTT}	94.6	93.3 ± 7.3	z_{drag}	1059.551	1059.46 ± 0.45	χ_{lowl}^2	23.33	23.7 ± 1.1
c_{100}	0.99967	0.99960 ± 0.00062	r_{drag}	147.121	147.13 ± 0.43	χ_{plik}^2	758.1	770.5 ± 5.4
c_{217}	0.99824	0.99825 ± 0.00063	k_D	0.140691	0.14065 ± 0.00049	χ_{H073p45}^2	5.46	5.7 ± 2.7
H_0	69.57	69.61 ± 0.95	$100\theta_D$	0.160987	0.16104 ± 0.00026	χ_{JLA}^2	695.50	698.3 ± 2.6
Ω_Λ	0.7035	0.7034 ± 0.0086	z_{eq}	3414.0	3417 ± 41	χ_{6DF}^2	0.133	0.21 ± 0.21
Ω_m	0.2965	0.2966 ± 0.0086	k_{eq}	0.010420	0.01043 ± 0.00012	χ_{MGS}^2	2.84	2.99 ± 0.81
$\Omega_m h^2$	0.14351	0.1436 ± 0.0017	$100\theta_{\text{eq}}$	0.8106	$0.8100^{+0.0071}_{-0.0079}$	χ_{DR12BAO}^2	4.81	5.9 ± 1.7
$\Omega_m h^3$	0.09984	0.09999 ± 0.0019	$100\theta_{s,\text{eq}}$	0.44813	0.4478 ± 0.0039	χ_{prior}^2	1.29	7.2 ± 3.6
σ_8	0.8395	0.841 ± 0.018	$H(0.15)$	74.46	74.56 ± 0.78	χ_{BAO}^2	7.78	9.1 ± 2.5
S_8	0.8345	0.836 ± 0.020	$D_M(0.15)$	625.2	624.6 ± 6.8	χ_{CMB}^2	1177.3	1191.1 ± 5.4

Best-fit $\chi_{\text{eff}}^2 = 1887.34$; $\bar{\chi}_{\text{eff}}^2 = 1911.34$; $R - 1 = 0.00894$
 χ_{eff}^2 : BAO - 6DF: 0.13 MGS: 2.84 DR12BAO: 4.81 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 commander_dx12_v3.2.29: 23.34 plik_rd12_HM_v22.TT: 758.14
Hubble - H073p45: 5.46 SN - JLA December_2013: 695.50

19.10 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022220	0.02217 ± 0.00020 (-0.8σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6136	0.6147 ± 0.0086 $(+2.4\sigma)$	$H(0.51)$	89.90	89.88 ± 0.58 (-0.0σ)
$\Omega_{\text{c}}h^2$	0.11990	0.1201 ± 0.0013 $(+1.9\sigma)$	$\sigma_8/h^{0.5}$	0.9982	0.9997 ± 0.012 $(+2.3\sigma)$	$D_{\text{M}}(0.51)$	1950.4	1950 ± 16 (-2.4σ)
$100\theta_{\text{MC}}$	1.040879	1.04085 ± 0.00044 (-0.7σ)	$r_{\text{drag}}h$	102.59	102.5 ± 1.4 $(+2.5\sigma)$	$H(0.61)$	95.201	95.15 ± 0.49 (-1.3σ)
τ	0.0519	0.0514 ± 0.0078 (-0.9σ)	$\langle d^2 \rangle^{1/2}$	2.4552	2.461 ± 0.027 $(+1.7\sigma)$	$D_{\text{M}}(0.61)$	2274.5	2274 ± 17 (-2.1σ)
w_0	-1.025	-1.01 ± 0.10	z_{re}	7.44	7.39 ± 0.80 (-0.9σ)	$H(2.33)$	234.57	234.6 ± 1.0 (-1.1σ)
w_a	-0.214	$-0.29^{+0.41}_{-0.34}$	$10^9 A_{\text{s}}$	2.0876	2.086 ± 0.031 (-0.7σ)	$D_{\text{M}}(2.33)$	5757.3	5760 ± 13 $(+0.2\sigma)$
$\ln(10^{10} A_{\text{s}})$	3.0386	3.038 ± 0.015 (-0.7σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8820	1.882 ± 0.011 $(+0.5\sigma)$	$f\sigma_8(0.15)$	0.4615	0.4621 ± 0.0080 $(+1.9\sigma)$
n_{s}	0.96544	0.9638 ± 0.0045 (-1.1σ)	D_{40}	1226.5	1230 ± 12 $(+0.4\sigma)$	$\sigma_8(0.15)$	0.7713	0.772 ± 0.012 $(+4.4\sigma)$
y_{cal}	1.00035	1.0003 ± 0.0025 (-0.3σ)	D_{220}	5717.0	5716 ± 41 (-0.5σ)	$f\sigma_8(0.38)$	0.4877	0.4885 ± 0.0099 $(+3.6\sigma)$
α_{JLA}	0.1415	0.1418 ± 0.0066	D_{810}	2537.6	2535 ± 13 (-0.2σ)	$\sigma_8(0.38)$	0.6847	0.685 ± 0.011 $(+4.4\sigma)$
β_{JLA}	3.111	3.112 ± 0.080	D_{1420}	816.1	814.5 ± 5.1 (-0.5σ)	$f\sigma_8(0.51)$	0.4893	0.490 ± 0.010 $(+4.5\sigma)$
A_{217}^{CIB}	48.1	48 ± 7 $(+0.0\sigma)$	D_{2000}	230.32	229.7 ± 1.8 (-0.5σ)	$\sigma_8(0.51)$	0.6408	0.641 ± 0.010 $(+4.3\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	0.44	—	$n_{\text{s},0.002}$	0.96544	0.9638 ± 0.0045 (-1.1σ)	$f\sigma_8(0.61)$	0.4858	0.487 ± 0.010 $(+5.1\sigma)$
A_{143}^{tSZ}	6.97	5.1 ± 2.0 (-0.1σ)	Y_{P}	0.245334	$0.245311^{+0.000091}_{-0.000078}$ (-0.8σ)	$\sigma_8(0.61)$	0.6097	0.6102 ± 0.0093 $(+4.2\sigma)$
A_{100}^{PS}	253.4	263 ± 29 $(+0.1\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246661	$0.246637^{+0.000092}_{-0.000078}$ (-0.8σ)	$f\sigma_8(2.33)$	0.30799	0.3081 ± 0.0047 $(+4.2\sigma)$
A_{143}^{PS}	50.7	49 ± 8 $(+0.1\sigma)$	10^5D/H	2.6140	2.624 ± 0.038 $(+0.8\sigma)$	$\sigma_8(2.33)$	0.31469	0.3146 ± 0.0039 $(+2.7\sigma)$
$A_{143 \times 217}^{\text{PS}}$	49.8	43 ± 9 $(+0.0\sigma)$	Age/Gyr	13.7493	13.752 ± 0.034 (-1.4σ)	f_{2000}^{143}	30.03	31.0 ± 2.9 $(+0.2\sigma)$
A_{217}^{PS}	120.2	115 ± 10 $(+0.0\sigma)$	z_*	1090.100	1090.19 ± 0.32 $(+1.3\sigma)$	$f_{2000}^{143 \times 217}$	33.06	33.4 ± 2.0 $(+0.2\sigma)$
A^{kSZ}	0.00	< 4.77 $(+0.1\sigma)$	r_*	144.572	144.55 ± 0.32 (-1.4σ)	f_{2000}^{217}	107.41	107.9 ± 1.9 $(+0.2\sigma)$
A_{100}^{dustTT}	8.91	8.9 ± 1.8 $(+0.0\sigma)$	$100\theta_*$	1.041083	1.04105 ± 0.00044 (-0.7σ)	χ_{lensing}^2	8.75	9.4 ± 1.1 (-0.0σ)
A_{143}^{dustTT}	10.82	10.7 ± 1.8 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8867	13.885 ± 0.031 (-1.3σ)	χ_{small}^2	395.76	396.8 ± 1.5 (-0.4σ)
$A_{143 \times 217}^{\text{dustTT}}$	19.51	18.2 ± 3.4 (-0.0σ)	z_{drag}	1059.589	1059.48 ± 0.45 (-0.4σ)	χ_{lowl}^2	23.05	23.40 ± 0.89 $(+0.7\sigma)$
A_{217}^{dustTT}	94.6	93.2 ± 7.4 (-0.0σ)	r_{drag}	147.285	147.28 ± 0.35 (-1.2σ)	χ_{plik}^2	758.7	770.7 ± 5.3 (-0.4σ)
c_{100}	0.99967	0.99960 ± 0.00063 (-0.1σ)	k_{D}	0.140546	0.14052 ± 0.00044 $(+0.7\sigma)$	χ_{H073p45}^2	5.23	5.7 ± 2.7 (-2.6σ)
c_{217}	0.99826	0.99824 ± 0.00063 (-0.0σ)	$100\theta_{\text{D}}$	0.160965	0.16102 ± 0.00026 $(+0.4\sigma)$	χ_{JLA}^2	695.66	698.2 ± 2.6 (-69.8σ)
H_0	69.65	69.60 ± 0.95 $(+3.2\sigma)$	z_{eq}	3396.2	3401 ± 30 $(+1.8\sigma)$	χ_{6DF}^2	0.155	0.21 ± 0.21 $(+4.5\sigma)$
Ω_{Λ}	0.7057	0.7047 ± 0.0083 $(+1.5\sigma)$	k_{eq}	0.010365	0.010379 ± 0.000093 $(+1.8\sigma)$	χ_{MGS}^2	2.92	2.99 ± 0.81 $(+2.4\sigma)$
Ω_{m}	0.2943	0.2953 ± 0.0083 (-1.5σ)	$100\theta_{\text{eq}}$	0.8139	0.8130 ± 0.0056 (-1.9σ)	χ_{DR12BAO}^2	4.72	5.7 ± 1.7 $(+2.4\sigma)$
$\Omega_{\text{m}}h^2$	0.14276	0.1430 ± 0.0013 $(+1.8\sigma)$	$100\theta_{\text{s,eq}}$	0.44982	0.4494 ± 0.0029 (-1.8σ)	χ_{prior}^2	1.28	7.3 ± 3.7 (-0.0σ)
$\Omega_{\text{m}}h^3$	0.09944	0.0995 ± 0.0017 $(+7.9\sigma)$	$H(0.15)$	74.43	74.46 ± 0.75 $(+2.9\sigma)$	χ_{CMB}^2	1186.3	1200.2 ± 5.5 (-0.4σ)
σ_8	0.8331	0.834 ± 0.013 $(+4.2\sigma)$	$D_{\text{M}}(0.15)$	625.1	625.2 ± 6.7 (-3.1σ)	χ_{BAO}^2	7.79	8.9 ± 2.5 $(+4.4\sigma)$
S_8	0.8251	0.827 ± 0.013 $(+1.1\sigma)$	$H(0.38)$	83.64	83.67 ± 0.69 $(+1.3\sigma)$			
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4519	0.4531 ± 0.0072 $(+1.1\sigma)$	$D_{\text{M}}(0.38)$	1500.7	1500 ± 14 (-2.7σ)			

Best-fit $\chi_{\text{eff}}^2 = 1896.26$; $\Delta\chi_{\text{eff}}^2 = -16.55$; $\bar{\chi}_{\text{eff}}^2 = 1920.42$; $\Delta\bar{\chi}_{\text{eff}}^2 = -12.63$; $R - 1 = 0.01184$
 χ_{eff}^2 : BAO - 6DF: 0.15 (Δ 0.15) MGS: 2.92 (Δ 1.25) DR12BAO: 4.72 (Δ 1.22) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.75 (Δ -0.19) small_100x143_offlike5_EE_Aplanck: 395.76 (Δ -1.06) commander_dx12_v3.2_29: 23.05 (Δ 0.46) plik_rd12_HM_v22.TT: 758.73 (Δ -2.10) Hubble - H073p45: 5.23 (Δ -5.36) SN - JLA December_2013: 695.66 (Δ -10.93)

19.11 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02215 ± 0.00021	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.458 ± 0.011	$H(0.38)$	83.69 ± 0.69
$\Omega_{\mathrm{c}}h^2$	0.1208 ± 0.0018	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.621 ± 0.013	$D_{\mathrm{M}}(0.38)$	1499 ± 14
$100\theta_{\mathrm{MC}}$	1.04081 ± 0.00045	$\sigma_8/h^{0.5}$	1.009 ± 0.018	$H(0.51)$	89.85 ± 0.57
τ	$0.0536^{+0.0047}_{-0.0079}$	$r_{\mathrm{drag}}h$	102.4 ± 1.4	$D_{\mathrm{M}}(0.51)$	1949 ± 16
w_0	-0.999 ± 0.10	$\langle d^2 \rangle^{1/2}$	2.481 ± 0.040	$H(0.61)$	95.08 ± 0.50
w_{a}	$-0.39^{+0.47}_{-0.38}$	z_{re}	$7.64^{+0.52}_{-0.80}$	$D_{\mathrm{M}}(0.61)$	2273 ± 17
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.024}_{-0.032}$	$H(2.33)$	234.68 ± 0.98
n_{s}	0.9627 ± 0.0051	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.885 ± 0.013	$D_{\mathrm{M}}(2.33)$	5762 ± 13
α_{JLA}	0.1417 ± 0.0066	D_{40}	1233 ± 14	$f\sigma_8(0.15)$	0.467 ± 0.011
β_{JLA}	3.112 ± 0.080	D_{220}	5714 ± 41	$\sigma_8(0.15)$	0.779 ± 0.016
y_{cal}	1.0004 ± 0.0025	D_{810}	2536 ± 14	$f\sigma_8(0.38)$	0.494 ± 0.013
A_{217}^{CIB}	48 ± 7	D_{1420}	814.5 ± 5.1	$\sigma_8(0.38)$	0.691 ± 0.014
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	229.8 ± 1.8	$f\sigma_8(0.51)$	0.496 ± 0.014
A_{143}^{tSZ}	5.1 ± 2.0	$n_{\mathrm{s},0.002}$	0.9627 ± 0.0051	$\sigma_8(0.51)$	0.647 ± 0.013
A_{100}^{PS}	263 ± 28	Y_{P}	$0.245299^{+0.000094}_{-0.000080}$	$f\sigma_8(0.61)$	0.493 ± 0.014
A_{143}^{PS}	49 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246625^{+0.000095}_{-0.000080}$	$\sigma_8(0.61)$	0.615 ± 0.012
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	$10^5 \mathrm{D}/\mathrm{H}$	2.629 ± 0.039	$f\sigma_8(2.33)$	$0.3106^{+0.0065}_{-0.0057}$
A_{217}^{PS}	115 ± 10	$\mathrm{Age}/\mathrm{Gyr}$	13.749 ± 0.035	$\sigma_8(2.33)$	0.3165 ± 0.0047
A^{kSZ}	< 4.67	z_*	1090.28 ± 0.36	f_{2000}^{143}	30.8 ± 2.9
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	r_*	144.40 ± 0.42	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	$100\theta_*$	1.04101 ± 0.00045	f_{2000}^{217}	107.9 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.2 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.871 ± 0.039	χ_{simall}^2	396.8 ± 1.6
$A_{217}^{\mathrm{dust}TT}$	93.3 ± 7.3	z_{drag}	1059.47 ± 0.45	χ_{lowl}^2	23.7 ± 1.1
c_{100}	0.99959 ± 0.00062	r_{drag}	147.13 ± 0.43	χ_{plik}^2	770.3 ± 5.3
c_{217}	0.99825 ± 0.00063	k_{D}	0.14065 ± 0.00049	$\chi_{\mathrm{H073p45}}^2$	5.7 ± 2.7
H_0	69.60 ± 0.95	$100\theta_{\mathrm{D}}$	0.16103 ± 0.00026	χ_{JLA}^2	698.3 ± 2.6
Ω_{Λ}	0.7035 ± 0.0086	z_{eq}	3416 ± 41	$\chi_{6\mathrm{DF}}^2$	0.21 ± 0.21
Ω_{m}	0.2965 ± 0.0086	k_{eq}	0.01043 ± 0.00012	χ_{MGS}^2	2.98 ± 0.81
$\Omega_{\mathrm{m}}h^2$	0.1436 ± 0.0017	$100\theta_{\mathrm{eq}}$	0.8102 ± 0.0075	$\chi_{\mathrm{DR12BAO}}^2$	5.9 ± 1.7
$\Omega_{\mathrm{m}}h^3$	0.0999 ± 0.0019	$100\theta_{\mathrm{s,eq}}$	0.4479 ± 0.0039	χ_{prior}^2	7.2 ± 3.6
σ_8	0.842 ± 0.018	$H(0.15)$	74.54 ± 0.77	χ_{BAO}^2	9.1 ± 2.5
S_8	0.837 ± 0.020	$D_{\mathrm{M}}(0.15)$	624.7 ± 6.8	χ_{CMB}^2	1190.8 ± 5.3

$$\bar{\chi}_{\mathrm{eff}}^2 = 1911.05; R - 1 = 0.01013$$

19.12 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02218 \pm 0.00020 \quad (-0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6148 \pm 0.0086 \quad (+2.4\sigma)$	$H(0.51)$	$89.89 \pm 0.58 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0013 \quad (+1.8\sigma)$	$\sigma_8/h^{0.5}$	$1.000 \pm 0.012 \quad (+2.3\sigma)$	$D_{\mathrm{M}}(0.51)$	$1950 \pm 16 \quad (-2.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00044 \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$102.5 \pm 1.4 \quad (+2.5\sigma)$	$H(0.61)$	$95.17 \pm 0.49 \quad (-1.3\sigma)$
τ	$0.0533^{+0.0044}_{-0.0078} \quad (-0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.462 \pm 0.026 \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2275 \pm 17 \quad (-2.1\sigma)$
w_0	-1.01 ± 0.10	z_{re}	$7.58^{+0.48}_{-0.80} \quad (-0.7\sigma)$	$H(2.33)$	$234.6 \pm 1.0 \quad (-1.1\sigma)$
w_{a}	$-0.27^{+0.40}_{-0.33}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.022}_{-0.029} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760 \pm 13 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.011}_{-0.014} \quad (-0.6\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.881 \pm 0.011 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.4622 \pm 0.0081 \quad (+1.9\sigma)$
n_{s}	$0.9642 \pm 0.0044 \quad (-1.1\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.772 \pm 0.012 \quad (+4.5\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.3\sigma)$	D_{220}	$5716 \pm 41 \quad (-0.5\sigma)$	$f\sigma_8(0.38)$	$0.4884 \pm 0.0099 \quad (+3.6\sigma)$
α_{JLA}	0.1418 ± 0.0066	D_{810}	$2535 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.686 \pm 0.011 \quad (+4.6\sigma)$
β_{JLA}	3.112 ± 0.079	D_{1420}	$814.5 \pm 5.1 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.490 \pm 0.010 \quad (+4.5\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.6416 \pm 0.0099 \quad (+4.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9642 \pm 0.0044 \quad (-1.1\sigma)$	$f\sigma_8(0.61)$	$0.487 \pm 0.010 \quad (+5.1\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.1\sigma)$	Y_{P}	$0.245316^{+0.000089}_{-0.000077} \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.6104 \pm 0.0093 \quad (+4.4\sigma)$
A_{100}^{PS}	$263 \pm 29 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246642^{+0.000090}_{-0.000077} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3083 \pm 0.0047 \quad (+4.4\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.621 \pm 0.038 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3149 \pm 0.0038 \quad (+2.9\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.752 \pm 0.034 \quad (-1.4\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	z_*	$1090.16 \pm 0.31 \quad (+1.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.2\sigma)$
A^{kSZ}	$< 4.75 \quad (+0.1\sigma)$	r_*	$144.57 \pm 0.32 \quad (-1.4\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.9 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00044 \quad (-0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.4 \pm 1.1 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.031 \quad (-1.2\sigma)$	χ_{small}^2	$396.6 \pm 1.4 \quad (-0.5\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.2 \pm 3.3 \quad (-0.0\sigma)$	z_{drag}	$1059.50 \pm 0.44 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.38 \pm 0.89 \quad (+0.6\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.3 \pm 7.3 \quad (-0.0\sigma)$	r_{drag}	$147.30 \pm 0.34 \quad (-1.1\sigma)$	χ_{plik}^2	$770.6 \pm 5.3 \quad (-0.4\sigma)$
c_{100}	$0.99959 \pm 0.00062 \quad (-0.1\sigma)$	k_{D}	$0.14050 \pm 0.00044 \quad (+0.6\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$5.7 \pm 2.7 \quad (-2.6\sigma)$
c_{217}	$0.99824 \pm 0.00062 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00026 \quad (+0.3\sigma)$	χ_{JLA}^2	$698.2 \pm 2.6 \quad (-70.8\sigma)$
H_0	$69.59 \pm 0.95 \quad (+3.2\sigma)$	z_{eq}	$3398 \pm 30 \quad (+1.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.21 \pm 0.21 \quad (+4.5\sigma)$
Ω_{Λ}	$0.7049 \pm 0.0083 \quad (+1.5\sigma)$	k_{eq}	$0.010370 \pm 0.000091 \quad (+1.7\sigma)$	χ_{MGS}^2	$2.98 \pm 0.81 \quad (+2.4\sigma)$
Ω_{m}	$0.2951 \pm 0.0083 \quad (-1.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8136 \pm 0.0055 \quad (-1.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.7 \pm 1.7 \quad (+2.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0012 \quad (+1.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4497 \pm 0.0028 \quad (-1.7\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0994 \pm 0.0016 \quad (+7.7\sigma)$	$H(0.15)$	$74.44 \pm 0.74 \quad (+2.8\sigma)$	χ_{CMB}^2	$1199.9 \pm 5.5 \quad (-0.5\sigma)$
σ_8	$0.834 \pm 0.013 \quad (+4.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$625.3 \pm 6.7 \quad (-3.0\sigma)$	χ_{BAO}^2	$8.8 \pm 2.5 \quad (+4.4\sigma)$
S_8	$0.827 \pm 0.013 \quad (+1.1\sigma)$	$H(0.38)$	$83.66 \pm 0.69 \quad (+1.3\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4531 \pm 0.0072 \quad (+1.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1501 \pm 13 \quad (-2.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1920.07$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -12.87$; $R - 1 = 0.01435$

19.13 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022383	0.02237 ± 0.00014	$\Omega_m h^2$	0.14321	0.1434 ± 0.0012	$H(0.15)$	74.51	74.65 ± 0.74
$\Omega_c h^2$	0.12018	0.1204 ± 0.0012	$\Omega_m h^3$	0.09971	0.09996 ± 0.0016	$D_M(0.15)$	624.8	623.8 ± 6.7
$100\theta_{MC}$	1.040920	1.04090 ± 0.00030	σ_8	0.8356	0.837 ± 0.014	$H(0.38)$	83.79	83.87 ± 0.66
τ	0.0544	0.0536 ± 0.0077	S_8	0.8292	0.831 ± 0.014	$D_M(0.38)$	1499.0	1497 ± 13
w_0	-1.013	-1.001 ± 0.097	$\sigma_8 \Omega_m^{0.5}$	0.4542	0.4549 ± 0.0079	$H(0.51)$	90.06	90.08 ± 0.54
w_a	-0.253	$-0.33^{+0.39}_{-0.33}$	$\sigma_8 \Omega_m^{0.25}$	0.6160	0.6171 ± 0.0096	$D_M(0.51)$	1947.9	1945 ± 16
$\ln(10^{10} A_s)$	3.0447	3.044 ± 0.016	$\sigma_8/h^{0.5}$	1.0014	1.003 ± 0.014	$H(0.61)$	95.362	95.33 ± 0.45
n_s	0.96606	0.9645 ± 0.0041	$r_{drag} h$	102.37	102.5 ± 1.4	$D_M(0.61)$	2271.5	2269 ± 17
α_{JLA}	0.1417	0.1417 ± 0.0067	$\langle d^2 \rangle^{1/2}$	2.4635	2.469 ± 0.031	$H(2.33)$	234.84	234.78 ± 0.94
β_{JLA}	3.108	3.114 ± 0.081	z_{re}	7.67	7.58 ± 0.79	$D_M(2.33)$	5749.9	5751 ± 10
y_{cal}	1.00035	1.0006 ± 0.0025	$10^9 A_s$	2.1004	2.099 ± 0.033	$f\sigma_8(0.15)$	0.4630	0.4635 ± 0.0085
A_{217}^{CIB}	46.8	46 ± 7	$10^9 A_s e^{-2\tau}$	1.8840	1.885 ± 0.011	$\sigma_8(0.15)$	0.7736	0.775 ± 0.013
$\xi^{tSZ \times CIB}$	0.478	> 0.382	D_{40}	1227.4	1232 ± 12	$f\sigma_8(0.38)$	0.4890	0.490 ± 0.010
A_{143}^{tSZ}	7.20	$5.5^{+2.1}_{-1.9}$	D_{220}	5727.1	5734 ± 38	$\sigma_8(0.38)$	0.6867	0.688 ± 0.012
A_{100}^{PS}	248.2	258 ± 28	D_{810}	2540.1	2540 ± 13	$f\sigma_8(0.51)$	0.4906	0.492 ± 0.011
A_{143}^{PS}	47.6	46 ± 8	D_{1420}	817.98	817.3 ± 4.8	$\sigma_8(0.51)$	0.6427	0.644 ± 0.011
$A_{143 \times 217}^{PS}$	48.4	43 ± 9	D_{2000}	231.32	231.0 ± 1.6	$f\sigma_8(0.61)$	0.4872	0.489 ± 0.011
A_{217}^{PS}	120.1	116 ± 10	$n_{s,0.002}$	0.96606	0.9645 ± 0.0041	$\sigma_8(0.61)$	0.6115	0.613 ± 0.010
A^{kSZ}	0.00	< 4.05	Y_P	0.245401	$0.245392^{+0.000059}_{-0.000053}$	$f\sigma_8(2.33)$	0.3090	0.3095 ± 0.0052
A_{100}^{dustTT}	8.94	8.9 ± 1.8	Y_P^{BBN}	0.246727	$0.246718^{+0.000059}_{-0.000053}$	$\sigma_8(2.33)$	0.31555	0.3158 ± 0.0043
A_{143}^{dustTT}	10.97	10.8 ± 1.8	$10^5 D/H$	2.5830	2.587 ± 0.027	f_{2000}^{143}	28.50	29.3 ± 2.7
$A_{143 \times 217}^{dustTT}$	19.77	18.5 ± 3.3	Age/Gyr	13.7315	$13.729^{+0.028}_{-0.031}$	$f_{2000}^{143 \times 217}$	31.77	32.0 ± 1.8
A_{217}^{dustTT}	95.0	93.8 ± 7.3	z_*	1089.919	1089.96 ± 0.26	f_{2000}^{217}	106.41	106.9 ± 1.7
A_{100}^{dustTE}	0.1145	0.114 ± 0.038	r_*	144.375	144.34 ± 0.28	χ_{small}^2	396.04	397.0 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1337	0.134 ± 0.030	$100\theta_*$	1.041101	1.04108 ± 0.00030	χ_{lowl}^2	23.09	23.43 ± 0.88
$A_{100 \times 217}^{dustTE}$	0.481	0.480 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.8675	13.864 ± 0.026	χ_{plik}^2	2343.7	2358.5 ± 5.7
A_{143}^{dustTE}	0.223	0.225 ± 0.054	z_{drag}	1059.971	1059.95 ± 0.30	$\chi_{H073p45}^2$	5.31	5.4 ± 2.6
$A_{143 \times 217}^{dustTE}$	0.669	0.666 ± 0.080	r_{drag}	147.030	147.00 ± 0.28	χ_{JLA}^2	695.47	698.2 ± 2.6
A_{217}^{dustTE}	2.083	2.08 ± 0.27	k_D	0.140943	0.14096 ± 0.00031	χ_{6DF}^2	0.133	0.22 ± 0.21
c_{100}	0.99971	0.99967 ± 0.00061	$100\theta_D$	0.160734	0.16075 ± 0.00017	χ_{MGS}^2	2.84	3.02 ± 0.82
c_{217}	0.99819	0.99819 ± 0.00062	z_{eq}	3406.8	3411 ± 28	$\chi_{DR12BAO}^2$	4.68	5.8 ± 1.7
H_0	69.63	69.71 ± 0.95	k_{eq}	0.010398	0.010412 ± 0.000085	χ_{prior}^2	1.67	11.5 ± 4.5
Ω_Λ	0.7046	0.7047 ± 0.0084	$100\theta_{eq}$	0.8125	0.8117 ± 0.0052	χ_{BAO}^2	7.65	9.0 ± 2.6
Ω_m	0.2954	0.2953 ± 0.0084	$100\theta_{s,eq}$	0.44897	0.4485 ± 0.0027	χ_{CMB}^2	2762.8	2778.9 ± 5.8

Best-fit $\chi_{eff}^2 = 3472.92$; $\bar{\chi}_{eff}^2 = 3502.96$; $R - 1 = 0.01220$
 χ_{eff}^2 : BAO - 6DF: 0.13 MGS: 2.84 DR12BAO: 4.67 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.04 commander_dx12_v3_2_29: 23.09 plik_rd12_HM_v22b_TTTEEE: 2343.70 Hubble - H073p45: 5.30 SN - JLA December_2013: 695.47

19.14 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022394	0.02239 ± 0.00014 (-0.8σ)	$\Omega_{\mathrm{m}}h^3$	0.09957	0.0997 ± 0.0015 $(+11.4\sigma)$	$H(0.38)$	83.84	83.85 ± 0.65 $(+2.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11988	0.1200 ± 0.0011 $(+1.6\sigma)$	σ_8	0.8326	0.833 ± 0.012 $(+4.0\sigma)$	$D_{\mathrm{M}}(0.38)$	1498.2	1498 ± 13 (-3.6σ)
$100\theta_{\mathrm{MC}}$	1.040956	1.04093 ± 0.00030 (-0.7σ)	S_8	0.8249	0.826 ± 0.011 $(+0.8\sigma)$	$H(0.51)$	90.10	90.09 ± 0.54 $(+0.6\sigma)$
τ	0.0531	0.0526 ± 0.0074 (-0.7σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518	0.4522 ± 0.0061 $(+0.8\sigma)$	$D_{\mathrm{M}}(0.51)$	1946.8	1946 ± 15 (-3.3σ)
w_0	-1.012	-1.008 ± 0.094	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6133	0.6138 ± 0.0073 $(+2.1\sigma)$	$H(0.61)$	95.408	95.37 ± 0.45 (-1.0σ)
w_a	-0.244	$-0.28^{+0.36}_{-0.31}$	$\sigma_8/h^{0.5}$	0.9975	0.998 ± 0.011 $(+2.0\sigma)$	$D_{\mathrm{M}}(0.61)$	2270.2	2270 ± 17 (-3.0σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0418	3.041 ± 0.014 (-0.6σ)	$r_{\mathrm{drag}}h$	102.48	102.5 ± 1.4 $(+3.3\sigma)$	$H(2.33)$	234.72	234.75 ± 0.95 (-1.9σ)
n_{s}	0.96629	0.9651 ± 0.0039 (-0.9σ)	$\langle d^2 \rangle^{1/2}$	2.4558	2.459 ± 0.023 $(+1.4\sigma)$	$D_{\mathrm{M}}(2.33)$	5748.7	5750 ± 10 (-0.3σ)
y_{cal}	1.00044	1.0005 ± 0.0025 (-0.1σ)	z_{re}	7.53	7.47 ± 0.75 (-0.7σ)	$f\sigma_8(0.15)$	0.4606	0.4610 ± 0.0071 $(+1.5\sigma)$
α_{JLA}	0.1417	0.1416 ± 0.0068	10^9A_{s}	2.0943	2.092 ± 0.030 (-0.6σ)	$\sigma_8(0.15)$	0.7709	0.772 ± 0.011 $(+4.3\sigma)$
β_{JLA}	3.106	3.115 ± 0.080	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8834	1.883 ± 0.010 $(+0.4\sigma)$	$f\sigma_8(0.38)$	0.4865	0.4872 ± 0.0089 $(+3.3\sigma)$
A_{217}^{CIB}	46.0	47 ± 7 (-0.0σ)	D_{40}	1227.1	1230 ± 11 $(+0.3\sigma)$	$\sigma_8(0.38)$	0.6845	0.685 ± 0.010 $(+4.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.63	—	D_{220}	5732.1	5734 ± 38 (-0.4σ)	$f\sigma_8(0.51)$	0.4882	0.4891 ± 0.0092 $(+4.2\sigma)$
A_{143}^{tSZ}	7.09	$5.5^{+2.1}_{-1.9}$ (-0.0σ)	D_{810}	2540.5	2539 ± 13 (-0.1σ)	$\sigma_8(0.51)$	0.6407	0.6412 ± 0.0094 $(+4.4\sigma)$
A_{100}^{PS}	249.2	259 ± 28 $(+0.0\sigma)$	D_{1420}	818.15	817.1 ± 4.8 (-0.3σ)	$f\sigma_8(0.61)$	0.4849	0.4858 ± 0.0092 $(+4.8\sigma)$
A_{143}^{PS}	50.7	46 ± 8 $(+0.1\sigma)$	D_{2000}	231.31	230.9 ± 1.6 (-0.4σ)	$\sigma_8(0.61)$	0.6096	0.6100 ± 0.0088 $(+4.3\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	52.9	42 ± 9 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.96629	0.9651 ± 0.0039 (-0.9σ)	$f\sigma_8(2.33)$	0.30809	0.3082 ± 0.0045 $(+4.5\sigma)$
A_{217}^{PS}	122.0	115 ± 10 $(+0.0\sigma)$	Y_{P}	0.245405	$0.245400^{+0.000057}_{-0.000051}$ (-0.8σ)	$\sigma_8(2.33)$	0.31481	0.3148 ± 0.0038 $(+3.0\sigma)$
A^{kSZ}	0.01	< 4.21 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246731	$0.246726^{+0.000057}_{-0.000051}$ (-0.8σ)	f_{2000}^{143}	28.75	29.4 ± 2.7 $(+0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.79	8.9 ± 1.8 $(+0.0\sigma)$	$10^5\mathrm{D}/\mathrm{H}$	2.5810	2.583 ± 0.026 $(+0.8\sigma)$	$f_{2000}^{143 \times 217}$	32.04	32.1 ± 1.8 $(+0.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	11.02	10.8 ± 1.8 (-0.0σ)	Age/Gyr	13.7302	13.730 ± 0.029 (-2.2σ)	f_{2000}^{217}	106.55	106.9 ± 1.8 $(+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.16	18.5 ± 3.3 $(+0.0\sigma)$	z_*	1089.879	1089.90 ± 0.24 $(+1.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.770	9.23 ± 0.85 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	95.6	93.7 ± 7.4 $(+0.0\sigma)$	r_*	144.443	144.41 ± 0.24 (-1.4σ)	χ_{small}^2	396	216 ± 200 (-85.3σ)
$A_{100}^{\mathrm{dustTE}}$	0.1136	0.114 ± 0.038 $(+0.0\sigma)$	$100\theta_*$	1.041133	1.04111 ± 0.00029 (-0.7σ)	χ_{lowl}^2	23.02	23.27 ± 0.78 $(+0.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1351	0.134 ± 0.029 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8736	13.871 ± 0.023 (-1.2σ)	χ_{plik}^2	2344.1	2358.6 ± 5.5 (-0.3σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.485	0.481 ± 0.084 (-0.0σ)	z_{drag}	1059.971	1059.97 ± 0.30 (-0.5σ)	$\chi_{\mathrm{H073p45}}^2$	5	186 ± 200 $(+110.7\sigma)$
$A_{143}^{\mathrm{dustTE}}$	0.226	0.226 ± 0.054 $(+0.0\sigma)$	r_{drag}	147.097	147.06 ± 0.25 (-1.2σ)	χ_{JLA}^2	695.46	698.2 ± 2.6 (-74.1σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.665	0.665 ± 0.079 (-0.0σ)	k_{D}	0.140880	0.14091 ± 0.00029 $(+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.150	0.22 ± 0.22 $(+6.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.088	2.08 ± 0.27 $(+0.1\sigma)$	$100\theta_{\mathrm{D}}$	0.160734	0.16074 ± 0.00017 $(+0.5\sigma)$	χ_{MGS}^2	2.92	3.02 ± 0.82 $(+3.5\sigma)$
c_{100}	0.99974	0.99968 ± 0.00061 (-0.0σ)	z_{eq}	3400.0	3404 ± 24 $(+1.6\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.74	5.7 ± 1.7 $(+2.2\sigma)$
c_{217}	0.99820	0.99819 ± 0.00063 $(+0.0\sigma)$	k_{eq}	0.010377	0.010388 ± 0.000074 $(+1.6\sigma)$	χ_{prior}^2	1.62	11.5 ± 4.5 (-0.0σ)
H_0	69.67	69.71 ± 0.95 $(+4.2\sigma)$	$100\theta_{\mathrm{eq}}$	0.81378	0.8131 ± 0.0045 (-1.6σ)	χ_{CMB}^2	2772	2607 ± 200 (-30.2σ)
Ω_{Λ}	0.7055	0.7054 ± 0.0083 $(+2.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44962	0.4493 ± 0.0023 (-1.6σ)	χ_{BAO}^2	7.81	8.9 ± 2.6 $(+5.9\sigma)$
Ω_{m}	0.2945	0.2946 ± 0.0083 (-2.2σ)	$H(0.15)$	74.56	74.61 ± 0.73 $(+3.9\sigma)$			
$\Omega_{\mathrm{m}}h^2$	0.14292	0.1431 ± 0.0010 $(+1.6\sigma)$	$D_{\mathrm{M}}(0.15)$	624.4	624.1 ± 6.6 (-4.0σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 3481.83$; $\Delta\chi_{\mathrm{eff}}^2 = -16.77$; $\bar{\chi}_{\mathrm{eff}}^2 = 3511.91$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -12.96$; $R - 1 = 0.02088$
 χ_{eff}^2 : BAO - 6DF: 0.15 (Δ 0.15) MGS: 2.92 (Δ 1.32) DR12BAO: 4.74 (Δ 1.14) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb_consext8: 8.77 (Δ 0.02) small_100x143_offlike5_EE_Aplanck.L
395.84 (Δ -1.09) commander_dx12.v3.2_29: 23.02 (Δ 0.38) plik_rd12_HM.v22b_TTTEEE: 2344.12 (Δ -2.24) Hubble - H073p45: 5.19 (Δ -5.20) SN - JLA December_2013:
695.46 (Δ -11.14)

19.15 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02237 ± 0.00014	$\Omega_{\mathrm{m}}h^2$	0.1434 ± 0.0012	$H(0.15)$	74.65 ± 0.74
$\Omega_{\mathrm{c}}h^2$	0.1203 ± 0.0012	$\Omega_{\mathrm{m}}h^3$	0.0999 ± 0.0016	$D_{\mathrm{M}}(0.15)$	623.9 ± 6.7
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00030	σ_8	0.838 ± 0.014	$H(0.38)$	83.87 ± 0.66
τ	$0.0549^{+0.0050}_{-0.0079}$	S_8	0.831 ± 0.014	$D_{\mathrm{M}}(0.38)$	1497 ± 13
w_0	-1.002 ± 0.097	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4552 ± 0.0078	$H(0.51)$	90.08 ± 0.54
w_a	$-0.33^{+0.39}_{-0.33}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6177 ± 0.0095	$D_{\mathrm{M}}(0.51)$	1946 ± 16
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.015}$	$\sigma_8/h^{0.5}$	1.004 ± 0.014	$H(0.61)$	95.34 ± 0.45
n_{s}	0.9646 ± 0.0041	$r_{\mathrm{drag}}h$	102.5 ± 1.4	$D_{\mathrm{M}}(0.61)$	2269 ± 17
α_{JLA}	0.1417 ± 0.0067	$\langle d^2 \rangle^{1/2}$	2.471 ± 0.030	$H(2.33)$	234.78 ± 0.94
β_{JLA}	3.114 ± 0.081	z_{re}	$7.71^{+0.56}_{-0.78}$	$D_{\mathrm{M}}(2.33)$	5751 ± 10
y_{cal}	1.0006 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.033}$	$f\sigma_8(0.15)$	0.4639 ± 0.0084
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.885 ± 0.011	$\sigma_8(0.15)$	0.776 ± 0.013
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	> 0.382	D_{40}	1232 ± 12	$f\sigma_8(0.38)$	0.490 ± 0.010
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{220}	5733 ± 38	$\sigma_8(0.38)$	0.689 ± 0.012
A_{100}^{PS}	258 ± 28	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	0.492 ± 0.011
A_{143}^{PS}	46 ± 8	D_{1420}	817.3 ± 4.7	$\sigma_8(0.51)$	0.645 ± 0.011
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	D_{2000}	231.1 ± 1.6	$f\sigma_8(0.61)$	0.489 ± 0.011
A_{217}^{PS}	116 ± 10	$n_{\mathrm{s},0.002}$	0.9646 ± 0.0041	$\sigma_8(0.61)$	0.613 ± 0.010
A^{kSZ}	< 4.03	Y_{P}	$0.245393^{+0.000058}_{-0.000052}$	$f\sigma_8(2.33)$	0.3098 ± 0.0052
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246719^{+0.000059}_{-0.000053}$	$\sigma_8(2.33)$	0.3161 ± 0.0042
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	$10^5 \mathrm{D}/\mathrm{H}$	2.586 ± 0.027	f_{2000}^{143}	29.3 ± 2.7
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.3	$\mathrm{Age}/\mathrm{Gyr}$	$13.729^{+0.028}_{-0.031}$	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	z_*	1089.95 ± 0.25	f_{2000}^{217}	106.9 ± 1.7
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	r_*	144.34 ± 0.28	χ_{simall}^2	396.9 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.030	$100\theta_*$	1.04109 ± 0.00030	χ_{lowl}^2	23.44 ± 0.88
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.480 ± 0.085	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.865 ± 0.026	χ_{plik}^2	2358.3 ± 5.7
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.054	z_{drag}	1059.96 ± 0.29	$\chi_{\mathrm{H073p45}}^2$	5.4 ± 2.6
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.080	r_{drag}	147.00 ± 0.28	χ_{JLA}^2	698.2 ± 2.6
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14096 ± 0.00031	$\chi_{6\mathrm{DF}}^2$	0.22 ± 0.22
c_{100}	0.99968 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16075 ± 0.00017	χ_{MGS}^2	3.02 ± 0.83
c_{217}	0.99819 ± 0.00062	z_{eq}	3411 ± 28	$\chi_{\mathrm{DR12BAO}}^2$	5.8 ± 1.7
H_0	69.71 ± 0.95	k_{eq}	0.010409 ± 0.000085	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.7048 ± 0.0084	$100\theta_{\mathrm{eq}}$	0.8118 ± 0.0052	χ_{BAO}^2	9.0 ± 2.6
Ω_{m}	0.2952 ± 0.0084	$100\theta_{\mathrm{s,eq}}$	0.4486 ± 0.0027	χ_{CMB}^2	2778.6 ± 5.7

$$\bar{\chi}_{\mathrm{eff}}^2 = 3502.71; R - 1 = 0.01370$$

19.16 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_JLA_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00014 \quad (-0.8\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.0997 \pm 0.0015 \quad (+11.2\sigma)$	$H(0.38)$	$83.85 \pm 0.65 \quad (+2.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0010 \quad (+1.6\sigma)$	σ_8	$0.834 \pm 0.012 \quad (+4.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1498 \pm 13 \quad (-3.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04094 \pm 0.00030 \quad (-0.7\sigma)$	S_8	$0.826 \pm 0.011 \quad (+0.8\sigma)$	$H(0.51)$	$90.09 \pm 0.54 \quad (+0.6\sigma)$
τ	$0.0540^{+0.0048}_{-0.0075} \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4523 \pm 0.0061 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1946 \pm 16 \quad (-3.2\sigma)$
w_0	-1.009 ± 0.094	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6141 \pm 0.0073 \quad (+2.2\sigma)$	$H(0.61)$	$95.37 \pm 0.45 \quad (-0.9\sigma)$
w_a	$-0.27^{+0.36}_{-0.31}$	$\sigma_8/h^{0.5}$	$0.999 \pm 0.011 \quad (+2.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2270 \pm 17 \quad (-3.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.011}_{-0.014} \quad (-0.5\sigma)$	$r_{\mathrm{drag}}h$	$102.5 \pm 1.4 \quad (+3.3\sigma)$	$H(2.33)$	$234.74 \pm 0.96 \quad (-1.9\sigma)$
n_{s}	$0.9653 \pm 0.0038 \quad (-0.8\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.460 \pm 0.023 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 10 \quad (-0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	z_{re}	$7.61^{+0.53}_{-0.74} \quad (-0.6\sigma)$	$f\sigma_8(0.15)$	$0.4611 \pm 0.0070 \quad (+1.6\sigma)$
α_{JLA}	0.1416 ± 0.0068	$10^9 A_{\mathrm{s}}$	$2.098^{+0.022}_{-0.030} \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.772 \pm 0.011 \quad (+4.5\sigma)$
β_{JLA}	3.116 ± 0.080	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.883 \pm 0.010 \quad (+0.4\sigma)$	$f\sigma_8(0.38)$	$0.4873 \pm 0.0089 \quad (+3.3\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	D_{40}	$1229 \pm 11 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.685 \pm 0.010 \quad (+4.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5733 \pm 38 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4892 \pm 0.0092 \quad (+4.3\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$\sigma_8(0.51)$	$0.6416 \pm 0.0094 \quad (+4.6\sigma)$
A_{100}^{PS}	$259 \pm 28 \quad (+0.0\sigma)$	D_{1420}	$817.1 \pm 4.8 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4859 \pm 0.0092 \quad (+4.9\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{2000}	$231.0 \pm 1.6 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.6104 \pm 0.0088 \quad (+4.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9653 \pm 0.0038 \quad (-0.8\sigma)$	$f\sigma_8(2.33)$	$0.3084 \pm 0.0045 \quad (+4.7\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Y_{P}	$0.245402 \pm 0.000054 \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3150 \pm 0.0037 \quad (+3.2\sigma)$
A^{kSZ}	$< 4.19 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246728 \pm 0.000054 \quad (-0.8\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.582 \pm 0.026 \quad (+0.8\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 1.8 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.730 \pm 0.029 \quad (-2.2\sigma)$	f_{2000}^{217}	$106.8 \pm 1.7 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.5 \pm 3.3 \quad (+0.0\sigma)$	z_*	$1089.89 \pm 0.23 \quad (+1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.24 \pm 0.87 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.7 \pm 7.4 \quad (+0.0\sigma)$	r_*	$144.43 \pm 0.24 \quad (-1.3\sigma)$	χ_{simall}^2	$218 \pm 200 \quad (-84.1\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	$100\theta_*$	$1.04112 \pm 0.00029 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.26 \pm 0.78 \quad (+0.4\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.872 \pm 0.022 \quad (-1.2\sigma)$	χ_{plik}^2	$2358.4 \pm 5.5 \quad (-0.4\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.481 \pm 0.084 \quad (-0.0\sigma)$	z_{drag}	$1059.98 \pm 0.29 \quad (-0.5\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$184 \pm 200 \quad (+110.2\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.225 \pm 0.054 \quad (+0.0\sigma)$	r_{drag}	$147.08 \pm 0.24 \quad (-1.1\sigma)$	χ_{JLA}^2	$698.2 \pm 2.6 \quad (-74.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.665 \pm 0.079 \quad (-0.0\sigma)$	k_{D}	$0.14089 \pm 0.00029 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.22 \pm 0.22 \quad (+6.2\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00017 \quad (+0.4\sigma)$	χ_{MGS}^2	$3.02 \pm 0.83 \quad (+3.4\sigma)$
c_{100}	$0.99968 \pm 0.00061 \quad (-0.0\sigma)$	z_{eq}	$3402 \pm 24 \quad (+1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.7 \pm 1.8 \quad (+2.2\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	k_{eq}	$0.010383 \pm 0.000072 \quad (+1.5\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
H_0	$69.70 \pm 0.95 \quad (+4.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8135 \pm 0.0044 \quad (-1.6\sigma)$	χ_{CMB}^2	$2609 \pm 200 \quad (-30.2\sigma)$
Ω_{Λ}	$0.7055 \pm 0.0083 \quad (+2.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0023 \quad (-1.5\sigma)$	χ_{BAO}^2	$8.9 \pm 2.6 \quad (+6.0\sigma)$
Ω_{m}	$0.2945 \pm 0.0083 \quad (-2.2\sigma)$	$H(0.15)$	$74.59^{+0.69}_{-0.76} \quad (+3.8\sigma)$		
$\Omega_{\mathrm{m}}h^2$	$0.14300 \pm 0.00099 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$624.2 \pm 6.7 \quad (-4.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3511.63; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -13.15; R - 1 = 0.02239$$

19.17 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022152	0.02212 ± 0.00021	$\sigma_8 \Omega_m^{0.25}$	0.6137	0.615 ± 0.013	$H(0.38)$	83.41	83.44 ± 0.62
$\Omega_c h^2$	0.12027	0.1206 ± 0.0018	$\sigma_8/h^{0.5}$	0.9978	0.999 ± 0.019	$D_M(0.38)$	1516.3	1516 ± 14
$100\theta_{MC}$	1.040823	1.04079 ± 0.00045	$r_{drag}h$	100.49	100.3 ± 1.2	$H(0.51)$	89.88	89.88 ± 0.50
τ	0.0526	0.0519 ± 0.0079	$\langle d^2 \rangle^{1/2}$	2.4596	2.466 ± 0.042	$D_M(0.51)$	1966.6	1966 ± 16
w_0	-0.971	-0.953 ± 0.085	z_{re}	7.55	7.46 ± 0.82	$H(0.61)$	95.307	95.27 ± 0.44
w_a	-0.265	$-0.36^{+0.41}_{-0.31}$	$10^9 A_s$	2.0918	2.091 ± 0.034	$D_M(0.61)$	2290.6	2290 ± 17
$\ln(10^{10} A_s)$	3.0406	3.040 ± 0.016	$10^9 A_s e^{-2\tau}$	1.8828	1.884 ± 0.013	$H(2.33)$	235.10	235.13 ± 0.98
n_s	0.9646	0.9629 ± 0.0052	D_{40}	1228.3	1232 ± 14	$D_M(2.33)$	5763.8	5766 ± 13
y_{cal}	1.00031	1.0005 ± 0.0025	D_{220}	5709.7	5713 ± 41	$f\sigma_8(0.15)$	0.4618	0.462 ± 0.011
A_{217}^{CIB}	48.9	48 ± 7	D_{810}	2536.9	2536 ± 14	$\sigma_8(0.15)$	0.7621	0.763 ± 0.016
$\xi^{tSZ \times CIB}$	0.31	—	D_{1420}	815.3	814.4 ± 5.1	$f\sigma_8(0.38)$	0.4832	0.484 ± 0.013
A_{143}^{tSZ}	7.11	5.1 ± 2.0	D_{2000}	230.01	229.6 ± 1.8	$\sigma_8(0.38)$	0.6759	0.676 ± 0.014
A_{100}^{PS}	253.9	263 ± 28	$n_{s,0.002}$	0.9646	0.9629 ± 0.0052	$f\sigma_8(0.51)$	0.4834	0.484 ± 0.013
A_{143}^{PS}	49.0	49 ± 8	Y_P	0.245306	$0.245289^{+0.000098}_{-0.000081}$	$\sigma_8(0.51)$	0.6325	0.633 ± 0.013
$A_{143 \times 217}^{PS}$	46.5	43 ± 9	Y_P^{BBN}	0.246632	$0.246615^{+0.000098}_{-0.000082}$	$f\sigma_8(0.61)$	0.4793	0.480 ± 0.013
A_{217}^{PS}	119.0	115 ± 10	$10^5 D/H$	2.6270	2.633 ± 0.040	$\sigma_8(0.61)$	0.6018	0.602 ± 0.012
A^{kSZ}	0.01	< 4.83	Age/Gyr	13.7778	13.779 ± 0.035	$f\sigma_8(2.33)$	0.3040	$0.3040^{+0.0065}_{-0.0057}$
A_{100}^{dustTT}	8.86	9.0 ± 1.8	z_*	1090.220	1090.29 ± 0.36	$\sigma_8(2.33)$	0.31100	0.3108 ± 0.0047
A_{143}^{dustTT}	10.85	10.7 ± 1.8	r_*	144.527	144.48 ± 0.43	f_{2000}^{143}	30.29	31.1 ± 2.9
$A_{143 \times 217}^{dustTT}$	19.45	18.3 ± 3.3	$100\theta_*$	1.041026	1.04100 ± 0.00044	$f_{2000}^{143 \times 217}$	33.19	33.5 ± 2.0
A_{217}^{dustTT}	94.5	93.4 ± 7.4	$D_M(z_*)/\text{Gpc}$	13.8831	13.879 ± 0.040	f_{2000}^{217}	107.61	108.1 ± 1.9
c_{100}	0.99966	0.99961 ± 0.00061	z_{drag}	1059.437	1059.40 ± 0.45	χ_{simall}^2	395.87	396.9 ± 1.6
c_{217}	0.99825	0.99826 ± 0.00062	r_{drag}	147.263	147.22 ± 0.44	χ_{lowl}^2	23.28	23.7 ± 1.1
H_0	68.24	68.14 ± 0.83	k_D	0.14052	0.14054 ± 0.00050	χ_{plik}^2	758.4	770.8 ± 5.4
Ω_Λ	0.6928	0.6912 ± 0.0082	$100\theta_D$	0.161039	0.16107 ± 0.00026	χ_{JLA}^2	1034.78	1035.9 ± 1.5
Ω_m	0.3072	0.3088 ± 0.0082	z_{eq}	3403.5	3410 ± 42	χ_{6DF}^2	0.0012	0.052 ± 0.073
$\Omega_m h^2$	0.14307	0.1433 ± 0.0018	k_{eq}	0.010388	0.01041 ± 0.00013	χ_{MGS}^2	1.82	1.87 ± 0.69
$\Omega_m h^3$	0.09763	0.0977 ± 0.0017	$100\theta_{eq}$	0.8124	0.8113 ± 0.0078	$\chi_{DR12BAO}^2$	4.04	5.0 ± 1.3
σ_8	0.8243	0.825 ± 0.017	$100\theta_{s,eq}$	0.44906	0.4485 ± 0.0040	χ_{prior}^2	1.38	7.3 ± 3.7
S_8	0.8342	0.837 ± 0.020	$H(0.15)$	73.60	73.63 ± 0.73	χ_{BAO}^2	5.86	6.9 ± 1.5
$\sigma_8 \Omega_m^{0.5}$	0.4569	0.458 ± 0.011	$D_M(0.15)$	634.9	635.2 ± 6.6	χ_{CMB}^2	1177.5	1191.3 ± 5.5

Best-fit $\chi_{eff}^2 = 2219.53$; $\bar{\chi}_{eff}^2 = 2241.47$; $R - 1 = 0.00718$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 4.04 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.87 commander_dx12_v3.2.29: 23.29 plik_rd12_HM_v22.TT: 758.36
SN - JLA Pantheon18: 1034.78

19.18 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022187	0.02215 ± 0.00020 (-0.4σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6096	0.6111 ± 0.0086 $(+1.2\sigma)$	$H(0.38)$	83.40	83.44 ± 0.63 $(+1.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.11971	0.1200 ± 0.0014 $(+1.0\sigma)$	$\sigma_8/h^{0.5}$	0.9921	0.994 ± 0.012 $(+1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	1517.3	1517 ± 13 (-1.6σ)
$100\theta_{\mathrm{MC}}$	1.040810	1.04083 ± 0.00044 (-0.4σ)	$r_{\mathrm{drag}}h$	100.49	100.4 ± 1.2 $(+0.8\sigma)$	$H(0.51)$	89.90	89.91 ± 0.52 $(+1.0\sigma)$
τ	0.0528	0.0517 ± 0.0077 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4487	2.455 ± 0.027 $(+1.0\sigma)$	$D_{\mathrm{M}}(0.51)$	1967.5	1967 ± 16 (-1.6σ)
w_0	-0.974	-0.960 ± 0.081	z_{re}	7.55	7.43 ± 0.80 (-0.5σ)	$H(0.61)$	95.356	95.33 ± 0.44 $(+0.3\sigma)$
w_a	-0.216	$-0.29^{+0.34}_{-0.27}$	$10^9 A_{\mathrm{s}}$	2.0899	2.087 ± 0.031 (-0.4σ)	$D_{\mathrm{M}}(0.61)$	2291.4	2291 ± 17 (-1.5σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0397	3.038 ± 0.015 (-0.4σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8804	1.882 ± 0.011 $(+0.3\sigma)$	$H(2.33)$	235.02	235.03 ± 0.99 (-1.0σ)
n_{s}	0.96535	0.9638 ± 0.0044 (-0.6σ)	D_{40}	1226.7	1230 ± 12 $(+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	5762.9	5765 ± 13 (-0.2σ)
y_{cal}	1.00032	1.0004 ± 0.0025 (-0.1σ)	D_{220}	5714.6	5716 ± 41 (-0.2σ)	$f\sigma_8(0.15)$	0.4584	0.4594 ± 0.0078 $(+0.7\sigma)$
A_{217}^{CIB}	49.0	48 ± 7 (-0.0σ)	D_{810}	2536.1	2535 ± 13 (-0.1σ)	$\sigma_8(0.15)$	0.7576	0.759 ± 0.011 $(+2.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.26	—	D_{1420}	815.3	814.4 ± 5.0 (-0.3σ)	$f\sigma_8(0.38)$	0.4794	0.4805 ± 0.0092 $(+1.4\sigma)$
A_{143}^{tSZ}	7.10	5.1 ± 2.0 (-0.0σ)	D_{2000}	229.98	229.6 ± 1.7 (-0.3σ)	$\sigma_8(0.38)$	0.6720	0.673 ± 0.010 $(+2.1\sigma)$
A_{100}^{PS}	254.8	264 ± 28 $(+0.0\sigma)$	$n_{\mathrm{s},0.002}$	0.96535	0.9638 ± 0.0044 (-0.6σ)	$f\sigma_8(0.51)$	0.4795	0.4808 ± 0.0095 $(+1.9\sigma)$
A_{143}^{PS}	48.4	49 ± 8 $(+0.0\sigma)$	Y_{P}	0.245320	$0.245301^{+0.000093}_{-0.000077}$ (-0.4σ)	$\sigma_8(0.51)$	0.6290	0.6298 ± 0.0094 $(+2.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	45.2	43 ± 9 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246647	$0.246627^{+0.000094}_{-0.000077}$ (-0.4σ)	$f\sigma_8(0.61)$	0.4754	0.4768 ± 0.0096 $(+2.2\sigma)$
A_{217}^{PS}	118.5	115 ± 10 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.6204	2.628 ± 0.038 $(+0.4\sigma)$	$\sigma_8(0.61)$	0.5985	0.5992 ± 0.0089 $(+2.0\sigma)$
A^{kSZ}	0.01	< 4.91 $(+0.0\sigma)$	Age/Gyr	13.7809	13.781 ± 0.034 (-1.0σ)	$f\sigma_8(2.33)$	0.30235	0.3027 ± 0.0046 $(+2.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.91	9.0 ± 1.8 $(+0.0\sigma)$	z_*	1090.126	1090.21 ± 0.32 $(+0.7\sigma)$	$\sigma_8(2.33)$	0.30984	0.3098 ± 0.0036 $(+1.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.82	10.8 ± 1.8 $(+0.0\sigma)$	r_*	144.646	144.59 ± 0.33 (-0.8σ)	$\chi_{\mathrm{lensing}}^2$	8.72	9.40 ± 0.97 $(+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.47	18.3 ± 3.3 $(+0.0\sigma)$	$100\theta_*$	1.041016	1.04103 ± 0.00043 (-0.4σ)	χ_{simall}^2	395.86	396.8 ± 1.5 (-0.2σ)
$A_{217}^{\mathrm{dustTT}}$	94.8	93.5 ± 7.3 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8947	13.889 ± 0.032 (-0.7σ)	χ_{lowl}^2	23.14	23.48 ± 0.91 $(+0.4\sigma)$
c_{100}	0.99963	0.99961 ± 0.00061 (-0.0σ)	z_{drag}	1059.475	1059.42 ± 0.44 (-0.2σ)	χ_{plik}^2	758.71	770.7 ± 5.3 (-0.2σ)
c_{217}	0.99826	0.99826 ± 0.00062 (-0.0σ)	r_{drag}	147.373	147.33 ± 0.35 (-0.6σ)	χ_{JLA}^2	1034.79	1035.9 ± 1.5 $(+2.7\sigma)$
H_0	68.19	68.14 ± 0.83 $(+1.1\sigma)$	k_{D}	0.140429	0.14045 ± 0.00044 $(+0.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0010	0.053 ± 0.075 $(+0.1\sigma)$
Ω_{Λ}	0.6934	0.6922 ± 0.0079 $(+0.4\sigma)$	$100\theta_{\mathrm{D}}$	0.161007	0.16105 ± 0.00026 $(+0.2\sigma)$	χ_{MGS}^2	1.82	1.89 ± 0.69 $(+1.2\sigma)$
Ω_{m}	0.3066	0.3078 ± 0.0079 (-0.4σ)	z_{eq}	3390.9	3398 ± 31 $(+1.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	3.86	4.8 ± 1.3 $(+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14254	0.1428 ± 0.0013 $(+1.0\sigma)$	k_{eq}	0.010350	0.010371 ± 0.000095 $(+1.0\sigma)$	χ_{prior}^2	1.46	7.3 ± 3.7 (-0.0σ)
$\Omega_{\mathrm{m}}h^3$	0.09720	0.0973 ± 0.0015 $(+3.2\sigma)$	$100\theta_{\mathrm{eq}}$	0.8147	0.8134 ± 0.0058 (-1.0σ)	χ_{CMB}^2	1186.4	1200.4 ± 5.6 (-0.2σ)
σ_8	0.8193	0.821 ± 0.012 $(+1.9\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45026	0.4496 ± 0.0030 (-1.0σ)	χ_{BAO}^2	5.68	6.7 ± 1.5 $(+0.7\sigma)$
S_8	0.8282	0.831 ± 0.013 $(+0.7\sigma)$	$H(0.15)$	73.54	73.59 ± 0.71 $(+1.7\sigma)$			
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4536	0.4551 ± 0.0073 $(+0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	635.4	635.4 ± 6.5 (-1.5σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2228.36$; $\Delta\chi_{\mathrm{eff}}^2 = -1.35$; $\bar{\chi}_{\mathrm{eff}}^2 = 2250.30$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.53$; $R - 1 = 0.00973$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.01) MGS: 1.82 (Δ 0.48) DR12BAO: 3.86 (Δ -0.17) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.72 (Δ -0.16) simall_100x143_offlike5_EE_Aplanc
395.86 (Δ -0.51) commander_dx12_v3.2.29: 23.14 (Δ 0.33) plik_rd12_HM_v22.TT: 758.71 (Δ -1.08) SN - JLA Pantheon18: 1034.79 (Δ -0.16)

19.19 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02213 ± 0.00021	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.615 ± 0.013	$H(0.38)$	83.44 ± 0.62
$\Omega_{\mathrm{c}}h^2$	0.1205 ± 0.0018	$\sigma_8/h^{0.5}$	1.000 ± 0.019	$D_{\mathrm{M}}(0.38)$	1516 ± 14
$100\theta_{\mathrm{MC}}$	1.04080 ± 0.00045	$r_{\mathrm{drag}}h$	100.3 ± 1.2	$H(0.51)$	89.88 ± 0.50
τ	$0.0536^{+0.0046}_{-0.0081}$	$\langle d^2 \rangle^{1/2}$	2.468 ± 0.041	$D_{\mathrm{M}}(0.51)$	1967 ± 16
w_0	-0.953 ± 0.084	z_{re}	$7.65^{+0.52}_{-0.82}$	$H(0.61)$	95.29 ± 0.43
w_a	$-0.35^{+0.41}_{-0.31}$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.024}_{-0.033}$	$D_{\mathrm{M}}(0.61)$	2291 ± 17
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.013	$H(2.33)$	235.13 ± 0.98
n_{s}	0.9632 ± 0.0051	D_{40}	1232 ± 14	$D_{\mathrm{M}}(2.33)$	5766 ± 13
y_{cal}	1.0005 ± 0.0025	D_{220}	5713 ± 42	$f\sigma_8(0.15)$	0.463 ± 0.011
A_{217}^{CIB}	48 ± 7	D_{810}	2536 ± 14	$\sigma_8(0.15)$	0.763 ± 0.016
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	814.5 ± 5.1	$f\sigma_8(0.38)$	0.484 ± 0.013
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	229.7 ± 1.8	$\sigma_8(0.38)$	0.677 ± 0.014
A_{100}^{PS}	263 ± 28	$n_{\mathrm{s},0.002}$	0.9632 ± 0.0051	$f\sigma_8(0.51)$	0.485 ± 0.013
A_{143}^{PS}	49 ± 8	Y_{P}	$0.245291^{+0.000097}_{-0.000081}$	$\sigma_8(0.51)$	0.633 ± 0.013
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246618^{+0.000098}_{-0.000082}$	$f\sigma_8(0.61)$	0.481 ± 0.013
A_{217}^{PS}	115 ± 10	$10^5 \mathrm{D}/\mathrm{H}$	2.632 ± 0.040	$\sigma_8(0.61)$	0.603 ± 0.012
A^{kSZ}	< 4.77	$\mathrm{Age}/\mathrm{Gyr}$	13.779 ± 0.035	$f\sigma_8(2.33)$	$0.3043^{+0.0065}_{-0.0057}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	z_*	1090.27 ± 0.36	$\sigma_8(2.33)$	0.3111 ± 0.0046
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.49 ± 0.43	f_{2000}^{143}	31.0 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04101 ± 0.00044	$f_{2000}^{143 \times 217}$	33.4 ± 2.0
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.4	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.880 ± 0.040	f_{2000}^{217}	108.0 ± 1.9
c_{100}	0.99960 ± 0.00061	z_{drag}	1059.41 ± 0.45	χ_{simall}^2	396.8 ± 1.6
c_{217}	0.99826 ± 0.00062	r_{drag}	147.24 ± 0.44	χ_{lowl}^2	23.7 ± 1.1
H_0	68.13 ± 0.83	k_{D}	0.14053 ± 0.00050	χ_{plik}^2	770.6 ± 5.4
Ω_{Λ}	0.6912 ± 0.0082	$100\theta_{\mathrm{D}}$	0.16107 ± 0.00026	χ_{JLA}^2	1035.9 ± 1.5
Ω_{m}	0.3088 ± 0.0082	z_{eq}	3408 ± 41	$\chi_{6\mathrm{DF}}^2$	0.053 ± 0.073
$\Omega_{\mathrm{m}}h^2$	0.1433 ± 0.0017	k_{eq}	0.01040 ± 0.00013	χ_{MGS}^2	1.86 ± 0.69
$\Omega_{\mathrm{m}}h^3$	0.0976 ± 0.0017	$100\theta_{\mathrm{eq}}$	0.8116 ± 0.0077	$\chi_{\mathrm{DR12BAO}}^2$	5.0 ± 1.3
σ_8	0.826 ± 0.017	$100\theta_{\mathrm{s,eq}}$	0.4487 ± 0.0040	χ_{prior}^2	7.3 ± 3.7
S_8	0.838 ± 0.020	$H(0.15)$	73.62 ± 0.73	χ_{BAO}^2	6.9 ± 1.5
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.459 ± 0.011	$D_{\mathrm{M}}(0.15)$	635.3 ± 6.6	χ_{CMB}^2	1191.0 ± 5.4

$$\bar{\chi}_{\mathrm{eff}}^2 = 2241.17; R - 1 = 0.00784$$

19.20 base_w_wa_plikHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02216 \pm 0.00020 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.012 \quad (+1.2\sigma)$	$H(0.51)$	$89.92 \pm 0.52 \quad (+1.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0013 \quad (+0.9\sigma)$	$r_{\mathrm{drag}}h$	$100.4 \pm 1.2 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1967 \pm 16 \quad (-1.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00044 \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.456 \pm 0.027 \quad (+1.0\sigma)$	$H(0.61)$	$95.35 \pm 0.44 \quad (+0.4\sigma)$
τ	$0.0534^{+0.0046}_{-0.0079} \quad (-0.4\sigma)$	z_{re}	$7.61^{+0.51}_{-0.80} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2291 \pm 17 \quad (-1.4\sigma)$
w_0	-0.961 ± 0.081	$10^9 A_{\mathrm{s}}$	$2.093^{+0.023}_{-0.030} \quad (-0.3\sigma)$	$H(2.33)$	$235.0 \pm 1.0 \quad (-1.0\sigma)$
w_a	$-0.28^{+0.34}_{-0.27}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.011 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 13 \quad (-0.2\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.011}_{-0.014} \quad (-0.3\sigma)$	D_{40}	$1230 \pm 12 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4593 \pm 0.0078 \quad (+0.7\sigma)$
n_{s}	$0.9642 \pm 0.0043 \quad (-0.5\sigma)$	D_{220}	$5716 \pm 41 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.759 \pm 0.011 \quad (+2.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4803 \pm 0.0092 \quad (+1.3\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (-0.0\sigma)$	D_{1420}	$814.5 \pm 5.0 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.673 \pm 0.010 \quad (+2.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.7 \pm 1.7 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4805 \pm 0.0095 \quad (+1.8\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9642 \pm 0.0043 \quad (-0.5\sigma)$	$\sigma_8(0.51)$	$0.6299 \pm 0.0095 \quad (+2.1\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.0\sigma)$	Y_{P}	$0.245305^{+0.000093}_{-0.000076} \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4765 \pm 0.0096 \quad (+2.2\sigma)$
A_{143}^{PS}	$49 \pm 8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246631^{+0.000093}_{-0.000077} \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5993 \pm 0.0089 \quad (+2.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.626 \pm 0.038 \quad (+0.3\sigma)$	$f\sigma_8(2.33)$	$0.3027 \pm 0.0046 \quad (+2.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Age/Gyr	$13.781 \pm 0.034 \quad (-0.9\sigma)$	$\sigma_8(2.33)$	$0.3100 \pm 0.0036 \quad (+1.3\sigma)$
A^{kSZ}	$< 4.86 \quad (+0.0\sigma)$	z_*	$1090.18 \pm 0.31 \quad (+0.6\sigma)$	f_{2000}^{143}	$31.0 \pm 2.9 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.62 \pm 0.32 \quad (-0.7\sigma)$	$f_{2000}^{143 \times 217}$	$33.4 \pm 2.0 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00043 \quad (-0.4\sigma)$	f_{2000}^{217}	$108.1 \pm 1.9 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.892 \pm 0.031 \quad (-0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.39 \pm 0.98 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.5 \pm 7.3 \quad (+0.0\sigma)$	z_{drag}	$1059.44 \pm 0.44 \quad (-0.2\sigma)$	χ_{small}^2	$396.7 \pm 1.4 \quad (-0.3\sigma)$
c_{100}	$0.99961 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.35 \pm 0.35 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.44 \pm 0.89 \quad (+0.3\sigma)$
c_{217}	$0.99826 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14043 \pm 0.00044 \quad (+0.3\sigma)$	χ_{plik}^2	$770.6 \pm 5.3 \quad (-0.2\sigma)$
H_0	$68.12 \pm 0.83 \quad (+1.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16105 \pm 0.00026 \quad (+0.1\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.5 \quad (+2.8\sigma)$
Ω_{Λ}	$0.6924 \pm 0.0079 \quad (+0.4\sigma)$	z_{eq}	$3395 \pm 30 \quad (+0.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.075 \quad (+0.1\sigma)$
Ω_{m}	$0.3076 \pm 0.0079 \quad (-0.4\sigma)$	k_{eq}	$0.010362 \pm 0.000092 \quad (+0.9\sigma)$	χ_{MGS}^2	$1.88 \pm 0.70 \quad (+1.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1427 \pm 0.0013 \quad (+0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8140 \pm 0.0056 \quad (-0.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0972 \pm 0.0015 \quad (+3.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4499 \pm 0.0029 \quad (-0.9\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.821 \pm 0.012 \quad (+1.9\sigma)$	$H(0.15)$	$73.57 \pm 0.71 \quad (+1.7\sigma)$	χ_{CMB}^2	$1200.1 \pm 5.5 \quad (-0.2\sigma)$
S_8	$0.831 \pm 0.013 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.6 \pm 6.5 \quad (-1.4\sigma)$	χ_{BAO}^2	$6.7 \pm 1.5 \quad (+0.7\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4551 \pm 0.0073 \quad (+0.7\sigma)$	$H(0.38)$	$83.44 \pm 0.63 \quad (+1.5\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6111 \pm 0.0086 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1517 \pm 13 \quad (-1.5\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2250.01; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.39; R - 1 = 0.01194$$

19.21 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022366	0.02236 ± 0.00014	$\Omega_m h^3$	0.09770	0.0978 ± 0.0015	$H(0.15)$	73.70	73.81 ± 0.72
$\Omega_c h^2$	0.12004	0.1202 ± 0.0013	σ_8	0.8226	0.823 ± 0.014	$D_M(0.15)$	634.2	633.7 ± 6.5
$100\theta_{MC}$	1.040882	1.04090 ± 0.00030	S_8	0.8318	0.833 ± 0.015	$H(0.38)$	83.57	83.66 ± 0.61
τ	0.0544	0.0539 ± 0.0078	$\sigma_8 \Omega_m^{0.5}$	0.4556	0.4561 ± 0.0080	$D_M(0.38)$	1514.1	1512 ± 13
w_0	-0.967	-0.953 ± 0.082	$\sigma_8 \Omega_m^{0.25}$	0.6122	0.6128 ± 0.0098	$H(0.51)$	90.071	90.12 ± 0.49
w_a	-0.250	$-0.33_{-0.28}^{+0.35}$	$\sigma_8/h^{0.5}$	0.9954	0.996 ± 0.014	$D_M(0.51)$	1963.5	1961 ± 16
$\ln(10^{10} A_s)$	3.0448	3.044 ± 0.016	$r_{drag} h$	100.45	100.4 ± 1.2	$H(0.61)$	95.518	95.53 ± 0.40
n_s	0.96608	0.9646 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.4562	2.461 ± 0.032	$D_M(0.61)$	2286.8	2285 ± 17
y_{cal}	1.00059	1.0005 ± 0.0025	z_{re}	7.68	7.62 ± 0.79	$H(2.33)$	235.30	235.26 ± 0.93
A_{217}^{CIB}	46.9	47 ± 7	$10^9 A_s$	2.1006	2.099 ± 0.033	$D_M(2.33)$	5754.1	5754.2 ± 9.9
$\xi^{tSZ \times CIB}$	0.46	—	$10^9 A_s e^{-2\tau}$	1.8840	1.884 ± 0.011	$f\sigma_8(0.15)$	0.4601	0.4601 ± 0.0082
A_{143}^{tSZ}	7.23	$5.5_{-1.9}^{+2.1}$	D_{40}	1228.1	1231 ± 12	$\sigma_8(0.15)$	0.7607	0.761 ± 0.013
A_{100}^{PS}	248.8	259 ± 28	D_{220}	5729.0	5733 ± 38	$f\sigma_8(0.38)$	0.4813	0.4815 ± 0.0097
A_{143}^{PS}	47.8	46 ± 8	D_{810}	2540.6	2539 ± 13	$\sigma_8(0.38)$	0.6748	0.675 ± 0.012
$A_{143 \times 217}^{PS}$	48.3	42 ± 9	D_{1420}	818.06	817.0 ± 4.7	$f\sigma_8(0.51)$	0.4815	0.482 ± 0.010
A_{217}^{PS}	120.2	115 ± 10	D_{2000}	231.25	230.9 ± 1.6	$\sigma_8(0.51)$	0.6316	0.632 ± 0.011
A^{kSZ}	0.00	< 4.22	$n_{s,0.002}$	0.96608	0.9646 ± 0.0042	$f\sigma_8(0.61)$	0.4774	0.478 ± 0.010
A_{100}^{dustTT}	8.87	8.9 ± 1.8	Y_P	0.245394	$0.245391_{-0.000052}^{+0.000060}$	$\sigma_8(0.61)$	0.6010	0.601 ± 0.010
A_{143}^{dustTT}	11.00	10.9 ± 1.8	Y_P^{BBN}	0.246721	$0.246717_{-0.000052}^{+0.000060}$	$f\sigma_8(2.33)$	0.3037	0.3039 ± 0.0053
$A_{143 \times 217}^{dustTT}$	19.92	18.6 ± 3.3	$10^5 D/H$	2.5862	2.587 ± 0.026	$\sigma_8(2.33)$	0.31097	0.3109 ± 0.0042
A_{217}^{dustTT}	95.3	93.7 ± 7.3	Age/Gyr	13.7585	13.755 ± 0.030	f_{2000}^{143}	28.75	29.5 ± 2.7
A_{100}^{dustTE}	0.1132	0.115 ± 0.038	z_*	1089.929	1089.95 ± 0.26	$f_{2000}^{143 \times 217}$	31.95	32.2 ± 1.8
$A_{100 \times 143}^{dustTE}$	0.1347	0.135 ± 0.030	r_*	144.424	144.38 ± 0.28	f_{2000}^{217}	106.63	107.0 ± 1.8
$A_{100 \times 217}^{dustTE}$	0.480	0.482 ± 0.085	$100\theta_*$	1.041071	1.04108 ± 0.00030	χ_{small}^2	396.04	397.0 ± 1.8
A_{143}^{dustTE}	0.226	0.225 ± 0.054	$D_M(z_*)/\text{Gpc}$	13.8726	13.869 ± 0.027	χ_{lowl}^2	23.14	23.49 ± 0.91
$A_{143 \times 217}^{dustTE}$	0.664	0.666 ± 0.080	z_{drag}	1059.933	1059.93 ± 0.29	χ_{plik}^2	2344.0	2358.7 ± 5.7
A_{217}^{dustTE}	2.075	2.09 ± 0.27	r_{drag}	147.085	147.04 ± 0.28	χ_{JLA}^2	1034.82	1035.9 ± 1.6
c_{100}	0.99972	0.99966 ± 0.00062	k_D	0.140871	0.14091 ± 0.00031	χ_{6DF}^2	0.0009	0.054 ± 0.077
c_{217}	0.99819	0.99819 ± 0.00062	$100\theta_D$	0.160757	0.16076 ± 0.00017	χ_{MGS}^2	1.82	1.95 ± 0.69
H_0	68.29	68.31 ± 0.83	z_{eq}	3403.1	3407 ± 29	$\chi_{DR12BAO}^2$	3.91	4.8 ± 1.2
Ω_Λ	0.6933	0.6929 ± 0.0078	k_{eq}	0.010387	0.010399 ± 0.000088	χ_{prior}^2	1.76	11.6 ± 4.6
Ω_m	0.3067	0.3071 ± 0.0078	$100\theta_{eq}$	0.8131	0.8124 ± 0.0054	χ_{BAO}^2	5.73	6.8 ± 1.5
$\Omega_m h^2$	0.14305	0.1432 ± 0.0012	$100\theta_{s,eq}$	0.44928	0.4489 ± 0.0028	χ_{CMB}^2	2763.1	2779.2 ± 5.8

Best-fit $\chi_{eff}^2 = 3805.46$; $\bar{\chi}_{eff}^2 = 3833.50$; $R - 1 = 0.00745$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.91 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.04 commander_dx12_v3_2_29: 23.14 plik_rd12_HM_v22b_TTTEEE: 2343.97 SN - JLA Pantheon18: 1034.82

19.22 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022398	0.02238 ± 0.00014 (-0.4σ)	$\Omega_{\text{m}}h^3$	0.09764	0.0977 ± 0.0014 $(+4.4\sigma)$	$H(0.15)$	73.71	73.78 ± 0.70 $(+2.3\sigma)$
$\Omega_{\text{c}}h^2$	0.11992	0.1199 ± 0.0011 $(+0.8\sigma)$	σ_8	0.8210	0.820 ± 0.011 $(+1.7\sigma)$	$D_{\text{M}}(0.15)$	634.2	633.8 ± 6.3 (-1.9σ)
$100\theta_{\text{MC}}$	1.040936	1.04092 ± 0.00029 (-0.4σ)	S_8	0.8298	0.829 ± 0.011 $(+0.5\sigma)$	$H(0.38)$	83.60	83.66 ± 0.61 $(+2.2\sigma)$
τ	0.0540	0.0535 ± 0.0075 (-0.4σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4545	0.4542 ± 0.0060 $(+0.5\sigma)$	$D_{\text{M}}(0.38)$	1513.9	1513 ± 13 (-2.1σ)
w_0	-0.967	-0.957 ± 0.080	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6108	0.6104 ± 0.0072 $(+1.0\sigma)$	$H(0.51)$	90.105	90.13 ± 0.49 $(+1.6\sigma)$
w_a	-0.237	$-0.29^{+0.32}_{-0.26}$	$\sigma_8/h^{0.5}$	0.9934	0.993 ± 0.010 $(+1.0\sigma)$	$D_{\text{M}}(0.51)$	1963.2	1962 ± 15 (-2.1σ)
$\ln(10^{10}A_{\text{s}})$	3.0437	3.042 ± 0.015 (-0.3σ)	$r_{\text{drag}}h$	100.45	100.5 ± 1.2 $(+1.1\sigma)$	$H(0.61)$	95.558	95.56 ± 0.40 $(+0.8\sigma)$
n_{s}	0.96656	0.9650 ± 0.0040 (-0.5σ)	$\langle d^2 \rangle^{1/2}$	2.4517	2.454 ± 0.023 $(+0.8\sigma)$	$D_{\text{M}}(0.61)$	2286.3	2285 ± 16 (-2.0σ)
y_{cal}	1.00050	1.0004 ± 0.0025 (-0.1σ)	z_{re}	7.63	7.56 ± 0.76 (-0.4σ)	$H(2.33)$	235.33	235.22 ± 0.93 (-1.6σ)
A_{217}^{CIB}	46.3	47 ± 7 $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0982	2.095 ± 0.030 (-0.3σ)	$D_{\text{M}}(2.33)$	5752.4	5753.3 ± 9.9 (-0.5σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.57	—	$10^9 A_{\text{s}} e^{-2\tau}$	1.8834	1.883 ± 0.010 $(+0.2\sigma)$	$f\sigma_8(0.15)$	0.4589	0.4582 ± 0.0065 $(+0.4\sigma)$
A_{143}^{tSZ}	7.19	$5.4^{+2.2}_{-1.9}$ $(+0.0\sigma)$	D_{40}	1227.0	1230 ± 11 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7592	0.759 ± 0.010 $(+1.9\sigma)$
A_{100}^{PS}	249.1	259 ± 27 (-0.0σ)	D_{220}	5730.3	5734 ± 39 (-0.2σ)	$f\sigma_8(0.38)$	0.4800	0.4795 ± 0.0079 $(+1.1\sigma)$
A_{143}^{PS}	49.0	46 ± 8 $(+0.0\sigma)$	D_{810}	2540.7	2538 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6735	0.6732 ± 0.0094 $(+2.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	50.9	42 ± 9 (-0.0σ)	D_{1420}	818.39	816.9 ± 4.7 (-0.2σ)	$f\sigma_8(0.51)$	0.4802	0.4799 ± 0.0083 $(+1.6\sigma)$
A_{217}^{PS}	121.1	115 ± 10 (-0.0σ)	D_{2000}	231.40	230.8 ± 1.6 (-0.2σ)	$\sigma_8(0.51)$	0.6304	0.6301 ± 0.0088 $(+2.0\sigma)$
A^{kSZ}	0.00	< 4.30 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.96656	0.9650 ± 0.0040 (-0.5σ)	$f\sigma_8(0.61)$	0.4762	0.4760 ± 0.0084 $(+1.9\sigma)$
A_{100}^{dustTT}	8.85	9.0 ± 1.8 $(+0.1\sigma)$	Y_{P}	0.245406	$0.245398^{+0.000057}_{-0.000050}$ (-0.4σ)	$\sigma_8(0.61)$	0.5999	0.5996 ± 0.0083 $(+2.0\sigma)$
A_{143}^{dustTT}	11.05	10.9 ± 1.8 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246733	$0.246724^{+0.000057}_{-0.000050}$ (-0.4σ)	$f\sigma_8(2.33)$	0.30312	0.3030 ± 0.0043 $(+2.2\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.07	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5803	2.584 ± 0.025 $(+0.4\sigma)$	$\sigma_8(2.33)$	0.31058	0.3102 ± 0.0035 $(+1.3\sigma)$
A_{217}^{dustTT}	95.4	93.6 ± 7.2 $(+0.0\sigma)$	Age/Gyr	13.7559	13.756 ± 0.029 (-1.5σ)	χ_{lensing}^2	8.805	9.20 ± 0.79 $(+0.2\sigma)$
A_{100}^{dustTE}	0.1152	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.877	1089.90 ± 0.23 $(+0.6\sigma)$	χ_{simall}^2	396.01	396.9 ± 1.6 (-0.2σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1349	0.135 ± 0.030 $(+0.0\sigma)$	r_*	144.431	144.44 ± 0.25 (-0.7σ)	χ_{lowl}^2	23.05	23.38 ± 0.81 $(+0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.484 ± 0.085 $(+0.0\sigma)$	$100\theta_*$	1.041115	1.04110 ± 0.00029 (-0.4σ)	χ_{plik}^2	2344.2	2358.6 ± 5.6 (-0.2σ)
A_{143}^{dustTE}	0.226	0.225 ± 0.054 $(+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8727	13.874 ± 0.023 (-0.6σ)	χ_{JLA}^2	1034.83	1035.9 ± 1.6 $(+3.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.663	0.667 ± 0.081 (-0.0σ)	z_{drag}	1060.009	1059.95 ± 0.29 (-0.2σ)	$\chi_{6\text{DF}}^2$	0.0010	0.053 ± 0.076 $(+0.1\sigma)$
A_{217}^{dustTE}	2.077	2.08 ± 0.26 $(+0.0\sigma)$	r_{drag}	147.081	147.10 ± 0.25 (-0.6σ)	χ_{MGS}^2	1.82	1.96 ± 0.69 $(+1.7\sigma)$
c_{100}	0.99971	0.99967 ± 0.00061 (-0.0σ)	k_{D}	0.140898	0.14087 ± 0.00029 $(+0.4\sigma)$	χ_{DR12BAO}^2	3.86	4.7 ± 1.1 (-0.0σ)
c_{217}	0.99818	0.99820 ± 0.00062 $(+0.0\sigma)$	$100\theta_{\text{D}}$	0.160725	0.16075 ± 0.00017 $(+0.2\sigma)$	χ_{prior}^2	1.70	11.6 ± 4.5 $(+0.0\sigma)$
H_0	68.30	68.31 ± 0.82 $(+1.5\sigma)$	z_{eq}	3400.9	3401 ± 24 $(+0.8\sigma)$	χ_{CMB}^2	2772.1	2788.0 ± 5.8 (-0.2σ)
Ω_{Λ}	0.6935	0.6935 ± 0.0077 $(+0.7\sigma)$	k_{eq}	0.010380	0.010380 ± 0.000075 $(+0.8\sigma)$	χ_{BAO}^2	5.68	6.7 ± 1.4 $(+0.7\sigma)$
Ω_{m}	0.3065	0.3065 ± 0.0077 (-0.7σ)	$100\theta_{\text{eq}}$	0.81362	0.8136 ± 0.0046 (-0.8σ)			
$\Omega_{\text{m}}h^2$	0.14296	0.1430 ± 0.0010 $(+0.8\sigma)$	$100\theta_{\text{s,eq}}$	0.44953	0.4495 ± 0.0023 (-0.8σ)			

Best-fit $\chi_{\text{eff}}^2 = 3814.30$; $\Delta\chi_{\text{eff}}^2 = -1.37$; $\bar{\chi}_{\text{eff}}^2 = 3842.17$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.31$; $R - 1 = 0.01143$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.02) MGS: 1.82 (Δ 0.54) DR12BAO: 3.86 (Δ -0.38) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.80 (Δ 0.09) simall_100x143_offlike5_EE_Aplanck 396.01 (Δ -0.51) commander_dx12_v3.2_29: 23.05 (Δ 0.17) plik_rd12_HM_v22b.TTTEEE: 2344.24 (Δ -1.03) SN - JLA Pantheon18: 1034.83 (Δ -0.14)

19.23 **base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02237 ± 0.00014	$\Omega_{\mathrm{m}}h^3$	0.0978 ± 0.0015	$H(0.15)$	73.80 ± 0.72
$\Omega_{\mathrm{c}}h^2$	0.1202 ± 0.0013	σ_8	0.824 ± 0.014	$D_{\mathrm{M}}(0.15)$	633.7 ± 6.5
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00030	S_8	0.833 ± 0.014	$H(0.38)$	83.66 ± 0.61
τ	$0.0551^{+0.0052}_{-0.0083}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4565 ± 0.0079	$D_{\mathrm{M}}(0.38)$	1513 ± 13
w_0	-0.953 ± 0.081	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6133 ± 0.0096	$H(0.51)$	90.12 ± 0.49
w_a	$-0.32^{+0.35}_{-0.28}$	$\sigma_8/h^{0.5}$	0.997 ± 0.014	$D_{\mathrm{M}}(0.51)$	1962 ± 15
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016}$	$r_{\mathrm{drag}}h$	100.4 ± 1.2	$H(0.61)$	95.53 ± 0.40
n_{s}	0.9647 ± 0.0042	$\langle d^2 \rangle^{1/2}$	2.463 ± 0.031	$D_{\mathrm{M}}(0.61)$	2285 ± 17
y_{cal}	1.0005 ± 0.0025	z_{re}	$7.74^{+0.58}_{-0.82}$	$H(2.33)$	235.26 ± 0.93
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.034}$	$D_{\mathrm{M}}(2.33)$	5754.1 ± 9.9
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.884 ± 0.011	$f\sigma_8(0.15)$	0.4605 ± 0.0081
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{40}	1231 ± 12	$\sigma_8(0.15)$	0.762 ± 0.013
A_{100}^{PS}	258 ± 28	D_{220}	5732 ± 39	$f\sigma_8(0.38)$	0.4819 ± 0.0096
A_{143}^{PS}	46 ± 8	D_{810}	2539 ± 13	$\sigma_8(0.38)$	0.676 ± 0.011
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	816.9 ± 4.7	$f\sigma_8(0.51)$	0.482 ± 0.010
A_{217}^{PS}	115 ± 10	D_{2000}	230.9 ± 1.6	$\sigma_8(0.51)$	0.633 ± 0.011
A^{kSZ}	< 4.20	$n_{\mathrm{s},0.002}$	0.9647 ± 0.0042	$f\sigma_8(0.61)$	0.479 ± 0.010
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	$0.245392^{+0.000060}_{-0.000051}$	$\sigma_8(0.61)$	0.602 ± 0.010
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246718^{+0.000060}_{-0.000051}$	$f\sigma_8(2.33)$	0.3041 ± 0.0052
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$10^5 \mathrm{D}/\mathrm{H}$	$2.587^{+0.025}_{-0.028}$	$\sigma_8(2.33)$	0.3112 ± 0.0041
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	$\mathrm{Age}/\mathrm{Gyr}$	13.755 ± 0.030	f_{2000}^{143}	29.5 ± 2.7
$A_{100}^{\mathrm{dust}TE}$	0.114 ± 0.038	z_*	1089.94 ± 0.26	$f_{2000}^{143 \times 217}$	32.1 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.030	r_*	144.39 ± 0.28	f_{2000}^{217}	107.0 ± 1.8
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.482 ± 0.085	$100\theta_*$	1.04108 ± 0.00030	χ_{simall}^2	397.0 ± 1.8
$A_{143}^{\mathrm{dust}TE}$	0.226 ± 0.054	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.869 ± 0.027	χ_{lowl}^2	23.50 ± 0.91
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.081	z_{drag}	1059.94 ± 0.29	χ_{plik}^2	2358.5 ± 5.7
$A_{217}^{\mathrm{dust}TE}$	2.09 ± 0.27	r_{drag}	147.05 ± 0.28	χ_{JLA}^2	1035.9 ± 1.6
c_{100}	0.99966 ± 0.00062	k_{D}	0.14091 ± 0.00031	$\chi_{6\mathrm{DF}}^2$	0.054 ± 0.077
c_{217}	0.99819 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16076 ± 0.00017	χ_{MGS}^2	1.95 ± 0.70
H_0	68.30 ± 0.83	z_{eq}	3406 ± 29	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.2
Ω_{Λ}	0.6929 ± 0.0078	k_{eq}	0.010397 ± 0.000088	χ_{prior}^2	11.6 ± 4.6
Ω_{m}	0.3071 ± 0.0078	$100\theta_{\mathrm{eq}}$	0.8125 ± 0.0054	χ_{BAO}^2	6.7 ± 1.5
$\Omega_{\mathrm{m}}h^2$	0.1432 ± 0.0012	$100\theta_{\mathrm{s,eq}}$	0.4490 ± 0.0028	χ_{CMB}^2	2779.0 ± 5.7

$\bar{\chi}_{\mathrm{eff}}^2 = 3833.27$; $R - 1 = 0.00878$

19.24 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02238 \pm 0.00014 \quad (-0.4\sigma)$	σ_8	$0.821 \pm 0.011 \quad (+1.8\sigma)$	$H(0.38)$	$83.65 \pm 0.60 \quad (+2.2\sigma)$
$\Omega_c h^2$	$0.1199 \pm 0.0011 \quad (+0.8\sigma)$	S_8	$0.829 \pm 0.011 \quad (+0.5\sigma)$	$D_M(0.38)$	$1513 \pm 13 \quad (-2.1\sigma)$
$100\theta_{MC}$	$1.04092 \pm 0.00029 \quad (-0.4\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4543 \pm 0.0060 \quad (+0.5\sigma)$	$H(0.51)$	$90.13 \pm 0.49 \quad (+1.6\sigma)$
τ	$0.0546^{+0.0051}_{-0.0079} \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6106 \pm 0.0071 \quad (+1.0\sigma)$	$D_M(0.51)$	$1962 \pm 15 \quad (-2.0\sigma)$
w_0	-0.958 ± 0.079	$\sigma_8/h^{0.5}$	$0.993 \pm 0.010 \quad (+1.0\sigma)$	$H(0.61)$	$95.56 \pm 0.40 \quad (+0.8\sigma)$
w_a	$-0.28^{+0.32}_{-0.26}$	$r_{\text{drag}} h$	$100.5 \pm 1.2 \quad (+1.1\sigma)$	$D_M(0.61)$	$2285 \pm 16 \quad (-2.0\sigma)$
$\ln(10^{10} A_s)$	$3.044^{+0.011}_{-0.015} \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.023 \quad (+0.9\sigma)$	$H(2.33)$	$235.23 \pm 0.93 \quad (-1.6\sigma)$
n_s	$0.9653 \pm 0.0039 \quad (-0.4\sigma)$	z_{re}	$7.68^{+0.56}_{-0.79} \quad (-0.3\sigma)$	$D_M(2.33)$	$5753.2 \pm 9.9 \quad (-0.5\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	$10^9 A_s$	$2.099^{+0.024}_{-0.031} \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4584 \pm 0.0065 \quad (+0.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	$10^9 A_s e^{-2\tau}$	$1.882 \pm 0.010 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.759 \pm 0.010 \quad (+1.9\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	$1230 \pm 11 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4796 \pm 0.0079 \quad (+1.1\sigma)$
A_{143}^{tSZ}	$5.4^{+2.2}_{-1.9} \quad (+0.0\sigma)$	D_{220}	$5733 \pm 39 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6734 \pm 0.0094 \quad (+2.1\sigma)$
A_{100}^{PS}	$259 \pm 27 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4799 \pm 0.0082 \quad (+1.6\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.0\sigma)$	D_{1420}	$816.8 \pm 4.8 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6304 \pm 0.0087 \quad (+2.1\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{2000}	$230.8 \pm 1.6 \quad (-0.2\sigma)$	$f\sigma_8(0.61)$	$0.4761 \pm 0.0084 \quad (+2.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$n_{s,0.002}$	$0.9653 \pm 0.0039 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.5998 \pm 0.0082 \quad (+2.1\sigma)$
A^{kSZ}	$< 4.29 \quad (+0.0\sigma)$	Y_P	$0.245399^{+0.000057}_{-0.000049} \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.3031 \pm 0.0043 \quad (+2.4\sigma)$
$A_{100}^{\text{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246726^{+0.000057}_{-0.000049} \quad (-0.4\sigma)$	$\sigma_8(2.33)$	$0.3104 \pm 0.0035 \quad (+1.4\sigma)$
$A_{143}^{\text{dust}TT}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 D/H$	$2.583 \pm 0.025 \quad (+0.4\sigma)$	f_{2000}^{143}	$29.5 \pm 2.7 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Age/Gyr	$13.756 \pm 0.029 \quad (-1.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 1.8 \quad (+0.1\sigma)$
$A_{217}^{\text{dust}TT}$	$93.6 \pm 7.2 \quad (+0.0\sigma)$	z_*	$1089.89 \pm 0.23 \quad (+0.6\sigma)$	f_{2000}^{217}	$107.0 \pm 1.8 \quad (+0.0\sigma)$
$A_{100}^{\text{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.45 \pm 0.24 \quad (-0.7\sigma)$	χ_{lensing}^2	$9.19 \pm 0.80 \quad (+0.2\sigma)$
$A_{100 \times 143}^{\text{dust}TE}$	$0.135 \pm 0.030 \quad (-0.0\sigma)$	$100\theta_*$	$1.04110 \pm 0.00029 \quad (-0.3\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.2\sigma)$
$A_{100 \times 217}^{\text{dust}TE}$	$0.485 \pm 0.085 \quad (+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.875 \pm 0.023 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.37 \pm 0.81 \quad (+0.2\sigma)$
$A_{143}^{\text{dust}TE}$	$0.226 \pm 0.054 \quad (+0.0\sigma)$	z_{drag}	$1059.96 \pm 0.29 \quad (-0.2\sigma)$	χ_{plik}^2	$2358.4 \pm 5.6 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\text{dust}TE}$	$0.667 \pm 0.081 \quad (-0.0\sigma)$	r_{drag}	$147.11 \pm 0.25 \quad (-0.6\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.6 \quad (+3.3\sigma)$
$A_{217}^{\text{dust}TE}$	$2.08 \pm 0.26 \quad (+0.0\sigma)$	k_D	$0.14086 \pm 0.00029 \quad (+0.3\sigma)$	$\chi_{6\text{DF}}^2$	$0.053 \pm 0.077 \quad (+0.2\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_D$	$0.16074 \pm 0.00017 \quad (+0.2\sigma)$	χ_{MGS}^2	$1.95 \pm 0.69 \quad (+1.7\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3400 \pm 24 \quad (+0.7\sigma)$	χ_{DR12BAO}^2	$4.6 \pm 1.1 \quad (-0.0\sigma)$
H_0	$68.30 \pm 0.82 \quad (+1.4\sigma)$	k_{eq}	$0.010376 \pm 0.000073 \quad (+0.7\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_Λ	$0.6935 \pm 0.0077 \quad (+0.7\sigma)$	$100\theta_{\text{eq}}$	$0.8138 \pm 0.0045 \quad (-0.8\sigma)$	χ_{CMB}^2	$2787.8 \pm 5.7 \quad (-0.2\sigma)$
Ω_m	$0.3065 \pm 0.0077 \quad (-0.7\sigma)$	$100\theta_{s,\text{eq}}$	$0.4497 \pm 0.0023 \quad (-0.8\sigma)$	χ_{BAO}^2	$6.6 \pm 1.4 \quad (+0.7\sigma)$
$\Omega_m h^2$	$0.1429 \pm 0.0010 \quad (+0.7\sigma)$	$H(0.15)$	$73.77 \pm 0.69 \quad (+2.2\sigma)$		
$\Omega_m h^3$	$0.0976 \pm 0.0014 \quad (+4.2\sigma)$	$D_M(0.15)$	$633.9 \pm 6.3 \quad (-1.9\sigma)$		

$$\bar{\chi}_{\text{eff}}^2 = 3841.93; \Delta\bar{\chi}_{\text{eff}}^2 = 0.19; R - 1 = 0.01414$$

19.25 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022192	0.02214 ± 0.00021	$\sigma_8 \Omega_m^{0.25}$	0.6134	0.614 ± 0.013	$D_M(0.38)$	1518.3	1516 ± 14
$\Omega_c h^2$	0.11995	0.1204 ± 0.0018	$\sigma_8/h^{0.5}$	0.9979	0.998 ± 0.019	$H(0.51)$	89.84	89.90 ± 0.51
$100\theta_{MC}$	1.040945	1.04085 ± 0.00046	$r_{drag}h$	100.48	100.4 ± 1.2	$D_M(0.51)$	1968.9	1966 ± 16
τ	0.0590	0.0520 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4623	$2.460^{+0.044}_{-0.039}$	$H(0.61)$	95.317	95.30 ± 0.44
w_0	-0.985	$-0.956^{+0.079}_{-0.089}$	z_{re}	8.18	7.47 ± 0.83	$D_M(0.61)$	2292.9	2290 ± 17
w_a	-0.180	$-0.34^{+0.41}_{-0.31}$	$10^9 A_s$	2.1095	2.088 ± 0.034	$H(2.33)$	235.28	235.11 ± 0.98
$\ln(10^{10} A_s)$	3.0490	3.039 ± 0.016	$10^9 A_s e^{-2\tau}$	1.8748	1.881 ± 0.013	$D_M(2.33)$	5762.3	5765 ± 13
n_s	0.9649	0.9639 ± 0.0052	D_{40}	1225.7	1228 ± 14	$f\sigma_8(0.15)$	0.4619	0.461 ± 0.011
y_{cal}	0.99919	1.0004 ± 0.0025	D_{220}	5695.2	5704 ± 40	$\sigma_8(0.15)$	0.7620	0.762 ± 0.016
A_{100}^{PS}	236.7	242 ± 25	D_{810}	2527.2	2534 ± 14	$f\sigma_8(0.38)$	0.4830	0.483 ± 0.013
A_{143}^{PS}	44.0	41 ± 8	D_{1420}	812.3	814.0 ± 5.0	$\sigma_8(0.38)$	0.6758	0.676 ± 0.014
A_{217}^{PS}	97.5	101 ± 10	D_{2000}	229.24	229.6 ± 1.8	$f\sigma_8(0.51)$	0.4829	0.483 ± 0.013
A_{217}^{CIB}	46.0	41 ± 7	$n_{s,0.002}$	0.9649	0.9639 ± 0.0052	$\sigma_8(0.51)$	0.6324	0.632 ± 0.013
A_{143}^{tSZ}	5.97	$3.7^{+1.8}_{-2.6}$	Y_P	0.245322	$0.245294^{+0.000097}_{-0.000080}$	$f\sigma_8(0.61)$	0.4786	0.479 ± 0.014
$r_{143 \times 217}^{PS}$	0.614	0.65 ± 0.13	Y_P^{BBN}	0.246649	$0.246620^{+0.000097}_{-0.000080}$	$\sigma_8(0.61)$	0.6017	0.601 ± 0.012
$r_{143 \times 217}^{CIB}$	0.868	$0.58^{+0.41}_{-0.13}$	$10^5 D/H$	2.6195	2.631 ± 0.039	$f\sigma_8(2.33)$	0.3039	$0.3037^{+0.0067}_{-0.0058}$
$\xi^{tSZ \times CIB}$	0.35	—	Age/Gyr	13.7793	13.777 ± 0.035	$\sigma_8(2.33)$	0.31148	0.3106 ± 0.0048
A^{kSZ}	1.2	—	z_*	1090.140	1090.26 ± 0.36	f_{2000}^{143}	31.00	30.8 ± 3.0
A_{100}^{dust}	1.010	1.01 ± 0.20	r_*	144.581	144.51 ± 0.43	f_{2000}^{217}	107.08	107.5 ± 2.0
A_{143}^{dust}	0.996	0.98 ± 0.18	$100\theta_*$	1.041148	1.04106 ± 0.00045	$f_{2000}^{143 \times 217}$	32.79	33.0 ± 2.1
A_{217}^{dust}	0.954	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.8867	13.881 ± 0.040	χ_{small}^2	397.31	396.9 ± 1.6
$A_{143 \times 217}^{dust}$	0.973	1.03 ± 0.16	z_{drag}	1059.513	1059.42 ± 0.44	χ_{lowl}^2	23.37	23.4 ± 1.1
c_{100}	0.99756	0.9974 ± 0.0011	r_{drag}	147.305	147.25 ± 0.44	$\chi_{CamSpec}^2$	7049.3	7062.7 ± 5.4
c_{217}	1.00160	1.0012 ± 0.0016	k_D	0.140504	0.14052 ± 0.00050	χ_{JLA}^2	1034.74	1035.9 ± 1.5
H_0	68.21	68.19 ± 0.84	$100\theta_D$	0.161013	0.16107 ± 0.00026	χ_{6DF}^2	0.0002	0.056 ± 0.081
Ω_Λ	0.6931	0.6920 ± 0.0082	z_{eq}	3396.7	3406 ± 42	χ_{MGS}^2	1.75	1.92 ± 0.71
Ω_m	0.3069	0.3080 ± 0.0082	k_{eq}	0.010367	0.01040 ± 0.00013	$\chi_{DR12BAO}^2$	3.97	4.9 ± 1.3
$\Omega_m h^2$	0.14278	0.1432 ± 0.0017	$100\theta_{eq}$	0.8138	0.8120 ± 0.0078	χ_{prior}^2	2.49	7.6 ± 3.4
$\Omega_m h^3$	0.09739	0.0976 ± 0.0018	$100\theta_{s,eq}$	0.44979	0.4489 ± 0.0040	χ_{BAO}^2	5.72	6.9 ± 1.6
σ_8	0.8241	0.824 ± 0.018	$H(0.15)$	73.49	73.66 ± 0.75	χ_{CMB}^2	7470.0	7483.0 ± 5.4
S_8	0.8335	0.835 ± 0.020	$D_M(0.15)$	635.6	634.9 ± 6.7			
$\sigma_8 \Omega_m^{0.5}$	0.4565	0.457 ± 0.011	$H(0.38)$	83.32	83.46 ± 0.63			

Best-fit $\chi_{eff}^2 = 8512.97$; $\bar{\chi}_{eff}^2 = 8533.43$; $R - 1 = 0.00675$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.75 DR12BAO: 3.97 CMB - simall_100x143_offlike5_EE_Aplanck_B: 397.31 commander_dx12_v3.2_29: 23.37 CamSpec like_10.7HM: 7049.34
SN - JLA Pantheon18: 1034.74

19.26 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02215 \pm 0.00020 \quad (-0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6116 \pm 0.0086 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 13 \quad (-1.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0014 \quad (+1.1\sigma)$	$\sigma_8/h^{0.5}$	$0.995 \pm 0.012 \quad (+1.3\sigma)$	$H(0.51)$	$89.93 \pm 0.51 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04086 \pm 0.00045 \quad (-0.4\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 16 \quad (-1.6\sigma)$
τ	$0.0520 \pm 0.0079 \quad (-0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.454 \pm 0.027 \quad (+1.1\sigma)$	$H(0.61)$	$95.34 \pm 0.43 \quad (+0.2\sigma)$
w_0	-0.960 ± 0.081	z_{re}	$7.46 \pm 0.81 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.61)$	$2289 \pm 17 \quad (-1.5\sigma)$
w_a	$-0.30^{+0.34}_{-0.27}$	$10^9 A_{\mathrm{s}}$	$2.086 \pm 0.032 \quad (-0.4\sigma)$	$H(2.33)$	$235.02 \pm 0.98 \quad (-1.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038 \pm 0.015 \quad (-0.4\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 13 \quad (-0.2\sigma)$
n_{s}	$0.9643 \pm 0.0045 \quad (-0.6\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4597 \pm 0.0077 \quad (+0.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5706 \pm 40 \quad (-0.3\sigma)$	$\sigma_8(0.15)$	$0.760 \pm 0.012 \quad (+2.1\sigma)$
A_{100}^{PS}	$243 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4810 \pm 0.0091 \quad (+1.5\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.0\sigma)$	D_{1420}	$813.9 \pm 5.1 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.674 \pm 0.010 \quad (+2.2\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$229.5 \pm 1.8 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4814 \pm 0.0095 \quad (+2.0\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9643 \pm 0.0045 \quad (-0.6\sigma)$	$\sigma_8(0.51)$	$0.6306 \pm 0.0095 \quad (+2.2\sigma)$
A_{143}^{tSZ}	$3.7^{+1.8}_{-2.6} \quad (-0.0\sigma)$	Y_{P}	$0.245302^{+0.000092}_{-0.000077} \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4775 \pm 0.0096 \quad (+2.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246629^{+0.000092}_{-0.000078} \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.6000 \pm 0.0090 \quad (+2.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.13} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.627 \pm 0.038 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.3030 \pm 0.0047 \quad (+2.3\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.777 \pm 0.034 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3101 \pm 0.0037 \quad (+1.3\sigma)$
A^{kSZ}	—	z_*	$1090.21 \pm 0.32 \quad (+0.7\sigma)$	f_{2000}^{143}	$30.8 \pm 3.0 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.57 \pm 0.33 \quad (-0.8\sigma)$	f_{2000}^{217}	$107.6 \pm 2.0 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00044 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 2.1 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.032 \quad (-0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.40 \pm 0.93 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.44 \pm 0.44 \quad (-0.3\sigma)$	χ_{small}^2	$396.8 \pm 1.5 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.30 \pm 0.35 \quad (-0.7\sigma)$	χ_{lowl}^2	$23.29 \pm 0.89 \quad (+0.4\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14047 \pm 0.00044 \quad (+0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.3 \pm 5.2 \quad (-0.2\sigma)$
H_0	$68.21 \pm 0.84 \quad (+1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16105 \pm 0.00026 \quad (+0.2\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.5 \quad (+2.6\sigma)$
Ω_{Λ}	$0.6927 \pm 0.0080 \quad (+0.5\sigma)$	z_{eq}	$3400 \pm 31 \quad (+1.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.056 \pm 0.082 \quad (+0.1\sigma)$
Ω_{m}	$0.3073 \pm 0.0080 \quad (-0.5\sigma)$	k_{eq}	$0.010376 \pm 0.000095 \quad (+1.0\sigma)$	χ_{MGS}^2	$1.94 \pm 0.71 \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0013 \quad (+1.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8131 \pm 0.0058 \quad (-1.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.3 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0975 \pm 0.0015 \quad (+3.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0030 \quad (-1.1\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
σ_8	$0.821 \pm 0.012 \quad (+2.0\sigma)$	$H(0.15)$	$73.65 \pm 0.72 \quad (+1.8\sigma)$	χ_{CMB}^2	$7491.9 \pm 5.5 \quad (-0.2\sigma)$
S_8	$0.831 \pm 0.013 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.9 \pm 6.6 \quad (-1.5\sigma)$	χ_{BAO}^2	$6.8 \pm 1.5 \quad (+0.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4553 \pm 0.0072 \quad (+0.8\sigma)$	$H(0.38)$	$83.47 \pm 0.62 \quad (+1.6\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8542.20$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.70$; $R - 1 = 0.00753$

19.27 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02214 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.614 ± 0.013	$D_M(0.38)$	1516 ± 14
$\Omega_c h^2$	0.1203 ± 0.0018	$\sigma_8/h^{0.5}$	0.998 ± 0.019	$H(0.51)$	89.90 ± 0.51
$100\theta_{MC}$	1.04087 ± 0.00046	$r_{drag}h$	100.4 ± 1.2	$D_M(0.51)$	1966 ± 16
τ	$0.0538^{+0.0045}_{-0.0084}$	$\langle d^2 \rangle^{1/2}$	$2.462^{+0.043}_{-0.039}$	$H(0.61)$	95.31 ± 0.44
w_0	$-0.958^{+0.079}_{-0.088}$	z_{re}	$7.66^{+0.52}_{-0.84}$	$D_M(0.61)$	2290 ± 17
w_a	$-0.33^{+0.40}_{-0.31}$	$10^9 A_s$	$2.095^{+0.025}_{-0.034}$	$H(2.33)$	235.11 ± 0.99
$\ln(10^{10} A_s)$	$3.042^{+0.012}_{-0.016}$	$10^9 A_s e^{-2\tau}$	1.881 ± 0.013	$D_M(2.33)$	5764 ± 13
n_s	0.9642 ± 0.0051	D_{40}	1228 ± 14	$f\sigma_8(0.15)$	0.462 ± 0.011
y_{cal}	1.0004 ± 0.0025	D_{220}	5704 ± 40	$\sigma_8(0.15)$	0.762 ± 0.016
A_{100}^{PS}	242 ± 25	D_{810}	2533 ± 13	$f\sigma_8(0.38)$	0.483 ± 0.013
A_{143}^{PS}	41 ± 8	D_{1420}	814.0 ± 5.0	$\sigma_8(0.38)$	0.676 ± 0.014
A_{217}^{PS}	101 ± 10	D_{2000}	229.6 ± 1.8	$f\sigma_8(0.51)$	0.484 ± 0.013
A_{217}^{CIB}	41 ± 7	$n_{s,0.002}$	0.9642 ± 0.0051	$\sigma_8(0.51)$	0.633 ± 0.013
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6}$	Y_P	$0.245298^{+0.000096}_{-0.000080}$	$f\sigma_8(0.61)$	0.480 ± 0.014
$r_{143 \times 217}^{PS}$	0.65 ± 0.13	Y_P^{BBN}	$0.246624^{+0.000096}_{-0.000080}$	$\sigma_8(0.61)$	0.602 ± 0.012
$r_{143 \times 217}^{CIB}$	$0.58^{+0.41}_{-0.13}$	$10^5 D/H$	2.629 ± 0.039	$f\sigma_8(2.33)$	$0.3040^{+0.0066}_{-0.0058}$
$\xi^{tSZ \times CIB}$	—	Age/Gyr	13.777 ± 0.035	$\sigma_8(2.33)$	0.3109 ± 0.0047
A^{kSZ}	—	z_*	1090.24 ± 0.36	f_{2000}^{143}	30.7 ± 3.0
A_{100}^{dust}	1.01 ± 0.20	r_*	144.52 ± 0.43	f_{2000}^{217}	107.5 ± 2.0
A_{143}^{dust}	0.98 ± 0.18	$100\theta_*$	1.04107 ± 0.00045	$f_{2000}^{143 \times 217}$	32.9 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.882 ± 0.040	χ_{simall}^2	396.8 ± 1.6
$A_{143 \times 217}^{dust}$	1.03 ± 0.16	z_{drag}	1059.43 ± 0.44	χ_{lowl}^2	23.4 ± 1.1
c_{100}	0.9975 ± 0.0011	r_{drag}	147.26 ± 0.44	$\chi_{CamSpec}^2$	7062.5 ± 5.4
c_{217}	1.0012 ± 0.0016	k_D	0.14051 ± 0.00050	χ_{JLA}^2	1035.9 ± 1.5
H_0	68.19 ± 0.84	$100\theta_D$	0.16106 ± 0.00026	χ_{6DF}^2	0.055 ± 0.080
Ω_Λ	0.6921 ± 0.0082	z_{eq}	3404 ± 42	χ_{MGS}^2	1.91 ± 0.71
Ω_m	0.3079 ± 0.0082	k_{eq}	0.01039 ± 0.00013	$\chi_{DR12BAO}^2$	4.9 ± 1.3
$\Omega_m h^2$	0.1431 ± 0.0017	$100\theta_{eq}$	0.8123 ± 0.0077	χ_{prior}^2	7.6 ± 3.4
$\Omega_m h^3$	0.0976 ± 0.0017	$100\theta_{s,eq}$	0.4490 ± 0.0040	χ_{BAO}^2	6.9 ± 1.6
σ_8	0.824 ± 0.017	$H(0.15)$	73.64 ± 0.75	χ_{CMB}^2	7482.7 ± 5.3
S_8	0.835 ± 0.020	$D_M(0.15)$	634.9 ± 6.7		
$\sigma_8 \Omega_m^{0.5}$	0.457 ± 0.011	$H(0.38)$	83.46 ± 0.63		

$$\bar{\chi}_{\text{eff}}^2 = 8533.12; R - 1 = 0.00716$$

19.28 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02216 \pm 0.00020 \quad (-0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6116 \pm 0.0085 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 13 \quad (-1.6\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0013 \quad (+1.0\sigma)$	$\sigma_8/h^{0.5}$	$0.995 \pm 0.012 \quad (+1.3\sigma)$	$H(0.51)$	$89.94 \pm 0.51 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00044 \quad (-0.4\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1966 \pm 16 \quad (-1.6\sigma)$
τ	$0.0537^{+0.0046}_{-0.0083} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.027 \quad (+1.1\sigma)$	$H(0.61)$	$95.36 \pm 0.43 \quad (+0.3\sigma)$
w_0	-0.962 ± 0.080	z_{re}	$7.64^{+0.51}_{-0.84} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2290 \pm 17 \quad (-1.5\sigma)$
w_a	$-0.29^{+0.34}_{-0.27}$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.023}_{-0.032} \quad (-0.3\sigma)$	$H(2.33)$	$235.02 \pm 0.99 \quad (-1.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.011}_{-0.015} \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763 \pm 13 \quad (-0.2\sigma)$
n_{s}	$0.9647 \pm 0.0044 \quad (-0.6\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4596 \pm 0.0077 \quad (+0.7\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.1\sigma)$	D_{220}	$5706 \pm 40 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.760 \pm 0.011 \quad (+2.2\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4809 \pm 0.0091 \quad (+1.4\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.0\sigma)$	D_{1420}	$814.0 \pm 5.0 \quad (-0.3\sigma)$	$\sigma_8(0.38)$	$0.674 \pm 0.010 \quad (+2.3\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$229.6 \pm 1.8 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4812 \pm 0.0094 \quad (+1.9\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9647 \pm 0.0044 \quad (-0.6\sigma)$	$\sigma_8(0.51)$	$0.6308 \pm 0.0095 \quad (+2.3\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	Y_{P}	$0.245307^{+0.000090}_{-0.000077} \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4773 \pm 0.0096 \quad (+2.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246633^{+0.000090}_{-0.000077} \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.6002 \pm 0.0089 \quad (+2.2\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.58^{+0.41}_{-0.13} \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.625 \pm 0.037 \quad (+0.4\sigma)$	$f\sigma_8(2.33)$	$0.3032 \pm 0.0047 \quad (+2.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.777 \pm 0.034 \quad (-1.0\sigma)$	$\sigma_8(2.33)$	$0.3104 \pm 0.0036 \quad (+1.4\sigma)$
A^{kSZ}	—	z_*	$1090.18 \pm 0.31 \quad (+0.7\sigma)$	f_{2000}^{143}	$30.7 \pm 3.0 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.60 \pm 0.32 \quad (-0.8\sigma)$	f_{2000}^{217}	$107.5 \pm 2.0 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00043 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.9 \pm 2.1 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.031 \quad (-0.7\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.39 \pm 0.93 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.45 \pm 0.44 \quad (-0.2\sigma)$	χ_{simall}^2	$396.7 \pm 1.5 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	r_{drag}	$147.33 \pm 0.35 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.26 \pm 0.88 \quad (+0.3\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14046 \pm 0.00044 \quad (+0.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.2 \pm 5.2 \quad (-0.2\sigma)$
H_0	$68.20 \pm 0.84 \quad (+1.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16104 \pm 0.00025 \quad (+0.2\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.5 \quad (+2.7\sigma)$
Ω_{Λ}	$0.6929 \pm 0.0079 \quad (+0.5\sigma)$	z_{eq}	$3397 \pm 30 \quad (+0.9\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.081 \quad (+0.2\sigma)$
Ω_{m}	$0.3071 \pm 0.0079 \quad (-0.5\sigma)$	k_{eq}	$0.010367 \pm 0.000092 \quad (+0.9\sigma)$	χ_{MGS}^2	$1.94 \pm 0.71 \quad (+1.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0013 \quad (+0.9\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8137 \pm 0.0056 \quad (-1.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.3 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0974 \pm 0.0015 \quad (+3.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4498 \pm 0.0029 \quad (-1.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.4 \quad (+0.0\sigma)$
σ_8	$0.822 \pm 0.012 \quad (+2.1\sigma)$	$H(0.15)$	$73.63 \pm 0.72 \quad (+1.7\sigma)$	χ_{CMB}^2	$7491.6 \pm 5.4 \quad (-0.2\sigma)$
S_8	$0.831 \pm 0.013 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.15)$	$635.0 \pm 6.5 \quad (-1.5\sigma)$	χ_{BAO}^2	$6.8 \pm 1.5 \quad (+0.8\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4553 \pm 0.0072 \quad (+0.8\sigma)$	$H(0.38)$	$83.47 \pm 0.62 \quad (+1.5\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 8541.86$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.51$; $R - 1 = 0.00901$

19.29 base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022301	0.02229 ± 0.00015	S_8	0.8238	0.825 ± 0.015	$D_M(0.15)$	635.1	635.1 ± 6.6
$\Omega_c h^2$	0.11951	0.1196 ± 0.0013	$\sigma_8 \Omega_m^{0.5}$	0.4512	0.4519 ± 0.0081	$H(0.38)$	83.49	83.50 ± 0.64
$100\theta_{MC}$	1.040906	1.04088 ± 0.00031	$\sigma_8 \Omega_m^{0.25}$	0.6066	0.6074 ± 0.0099	$D_M(0.38)$	1516.1	1516 ± 14
τ	0.0520	0.0523 ± 0.0079	$\sigma_8/h^{0.5}$	0.9874	0.989 ± 0.014	$H(0.51)$	90.02	90.00 ± 0.52
w_0	-0.972	-0.966 ± 0.081	$r_{drag}h$	100.48	100.5 ± 1.2	$D_M(0.51)$	1965.8	1966 ± 16
w_a	-0.202	$-0.24_{-0.28}^{+0.33}$	$\langle d^2 \rangle^{1/2}$	2.4390	2.442 ± 0.033	$H(0.61)$	95.485	95.45 ± 0.43
$\ln(10^{10} A_s)$	3.0366	3.038 ± 0.016	z_{re}	7.44	$7.45_{-0.73}^{+0.83}$	$D_M(0.61)$	2289.2	2289 ± 17
n_s	0.96617	0.9659 ± 0.0043	$10^9 A_s$	2.0833	2.086 ± 0.034	$H(2.33)$	235.13	235.15 ± 0.98
y_{cal}	1.00032	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.8777	1.878 ± 0.012	$D_M(2.33)$	5757.1	5759 ± 11
A_{100}^{PS}	234.8	240 ± 25	D_{40}	1224.2	1225 ± 12	$f\sigma_8(0.15)$	0.4557	0.4563 ± 0.0084
A_{143}^{PS}	38.1	40 ± 8	D_{220}	5716.5	5718 ± 39	$\sigma_8(0.15)$	0.7541	0.755 ± 0.013
A_{217}^{PS}	101.6	102 ± 10	D_{810}	2534.1	2535 ± 14	$f\sigma_8(0.38)$	0.4765	0.4772 ± 0.0099
A_{217}^{CIB}	44.8	40 ± 7	D_{1420}	815.51	815.5 ± 4.9	$\sigma_8(0.38)$	0.6691	0.670 ± 0.012
A_{143}^{tSZ}	6.65	$3.8_{-2.5}^{+1.8}$	D_{2000}	230.22	230.2 ± 1.6	$f\sigma_8(0.51)$	0.4766	0.477 ± 0.010
$r_{143 \times 217}^{PS}$	0.573	0.66 ± 0.13	$n_{s,0.002}$	0.96617	0.9659 ± 0.0043	$\sigma_8(0.51)$	0.6263	0.627 ± 0.011
$r_{143 \times 217}^{CIB}$	0.771	$0.56_{-0.18}^{+0.39}$	Y_P	0.245367	0.245363 ± 0.000062	$f\sigma_8(0.61)$	0.4725	0.473 ± 0.011
$\xi^{tSZ \times CIB}$	0.01	—	Y_P^{BBN}	0.246694	0.246689 ± 0.000062	$\sigma_8(0.61)$	0.5960	0.597 ± 0.010
A^{kSZ}	0.01	$4.7_{-3.8}^{+2.4}$	$10^5 D/H$	2.5986	2.600 ± 0.029	$f\sigma_8(2.33)$	0.3011	0.3013 ± 0.0054
A_{100}^{dust}	1.006	1.01 ± 0.19	Age/Gyr	13.7700	13.771 ± 0.032	$\sigma_8(2.33)$	0.30885	0.3090 ± 0.0043
A_{143}^{dust}	0.978	0.96 ± 0.18	z_*	1089.966	1089.98 ± 0.27	f_{2000}^{143}	30.05	29.8 ± 2.8
A_{217}^{dust}	0.968	0.97 ± 0.10	r_*	144.609	144.59 ± 0.30	f_{2000}^{217}	106.86	106.9 ± 1.9
$A_{143 \times 217}^{dust}$	1.003	1.03 ± 0.16	$100\theta_*$	1.041102	1.04107 ± 0.00030	$f_{2000}^{143 \times 217}$	32.13	32.2 ± 2.0
c_{100}	0.99760	0.9975 ± 0.0011	$D_M(z_*)/Gpc$	13.8900	13.889 ± 0.028	χ_{small}^2	395.76	396.9 ± 1.6
c_{217}	1.00127	1.0011 ± 0.0016	z_{drag}	1059.742	1059.73 ± 0.32	χ_{lowl}^2	22.92	23.05 ± 0.87
c_{TE}	0.99642	0.9965 ± 0.0049	r_{drag}	147.297	147.28 ± 0.30	$\chi_{CamSpec}^2$	11499.4	11514.3 ± 5.7
c_{EE}	0.99206	0.9921 ± 0.0050	k_D	0.140597	0.14060 ± 0.00034	χ_{JLA}^2	1034.83	1035.9 ± 1.5
H_0	68.22	68.21 ± 0.84	$100\theta_D$	0.160868	0.16087 ± 0.00019	χ_{6DF}^2	0.0010	0.055 ± 0.078
Ω_Λ	0.6939	0.6935 ± 0.0078	z_{eq}	3388.9	3391 ± 29	χ_{MGS}^2	1.82	1.91 ± 0.71
Ω_m	0.3061	0.3065 ± 0.0078	k_{eq}	0.010343	0.010349 ± 0.000089	$\chi_{DR12BAO}^2$	3.77	4.7 ± 1.2
$\Omega_m h^2$	0.14246	0.1425 ± 0.0012	$100\theta_{eq}$	0.8155	0.8151 ± 0.0055	χ_{prior}^2	2.23	7.8 ± 3.4
$\Omega_m h^3$	0.09718	0.0972 ± 0.0015	$100\theta_{s,eq}$	0.45057	0.4504 ± 0.0028	χ_{BAO}^2	5.59	6.6 ± 1.5
σ_8	0.8155	0.816 ± 0.014	$H(0.15)$	73.60	73.62 ± 0.73	χ_{CMB}^2	11918.0	11934.2 ± 5.8

Best-fit $\chi_{eff}^2 = 12960.67$; $\bar{\chi}_{eff}^2 = 12984.58$; $R - 1 = 0.00938$
 χ_{eff}^2 : BAO - 6DF: 0.00 MGS: 1.82 DR12BAO: 3.77 CMB - small_100x143_offlike5_EE_Aplanck_B: 395.76 commander_dx12_v3.2.29: 22.92 CamSpec like_10.7HM_1400_unified: 11499.35 SN - JLA Pantheon18: 1034.83

19.30 base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02229 \pm 0.00015 \quad (-0.3\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4523 \pm 0.0061 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1515 \pm 13 \quad (-1.8\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0011 \quad (+0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6080 \pm 0.0074 \quad (+0.9\sigma)$	$H(0.51)$	$90.03 \pm 0.51 \quad (+1.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04087 \pm 0.00030 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.989 \pm 0.011 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1965 \pm 16 \quad (-1.7\sigma)$
τ	$0.0527 \pm 0.0075 \quad (-0.4\sigma)$	$r_{\mathrm{drag}}h$	$100.5 \pm 1.2 \quad (+1.0\sigma)$	$H(0.61)$	$95.47 \pm 0.43 \quad (+0.6\sigma)$
w_0	-0.964 ± 0.080	$\langle d^2 \rangle^{1/2}$	$2.444 \pm 0.024 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2288 \pm 17 \quad (-1.7\sigma)$
w_a	$-0.25^{+0.32}_{-0.27}$	z_{re}	$7.50 \pm 0.77 \quad (-0.4\sigma)$	$H(2.33)$	$235.09 \pm 0.97 \quad (-1.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.039 \pm 0.015 \quad (-0.3\sigma)$	10^9A_{s}	$2.088 \pm 0.031 \quad (-0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5758 \pm 11 \quad (-0.4\sigma)$
n_{s}	$0.9657 \pm 0.0040 \quad (-0.4\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4566 \pm 0.0068 \quad (+0.4\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1226 \pm 11 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.756 \pm 0.011 \quad (+1.6\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (+0.1\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4776 \pm 0.0082 \quad (+1.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6706 \pm 0.0097 \quad (+1.7\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 4.9 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4778 \pm 0.0085 \quad (+1.4\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{2000}	$230.2 \pm 1.6 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6277 \pm 0.0090 \quad (+1.7\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9657 \pm 0.0040 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4739 \pm 0.0086 \quad (+1.7\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245363 \pm 0.000061 \quad (-0.4\sigma)$	$\sigma_8(0.61)$	$0.5973 \pm 0.0085 \quad (+1.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.40}_{-0.17} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246690 \pm 0.000061 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.3017 \pm 0.0045 \quad (+1.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5\mathrm{D}/\mathrm{H}$	$2.600 \pm 0.028 \quad (+0.4\sigma)$	$\sigma_8(2.33)$	$0.3093 \pm 0.0036 \quad (+1.1\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-4.0} \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.770 \pm 0.031 \quad (-1.2\sigma)$	f_{2000}^{143}	$29.8 \pm 2.8 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.98 \pm 0.25 \quad (+0.6\sigma)$	f_{2000}^{217}	$106.9 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.26 \quad (-0.6\sigma)$	$f_{2000}^{143 \times 217}$	$32.2 \pm 2.0 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00030 \quad (-0.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.19 \pm 0.71 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.024 \quad (-0.5\sigma)$	χ_{simall}^2	$396.8 \pm 1.5 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.73 \pm 0.32 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.10 \pm 0.80 \quad (+0.2\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.28 \pm 0.27 \quad (-0.5\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.9 \pm 5.5 \quad (-0.1\sigma)$
c_{TE}	$0.9965 \pm 0.0049 \quad (-0.0\sigma)$	k_{D}	$0.14061 \pm 0.00032 \quad (+0.3\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.5 \quad (+3.4\sigma)$
c_{EE}	$0.9922 \pm 0.0050 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16087 \pm 0.00019 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.079 \quad (+0.3\sigma)$
H_0	$68.23 \pm 0.83 \quad (+1.2\sigma)$	z_{eq}	$3391 \pm 25 \quad (+0.7\sigma)$	χ_{MGS}^2	$1.93 \pm 0.71 \quad (+1.5\sigma)$
Ω_{Λ}	$0.6936 \pm 0.0078 \quad (+0.6\sigma)$	k_{eq}	$0.010351 \pm 0.000076 \quad (+0.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.2 \quad (+0.1\sigma)$
Ω_{m}	$0.3064 \pm 0.0078 \quad (-0.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8150 \pm 0.0047 \quad (-0.7\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0010 \quad (+0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4503 \pm 0.0024 \quad (-0.7\sigma)$	χ_{CMB}^2	$11942.9 \pm 5.7 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0973 \pm 0.0014 \quad (+3.7\sigma)$	$H(0.15)$	$73.65 \pm 0.71 \quad (+1.9\sigma)$	χ_{BAO}^2	$6.6 \pm 1.5 \quad (+0.9\sigma)$
σ_8	$0.817 \pm 0.011 \quad (+1.5\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.8 \pm 6.5 \quad (-1.6\sigma)$		
S_8	$0.826 \pm 0.011 \quad (+0.5\sigma)$	$H(0.38)$	$83.53 \pm 0.63 \quad (+1.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12993.26; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.87; R - 1 = 0.00901$$

19.31 base_w_wa_CamSpecHM_TTTEE_lowl_lowE_BAO_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02230 ± 0.00015	S_8	0.826 ± 0.015	$D_M(0.15)$	635.1 ± 6.6
$\Omega_c h^2$	0.1195 ± 0.0013	$\sigma_8 \Omega_m^{0.5}$	0.4524 ± 0.0080	$H(0.38)$	83.49 ± 0.64
$100\theta_{MC}$	1.04089 ± 0.00031	$\sigma_8 \Omega_m^{0.25}$	0.6081 ± 0.0098	$D_M(0.38)$	1516 ± 14
τ	$0.0541^{+0.0045}_{-0.0081}$	$\sigma_8/h^{0.5}$	0.990 ± 0.014	$H(0.51)$	90.00 ± 0.52
w_0	-0.968 ± 0.081	$r_{\text{drag}} h$	100.5 ± 1.2	$D_M(0.51)$	1966 ± 16
w_a	$-0.23^{+0.33}_{-0.28}$	$\langle d^2 \rangle^{1/2}$	2.445 ± 0.032	$H(0.61)$	95.45 ± 0.43
$\ln(10^{10} A_s)$	$3.041^{+0.011}_{-0.016}$	z_{re}	$7.64^{+0.52}_{-0.80}$	$D_M(0.61)$	2289 ± 17
n_s	0.9661 ± 0.0043	$10^9 A_s$	$2.093^{+0.023}_{-0.033}$	$H(2.33)$	235.15 ± 0.98
y_{cal}	1.0005 ± 0.0025	$10^9 A_s e^{-2\tau}$	1.878 ± 0.012	$D_M(2.33)$	5759 ± 11
A_{100}^{PS}	240 ± 25	D_{40}	1225 ± 12	$f\sigma_8(0.15)$	0.4568 ± 0.0083
A_{143}^{PS}	39 ± 8	D_{220}	5718 ± 39	$\sigma_8(0.15)$	0.756 ± 0.013
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 14	$f\sigma_8(0.38)$	0.4777 ± 0.0098
A_{217}^{CIB}	40 ± 7	D_{1420}	815.6 ± 4.9	$\sigma_8(0.38)$	0.671 ± 0.012
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5}$	D_{2000}	230.3 ± 1.6	$f\sigma_8(0.51)$	0.478 ± 0.010
$r_{143 \times 217}^{\text{PS}}$	0.66 ± 0.13	$n_{s,0.002}$	0.9661 ± 0.0043	$\sigma_8(0.51)$	0.628 ± 0.011
$r_{143 \times 217}^{\text{CIB}}$	$0.56^{+0.39}_{-0.18}$	Y_P	0.245365 ± 0.000062	$f\sigma_8(0.61)$	0.474 ± 0.010
$\xi^{\text{tSZ} \times \text{CIB}}$	—	Y_P^{BBN}	0.246691 ± 0.000062	$\sigma_8(0.61)$	0.597 ± 0.010
A^{kSZ}	$4.7^{+2.3}_{-3.9}$	$10^5 D/H$	2.599 ± 0.029	$f\sigma_8(2.33)$	0.3017 ± 0.0054
A_{100}^{dust}	1.01 ± 0.19	Age/Gyr	13.772 ± 0.032	$\sigma_8(2.33)$	0.3094 ± 0.0041
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.97 ± 0.26	f_{2000}^{143}	29.7 ± 2.8
A_{217}^{dust}	0.97 ± 0.10	r_*	144.60 ± 0.30	f_{2000}^{217}	106.8 ± 1.9
$A_{143 \times 217}^{\text{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04108 ± 0.00030	$f_{2000}^{143 \times 217}$	32.1 ± 2.0
c_{100}	0.9975 ± 0.0011	$D_M(z_*)/\text{Gpc}$	13.890 ± 0.028	χ_{small}^2	396.7 ± 1.5
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.74 ± 0.32	χ_{lowl}^2	23.06 ± 0.87
c_{TE}	0.9965 ± 0.0049	r_{drag}	147.29 ± 0.30	χ_{CamSpec}^2	11514.2 ± 5.6
c_{EE}	0.9921 ± 0.0050	k_D	0.14060 ± 0.00034	χ_{JLA}^2	1035.9 ± 1.5
H_0	68.20 ± 0.84	$100\theta_D$	0.16087 ± 0.00019	$\chi_{6\text{DF}}^2$	0.055 ± 0.077
Ω_Λ	0.6935 ± 0.0078	z_{eq}	3390 ± 29	χ_{MGS}^2	1.90 ± 0.70
Ω_m	0.3065 ± 0.0078	k_{eq}	0.010345 ± 0.000089	χ_{DR12BAO}^2	4.7 ± 1.2
$\Omega_m h^2$	0.1425 ± 0.0012	$100\theta_{\text{eq}}$	0.8154 ± 0.0055	χ_{prior}^2	7.8 ± 3.4
$\Omega_m h^3$	0.0972 ± 0.0015	$100\theta_{s,\text{eq}}$	0.4505 ± 0.0028	χ_{BAO}^2	6.6 ± 1.5
σ_8	0.817 ± 0.014	$H(0.15)$	73.61 ± 0.73	χ_{CMB}^2	11933.9 ± 5.7

$$\bar{\chi}_{\text{eff}}^2 = 12984.26; R - 1 = 0.00880$$

19.32 base_w_wa_CamSpecHM_TTTEE_lowl_lowE_BAO_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	$0.02230 \pm 0.00015 \quad (-0.3\sigma)$	$\sigma_8 \Omega_m^{0.5}$	$0.4524 \pm 0.0061 \quad (+0.5\sigma)$	$D_M(0.38)$	$1516 \pm 13 \quad (-1.7\sigma)$
$\Omega_c h^2$	$0.1195 \pm 0.0011 \quad (+0.7\sigma)$	$\sigma_8 \Omega_m^{0.25}$	$0.6082 \pm 0.0074 \quad (+0.9\sigma)$	$H(0.51)$	$90.03 \pm 0.51 \quad (+1.3\sigma)$
$100\theta_{MC}$	$1.04088 \pm 0.00030 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (+0.9\sigma)$	$D_M(0.51)$	$1965 \pm 16 \quad (-1.7\sigma)$
τ	$0.0542^{+0.0046}_{-0.0080} \quad (-0.3\sigma)$	$r_{drag} h$	$100.5 \pm 1.2 \quad (+0.9\sigma)$	$H(0.61)$	$95.48 \pm 0.43 \quad (+0.7\sigma)$
w_0	-0.965 ± 0.080	$\langle d^2 \rangle^{1/2}$	$2.446 \pm 0.024 \quad (+0.8\sigma)$	$D_M(0.61)$	$2289 \pm 17 \quad (-1.6\sigma)$
w_a	$-0.24^{+0.31}_{-0.27}$	z_{re}	$7.65^{+0.53}_{-0.78} \quad (-0.3\sigma)$	$H(2.33)$	$235.10 \pm 0.97 \quad (-1.3\sigma)$
$\ln(10^{10} A_s)$	$3.041^{+0.011}_{-0.015} \quad (-0.2\sigma)$	$10^9 A_s$	$2.093^{+0.022}_{-0.031} \quad (-0.2\sigma)$	$D_M(2.33)$	$5758 \pm 11 \quad (-0.4\sigma)$
n_s	$0.9660 \pm 0.0039 \quad (-0.4\sigma)$	$10^9 A_s e^{-2\tau}$	$1.878 \pm 0.011 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4567 \pm 0.0068 \quad (+0.4\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.1\sigma)$	D_{40}	$1226 \pm 11 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.756 \pm 0.011 \quad (+1.7\sigma)$
A_{100}^{PS}	$240 \pm 24 \quad (+0.1\sigma)$	D_{220}	$5719 \pm 39 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4777 \pm 0.0082 \quad (+1.0\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6709 \pm 0.0096 \quad (+1.8\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 4.9 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4779 \pm 0.0085 \quad (+1.4\sigma)$
A_{217}^{CIB}	$40^{+7}_{-8} \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6280 \pm 0.0090 \quad (+1.8\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	$n_{s,0.002}$	$0.9660 \pm 0.0039 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4740 \pm 0.0086 \quad (+1.8\sigma)$
$r_{143 \times 217}^{PS}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	Y_P	$0.245366 \pm 0.000060 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5976 \pm 0.0085 \quad (+1.8\sigma)$
$r_{143 \times 217}^{CIB}$	$0.56^{+0.40}_{-0.17} \quad (+0.0\sigma)$	Y_P^{BBN}	$0.246692 \pm 0.000060 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.3019 \pm 0.0045 \quad (+2.0\sigma)$
$\xi^{tSZ \times CIB}$	—	$10^5 D/H$	$2.599 \pm 0.028 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3096 \pm 0.0035 \quad (+1.2\sigma)$
A^{kSZ}	$4.7^{+2.1}_{-4.1} \quad (+0.0\sigma)$	Age/Gyr	$13.770 \pm 0.031 \quad (-1.2\sigma)$	f_{2000}^{143}	$29.7 \pm 2.8 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (+0.0\sigma)$	z_*	$1089.97 \pm 0.24 \quad (+0.5\sigma)$	f_{2000}^{217}	$106.9 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.18 \quad (+0.0\sigma)$	r_*	$144.60 \pm 0.25 \quad (-0.6\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.0 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04107 \pm 0.00030 \quad (-0.3\sigma)$	$\chi_{lensing}^2$	$9.16 \pm 0.69 \quad (-0.2\sigma)$
$A_{143 \times 217}^{dust}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	$13.890 \pm 0.024 \quad (-0.5\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.74 \pm 0.32 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.09 \pm 0.79 \quad (+0.2\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.29 \pm 0.26 \quad (-0.5\sigma)$	$\chi_{CamSpec}^2$	$11513.8 \pm 5.5 \quad (-0.1\sigma)$
c_{TE}	$0.9964 \pm 0.0049 \quad (-0.0\sigma)$	k_D	$0.14060 \pm 0.00032 \quad (+0.3\sigma)$	χ_{JLA}^2	$1035.9 \pm 1.5 \quad (+3.5\sigma)$
c_{EE}	$0.9921 \pm 0.0050 \quad (-0.0\sigma)$	$100\theta_D$	$0.16086 \pm 0.00019 \quad (+0.2\sigma)$	χ_{6DF}^2	$0.055 \pm 0.078 \quad (+0.3\sigma)$
H_0	$68.22 \pm 0.84 \quad (+1.2\sigma)$	z_{eq}	$3390 \pm 24 \quad (+0.7\sigma)$	χ_{MGS}^2	$1.93 \pm 0.70 \quad (+1.4\sigma)$
Ω_Λ	$0.6937 \pm 0.0077 \quad (+0.6\sigma)$	k_{eq}	$0.010346 \pm 0.000074 \quad (+0.7\sigma)$	$\chi_{DR12BAO}^2$	$4.6 \pm 1.2 \quad (+0.2\sigma)$
Ω_m	$0.3063 \pm 0.0077 \quad (-0.6\sigma)$	$100\theta_{eq}$	$0.8153 \pm 0.0046 \quad (-0.7\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_m h^2$	$0.1425 \pm 0.0010 \quad (+0.7\sigma)$	$100\theta_{s,eq}$	$0.4505 \pm 0.0023 \quad (-0.7\sigma)$	χ_{CMB}^2	$11942.7 \pm 5.7 \quad (-0.2\sigma)$
$\Omega_m h^3$	$0.0972 \pm 0.0014 \quad (+3.5\sigma)$	$H(0.15)$	$73.64 \pm 0.71 \quad (+1.9\sigma)$	χ_{BAO}^2	$6.6 \pm 1.5 \quad (+0.9\sigma)$
σ_8	$0.818 \pm 0.011 \quad (+1.6\sigma)$	$D_M(0.15)$	$634.9 \pm 6.5 \quad (-1.6\sigma)$		
S_8	$0.826 \pm 0.011 \quad (+0.5\sigma)$	$H(0.38)$	$83.52 \pm 0.63 \quad (+1.8\sigma)$		

$$\bar{\chi}_{eff}^2 = 12993.01; \Delta\bar{\chi}_{eff}^2 = 0.76; R - 1 = 0.00841$$

19.33 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022181	0.02216 ± 0.00020	$\sigma_8/h^{0.5}$	1.0046	1.004 ± 0.019	$H(0.51)$	89.93	89.89 ± 0.51
$\Omega_c h^2$	0.12056	0.1207 ± 0.0018	$r_{\text{drag}} h$	102.01	101.9 ± 1.1	$D_M(0.51)$	1952.1	1953 ± 16
$100\theta_{\text{MC}}$	1.040823	1.04082 ± 0.00045	$\langle d^2 \rangle^{1/2}$	2.4711	2.473 ± 0.041	$H(0.61)$	95.220	95.16 ± 0.44
τ	0.0525	0.0521 ± 0.0079	z_{re}	7.52	7.47 ± 0.82	$D_M(0.61)$	2276.1	2277 ± 17
w_0	-0.997	$-0.988_{-0.091}^{+0.081}$	$10^9 A_s$	2.0941	2.092 ± 0.034	$H(2.33)$	234.69	234.76 ± 0.97
w_a	-0.325	$-0.37_{-0.32}^{+0.43}$	$10^9 A_s e^{-2\tau}$	1.8854	1.885 ± 0.013	$D_M(2.33)$	5759.2	5762 ± 13
$\ln(10^{10} A_s)$	3.0417	3.041 ± 0.016	D_{40}	1230.5	1233 ± 14	$f\sigma_8(0.15)$	0.4649	0.465 ± 0.011
n_s	0.9639	0.9628 ± 0.0051	D_{220}	5716.4	5716 ± 41	$\sigma_8(0.15)$	0.7741	0.774 ± 0.016
y_{cal}	1.00058	1.0004 ± 0.0025	D_{810}	2538.8	2537 ± 14	$f\sigma_8(0.38)$	0.4903	0.490 ± 0.013
A_{217}^{CIB}	49.1	48 ± 7	D_{1420}	815.92	814.7 ± 5.0	$\sigma_8(0.38)$	0.6869	0.686 ± 0.014
$\xi^{\text{tSZ} \times \text{CIB}}$	0.24	—	D_{2000}	230.28	229.8 ± 1.7	$f\sigma_8(0.51)$	0.4919	0.492 ± 0.013
A_{143}^{tSZ}	7.13	5.1 ± 2.0	$n_{s,0.002}$	0.9639	0.9628 ± 0.0051	$\sigma_8(0.51)$	0.6428	0.642 ± 0.013
A_{100}^{PS}	254.1	262 ± 28	Y_{P}	0.245318	$0.245304_{-0.000078}^{+0.000094}$	$f\sigma_8(0.61)$	0.4884	0.489 ± 0.013
A_{143}^{PS}	47.5	49 ± 8	$Y_{\text{P}}^{\text{BBN}}$	0.246644	$0.246630_{-0.000078}^{+0.000095}$	$\sigma_8(0.61)$	0.6115	0.611 ± 0.012
$A_{143 \times 217}^{\text{PS}}$	44.6	43 ± 9	$10^5 D/H$	2.6215	2.627 ± 0.039	$f\sigma_8(2.33)$	0.3089	$0.3085_{-0.0056}^{+0.0062}$
A_{217}^{PS}	118.2	115 ± 10	Age/Gyr	13.7508	13.754 ± 0.034	$\sigma_8(2.33)$	0.31509	0.3147 ± 0.0046
A^{kSZ}	0.01	< 4.74	z_*	1090.208	1090.25 ± 0.35	f_{2000}^{143}	30.09	30.9 ± 2.9
A_{100}^{dustTT}	8.87	8.9 ± 1.8	r_*	144.432	144.42 ± 0.42	$f_{2000}^{143 \times 217}$	33.05	33.3 ± 2.0
A_{143}^{dustTT}	10.74	10.7 ± 1.8	$100\theta_*$	1.041031	1.04102 ± 0.00044	f_{2000}^{217}	107.56	107.9 ± 1.9
$A_{143 \times 217}^{\text{dustTT}}$	19.27	18.2 ± 3.3	$D_M(z_*)/\text{Gpc}$	13.8740	13.873 ± 0.040	χ_{simall}^2	395.86	396.9 ± 1.7
A_{217}^{dustTT}	94.5	93.4 ± 7.4	z_{drag}	1059.551	1059.49 ± 0.44	χ_{lowl}^2	23.38	23.7 ± 1.1
c_{100}	0.99967	0.99961 ± 0.00062	r_{drag}	147.154	147.16 ± 0.43	χ_{plik}^2	757.9	770.5 ± 5.3
c_{217}	0.99827	0.99825 ± 0.00062	k_{D}	0.140653	0.14063 ± 0.00049	χ_{H073p45}^2	6.19	6.6 ± 2.4
H_0	69.32	69.26 ± 0.77	$100\theta_{\text{D}}$	0.160991	0.16102 ± 0.00026	χ_{JLA}^2	1035.41	1036.3 ± 1.7
Ω_{Λ}	0.7016	0.7008 ± 0.0074	z_{eq}	3411.0	3413 ± 41	$\chi_{6\text{DF}}^2$	0.096	0.14 ± 0.15
Ω_{m}	0.2984	0.2992 ± 0.0074	k_{eq}	0.010411	0.01042 ± 0.00013	χ_{MGS}^2	2.67	2.71 ± 0.74
$\Omega_{\text{m}} h^2$	0.14338	0.1435 ± 0.0017	$100\theta_{\text{eq}}$	0.8111	0.8108 ± 0.0076	χ_{DR12BAO}^2	4.61	5.5 ± 1.5
$\Omega_{\text{m}} h^3$	0.09939	0.0994 ± 0.0017	$100\theta_{s,\text{eq}}$	0.44840	0.4482 ± 0.0039	χ_{prior}^2	1.44	7.2 ± 3.7
σ_8	0.8364	0.836 ± 0.017	$H(0.15)$	74.34	74.34 ± 0.73	χ_{BAO}^2	7.38	8.4 ± 2.1
S_8	0.8342	0.835 ± 0.020	$D_M(0.15)$	626.8	627.1 ± 6.1	χ_{CMB}^2	1177.2	1191.1 ± 5.5
$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4569	0.457 ± 0.011	$H(0.38)$	83.67	83.66 ± 0.64			
$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6182	0.618 ± 0.013	$D_M(0.38)$	1502.6	1503 ± 13			

Best-fit $\chi_{\text{eff}}^2 = 2227.58$; $\bar{\chi}_{\text{eff}}^2 = 2249.60$; $R - 1 = 0.00852$
 χ_{eff}^2 : BAO - 6DF: 0.10 MGS: 2.67 DR12BAO: 4.61 CMB - simall-100x143_offlike5_EE_Aplanck_B: 395.86 commander_dx12_v3.2.29: 23.38 plik_rd12_HM_v22.TT: 757.93
Hubble - H073p45: 6.19 SN - JLA Pantheon18: 1035.41

19.34 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022209	0.02219 ± 0.00020 (-0.7σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6128	0.6132 ± 0.0086 $(+2.2\sigma)$	$H(0.38)$	83.61	83.65 ± 0.63 $(+1.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	0.12003	0.1200 ± 0.0013 $(+1.8\sigma)$	$\sigma_8/h^{0.5}$	0.9968	0.997 ± 0.012 $(+2.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1504.9	1504 ± 13 (-2.3σ)
$100\theta_{\mathrm{MC}}$	1.040896	1.04087 ± 0.00043 (-0.7σ)	$r_{\mathrm{drag}}h$	101.92	102.0 ± 1.1 $(+1.9\sigma)$	$H(0.51)$	89.93	89.93 ± 0.52 $(+0.1\sigma)$
τ	0.0510	0.0516 ± 0.0077 (-0.9σ)	$\langle d^2 \rangle^{1/2}$	2.4545	2.458 ± 0.026 $(+1.6\sigma)$	$D_{\mathrm{M}}(0.51)$	1954.5	1954 ± 15 (-2.0σ)
w_0	-1.004	-0.998 ± 0.082	z_{re}	7.36	7.40 ± 0.80 (-0.9σ)	$H(0.61)$	95.269	95.24 ± 0.43 (-1.0σ)
w_a	-0.246	$-0.29^{+0.36}_{-0.29}$	$10^9 A_{\mathrm{s}}$	2.0837	2.086 ± 0.031 (-0.7σ)	$D_{\mathrm{M}}(0.61)$	2278.5	2278 ± 16 (-1.8σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0368	3.038 ± 0.015 (-0.7σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8818	1.882 ± 0.011 $(+0.5\sigma)$	$H(2.33)$	234.72	234.65 ± 0.98 (-0.9σ)
n_{s}	0.96481	0.9639 ± 0.0044 (-1.1σ)	D_{40}	1227.4	1230 ± 12 $(+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	5758.2	5760 ± 13 $(+0.1\sigma)$
y_{cal}	1.00028	1.0004 ± 0.0025 (-0.3σ)	D_{220}	5715.7	5719 ± 41 (-0.4σ)	$f\sigma_8(0.15)$	0.4608	0.4608 ± 0.0079 $(+1.7\sigma)$
A_{217}^{CIB}	49.1	48 ± 7 $(+0.0\sigma)$	D_{810}	2536.6	2536 ± 13 (-0.2σ)	$\sigma_8(0.15)$	0.7674	0.768 ± 0.011 $(+3.7\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.24	—	D_{1420}	815.52	814.7 ± 5.0 (-0.5σ)	$f\sigma_8(0.38)$	0.4854	0.4858 ± 0.0091 $(+3.1\sigma)$
A_{143}^{tSZ}	7.22	5.1 ± 2.0 (-0.1σ)	D_{2000}	230.10	229.8 ± 1.7 (-0.5σ)	$\sigma_8(0.38)$	0.6811	0.6818 ± 0.0099 $(+3.7\sigma)$
A_{100}^{PS}	254.3	263 ± 28 $(+0.1\sigma)$	$n_{\mathrm{s},0.002}$	0.96481	0.9639 ± 0.0044 (-1.1σ)	$f\sigma_8(0.51)$	0.4867	0.4873 ± 0.0094 $(+3.9\sigma)$
A_{143}^{PS}	47.8	49 ± 8 $(+0.1\sigma)$	Y_{P}	0.245330	$0.245318^{+0.000088}_{-0.000075}$ (-0.7σ)	$\sigma_8(0.51)$	0.6375	0.6381 ± 0.0092 $(+3.6\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	44.7	43 ± 9 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246656	$0.246644^{+0.000088}_{-0.000076}$ (-0.7σ)	$f\sigma_8(0.61)$	0.4831	0.4838 ± 0.0095 $(+4.4\sigma)$
A_{217}^{PS}	118.5	115 ± 10 $(+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	2.6162	2.620 ± 0.037 $(+0.7\sigma)$	$\sigma_8(0.61)$	0.6065	0.6071 ± 0.0086 $(+3.6\sigma)$
A^{kSZ}	0.02	< 4.83 $(+0.1\sigma)$	Age/Gyr	13.7552	13.756 ± 0.033 (-1.2σ)	$f\sigma_8(2.33)$	0.30641	0.3067 ± 0.0044 $(+3.6\sigma)$
$A_{100}^{\mathrm{dustTT}}$	8.87	8.9 ± 1.9 $(+0.0\sigma)$	z_*	1090.126	1090.15 ± 0.31 $(+1.2\sigma)$	$\sigma_8(2.33)$	0.31314	0.3133 ± 0.0035 $(+2.2\sigma)$
$A_{143}^{\mathrm{dustTT}}$	10.78	10.7 ± 1.8 $(+0.0\sigma)$	r_*	144.546	144.56 ± 0.33 (-1.4σ)	$\chi_{\mathrm{lensing}}^2$	8.75	9.35 ± 0.99 (-0.1σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.36	18.2 ± 3.3 (-0.0σ)	$100\theta_*$	1.041099	1.04107 ± 0.00043 (-0.7σ)	χ_{small}^2	395.69	396.8 ± 1.5 (-0.4σ)
$A_{217}^{\mathrm{dustTT}}$	94.5	93.3 ± 7.3 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8839	13.886 ± 0.032 (-1.2σ)	χ_{lowl}^2	23.16	23.41 ± 0.89 $(+0.7\sigma)$
c_{100}	0.99964	0.99962 ± 0.00062 (-0.1σ)	z_{drag}	1059.551	1059.52 ± 0.43 (-0.4σ)	χ_{plik}^2	758.52	770.6 ± 5.2 (-0.4σ)
c_{217}	0.99826	0.99826 ± 0.00062 $(+0.0\sigma)$	r_{drag}	147.263	147.29 ± 0.35 (-1.2σ)	$\chi_{\mathrm{H073p45}}^2$	6.52	6.6 ± 2.4 (-2.2σ)
H_0	69.21	69.25 ± 0.76 $(+2.5\sigma)$	k_{D}	0.140562	0.14052 ± 0.00044 $(+0.7\sigma)$	χ_{JLA}^2	1035.26	1036.2 ± 1.7 $(+7.8\sigma)$
Ω_{Λ}	0.7017	0.7019 ± 0.0071 $(+1.1\sigma)$	$100\theta_{\mathrm{D}}$	0.160979	0.16100 ± 0.00025 $(+0.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.081	0.14 ± 0.15 $(+2.9\sigma)$
Ω_{m}	0.2983	0.2981 ± 0.0071 (-1.1σ)	z_{eq}	3399.2	3399 ± 31 $(+1.7\sigma)$	χ_{MGS}^2	2.59	2.72 ± 0.74 $(+1.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14289	0.1429 ± 0.0013 $(+1.7\sigma)$	k_{eq}	0.010375	0.010373 ± 0.000095 $(+1.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	4.37	5.3 ± 1.4 $(+2.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09889	0.0989 ± 0.0014 $(+6.7\sigma)$	$100\theta_{\mathrm{eq}}$	0.8134	0.8134 ± 0.0057 (-1.8σ)	χ_{prior}^2	1.50	7.2 ± 3.7 (-0.0σ)
σ_8	0.8292	0.830 ± 0.012 $(+3.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44954	0.4496 ± 0.0030 (-1.8σ)	χ_{CMB}^2	1186.1	1200.1 ± 5.4 (-0.5σ)
S_8	0.8269	0.827 ± 0.013 $(+1.2\sigma)$	$H(0.15)$	74.21	74.27 ± 0.70 $(+2.5\sigma)$	χ_{BAO}^2	7.04	8.2 ± 2.1 $(+3.6\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4529	0.4531 ± 0.0072 $(+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	627.9	627.5 ± 6.0 (-2.5σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2236.45$; $\Delta\chi_{\mathrm{eff}}^2 = -4.56$; $\bar{\chi}_{\mathrm{eff}}^2 = 2258.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.87$; $R - 1 = 0.00927$
 χ_{eff}^2 : BAO - 6DF: 0.08 (Δ 0.08) MGS: 2.59 (Δ 0.84) DR12BAO: 4.37 (Δ 0.93) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.75 (Δ -0.25) small_100x143_offlike5_EE_Aplanck: 395.69 (Δ -1.19) commander_dx12.v3.2_29: 23.16 (Δ 0.56) plik_rd12_HM.v22_TT: 758.52 (Δ -2.32) Hubble - H073p45: 6.52 (Δ -3.80) SN - JLA Pantheon18: 1035.26 (Δ 0.47)

19.35 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02216 ± 0.00020	$\sigma_8/h^{0.5}$	1.006 ± 0.018	$H(0.51)$	89.89 ± 0.51
$\Omega_{\mathrm{c}}h^2$	0.1206 ± 0.0018	$r_{\mathrm{drag}}h$	101.9 ± 1.1	$D_{\mathrm{M}}(0.51)$	1953 ± 16
$100\theta_{\mathrm{MC}}$	1.04083 ± 0.00045	$\langle d^2 \rangle^{1/2}$	2.476 ± 0.041	$H(0.61)$	95.17 ± 0.44
τ	$0.0538^{+0.0045}_{-0.0081}$	z_{re}	$7.65^{+0.51}_{-0.82}$	$D_{\mathrm{M}}(0.61)$	2277 ± 17
w_0	$-0.989^{+0.080}_{-0.091}$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.024}_{-0.033}$	$H(2.33)$	234.76 ± 0.97
w_a	$-0.37^{+0.43}_{-0.32}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.885 ± 0.013	$D_{\mathrm{M}}(2.33)$	5761 ± 13
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.011}_{-0.016}$	D_{40}	1233 ± 14	$f\sigma_8(0.15)$	0.465 ± 0.011
n_{s}	0.9630 ± 0.0051	D_{220}	5716 ± 41	$\sigma_8(0.15)$	0.774 ± 0.016
y_{cal}	1.0004 ± 0.0025	D_{810}	2537 ± 14	$f\sigma_8(0.38)$	0.491 ± 0.013
A_{217}^{CIB}	48 ± 7	D_{1420}	814.7 ± 5.0	$\sigma_8(0.38)$	0.687 ± 0.014
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	229.8 ± 1.7	$f\sigma_8(0.51)$	0.492 ± 0.013
A_{143}^{tSZ}	5.1 ± 2.0	$n_{\mathrm{s},0.002}$	0.9630 ± 0.0051	$\sigma_8(0.51)$	0.643 ± 0.013
A_{100}^{PS}	262 ± 28	Y_{P}	$0.245306^{+0.000095}_{-0.000078}$	$f\sigma_8(0.61)$	0.489 ± 0.013
A_{143}^{PS}	49 ± 8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246632^{+0.000095}_{-0.000078}$	$\sigma_8(0.61)$	0.612 ± 0.012
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$10^5 \mathrm{D}/\mathrm{H}$	2.626 ± 0.039	$f\sigma_8(2.33)$	$0.3089^{+0.0062}_{-0.0056}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.754 ± 0.034	$\sigma_8(2.33)$	0.3151 ± 0.0045
A^{kSZ}	< 4.71	z_*	1090.24 ± 0.36	f_{2000}^{143}	30.8 ± 2.9
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	r_*	144.44 ± 0.42	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	$100\theta_*$	1.04103 ± 0.00044	f_{2000}^{217}	107.9 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.874 ± 0.040	χ_{simall}^2	396.8 ± 1.7
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	z_{drag}	1059.49 ± 0.44	χ_{lowl}^2	23.7 ± 1.1
c_{100}	0.99961 ± 0.00062	r_{drag}	147.17 ± 0.43	χ_{plik}^2	770.3 ± 5.3
c_{217}	0.99825 ± 0.00062	k_{D}	0.14062 ± 0.00050	$\chi_{\mathrm{H073p45}}^2$	6.6 ± 2.4
H_0	69.26 ± 0.77	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00026	χ_{JLA}^2	1036.3 ± 1.7
Ω_{Λ}	$0.7009^{+0.0077}_{-0.0069}$	z_{eq}	3412 ± 41	$\chi_{6\mathrm{DF}}^2$	0.14 ± 0.15
Ω_{m}	0.2991 ± 0.0074	k_{eq}	0.01041 ± 0.00013	χ_{MGS}^2	2.71 ± 0.75
$\Omega_{\mathrm{m}}h^2$	0.1434 ± 0.0017	$100\theta_{\mathrm{eq}}$	0.8111 ± 0.0076	$\chi_{\mathrm{DR12BAO}}^2$	5.5 ± 1.5
$\Omega_{\mathrm{m}}h^3$	0.0993 ± 0.0017	$100\theta_{\mathrm{s,eq}}$	0.4484 ± 0.0039	χ_{prior}^2	7.2 ± 3.7
σ_8	0.837 ± 0.017	$H(0.15)$	74.33 ± 0.74	χ_{BAO}^2	8.3 ± 2.1
S_8	0.835 ± 0.020	$D_{\mathrm{M}}(0.15)$	627.1 ± 6.2	χ_{CMB}^2	1190.8 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.458 ± 0.011	$H(0.38)$	83.66 ± 0.64		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.619 ± 0.013	$D_{\mathrm{M}}(0.38)$	1503 ± 13		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2249.33; R - 1 = 0.01064$$

19.36 base_w_wa_plikHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00020 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.998 \pm 0.012 \quad (+2.1\sigma)$	$H(0.51)$	$89.93 \pm 0.52 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0013 \quad (+1.7\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1954 \pm 15 \quad (-2.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04088 \pm 0.00043 \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.459 \pm 0.026 \quad (+1.6\sigma)$	$H(0.61)$	$95.25 \pm 0.44 \quad (-0.9\sigma)$
τ	$0.0534^{+0.0044}_{-0.0078} \quad (-0.7\sigma)$	z_{re}	$7.59^{+0.48}_{-0.80} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2278 \pm 17 \quad (-1.8\sigma)$
w_0	-0.9999 ± 0.081	$10^9 A_{\mathrm{s}}$	$2.093^{+0.021}_{-0.030} \quad (-0.6\sigma)$	$H(2.33)$	$234.64 \pm 0.98 \quad (-0.9\sigma)$
w_a	$-0.27^{+0.35}_{-0.28}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.011 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5759 \pm 13 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.041^{+0.010}_{-0.014} \quad (-0.6\sigma)$	D_{40}	$1229 \pm 12 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4608 \pm 0.0079 \quad (+1.7\sigma)$
n_{s}	$0.9643 \pm 0.0043 \quad (-1.1\sigma)$	D_{220}	$5718 \pm 41 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.768 \pm 0.011 \quad (+3.8\sigma)$
y_{cal}	$1.0003 \pm 0.0025 \quad (-0.3\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4857 \pm 0.0092 \quad (+3.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{1420}	$814.7 \pm 5.0 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.6820 \pm 0.0099 \quad (+3.9\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{2000}	$229.8 \pm 1.8 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4871 \pm 0.0094 \quad (+3.8\sigma)$
A_{143}^{tSZ}	$5.1 \pm 2.0 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9643 \pm 0.0043 \quad (-1.1\sigma)$	$\sigma_8(0.51)$	$0.6384 \pm 0.0092 \quad (+3.8\sigma)$
A_{100}^{PS}	$263 \pm 28 \quad (+0.1\sigma)$	Y_{P}	$0.245321^{+0.000088}_{-0.000076} \quad (-0.7\sigma)$	$f\sigma_8(0.61)$	$0.4836 \pm 0.0095 \quad (+4.4\sigma)$
A_{143}^{PS}	$48 \pm 8 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246648^{+0.000088}_{-0.000076} \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.6073 \pm 0.0086 \quad (+3.7\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.037 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.3068 \pm 0.0045 \quad (+3.8\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.757 \pm 0.033 \quad (-1.2\sigma)$	$\sigma_8(2.33)$	$0.3136 \pm 0.0035 \quad (+2.4\sigma)$
A^{kSZ}	$< 4.81 \quad (+0.1\sigma)$	z_*	$1090.13 \pm 0.31 \quad (+1.2\sigma)$	f_{2000}^{143}	$30.9 \pm 2.9 \quad (+0.2\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.59 \pm 0.32 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$33.3 \pm 2.0 \quad (+0.2\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00043 \quad (-0.6\sigma)$	f_{2000}^{217}	$107.9 \pm 1.9 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.031 \quad (-1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.3 \pm 1.0 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.4 \pm 7.3 \quad (-0.0\sigma)$	z_{drag}	$1059.53 \pm 0.44 \quad (-0.3\sigma)$	χ_{small}^2	$396.6 \pm 1.5 \quad (-0.5\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.1\sigma)$	r_{drag}	$147.31 \pm 0.35 \quad (-1.1\sigma)$	χ_{lowl}^2	$23.38 \pm 0.89 \quad (+0.6\sigma)$
c_{217}	$0.99825 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14050 \pm 0.00044 \quad (+0.6\sigma)$	χ_{plik}^2	$770.5 \pm 5.2 \quad (-0.4\sigma)$
H_0	$69.24 \pm 0.76 \quad (+2.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00025 \quad (+0.3\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.6 \pm 2.4 \quad (-2.2\sigma)$
Ω_{Λ}	$0.7022 \pm 0.0070 \quad (+1.1\sigma)$	z_{eq}	$3396 \pm 30 \quad (+1.6\sigma)$	χ_{JLA}^2	$1036.2 \pm 1.7 \quad (+7.9\sigma)$
Ω_{m}	$0.2978 \pm 0.0070 \quad (-1.1\sigma)$	k_{eq}	$0.010364 \pm 0.000092 \quad (+1.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+2.9\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1427 \pm 0.0013 \quad (+1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8140 \pm 0.0056 \quad (-1.7\sigma)$	χ_{MGS}^2	$2.72 \pm 0.74 \quad (+1.9\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0988 \pm 0.0014 \quad (+6.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4499 \pm 0.0029 \quad (-1.7\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.3 \pm 1.4 \quad (+2.0\sigma)$
σ_8	$0.830 \pm 0.012 \quad (+3.6\sigma)$	$H(0.15)$	$74.25 \pm 0.70 \quad (+2.4\sigma)$	χ_{prior}^2	$7.2 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.827 \pm 0.013 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$627.7 \pm 6.0 \quad (-2.5\sigma)$	χ_{CMB}^2	$1199.9 \pm 5.4 \quad (-0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4530 \pm 0.0072 \quad (+1.2\sigma)$	$H(0.38)$	$83.64 \pm 0.64 \quad (+1.3\sigma)$	χ_{BAO}^2	$8.1 \pm 2.1 \quad (+3.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6133 \pm 0.0086 \quad (+2.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504 \pm 13 \quad (-2.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2258.12; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.04; R - 1 = 0.01181$$

19.37 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022393	0.02237 ± 0.00015	σ_8	0.8335	0.833 ± 0.014	$H(0.38)$	83.78	83.82 ± 0.62
$\Omega_c h^2$	0.12021	0.1203 ± 0.0013	S_8	0.8297	0.831 ± 0.014	$D_M(0.38)$	1501.0	1501 ± 13
$100\theta_{MC}$	1.040916	1.04092 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4545	0.4549 ± 0.0078	$H(0.51)$	90.082	90.09 ± 0.48
τ	0.0538	0.0540 ± 0.0077	$\sigma_8 \Omega_m^{0.25}$	0.6155	0.6157 ± 0.0097	$D_M(0.51)$	1949.8	1950 ± 15
w_0	-1.003	-0.990 ± 0.081	$\sigma_8/h^{0.5}$	1.0004	1.001 ± 0.014	$H(0.61)$	95.406	95.39 ± 0.39
w_a	-0.264	$-0.32^{+0.36}_{-0.29}$	$r_{\text{drag}} h$	102.05	102.0 ± 1.1	$D_M(0.61)$	2273.3	2273 ± 16
$\ln(10^{10} A_s)$	3.0444	3.044 ± 0.016	$\langle d^2 \rangle^{1/2}$	2.4639	2.466 ± 0.032	$H(2.33)$	234.92	234.90 ± 0.91
n_s	0.96546	0.9647 ± 0.0042	z_{re}	7.61	7.62 ± 0.78	$D_M(2.33)$	5749.8	5751.4 ± 9.9
y_{cal}	1.00072	1.0006 ± 0.0025	$10^9 A_s$	2.0998	$2.100^{+0.030}_{-0.034}$	$f\sigma_8(0.15)$	0.4625	0.4624 ± 0.0082
A_{217}^{CIB}	47.2	47 ± 7	$10^9 A_s e^{-2\tau}$	1.8856	1.885 ± 0.011	$\sigma_8(0.15)$	0.7715	0.771 ± 0.013
$\xi^{\text{tSZ} \times \text{CIB}}$	0.41	—	D_{40}	1230.0	1231 ± 12	$f\sigma_8(0.38)$	0.4877	0.4876 ± 0.0096
A_{143}^{tSZ}	7.22	$5.5^{+2.1}_{-1.9}$	D_{220}	5735.7	5733 ± 39	$\sigma_8(0.38)$	0.6848	0.685 ± 0.011
A_{100}^{PS}	248.8	258 ± 28	D_{810}	2541.9	2540 ± 13	$f\sigma_8(0.51)$	0.4891	0.489 ± 0.010
A_{143}^{PS}	46.9	46 ± 8	D_{1420}	818.36	817.2 ± 4.8	$\sigma_8(0.51)$	0.6409	0.641 ± 0.010
$A_{143 \times 217}^{\text{PS}}$	47.0	43 ± 9	D_{2000}	231.40	231.0 ± 1.6	$f\sigma_8(0.61)$	0.4857	0.486 ± 0.010
A_{217}^{PS}	119.7	115 ± 10	$n_{s,0.002}$	0.96546	0.9647 ± 0.0042	$\sigma_8(0.61)$	0.6098	0.6097 ± 0.0099
A^{kSZ}	0.01	< 4.08	Y_{P}	0.245405	$0.245392^{+0.000060}_{-0.000054}$	$f\sigma_8(2.33)$	0.3081	0.3080 ± 0.0051
A_{100}^{dustTT}	8.81	8.9 ± 1.8	$Y_{\text{P}}^{\text{BBN}}$	0.246731	$0.246719^{+0.000060}_{-0.000054}$	$\sigma_8(2.33)$	0.31476	0.3145 ± 0.0041
A_{143}^{dustTT}	10.94	10.9 ± 1.8	$10^5 \text{D}/\text{H}$	2.5812	2.587 ± 0.027	f_{2000}^{143}	28.69	29.3 ± 2.7
$A_{143 \times 217}^{\text{dustTT}}$	19.66	18.6 ± 3.3	Age/Gyr	13.7336	13.735 ± 0.029	$f_{2000}^{143 \times 217}$	31.90	32.1 ± 1.8
A_{217}^{dustTT}	94.8	93.8 ± 7.3	z_*	1089.910	1089.95 ± 0.26	f_{2000}^{217}	106.65	106.9 ± 1.8
A_{100}^{dustTE}	0.1147	0.114 ± 0.038	r_*	144.360	144.36 ± 0.28	χ_{simall}^2	395.99	397.0 ± 1.8
$A_{100 \times 143}^{\text{dustTE}}$	0.1344	0.135 ± 0.029	$100\theta_*$	1.041097	1.04110 ± 0.00030	χ_{lowl}^2	23.21	23.42 ± 0.89
$A_{100 \times 217}^{\text{dustTE}}$	0.480	0.480 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.8662	13.866 ± 0.026	χ_{plik}^2	2343.7	2358.6 ± 5.7
A_{143}^{dustTE}	0.226	0.225 ± 0.054	z_{drag}	1060.009	1059.95 ± 0.30	χ_{H073p45}^2	5.90	6.3 ± 2.3
$A_{143 \times 217}^{\text{dustTE}}$	0.665	0.665 ± 0.080	r_{drag}	147.011	147.02 ± 0.28	χ_{JLA}^2	1035.39	1036.2 ± 1.6
A_{217}^{dustTE}	2.074	2.09 ± 0.27	k_{D}	0.140970	0.14094 ± 0.00031	$\chi_{6\text{DF}}^2$	0.097	0.14 ± 0.15
c_{100}	0.99971	0.99968 ± 0.00061	$100\theta_{\text{D}}$	0.160719	0.16076 ± 0.00018	χ_{MGS}^2	2.67	2.73 ± 0.74
c_{217}	0.99815	0.99819 ± 0.00062	z_{eq}	3407.7	3409 ± 28	χ_{DR12BAO}^2	4.50	5.3 ± 1.5
H_0	69.42	69.34 ± 0.76	k_{eq}	0.010401	0.010404 ± 0.000086	χ_{prior}^2	1.74	11.5 ± 4.5
Ω_{Λ}	0.7027	0.7019 ± 0.0070	$100\theta_{\text{eq}}$	0.8124	0.8122 ± 0.0053	χ_{BAO}^2	7.27	8.2 ± 2.2
Ω_{m}	0.2973	0.2981 ± 0.0070	$100\theta_{\text{s,eq}}$	0.44889	0.4488 ± 0.0027	χ_{CMB}^2	2762.9	2779.1 ± 5.8
$\Omega_{\text{m}} h^2$	0.14325	0.1433 ± 0.0012	$H(0.15)$	74.41	74.43 ± 0.71			
$\Omega_{\text{m}} h^3$	0.09944	0.0994 ± 0.0014	$D_M(0.15)$	626.1	626.4 ± 6.0			

Best-fit $\chi_{\text{eff}}^2 = 3813.17$; $\bar{\chi}_{\text{eff}}^2 = 3841.27$; $R - 1 = 0.00757$
 χ_{eff}^2 : BAO - 6DF: 0.10 MGS: 2.67 DR12BAO: 4.50 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.99 commander_dx12_v3_2_29: 23.21 plik_rd12_HM_v22b_TTTEEE: 2343.68 Hubble - H073p45: 5.90 SN - JLA Pantheon18: 1035.39

19.38 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022407	0.02239 ± 0.00014 (-0.8σ)	$\Omega_{\text{m}}h^3$	0.09912	0.0991 ± 0.0013 $(+9.4\sigma)$	$H(0.15)$	74.39	74.39 ± 0.69 $(+3.3\sigma)$
$\Omega_{\text{c}}h^2$	0.11988	0.1199 ± 0.0011 $(+1.6\sigma)$	σ_8	0.8298	0.830 ± 0.011 $(+3.4\sigma)$	$D_{\text{M}}(0.15)$	626.5	626.6 ± 5.9 (-3.3σ)
$100\theta_{\text{MC}}$	1.040929	1.04094 ± 0.00030 (-0.6σ)	S_8	0.8259	0.826 ± 0.011 $(+0.9\sigma)$	$H(0.38)$	83.82	83.80 ± 0.61 $(+2.0\sigma)$
τ	0.0531	0.0532 ± 0.0073 (-0.7σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4523	0.4525 ± 0.0060 $(+0.9\sigma)$	$D_{\text{M}}(0.38)$	1501.2	1502 ± 13 (-3.0σ)
w_0	-0.998	-0.996 ± 0.079	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6126	0.6127 ± 0.0072 $(+1.9\sigma)$	$H(0.51)$	90.138	90.11 ± 0.49 $(+0.7\sigma)$
w_a	-0.257	$-0.28^{+0.33}_{-0.27}$	$\sigma_8/h^{0.5}$	0.9964	0.996 ± 0.011 $(+1.9\sigma)$	$D_{\text{M}}(0.51)$	1949.8	1950 ± 15 (-2.8σ)
$\ln(10^{10}A_{\text{s}})$	3.0421	3.042 ± 0.014 (-0.5σ)	$r_{\text{drag}}h$	102.00	102.0 ± 1.1 $(+2.6\sigma)$	$H(0.61)$	95.470	95.43 ± 0.39 (-0.7σ)
n_{s}	0.96633	0.9653 ± 0.0039 (-0.8σ)	$\langle d^2 \rangle^{1/2}$	2.4549	2.457 ± 0.024 $(+1.4\sigma)$	$D_{\text{M}}(0.61)$	2273.0	2274 ± 16 (-2.6σ)
y_{cal}	1.00054	1.0005 ± 0.0024 (-0.1σ)	z_{re}	7.53	7.53 ± 0.74 (-0.6σ)	$H(2.33)$	234.82	234.86 ± 0.93 (-1.7σ)
A_{217}^{CIB}	45.9	47 ± 7 $(+0.0\sigma)$	$10^9 A_{\text{s}}$	2.0950	2.094 ± 0.030 (-0.5σ)	$D_{\text{M}}(2.33)$	5748.8	5750.5 ± 9.9 (-0.2σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.65	—	$10^9 A_{\text{s}} e^{-2\tau}$	1.8840	1.883 ± 0.010 $(+0.4\sigma)$	$f\sigma_8(0.15)$	0.4599	0.4600 ± 0.0066 $(+1.4\sigma)$
A_{143}^{tSZ}	7.05	5.5 ± 2.0 $(+0.0\sigma)$	D_{40}	1227.6	1229 ± 11 $(+0.3\sigma)$	$\sigma_8(0.15)$	0.7681	0.768 ± 0.010 $(+3.6\sigma)$
A_{100}^{PS}	248.0	259 ± 28 $(+0.0\sigma)$	D_{220}	5735.3	5734 ± 39 (-0.4σ)	$f\sigma_8(0.38)$	0.4847	0.4849 ± 0.0079 $(+2.8\sigma)$
A_{143}^{PS}	50.8	46 ± 8 $(+0.1\sigma)$	D_{810}	2541.5	2539 ± 13 (-0.1σ)	$\sigma_8(0.38)$	0.6819	0.6817 ± 0.0093 $(+3.7\sigma)$
$A_{143 \times 217}^{\text{PS}}$	53.1	42 ± 9 $(+0.0\sigma)$	D_{1420}	818.55	817.1 ± 4.7 (-0.3σ)	$f\sigma_8(0.51)$	0.4861	0.4863 ± 0.0082 $(+3.6\sigma)$
A_{217}^{PS}	122.0	115 ± 10 $(+0.0\sigma)$	D_{2000}	231.44	230.9 ± 1.6 (-0.4σ)	$\sigma_8(0.51)$	0.6383	0.6381 ± 0.0086 $(+3.7\sigma)$
A^{kSZ}	0.01	< 4.20 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.96633	0.9653 ± 0.0039 (-0.8σ)	$f\sigma_8(0.61)$	0.4827	0.4829 ± 0.0083 $(+4.1\sigma)$
A_{100}^{dustTT}	8.88	8.9 ± 1.8 $(+0.0\sigma)$	Y_{P}	0.245410	$0.245400^{+0.000058}_{-0.000052}$ (-0.9σ)	$\sigma_8(0.61)$	0.6073	0.6072 ± 0.0081 $(+3.7\sigma)$
A_{143}^{dustTT}	11.01	10.9 ± 1.8 $(+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	0.246737	$0.246727^{+0.000058}_{-0.000052}$ (-0.9σ)	$f\sigma_8(2.33)$	0.30696	0.3068 ± 0.0043 $(+3.8\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	20.12	18.6 ± 3.3 $(+0.0\sigma)$	10^5D/H	2.5785	2.583 ± 0.026 $(+0.9\sigma)$	$\sigma_8(2.33)$	0.31379	0.3136 ± 0.0035 $(+2.5\sigma)$
A_{217}^{dustTT}	95.5	93.7 ± 7.3 $(+0.0\sigma)$	Age/Gyr	13.7343	13.737 ± 0.029 (-1.9σ)	χ_{lensing}^2	8.773	9.20 ± 0.83 $(+0.0\sigma)$
A_{100}^{dustTE}	0.1148	0.114 ± 0.038 $(+0.0\sigma)$	z_*	1089.862	1089.89 ± 0.24 $(+1.3\sigma)$	χ_{simall}^2	395.84	396.8 ± 1.6 (-0.4σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1348	0.135 ± 0.029 (-0.0σ)	r_*	144.434	144.43 ± 0.24 (-1.3σ)	χ_{lowl}^2	23.04	23.27 ± 0.79 $(+0.4\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.480 ± 0.085 (-0.0σ)	$100\theta_*$	1.041113	1.04113 ± 0.00030 (-0.6σ)	χ_{plik}^2	2344.2	2358.7 ± 5.6 (-0.3σ)
A_{143}^{dustTE}	0.226	0.224 ± 0.054 (-0.0σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8730	13.873 ± 0.023 (-1.2σ)	χ_{H073p45}^2	6.10	6.4 ± 2.3 (-2.8σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.663 ± 0.080 (-0.0σ)	z_{drag}	1060.009	1059.97 ± 0.30 (-0.5σ)	χ_{JLA}^2	1035.24	1036.1 ± 1.6 $(+7.3\sigma)$
A_{217}^{dustTE}	2.090	2.08 ± 0.27 $(+0.1\sigma)$	r_{drag}	147.083	147.09 ± 0.25 (-1.1σ)	χ_{6DF}^2	0.095	0.14 ± 0.15 $(+3.9\sigma)$
c_{100}	0.99974	0.99969 ± 0.00061 $(+0.0\sigma)$	k_{D}	0.140905	0.14088 ± 0.00029 $(+0.6\sigma)$	χ_{MGS}^2	2.67	2.73 ± 0.74 $(+2.8\sigma)$
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	$100\theta_{\text{D}}$	0.160713	0.16074 ± 0.00018 $(+0.5\sigma)$	χ_{DR12BAO}^2	4.44	5.2 ± 1.5 $(+1.7\sigma)$
H_0	69.35	69.34 ± 0.76 $(+3.3\sigma)$	z_{eq}	3400.2	3401 ± 24 $(+1.5\sigma)$	χ_{prior}^2	1.55	11.5 ± 4.4 (-0.0σ)
Ω_{Λ}	0.7028	0.7025 ± 0.0069 $(+1.7\sigma)$	k_{eq}	0.010378	0.010381 ± 0.000074 $(+1.5\sigma)$	χ_{CMB}^2	2771.9	2788.0 ± 5.8 (-0.4σ)
Ω_{m}	0.2972	0.2975 ± 0.0069 (-1.7σ)	$100\theta_{\text{eq}}$	0.81377	0.8136 ± 0.0046 (-1.6σ)	χ_{BAO}^2	7.21	8.1 ± 2.2 $(+4.7\sigma)$
$\Omega_{\text{m}}h^2$	0.14293	0.1430 ± 0.0010 $(+1.5\sigma)$	$100\theta_{\text{s,eq}}$	0.44960	0.4495 ± 0.0023 (-1.6σ)			

Best-fit $\chi_{\text{eff}}^2 = 3821.98$; $\Delta\chi_{\text{eff}}^2 = -4.85$; $\bar{\chi}_{\text{eff}}^2 = 3850.02$; $\Delta\bar{\chi}_{\text{eff}}^2 = -3.07$; $R - 1 = 0.01297$
 χ_{eff}^2 : BAO - 6DF: 0.10 (Δ 0.09) MGS: 2.67 (Δ 1.13) DR12BAO: 4.44 (Δ 0.75) CMB - smicadx12_Dec5_ft1_mv2_ndclpp_p.teb_consext8: 8.77 (Δ 0.04) simall_100x143_offlike5_EE_Aplanck.L
395.84 (Δ -1.08) commander_dx12_v3.2.29: 23.04 (Δ 0.36) plik_rd12_HM.v22b_TTTEEE: 2344.24 (Δ -1.94) Hubble - H073p45: 6.10 (Δ -4.54) SN - JLA Pantheon18: 1035.24
(Δ 0.39)

19.39 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_b h^2$	0.02237 ± 0.00015	σ_8	0.834 ± 0.013	$H(0.38)$	83.82 ± 0.62
$\Omega_c h^2$	0.1202 ± 0.0013	S_8	0.831 ± 0.014	$D_M(0.38)$	1501 ± 13
$100\theta_{MC}$	1.04092 ± 0.00031	$\sigma_8 \Omega_m^{0.5}$	0.4552 ± 0.0078	$H(0.51)$	90.09 ± 0.48
τ	$0.0551^{+0.0050}_{-0.0081}$	$\sigma_8 \Omega_m^{0.25}$	0.6162 ± 0.0096	$D_M(0.51)$	1950 ± 15
w_0	-0.991 ± 0.080	$\sigma_8/h^{0.5}$	1.002 ± 0.014	$H(0.61)$	95.40 ± 0.39
w_a	$-0.31^{+0.36}_{-0.29}$	$r_{\text{drag}} h$	102.0 ± 1.1	$D_M(0.61)$	2273 ± 16
$\ln(10^{10} A_s)$	$3.047^{+0.011}_{-0.016}$	$\langle d^2 \rangle^{1/2}$	2.468 ± 0.031	$H(2.33)$	234.90 ± 0.91
n_s	0.9648 ± 0.0041	z_{re}	$7.74^{+0.56}_{-0.80}$	$D_M(2.33)$	5751.2 ± 9.9
y_{cal}	1.0006 ± 0.0025	$10^9 A_s$	$2.104^{+0.024}_{-0.034}$	$f\sigma_8(0.15)$	0.4627 ± 0.0081
A_{217}^{CIB}	47 ± 7	$10^9 A_s e^{-2\tau}$	1.885 ± 0.011	$\sigma_8(0.15)$	0.772 ± 0.013
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{40}	1231 ± 12	$f\sigma_8(0.38)$	0.4879 ± 0.0095
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{220}	5733 ± 39	$\sigma_8(0.38)$	0.685 ± 0.011
A_{100}^{PS}	258 ± 28	D_{810}	2540 ± 13	$f\sigma_8(0.51)$	0.489 ± 0.010
A_{143}^{PS}	46 ± 8	D_{1420}	817.2 ± 4.8	$\sigma_8(0.51)$	0.641 ± 0.010
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	D_{2000}	231.0 ± 1.6	$f\sigma_8(0.61)$	0.486 ± 0.010
A_{217}^{PS}	115 ± 10	$n_{s,0.002}$	0.9648 ± 0.0041	$\sigma_8(0.61)$	0.6102 ± 0.0098
A^{kSZ}	< 4.07	Y_P	$0.245394^{+0.000060}_{-0.000053}$	$f\sigma_8(2.33)$	$0.3083^{+0.0053}_{-0.0048}$
A_{100}^{dustTT}	8.9 ± 1.8	Y_P^{BBN}	$0.246720^{+0.000060}_{-0.000053}$	$\sigma_8(2.33)$	0.3148 ± 0.0040
A_{143}^{dustTT}	10.9 ± 1.8	10^5D/H	2.586 ± 0.027	f_{2000}^{143}	29.3 ± 2.7
$A_{143 \times 217}^{\text{dustTT}}$	18.6 ± 3.3	Age/Gyr	13.735 ± 0.029	$f_{2000}^{143 \times 217}$	32.0 ± 1.8
A_{217}^{dustTT}	93.7 ± 7.4	z_*	1089.94 ± 0.26	f_{2000}^{217}	106.9 ± 1.8
A_{100}^{dustTE}	0.114 ± 0.038	r_*	144.37 ± 0.28	χ_{simall}^2	397.0 ± 1.9
$A_{100 \times 143}^{\text{dustTE}}$	0.135 ± 0.029	$100\theta_*$	1.04111 ± 0.00030	χ_{lowl}^2	23.43 ± 0.89
$A_{100 \times 217}^{\text{dustTE}}$	0.481 ± 0.085	$D_M(z_*)/\text{Gpc}$	13.867 ± 0.026	χ_{plik}^2	2358.5 ± 5.7
A_{143}^{dustTE}	0.225 ± 0.054	z_{drag}	1059.95 ± 0.30	χ_{H073p45}^2	6.3 ± 2.3
$A_{143 \times 217}^{\text{dustTE}}$	0.665 ± 0.080	r_{drag}	147.03 ± 0.28	χ_{JLA}^2	1036.2 ± 1.6
A_{217}^{dustTE}	2.09 ± 0.27	k_D	0.14093 ± 0.00031	$\chi_{6\text{DF}}^2$	0.14 ± 0.15
c_{100}	0.99968 ± 0.00061	$100\theta_D$	0.16075 ± 0.00017	χ_{MGS}^2	2.73 ± 0.74
c_{217}	0.99819 ± 0.00062	z_{eq}	3408 ± 28	χ_{DR12BAO}^2	5.3 ± 1.5
H_0	69.35 ± 0.76	k_{eq}	0.010401 ± 0.000086	χ_{prior}^2	11.5 ± 4.5
Ω_Λ	0.7020 ± 0.0069	$100\theta_{\text{eq}}$	0.8123 ± 0.0053	χ_{BAO}^2	8.2 ± 2.2
Ω_m	0.2980 ± 0.0069	$100\theta_{s,\text{eq}}$	0.4489 ± 0.0027	χ_{CMB}^2	2778.9 ± 5.7
$\Omega_m h^2$	0.1433 ± 0.0012	$H(0.15)$	74.42 ± 0.70		
$\Omega_m h^3$	0.0993 ± 0.0014	$D_M(0.15)$	626.4 ± 6.0		

$$\bar{\chi}_{\text{eff}}^2 = 3841.05; R - 1 = 0.00883$$

19.40 base_w_wa_plikHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00014 \quad (-0.8\sigma)$	σ_8	$0.830 \pm 0.011 \quad (+3.6\sigma)$	$H(0.38)$	$83.80 \pm 0.61 \quad (+2.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1199 \pm 0.0011 \quad (+1.5\sigma)$	S_8	$0.826 \pm 0.011 \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.38)$	$1502 \pm 13 \quad (-3.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04095 \pm 0.00030 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4525 \pm 0.0060 \quad (+0.9\sigma)$	$H(0.51)$	$90.10 \pm 0.49 \quad (+0.7\sigma)$
τ	$0.0544^{+0.0049}_{-0.0075} \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6129 \pm 0.0072 \quad (+2.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1950 \pm 15 \quad (-2.8\sigma)$
w_0	-0.998 ± 0.078	$\sigma_8/h^{0.5}$	$0.997 \pm 0.010 \quad (+1.9\sigma)$	$H(0.61)$	$95.43 \pm 0.40 \quad (-0.6\sigma)$
w_a	$-0.26^{+0.33}_{-0.27}$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+2.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2274 \pm 16 \quad (-2.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.010}_{-0.014} \quad (-0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.458 \pm 0.023 \quad (+1.4\sigma)$	$H(2.33)$	$234.86 \pm 0.93 \quad (-1.7\sigma)$
n_{s}	$0.9655 \pm 0.0039 \quad (-0.8\sigma)$	z_{re}	$7.65^{+0.54}_{-0.74} \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5750 \pm 10 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.021}_{-0.030} \quad (-0.4\sigma)$	$f\sigma_8(0.15)$	$0.4602 \pm 0.0066 \quad (+1.4\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882 \pm 0.010 \quad (+0.4\sigma)$	$\sigma_8(0.15)$	$0.768 \pm 0.010 \quad (+3.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{40}	$1229 \pm 11 \quad (+0.3\sigma)$	$f\sigma_8(0.38)$	$0.4850 \pm 0.0079 \quad (+2.8\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (+0.0\sigma)$	D_{220}	$5734 \pm 38 \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.6821 \pm 0.0092 \quad (+3.9\sigma)$
A_{100}^{PS}	$258 \pm 28 \quad (+0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4865 \pm 0.0082 \quad (+3.7\sigma)$
A_{143}^{PS}	$46 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$817.1 \pm 4.7 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6385 \pm 0.0086 \quad (+3.9\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$231.0 \pm 1.5 \quad (-0.4\sigma)$	$f\sigma_8(0.61)$	$0.4830 \pm 0.0083 \quad (+4.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9655 \pm 0.0039 \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.6075 \pm 0.0081 \quad (+3.8\sigma)$
A^{kSZ}	$< 4.18 \quad (-0.0\sigma)$	Y_{P}	$0.245402^{+0.000058}_{-0.000052} \quad (-0.8\sigma)$	$f\sigma_8(2.33)$	$0.3069 \pm 0.0043 \quad (+4.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246729^{+0.000058}_{-0.000052} \quad (-0.8\sigma)$	$\sigma_8(2.33)$	$0.3138 \pm 0.0034 \quad (+2.6\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.582 \pm 0.026 \quad (+0.8\sigma)$	f_{2000}^{143}	$29.4 \pm 2.7 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.737 \pm 0.029 \quad (-1.8\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 1.8 \quad (+0.2\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.6 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.88 \pm 0.24 \quad (+1.2\sigma)$	f_{2000}^{217}	$106.9 \pm 1.8 \quad (+0.1\sigma)$
$A_{100}^{\mathrm{dust}TE}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	r_*	$144.45 \pm 0.24 \quad (-1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.20 \pm 0.84 \quad (+0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dust}TE}$	$0.134 \pm 0.029 \quad (-0.0\sigma)$	$100\theta_*$	$1.04113 \pm 0.00030 \quad (-0.6\sigma)$	χ_{small}^2	$396.7 \pm 1.6 \quad (-0.4\sigma)$
$A_{100 \times 217}^{\mathrm{dust}TE}$	$0.480 \pm 0.084 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.874 \pm 0.023 \quad (-1.1\sigma)$	χ_{lowl}^2	$23.26 \pm 0.79 \quad (+0.4\sigma)$
$A_{143}^{\mathrm{dust}TE}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1059.98 \pm 0.30 \quad (-0.5\sigma)$	χ_{plik}^2	$2358.5 \pm 5.6 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TE}$	$0.663 \pm 0.080 \quad (-0.0\sigma)$	r_{drag}	$147.10 \pm 0.24 \quad (-1.0\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.3 \pm 2.3 \quad (-2.8\sigma)$
$A_{217}^{\mathrm{dust}TE}$	$2.08 \pm 0.27 \quad (+0.1\sigma)$	k_{D}	$0.14087 \pm 0.00029 \quad (+0.6\sigma)$	χ_{JLA}^2	$1036.2 \pm 1.6 \quad (+7.4\sigma)$
c_{100}	$0.99969 \pm 0.00061 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16074 \pm 0.00018 \quad (+0.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+4.0\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	z_{eq}	$3400 \pm 24 \quad (+1.5\sigma)$	χ_{MGS}^2	$2.73 \pm 0.74 \quad (+2.8\sigma)$
H_0	$69.34 \pm 0.76 \quad (+3.3\sigma)$	k_{eq}	$0.010376 \pm 0.000072 \quad (+1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.5 \quad (+1.7\sigma)$
Ω_{Λ}	$0.7027 \pm 0.0069 \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8139 \pm 0.0045 \quad (-1.5\sigma)$	χ_{prior}^2	$11.5 \pm 4.4 \quad (-0.0\sigma)$
Ω_{m}	$0.2973 \pm 0.0069 \quad (-1.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4497 \pm 0.0023 \quad (-1.5\sigma)$	χ_{CMB}^2	$2787.7 \pm 5.7 \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14291 \pm 0.00099 \quad (+1.5\sigma)$	$H(0.15)$	$74.38 \pm 0.69 \quad (+3.2\sigma)$	χ_{BAO}^2	$8.1 \pm 2.2 \quad (+4.7\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0991 \pm 0.0013 \quad (+9.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$626.7 \pm 5.9 \quad (-3.3\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 3849.79; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -3.21; R - 1 = 0.01314$$

19.41 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022142	0.02217 ± 0.00020	$\sigma_8 \Omega_m^{0.25}$	0.6189	0.617 ± 0.013	$D_M(0.38)$	1508.8	1503 ± 13
$\Omega_c h^2$	0.12049	0.1205 ± 0.0018	$\sigma_8/h^{0.5}$	1.0059	1.003 ± 0.019	$H(0.51)$	89.623	89.89 ± 0.50
$100\theta_{MC}$	1.040925	1.04089 ± 0.00045	$r_{drag}h$	102.03	101.9 ± 1.1	$D_M(0.51)$	1960.1	1953 ± 15
τ	0.0560	0.0522 ± 0.0080	$\langle d^2 \rangle^{1/2}$	2.4756	2.467 ± 0.042	$H(0.61)$	95.002	95.18 ± 0.43
w_0	-1.045	-0.993 ± 0.083	z_{re}	7.89	7.47 ± 0.82	$D_M(0.61)$	2285.1	2277 ± 16
w_a	-0.128	$-0.34^{+0.41}_{-0.32}$	$10^9 A_s$	2.1072	2.089 ± 0.034	$H(2.33)$	235.19	234.79 ± 0.95
$\ln(10^{10} A_s)$	3.0480	3.039 ± 0.016	$10^9 A_s e^{-2\tau}$	1.8841	1.882 ± 0.013	$D_M(2.33)$	5763.7	5761 ± 13
n_s	0.9629	0.9638 ± 0.0052	D_{40}	1233.5	1229 ± 14	$f\sigma_8(0.15)$	0.4675	0.464 ± 0.011
y_{cal}	1.00109	1.0004 ± 0.0025	D_{220}	5716.2	5706 ± 41	$\sigma_8(0.15)$	0.7748	0.772 ± 0.016
A_{100}^{PS}	249.2	242 ± 25	D_{810}	2536.4	2534 ± 14	$f\sigma_8(0.38)$	0.4927	0.489 ± 0.013
A_{143}^{PS}	40.3	41 ± 8	D_{1420}	814.5	814.3 ± 5.1	$\sigma_8(0.38)$	0.6872	0.685 ± 0.014
A_{217}^{PS}	96.7	101 ± 10	D_{2000}	229.74	229.7 ± 1.8	$f\sigma_8(0.51)$	0.4934	0.491 ± 0.013
A_{217}^{CIB}	42.7	41 ± 7	$n_{s,0.002}$	0.9629	0.9638 ± 0.0052	$\sigma_8(0.51)$	0.6429	0.641 ± 0.013
A_{143}^{tSZ}	2.99	$3.8^{+1.8}_{-2.5}$	Y_P	0.245302	$0.245308^{+0.000094}_{-0.000080}$	$f\sigma_8(0.61)$	0.4893	0.487 ± 0.014
$r_{143 \times 217}^{PS}$	0.577	0.65 ± 0.13	Y_P^{BBN}	0.246628	$0.246634^{+0.000095}_{-0.000080}$	$\sigma_8(0.61)$	0.6115	0.610 ± 0.012
$r_{143 \times 217}^{CIB}$	0.661	$0.58^{+0.41}_{-0.13}$	$10^5 D/H$	2.6290	2.625 ± 0.039	$f\sigma_8(2.33)$	0.3086	0.3080 ± 0.0061
$\xi^{tSZ \times CIB}$	0.34	—	Age/Gyr	13.7665	13.754 ± 0.034	$\sigma_8(2.33)$	0.31556	0.3143 ± 0.0046
A^{kSZ}	5.8	—	z_*	1090.252	1090.23 ± 0.36	f_{2000}^{143}	31.40	30.6 ± 3.0
A_{100}^{dust}	1.004	1.01 ± 0.20	r_*	144.477	144.46 ± 0.42	f_{2000}^{217}	107.86	107.4 ± 2.0
A_{143}^{dust}	0.980	0.98 ± 0.18	$100\theta_*$	1.041128	1.04109 ± 0.00044	$f_{2000}^{143 \times 217}$	33.10	32.8 ± 2.1
A_{217}^{dust}	0.958	0.97 ± 0.10	$D_M(z_*)/\text{Gpc}$	13.8770	13.875 ± 0.039	χ_{simall}^2	396.52	396.9 ± 1.7
$A_{143 \times 217}^{dust}$	0.983	1.03 ± 0.16	z_{drag}	1059.437	1059.50 ± 0.44	χ_{lowl}^2	23.60	23.4 ± 1.1
c_{100}	0.99737	0.9975 ± 0.0011	r_{drag}	147.215	147.18 ± 0.43	$\chi_{CamSpec}^2$	7049.0	7062.4 ± 5.3
c_{217}	1.00146	1.0012 ± 0.0016	k_D	0.140560	0.14061 ± 0.00049	$\chi_{H073p45}^2$	6.22	6.6 ± 2.3
H_0	69.31	69.26 ± 0.77	$100\theta_D$	0.161061	0.16103 ± 0.00026	χ_{JLA}^2	1035.91	1036.3 ± 1.7
Ω_Λ	0.7017	0.7011 ± 0.0073	z_{eq}	3408.6	3410 ± 41	χ_{6DF}^2	0.065	0.14 ± 0.15
Ω_m	0.2983	0.2989 ± 0.0073	k_{eq}	0.010403	0.01041 ± 0.00013	χ_{MGS}^2	2.43	2.71 ± 0.74
$\Omega_m h^2$	0.14328	0.1433 ± 0.0017	$100\theta_{eq}$	0.8115	0.8115 ± 0.0076	$\chi_{DR12BAO}^2$	4.45	5.4 ± 1.4
$\Omega_m h^3$	0.09931	0.0993 ± 0.0017	$100\theta_{s,eq}$	0.44863	0.4486 ± 0.0039	χ_{prior}^2	2.65	7.6 ± 3.4
σ_8	0.8374	0.834 ± 0.017	$H(0.15)$	74.00	74.31 ± 0.73	χ_{BAO}^2	6.94	8.3 ± 2.1
S_8	0.8350	0.833 ± 0.020	$D_M(0.15)$	628.6	627.2 ± 6.1	χ_{CMB}^2	7469.2	7482.7 ± 5.4
$\sigma_8 \Omega_m^{0.5}$	0.4574	0.456 ± 0.011	$H(0.38)$	83.28	83.64 ± 0.62			

Best-fit $\chi_{eff}^2 = 8520.89$; $\bar{\chi}_{eff}^2 = 8541.50$; $R - 1 = 0.00869$
 χ_{eff}^2 : BAO - 6DF: 0.07 MGS: 2.43 DR12BAO: 4.45 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.52 commander_dx12_v3.2.29: 23.60 CamSpec like_10.7HM: 7049.04
Hubble - H073p45: 6.22 SN - JLA Pantheon18: 1035.91

19.42 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02219 \pm 0.00020 \quad (-0.8\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6136 \pm 0.0086 \quad (+2.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504 \pm 13 \quad (-2.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0013 \quad (+1.9\sigma)$	$\sigma_8/h^{0.5}$	$0.998 \pm 0.012 \quad (+2.1\sigma)$	$H(0.51)$	$89.93 \pm 0.51 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04091 \pm 0.00044 \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1953 \pm 15 \quad (-2.0\sigma)$
τ	$0.0520 \pm 0.0078 \quad (-0.9\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.457 \pm 0.027 \quad (+1.6\sigma)$	$H(0.61)$	$95.24 \pm 0.43 \quad (-1.1\sigma)$
w_0	-0.999 ± 0.080	z_{re}	$7.44 \pm 0.80 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(0.61)$	$2277 \pm 16 \quad (-1.8\sigma)$
w_a	$-0.29^{+0.35}_{-0.29}$	$10^9 A_{\mathrm{s}}$	$2.086 \pm 0.031 \quad (-0.6\sigma)$	$H(2.33)$	$234.69 \pm 0.97 \quad (-1.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038 \pm 0.015 \quad (-0.6\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.011 \quad (+0.6\sigma)$	$D_{\mathrm{M}}(2.33)$	$5759 \pm 13 \quad (+0.2\sigma)$
n_{s}	$0.9645 \pm 0.0045 \quad (-1.2\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.4612 \pm 0.0078 \quad (+1.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.2\sigma)$	D_{220}	$5708 \pm 40 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.769 \pm 0.011 \quad (+3.7\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4862 \pm 0.0091 \quad (+3.1\sigma)$
A_{143}^{PS}	$41 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$814.3 \pm 5.1 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.682 \pm 0.010 \quad (+3.7\sigma)$
A_{217}^{PS}	$101^{+10}_{-10} \quad (-0.1\sigma)$	D_{2000}	$229.7 \pm 1.8 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4876 \pm 0.0094 \quad (+3.8\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9645 \pm 0.0045 \quad (-1.2\sigma)$	$\sigma_8(0.51)$	$0.6384 \pm 0.0092 \quad (+3.7\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	Y_{P}	$0.245318^{+0.000091}_{-0.000076} \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4841 \pm 0.0095 \quad (+4.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246644^{+0.000091}_{-0.000076} \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.6074 \pm 0.0087 \quad (+3.6\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.458 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.620 \pm 0.038 \quad (+0.8\sigma)$	$f\sigma_8(2.33)$	$0.3068 \pm 0.0045 \quad (+3.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.755 \pm 0.033 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3134 \pm 0.0035 \quad (+2.3\sigma)$
A^{kSZ}	—	z_*	$1090.16 \pm 0.32 \quad (+1.4\sigma)$	f_{2000}^{143}	$30.6 \pm 3.0 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.55 \pm 0.33 \quad (-1.5\sigma)$	f_{2000}^{217}	$107.4 \pm 2.0 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.1\sigma)$	$100\theta_*$	$1.04112 \pm 0.00043 \quad (-0.7\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.3\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.884 \pm 0.031 \quad (-1.3\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.36 \pm 0.94 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.52 \pm 0.44 \quad (-0.5\sigma)$	χ_{simall}^2	$396.8 \pm 1.5 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	r_{drag}	$147.27 \pm 0.35 \quad (-1.2\sigma)$	χ_{lowl}^2	$23.21 \pm 0.88 \quad (+0.7\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14054 \pm 0.00044 \quad (+0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.3 \pm 5.1 \quad (-0.4\sigma)$
H_0	$69.26 \pm 0.76 \quad (+2.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00025 \quad (+0.4\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.6 \pm 2.4 \quad (-2.2\sigma)$
Ω_{Λ}	$0.7019 \pm 0.0071 \quad (+1.1\sigma)$	z_{eq}	$3400 \pm 31 \quad (+1.8\sigma)$	χ_{JLA}^2	$1036.2 \pm 1.7 \quad (+7.9\sigma)$
Ω_{m}	$0.2981 \pm 0.0071 \quad (-1.1\sigma)$	k_{eq}	$0.010377 \pm 0.000094 \quad (+1.8\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+3.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0013 \quad (+1.8\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8132 \pm 0.0057 \quad (-1.9\sigma)$	χ_{MGS}^2	$2.72 \pm 0.74 \quad (+2.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0990 \pm 0.0014 \quad (+6.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0030 \quad (-1.9\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.3 \pm 1.4 \quad (+2.1\sigma)$
σ_8	$0.830 \pm 0.012 \quad (+3.5\sigma)$	$H(0.15)$	$74.27 \pm 0.70 \quad (+2.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.828 \pm 0.013 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$627.5 \pm 6.0 \quad (-2.6\sigma)$	χ_{CMB}^2	$7491.6 \pm 5.4 \quad (-0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4533 \pm 0.0072 \quad (+1.2\sigma)$	$H(0.38)$	$83.65 \pm 0.62 \quad (+1.2\sigma)$	χ_{BAO}^2	$8.2 \pm 2.1 \quad (+4.0\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 8550.26; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.54; R - 1 = 0.01140$$

19.43 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02217 ± 0.00021	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.617 ± 0.013	$D_{\mathrm{M}}(0.38)$	1503 ± 13
$\Omega_{\mathrm{c}}h^2$	0.1205 ± 0.0018	$\sigma_8/h^{0.5}$	1.004 ± 0.019	$H(0.51)$	89.89 ± 0.50
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00045	$r_{\mathrm{drag}}h$	102.0 ± 1.1	$D_{\mathrm{M}}(0.51)$	1953 ± 15
τ	$0.0539^{+0.0045}_{-0.0083}$	$\langle d^2 \rangle^{1/2}$	2.469 ± 0.041	$H(0.61)$	95.18 ± 0.43
w_0	-0.994 ± 0.083	z_{re}	$7.66^{+0.51}_{-0.82}$	$D_{\mathrm{M}}(0.61)$	2277 ± 16
w_a	$-0.33^{+0.41}_{-0.31}$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.023}_{-0.034}$	$H(2.33)$	234.79 ± 0.96
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.016}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.013	$D_{\mathrm{M}}(2.33)$	5760 ± 13
n_{s}	0.9640 ± 0.0051	D_{40}	1229 ± 14	$f\sigma_8(0.15)$	0.464 ± 0.011
y_{cal}	1.0004 ± 0.0025	D_{220}	5706 ± 41	$\sigma_8(0.15)$	0.773 ± 0.016
A_{100}^{PS}	241 ± 25	D_{810}	2534 ± 14	$f\sigma_8(0.38)$	0.490 ± 0.013
A_{143}^{PS}	40 ± 8	D_{1420}	814.3 ± 5.2	$\sigma_8(0.38)$	0.686 ± 0.014
A_{217}^{PS}	101 ± 10	D_{2000}	229.8 ± 1.8	$f\sigma_8(0.51)$	0.491 ± 0.013
A_{217}^{CIB}	41 ± 7	$n_{\mathrm{s},0.002}$	0.9640 ± 0.0051	$\sigma_8(0.51)$	0.642 ± 0.013
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5}$	Y_{P}	$0.245310^{+0.000095}_{-0.000079}$	$f\sigma_8(0.61)$	0.488 ± 0.014
$r_{143 \times 217}^{\mathrm{PS}}$	0.65 ± 0.13	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246636^{+0.000095}_{-0.000079}$	$\sigma_8(0.61)$	0.611 ± 0.012
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57^{+0.41}_{-0.14}$	$10^5 \mathrm{D}/\mathrm{H}$	2.624 ± 0.039	$f\sigma_8(2.33)$	$0.3083^{+0.0063}_{-0.0057}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	13.754 ± 0.034	$\sigma_8(2.33)$	0.3147 ± 0.0045
A^{kSZ}	—	z_*	1090.21 ± 0.36	f_{2000}^{143}	30.5 ± 3.0
A_{100}^{dust}	1.01 ± 0.20	r_*	144.47 ± 0.42	f_{2000}^{217}	107.3 ± 2.0
A_{143}^{dust}	0.97 ± 0.18	$100\theta_*$	1.04110 ± 0.00044	$f_{2000}^{143 \times 217}$	32.7 ± 2.1
A_{217}^{dust}	0.97 ± 0.10	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.040	χ_{small}^2	396.8 ± 1.6
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	z_{drag}	1059.51 ± 0.44	χ_{lowl}^2	23.4 ± 1.1
c_{100}	0.9975 ± 0.0010	r_{drag}	147.19 ± 0.43	$\chi_{\mathrm{CamSpec}}^2$	7062.3 ± 5.3
c_{217}	1.0012 ± 0.0016	k_{D}	0.14060 ± 0.00049	$\chi_{\mathrm{H073p45}}^2$	6.6 ± 2.3
H_0	69.26 ± 0.76	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00026	χ_{JLA}^2	1036.3 ± 1.7
Ω_{Λ}	0.7012 ± 0.0073	z_{eq}	3408 ± 41	$\chi_{6\mathrm{DF}}^2$	0.14 ± 0.15
Ω_{m}	0.2988 ± 0.0073	k_{eq}	0.01040 ± 0.00013	χ_{MGS}^2	2.70 ± 0.74
$\Omega_{\mathrm{m}}h^2$	0.1433 ± 0.0017	$100\theta_{\mathrm{eq}}$	0.8117 ± 0.0076	$\chi_{\mathrm{DR12BAO}}^2$	5.4 ± 1.4
$\Omega_{\mathrm{m}}h^3$	0.0992 ± 0.0017	$100\theta_{\mathrm{s,eq}}$	0.4487 ± 0.0039	χ_{prior}^2	7.6 ± 3.4
σ_8	0.835 ± 0.017	$H(0.15)$	74.30 ± 0.73	χ_{BAO}^2	8.2 ± 2.1
S_8	0.833 ± 0.020	$D_{\mathrm{M}}(0.15)$	627.3 ± 6.1	χ_{CMB}^2	7482.5 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.456 ± 0.011	$H(0.38)$	83.64 ± 0.62		
$\bar{\chi}_{\mathrm{eff}}^2 = 8541.22$; $R - 1 = 0.00801$					

19.44 base_w_wa_CamSpecHM_TT_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02220 \pm 0.00020 \quad (-0.8\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6137 \pm 0.0086 \quad (+2.2\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504 \pm 13 \quad (-2.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0013 \quad (+1.8\sigma)$	$\sigma_8/h^{0.5}$	$0.998 \pm 0.012 \quad (+2.1\sigma)$	$H(0.51)$	$89.93 \pm 0.51 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04093 \pm 0.00044 \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+1.9\sigma)$	$D_{\mathrm{M}}(0.51)$	$1954 \pm 15 \quad (-2.0\sigma)$
τ	$0.0537^{+0.0044}_{-0.0081} \quad (-0.7\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.458 \pm 0.027 \quad (+1.7\sigma)$	$H(0.61)$	$95.25 \pm 0.43 \quad (-1.0\sigma)$
w_0	-1.001 ± 0.079	z_{re}	$7.63^{+0.50}_{-0.80} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2278 \pm 16 \quad (-1.8\sigma)$
w_a	$-0.27^{+0.34}_{-0.28}$	$10^9 A_{\mathrm{s}}$	$2.092^{+0.021}_{-0.031} \quad (-0.5\sigma)$	$H(2.33)$	$234.69 \pm 0.97 \quad (-1.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.010}_{-0.015} \quad (-0.5\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.011 \quad (+0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5759 \pm 13 \quad (+0.2\sigma)$
n_{s}	$0.9649 \pm 0.0044 \quad (-1.1\sigma)$	D_{40}	$1227 \pm 12 \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.4612 \pm 0.0078 \quad (+1.8\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.2\sigma)$	D_{220}	$5708 \pm 41 \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.769 \pm 0.011 \quad (+3.8\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 13 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4861 \pm 0.0091 \quad (+3.1\sigma)$
A_{143}^{PS}	$40 \pm 8 \quad (+0.1\sigma)$	D_{1420}	$814.3 \pm 5.1 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.682 \pm 0.010 \quad (+3.8\sigma)$
A_{217}^{PS}	$101^{+10}_{-10} \quad (-0.1\sigma)$	D_{2000}	$229.8 \pm 1.8 \quad (-0.5\sigma)$	$f\sigma_8(0.51)$	$0.4875 \pm 0.0094 \quad (+3.8\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9649 \pm 0.0044 \quad (-1.1\sigma)$	$\sigma_8(0.51)$	$0.6387 \pm 0.0092 \quad (+3.8\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	Y_{P}	$0.245321^{+0.000091}_{-0.000075} \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4840 \pm 0.0095 \quad (+4.3\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246648^{+0.000092}_{-0.000075} \quad (-0.8\sigma)$	$\sigma_8(0.61)$	$0.6077 \pm 0.0087 \quad (+3.7\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.456 \quad (+0.1\sigma)$	$10^5 \mathrm{D}/\mathrm{H}$	$2.619 \pm 0.038 \quad (+0.8\sigma)$	$f\sigma_8(2.33)$	$0.3069 \pm 0.0045 \quad (+3.8\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$\mathrm{Age}/\mathrm{Gyr}$	$13.756 \pm 0.033 \quad (-1.1\sigma)$	$\sigma_8(2.33)$	$0.3137 \pm 0.0035 \quad (+2.4\sigma)$
A^{kSZ}	—	z_*	$1090.14 \pm 0.31 \quad (+1.3\sigma)$	f_{2000}^{143}	$30.5 \pm 3.0 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	r_*	$144.57 \pm 0.32 \quad (-1.4\sigma)$	f_{2000}^{217}	$107.3 \pm 2.0 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.18 \quad (+0.1\sigma)$	$100\theta_*$	$1.04113 \pm 0.00043 \quad (-0.6\sigma)$	$f_{2000}^{143 \times 217}$	$32.8 \pm 2.1 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886 \pm 0.031 \quad (-1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.36 \pm 0.95 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.53 \pm 0.44 \quad (-0.5\sigma)$	χ_{simall}^2	$396.7 \pm 1.5 \quad (-0.5\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	r_{drag}	$147.30 \pm 0.34 \quad (-1.1\sigma)$	χ_{lowl}^2	$23.19 \pm 0.88 \quad (+0.7\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14052 \pm 0.00044 \quad (+0.6\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7062.2 \pm 5.1 \quad (-0.4\sigma)$
H_0	$69.25 \pm 0.76 \quad (+2.6\sigma)$	$100\theta_{\mathrm{D}}$	$0.16101 \pm 0.00026 \quad (+0.4\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.6 \pm 2.3 \quad (-2.2\sigma)$
Ω_{Λ}	$0.7021 \pm 0.0070 \quad (+1.1\sigma)$	z_{eq}	$3397 \pm 30 \quad (+1.7\sigma)$	χ_{JLA}^2	$1036.2 \pm 1.7 \quad (+8.0\sigma)$
Ω_{m}	$0.2979 \pm 0.0070 \quad (-1.1\sigma)$	k_{eq}	$0.010368 \pm 0.000091 \quad (+1.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+3.3\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1428 \pm 0.0013 \quad (+1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8138 \pm 0.0056 \quad (-1.8\sigma)$	χ_{MGS}^2	$2.71 \pm 0.74 \quad (+2.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0989 \pm 0.0014 \quad (+6.6\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4498 \pm 0.0029 \quad (-1.8\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.3 \pm 1.4 \quad (+2.1\sigma)$
σ_8	$0.831 \pm 0.012 \quad (+3.6\sigma)$	$H(0.15)$	$74.25 \pm 0.70 \quad (+2.5\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (+0.0\sigma)$
S_8	$0.828 \pm 0.013 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$627.6 \pm 6.0 \quad (-2.5\sigma)$	χ_{CMB}^2	$7491.4 \pm 5.3 \quad (-0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4533 \pm 0.0072 \quad (+1.2\sigma)$	$H(0.38)$	$83.64 \pm 0.63 \quad (+1.2\sigma)$	χ_{BAO}^2	$8.1 \pm 2.1 \quad (+4.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 8549.95$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.78$; $R - 1 = 0.01139$

19.45 base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022321	0.02231 ± 0.00015	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4501	0.4507 ± 0.0081	$D_{\text{M}}(0.38)$	1503.4	1504 ± 13
$\Omega_{\text{c}}h^2$	0.11954	0.1197 ± 0.0013	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6100	0.6103 ± 0.0099	$H(0.51)$	90.018	90.01 ± 0.49
$100\theta_{\text{MC}}$	1.040909	1.04089 ± 0.00031	$\sigma_8/h^{0.5}$	0.9928	0.993 ± 0.014	$D_{\text{M}}(0.51)$	1952.7	1953 ± 15
τ	0.0528	0.0524 ± 0.0078	$r_{\text{drag}}h$	102.09	102.0 ± 1.1	$H(0.61)$	95.368	95.34 ± 0.40
w_0	-1.010	-1.002 ± 0.079	$\langle d^2 \rangle^{1/2}$	2.4457	2.448 ± 0.033	$D_{\text{M}}(0.61)$	2276.3	2277 ± 16
w_{a}	-0.199	$-0.24^{+0.35}_{-0.28}$	z_{re}	7.51	$7.46^{+0.82}_{-0.73}$	$H(2.33)$	234.70	234.76 ± 0.93
$\ln(10^{10}A_{\text{s}})$	3.0385	3.038 ± 0.016	10^9A_{s}	2.0874	2.087 ± 0.034	$D_{\text{M}}(2.33)$	5753.5	5755 ± 10
n_{s}	0.96659	0.9658 ± 0.0043	$10^9A_{\text{s}}e^{-2\tau}$	1.8782	1.879 ± 0.011	$f\sigma_8(0.15)$	0.4582	0.4584 ± 0.0084
y_{cal}	1.00031	1.0004 ± 0.0025	D_{40}	1223.5	1225 ± 13	$\sigma_8(0.15)$	0.7652	0.765 ± 0.013
A_{100}^{PS}	232.2	239 ± 25	D_{220}	5717.0	5719 ± 39	$f\sigma_8(0.38)$	0.4829	0.4831 ± 0.0097
A_{143}^{PS}	42.0	39 ± 8	D_{810}	2535.0	2535 ± 13	$\sigma_8(0.38)$	0.6793	0.679 ± 0.011
A_{217}^{PS}	103.0	103 ± 10	D_{1420}	816.02	815.6 ± 4.8	$f\sigma_8(0.51)$	0.4842	0.484 ± 0.010
A_{217}^{CIB}	43.7	40 ± 7	D_{2000}	230.48	230.3 ± 1.6	$\sigma_8(0.51)$	0.6359	0.636 ± 0.011
A_{143}^{tSZ}	6.62	$3.9^{+1.9}_{-2.5}$	$n_{\text{s},0.002}$	0.96659	0.9658 ± 0.0043	$f\sigma_8(0.61)$	0.4806	0.481 ± 0.010
$r_{143 \times 217}^{\text{PS}}$	0.642	0.66 ± 0.13	Y_{P}	0.245376	0.245371 ± 0.000061	$\sigma_8(0.61)$	0.6051	0.6049 ± 0.0099
$r_{143 \times 217}^{\text{CIB}}$	0.791	$0.56^{+0.39}_{-0.19}$	$Y_{\text{P}}^{\text{BBN}}$	0.246702	0.246697 ± 0.000062	$f\sigma_8(2.33)$	0.3057	0.3055 ± 0.0052
$\xi^{\text{tSZ} \times \text{CIB}}$	0.28	—	$10^5\text{D}/\text{H}$	2.5948	2.597 ± 0.029	$\sigma_8(2.33)$	0.31289	0.3126 ± 0.0041
A^{kSZ}	0.03	$4.7^{+2.2}_{-4.0}$	Age/Gyr	13.7478	13.749 ± 0.030	f_{2000}^{143}	29.69	29.6 ± 2.8
A_{100}^{dust}	1.006	1.01 ± 0.20	z_*	1089.942	1089.96 ± 0.26	f_{2000}^{217}	106.53	106.8 ± 1.9
A_{143}^{dust}	0.972	0.96 ± 0.18	r_*	144.587	144.56 ± 0.30	$f_{2000}^{143 \times 217}$	31.92	32.0 ± 2.0
A_{217}^{dust}	0.972	0.98 ± 0.10	$100\theta_*$	1.041092	1.04108 ± 0.00030	χ_{small}^2	395.84	396.8 ± 1.6
$A_{143 \times 217}^{\text{dust}}$	1.011	1.03 ± 0.16	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8880	13.886 ± 0.028	χ_{lowl}^2	22.83	23.03 ± 0.88
c_{100}	0.99770	0.9975 ± 0.0011	z_{drag}	1059.780	1059.78 ± 0.32	χ_{CamSpec}^2	11499.2	11514.1 ± 5.6
c_{217}	1.00127	1.0011 ± 0.0016	r_{drag}	147.268	147.24 ± 0.30	χ_{H073p45}^2	6.18	6.6 ± 2.3
c_{TE}	0.99616	0.9963 ± 0.0049	k_{D}	0.140644	0.14066 ± 0.00034	χ_{JLA}^2	1035.34	1036.1 ± 1.6
c_{EE}	0.99159	0.9917 ± 0.0049	$100\theta_{\text{D}}$	0.160838	0.16085 ± 0.00019	$\chi_{6\text{DF}}^2$	0.098	0.14 ± 0.15
H_0	69.32	69.26 ± 0.76	z_{eq}	3390.1	3393 ± 29	χ_{MGS}^2	2.67	2.70 ± 0.73
Ω_{Λ}	0.7035	0.7026 ± 0.0069	k_{eq}	0.010347	0.010355 ± 0.000089	χ_{DR12BAO}^2	4.36	5.2 ± 1.4
Ω_{m}	0.2965	0.2974 ± 0.0069	$100\theta_{\text{eq}}$	0.8153	0.8148 ± 0.0055	χ_{prior}^2	2.14	7.8 ± 3.4
$\Omega_{\text{m}}h^2$	0.14251	0.1426 ± 0.0012	$100\theta_{\text{s,eq}}$	0.45047	0.4502 ± 0.0028	χ_{BAO}^2	7.13	8.0 ± 2.1
$\Omega_{\text{m}}h^3$	0.09879	0.0988 ± 0.0014	$H(0.15)$	74.27	74.27 ± 0.70	χ_{CMB}^2	11917.9	11933.9 ± 5.7
σ_8	0.8266	0.827 ± 0.014	$D_{\text{M}}(0.15)$	627.2	627.5 ± 6.0			
S_8	0.8218	0.823 ± 0.015	$H(0.38)$	83.69	83.69 ± 0.62			

Best-fit $\chi_{\text{eff}}^2 = 12968.70$; $\bar{\chi}_{\text{eff}}^2 = 12992.43$; $R - 1 = 0.01047$
 χ_{eff}^2 : BAO - 6DF: 0.10 MGS: 2.67 DR12BAO: 4.36 CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.84 commander_dx12_v3_2_29: 22.83 CamSpec like_10.7HM_1400_unified: 11499.24 Hubble - H073p45: 6.18 SN - JLA Pantheon18: 1035.34

19.46 base_w_wa_CamSpecHM_TTTEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02232 \pm 0.00015 \quad (-0.7\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0061 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1503 \pm 13 \quad (-2.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0011 \quad (+1.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6103 \pm 0.0074 \quad (+1.8\sigma)$	$H(0.51)$	$90.03 \pm 0.49 \quad (+0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00030 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.993 \pm 0.011 \quad (+1.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1952 \pm 15 \quad (-2.7\sigma)$
τ	$0.0526 \pm 0.0074 \quad (-0.7\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+2.5\sigma)$	$H(0.61)$	$95.37 \pm 0.40 \quad (-0.7\sigma)$
w_0	-1.001 ± 0.077	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.024 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2276 \pm 16 \quad (-2.5\sigma)$
w_a	$-0.24^{+0.32}_{-0.26}$	z_{re}	$7.48 \pm 0.75 \quad (-0.7\sigma)$	$H(2.33)$	$234.70 \pm 0.93 \quad (-1.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038 \pm 0.014 \quad (-0.5\sigma)$	10^9A_{s}	$2.087 \pm 0.030 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(2.33)$	$5754 \pm 10 \quad (-0.2\sigma)$
n_{s}	$0.9657 \pm 0.0041 \quad (-0.9\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.010 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4582 \pm 0.0068 \quad (+1.4\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.2\sigma)$	D_{40}	$1226 \pm 12 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.765 \pm 0.010 \quad (+3.3\sigma)$
A_{100}^{PS}	$240 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5721 \pm 38 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4829 \pm 0.0080 \quad (+2.7\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6793 \pm 0.0093 \quad (+3.4\sigma)$
A_{217}^{PS}	$103 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.6 \pm 4.8 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4843 \pm 0.0083 \quad (+3.4\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6359 \pm 0.0086 \quad (+3.4\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.4} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9657 \pm 0.0041 \quad (-0.9\sigma)$	$f\sigma_8(0.61)$	$0.4808 \pm 0.0084 \quad (+3.9\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	Y_{P}	$0.245372 \pm 0.000060 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.6051 \pm 0.0082 \quad (+3.3\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246699 \pm 0.000060 \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3057 \pm 0.0043 \quad (+3.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5\mathrm{D}/\mathrm{H}$	$2.596 \pm 0.028 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3127 \pm 0.0034 \quad (+2.2\sigma)$
A^{kSZ}	$4.7^{+2.2}_{-3.9} \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.748 \pm 0.030 \quad (-1.8\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.24 \quad (+1.1\sigma)$	f_{2000}^{217}	$106.8 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	r_*	$144.57 \pm 0.26 \quad (-1.3\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.0 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00030 \quad (-0.6\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.13 \pm 0.71 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.886 \pm 0.024 \quad (-1.1\sigma)$	χ_{simall}^2	$396.7 \pm 1.4 \quad (-0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.79 \pm 0.32 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.05 \pm 0.81 \quad (+0.5\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.25 \pm 0.26 \quad (-1.1\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.7 \pm 5.5 \quad (-0.2\sigma)$
c_{TE}	$0.9962 \pm 0.0049 \quad (-0.1\sigma)$	k_{D}	$0.14066 \pm 0.00032 \quad (+0.6\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.5 \pm 2.3 \quad (-2.8\sigma)$
c_{EE}	$0.9918 \pm 0.0049 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (+0.3\sigma)$	χ_{JLA}^2	$1036.1 \pm 1.6 \quad (+7.9\sigma)$
H_0	$69.29 \pm 0.76 \quad (+3.2\sigma)$	z_{eq}	$3392 \pm 25 \quad (+1.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+4.4\sigma)$
Ω_{Λ}	$0.7029 \pm 0.0068 \quad (+1.6\sigma)$	k_{eq}	$0.010353 \pm 0.000076 \quad (+1.5\sigma)$	χ_{MGS}^2	$2.73 \pm 0.73 \quad (+2.6\sigma)$
Ω_{m}	$0.2971 \pm 0.0068 \quad (-1.6\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8150 \pm 0.0046 \quad (-1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.4 \quad (+2.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0010 \quad (+1.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4503 \pm 0.0024 \quad (-1.5\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0988 \pm 0.0013 \quad (+8.6\sigma)$	$H(0.15)$	$74.30 \pm 0.69 \quad (+3.1\sigma)$	χ_{CMB}^2	$11942.6 \pm 5.7 \quad (-0.4\sigma)$
σ_8	$0.827 \pm 0.011 \quad (+3.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$627.3 \pm 5.9 \quad (-3.2\sigma)$	χ_{BAO}^2	$8.1 \pm 2.1 \quad (+5.1\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.8\sigma)$	$H(0.38)$	$83.72 \pm 0.61 \quad (+1.9\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 13001.06; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.57; R - 1 = 0.01205$$

19.47 base_w_wa_CamSpecHM_TTTEEE_lowl_lowE_BAO_Riess18_Pantheon18_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4512 ± 0.0080	$D_{\mathrm{M}}(0.38)$	1504 ± 13
$\Omega_{\mathrm{c}}h^2$	0.1196 ± 0.0013	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6110 ± 0.0097	$H(0.51)$	90.01 ± 0.49
$100\theta_{\mathrm{MC}}$	1.04090 ± 0.00031	$\sigma_8/h^{0.5}$	0.994 ± 0.014	$D_{\mathrm{M}}(0.51)$	1953 ± 15
τ	$0.0541^{+0.0045}_{-0.0081}$	$r_{\mathrm{drag}}h$	102.0 ± 1.1	$H(0.61)$	95.35 ± 0.40
w_0	-1.003 ± 0.079	$\langle d^2 \rangle^{1/2}$	2.451 ± 0.032	$D_{\mathrm{M}}(0.61)$	2277 ± 16
w_{a}	$-0.23^{+0.34}_{-0.27}$	z_{re}	$7.64^{+0.52}_{-0.79}$	$H(2.33)$	234.76 ± 0.93
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.011}_{-0.016}$	$10^9 A_{\mathrm{s}}$	$2.093^{+0.023}_{-0.033}$	$D_{\mathrm{M}}(2.33)$	5755 ± 10
n_{s}	0.9660 ± 0.0043	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.879 ± 0.011	$f\sigma_8(0.15)$	0.4589 ± 0.0082
y_{cal}	1.0004 ± 0.0025	D_{40}	1226 ± 13	$\sigma_8(0.15)$	0.766 ± 0.013
A_{100}^{PS}	239 ± 25	D_{220}	5719 ± 39	$f\sigma_8(0.38)$	0.4836 ± 0.0096
A_{143}^{PS}	39 ± 8	D_{810}	2535 ± 13	$\sigma_8(0.38)$	0.680 ± 0.011
A_{217}^{PS}	103 ± 10	D_{1420}	815.6 ± 4.8	$f\sigma_8(0.51)$	0.485 ± 0.010
A_{217}^{CIB}	39 ± 7	D_{2000}	230.4 ± 1.6	$\sigma_8(0.51)$	0.637 ± 0.010
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5}$	$n_{\mathrm{s},0.002}$	0.9660 ± 0.0043	$f\sigma_8(0.61)$	0.481 ± 0.010
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	Y_{P}	0.245373 ± 0.000061	$\sigma_8(0.61)$	0.6057 ± 0.0098
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.246699 ± 0.000061	$f\sigma_8(2.33)$	0.3059 ± 0.0051
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5 \mathrm{D}/\mathrm{H}$	2.596 ± 0.029	$\sigma_8(2.33)$	0.3131 ± 0.0039
A^{kSZ}	$4.6^{+2.0}_{-4.1}$	$\mathrm{Age}/\mathrm{Gyr}$	13.749 ± 0.030	f_{2000}^{143}	29.5 ± 2.8
A_{100}^{dust}	1.01 ± 0.20	z_*	1089.95 ± 0.26	f_{2000}^{217}	106.7 ± 1.9
A_{143}^{dust}	0.96 ± 0.18	r_*	144.57 ± 0.30	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
A_{217}^{dust}	0.98 ± 0.10	$100\theta_*$	1.04109 ± 0.00030	χ_{small}^2	396.7 ± 1.5
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.886 ± 0.028	χ_{lowl}^2	23.04 ± 0.88
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.79 ± 0.32	$\chi_{\mathrm{CamSpec}}^2$	11513.9 ± 5.6
c_{217}	1.0011 ± 0.0016	r_{drag}	147.25 ± 0.30	$\chi_{\mathrm{H073p45}}^2$	6.6 ± 2.3
c_{TE}	0.9961 ± 0.0049	k_{D}	0.14066 ± 0.00034	χ_{JLA}^2	1036.1 ± 1.6
c_{EE}	0.9916 ± 0.0049	$100\theta_{\mathrm{D}}$	0.16084 ± 0.00019	$\chi_{6\mathrm{DF}}^2$	0.14 ± 0.15
H_0	69.26 ± 0.76	z_{eq}	3392 ± 29	χ_{MGS}^2	2.70 ± 0.73
Ω_{Λ}	0.7027 ± 0.0069	k_{eq}	0.010353 ± 0.000089	$\chi_{\mathrm{DR12BAO}}^2$	5.1 ± 1.4
Ω_{m}	0.2973 ± 0.0069	$100\theta_{\mathrm{eq}}$	0.8150 ± 0.0054	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1426 ± 0.0012	$100\theta_{\mathrm{s,eq}}$	0.4503 ± 0.0028	χ_{BAO}^2	8.0 ± 2.1
$\Omega_{\mathrm{m}}h^3$	0.0988 ± 0.0014	$H(0.15)$	74.26 ± 0.70	χ_{CMB}^2	11933.7 ± 5.6
σ_8	0.828 ± 0.013	$D_{\mathrm{M}}(0.15)$	627.5 ± 6.0		
S_8	0.824 ± 0.015	$H(0.38)$	83.69 ± 0.62		

$$\bar{\chi}_{\mathrm{eff}}^2 = 12992.15; R - 1 = 0.01047$$

19.48 base_w_wa_CamSpecHM_TTTEE_lowl_lowE_BAO_Riess18_Pantheon18_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02232 \pm 0.00015 \quad (-0.6\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4507 \pm 0.0061 \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1503 \pm 13 \quad (-2.9\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0011 \quad (+1.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6105 \pm 0.0074 \quad (+1.9\sigma)$	$H(0.51)$	$90.03 \pm 0.49 \quad (+0.6\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04090 \pm 0.00030 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.994 \pm 0.011 \quad (+1.8\sigma)$	$D_{\mathrm{M}}(0.51)$	$1952 \pm 15 \quad (-2.6\sigma)$
τ	$0.0540^{+0.0047}_{-0.0077} \quad (-0.6\sigma)$	$r_{\mathrm{drag}}h$	$102.0 \pm 1.1 \quad (+2.5\sigma)$	$H(0.61)$	$95.37 \pm 0.40 \quad (-0.7\sigma)$
w_0	-1.002 ± 0.077	$\langle d^2 \rangle^{1/2}$	$2.450 \pm 0.024 \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2276 \pm 16 \quad (-2.4\sigma)$
w_a	$-0.23^{+0.32}_{-0.26}$	z_{re}	$7.62^{+0.53}_{-0.75} \quad (-0.5\sigma)$	$H(2.33)$	$234.70 \pm 0.93 \quad (-1.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.011}_{-0.014} \quad (-0.4\sigma)$	10^9A_{s}	$2.093^{+0.022}_{-0.030} \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5754 \pm 10 \quad (-0.2\sigma)$
n_{s}	$0.9660 \pm 0.0040 \quad (-0.8\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.010 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4584 \pm 0.0068 \quad (+1.4\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.2\sigma)$	D_{40}	$1226 \pm 12 \quad (+0.3\sigma)$	$\sigma_8(0.15)$	$0.766 \pm 0.010 \quad (+3.5\sigma)$
A_{100}^{PS}	$239 \pm 25 \quad (+0.1\sigma)$	D_{220}	$5721 \pm 39 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4831 \pm 0.0080 \quad (+2.8\sigma)$
A_{143}^{PS}	$39 \pm 8 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 13 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6797 \pm 0.0092 \quad (+3.6\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.6 \pm 4.8 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4844 \pm 0.0083 \quad (+3.5\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{2000}	$230.3 \pm 1.6 \quad (-0.4\sigma)$	$\sigma_8(0.51)$	$0.6363 \pm 0.0086 \quad (+3.6\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.4} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9660 \pm 0.0040 \quad (-0.8\sigma)$	$f\sigma_8(0.61)$	$0.4810 \pm 0.0084 \quad (+4.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.245375 \pm 0.000059 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.6054 \pm 0.0081 \quad (+3.5\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18} \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246701 \pm 0.000059 \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.3059 \pm 0.0043 \quad (+3.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^5\mathrm{D}/\mathrm{H}$	$2.595 \pm 0.028 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3130 \pm 0.0034 \quad (+2.4\sigma)$
A^{kSZ}	$4.6^{+2.1}_{-4.0} \quad (+0.1\sigma)$	$\mathrm{Age}/\mathrm{Gyr}$	$13.748 \pm 0.030 \quad (-1.8\sigma)$	f_{2000}^{143}	$29.6 \pm 2.8 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.94 \pm 0.24 \quad (+1.1\sigma)$	f_{2000}^{217}	$106.7 \pm 1.9 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.1\sigma)$	r_*	$144.58 \pm 0.25 \quad (-1.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.0 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04109 \pm 0.00030 \quad (-0.5\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.10 \pm 0.69 \quad (-0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.024 \quad (-1.1\sigma)$	χ_{simall}^2	$396.6 \pm 1.4 \quad (-0.4\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.79 \pm 0.32 \quad (-0.4\sigma)$	χ_{lowl}^2	$23.04 \pm 0.81 \quad (+0.5\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.26 \pm 0.26 \quad (-1.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11513.6 \pm 5.5 \quad (-0.3\sigma)$
c_{TE}	$0.9961 \pm 0.0049 \quad (-0.1\sigma)$	k_{D}	$0.14065 \pm 0.00032 \quad (+0.6\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$6.5 \pm 2.3 \quad (-2.8\sigma)$
c_{EE}	$0.9917 \pm 0.0049 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00019 \quad (+0.3\sigma)$	χ_{JLA}^2	$1036.1 \pm 1.6 \quad (+8.1\sigma)$
H_0	$69.29 \pm 0.76 \quad (+3.2\sigma)$	z_{eq}	$3390 \pm 24 \quad (+1.4\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.14 \pm 0.15 \quad (+4.4\sigma)$
Ω_{Λ}	$0.7030 \pm 0.0068 \quad (+1.7\sigma)$	k_{eq}	$0.010348 \pm 0.000074 \quad (+1.4\sigma)$	χ_{MGS}^2	$2.73 \pm 0.73 \quad (+2.6\sigma)$
Ω_{m}	$0.2970 \pm 0.0068 \quad (-1.7\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8153 \pm 0.0046 \quad (-1.5\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$5.2 \pm 1.4 \quad (+2.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0010 \quad (+1.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0023 \quad (-1.5\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0987 \pm 0.0013 \quad (+8.5\sigma)$	$H(0.15)$	$74.29 \pm 0.68 \quad (+3.1\sigma)$	χ_{CMB}^2	$11942.3 \pm 5.6 \quad (-0.4\sigma)$
σ_8	$0.827 \pm 0.011 \quad (+3.3\sigma)$	$D_{\mathrm{M}}(0.15)$	$627.3 \pm 5.9 \quad (-3.2\sigma)$	χ_{BAO}^2	$8.0 \pm 2.1 \quad (+5.1\sigma)$
S_8	$0.823 \pm 0.011 \quad (+0.8\sigma)$	$H(0.38)$	$83.71 \pm 0.61 \quad (+1.8\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 13000.80; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -2.74; R - 1 = 0.01150$$

20 yhe

20.1 base_yhe_plikHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022104	0.02212 ± 0.00030 (+0.0 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4596	0.460 ± 0.013 (−0.0 σ)	$H(0.15)$	72.21	72.28 ± 0.96 (+0.0 σ)
$\Omega_c h^2$	0.12062	0.1206 ± 0.0022 (−0.0 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6106	0.611 ± 0.012 (−0.0 σ)	$D_M(0.15)$	648.0	647.5 ± 9.6 (−0.0 σ)
$100\theta_{MC}$	1.04067	1.04080 ± 0.00089 (+0.1 σ)	$\sigma_8/h^{0.5}$	0.9924	0.992 ± 0.016 (−0.0 σ)	$H(0.38)$	82.48	82.54 ± 0.73 (+0.0 σ)
τ	0.0518	0.0518 ± 0.0081 (−0.0 σ)	$r_{drag}h$	98.40	98.5 ± 1.8 (+0.0 σ)	$D_M(0.38)$	1543.1	1542 ± 19 (−0.0 σ)
Y_P	0.2421	0.246 ± 0.021	$\langle d^2 \rangle^{1/2}$	2.4524	2.453 ± 0.043 (−0.0 σ)	$H(0.51)$	89.28	89.34 ± 0.60 (+0.0 σ)
$\ln(10^{10} A_s)$	3.0391	3.040 ± 0.018 (−0.0 σ)	z_{re}	7.48	7.47 ± 0.84 (−0.0 σ)	$D_M(0.51)$	1997.5	1996 ± 23 (−0.0 σ)
n_s	0.9627	0.963 ± 0.011 (+0.1 σ)	$10^9 A_s$	2.0887	2.091 ± 0.037 (−0.0 σ)	$H(0.61)$	94.97	95.02 ± 0.51 (+0.0 σ)
y_{cal}	1.00043	1.0004 ± 0.0025 (+0.0 σ)	$10^9 A_s e^{-2\tau}$	1.8831	1.885 ± 0.015 (+0.0 σ)	$D_M(0.61)$	2323.1	2322 ± 25 (−0.0 σ)
A_{217}^{CIB}	48.2	48 ± 7 (+0.0 σ)	D_{40}	1232.3	1233 ± 22 (−0.0 σ)	$H(2.33)$	236.68	236.7 ± 1.3 (−0.0 σ)
$\xi^{tSZ \times CIB}$	0.38	—	D_{220}	5708.6	5713 ± 41 (+0.0 σ)	$D_M(2.33)$	5779.7	5777 ± 25 (−0.0 σ)
A_{143}^{tSZ}	6.95	5.0 ± 2.0 (−0.0 σ)	D_{810}	2537.4	2536 ± 14 (+0.0 σ)	$f\sigma_8(0.15)$	0.4634	0.463 ± 0.012 (−0.0 σ)
A_{100}^{PS}	253.8	264 ± 29 (+0.0 σ)	D_{1420}	815.9	814.3 ± 5.4 (−0.0 σ)	$\sigma_8(0.15)$	0.7487	0.7491 ± 0.0084 (−0.0 σ)
A_{143}^{PS}	49.8	49 ± 9 (+0.0 σ)	D_{2000}	230.27	229.4 ± 2.4 (−0.1 σ)	$f\sigma_8(0.38)$	0.4797	0.4796 ± 0.0095 (−0.0 σ)
$A_{143 \times 217}^{PS}$	48.3	43 ± 9 (−0.0 σ)	$n_{s,0.002}$	0.9627	0.963 ± 0.011 (+0.1 σ)	$\sigma_8(0.38)$	0.6627	0.6631 ± 0.0073 (−0.0 σ)
A_{217}^{PS}	119.9	115 ± 10 (−0.0 σ)	Y_P	0.2421	0.246 ± 0.021 (+5.3 σ)	$f\sigma_8(0.51)$	0.4771	0.4771 ± 0.0081 (−0.0 σ)
A^{kSZ}	0.05	< 5.01 (+0.0 σ)	Y_P^{BBN}	0.2434	0.247 ± 0.021 (+5.3 σ)	$\sigma_8(0.51)$	0.6197	0.6201 ± 0.0069 (−0.0 σ)
A_{100}^{dustTT}	8.89	9.0 ± 1.8 (+0.0 σ)	Age/Gyr	13.835	13.829 ± 0.058 (−0.0 σ)	$f\sigma_8(0.61)$	0.4714	0.4714 ± 0.0072 (−0.0 σ)
A_{143}^{dustTT}	10.88	10.7 ± 1.8 (+0.0 σ)	z_*	1090.18	1090.33 ± 0.65 (+0.1 σ)	$\sigma_8(0.61)$	0.5894	0.5898 ± 0.0066 (−0.0 σ)
$A_{143 \times 217}^{dustTT}$	19.45	18.3 ± 3.3 (−0.0 σ)	r_*	144.486	144.46 ± 0.48 (−0.0 σ)	$f\sigma_8(2.33)$	0.29683	0.2970 ± 0.0034 (−0.0 σ)
A_{217}^{dustTT}	94.7	93.2 ± 7.3 (−0.0 σ)	$100\theta_*$	1.04096	1.04099 ± 0.00050 (+0.0 σ)	$\sigma_8(2.33)$	0.30562	0.3059 ± 0.0038 (+0.0 σ)
c_{100}	0.99965	0.99961 ± 0.00062 (−0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.8801	13.877 ± 0.045 (−0.0 σ)	f_{2000}^{143}	30.03	31 ± 4 (+0.1 σ)
c_{217}	0.99823	0.99827 ± 0.00062 (+0.0 σ)	z_{drag}	1059.25	1059.4 ± 1.2 (+0.1 σ)	$f_{2000}^{143 \times 217}$	33.05	33.7 ± 2.9 (+0.1 σ)
H_0	66.83	66.9 ± 1.1 (+0.0 σ)	r_{drag}	147.236	147.21 ± 0.49 (−0.0 σ)	f_{2000}^{217}	107.48	108.3 ± 2.6 (+0.1 σ)
Ω_Λ	0.6790	0.679 ± 0.015 (+0.0 σ)	k_D	0.14064	0.14051 ± 0.00075 (−0.1 σ)	χ_{simall}^2	395.83	396.9 ± 1.7 (−0.0 σ)
Ω_m	0.3210	0.321 ± 0.015 (−0.0 σ)	$100\theta_D$	0.16093	0.16111 ± 0.00077 (+0.1 σ)	χ_{lowl}^2	23.69	24.0 ± 2.1 (+0.1 σ)
$\Omega_m h^2$	0.14337	0.1434 ± 0.0020 (−0.0 σ)	z_{eq}	3410.6	3411 ± 48 (−0.0 σ)	χ_{plik}^2	758.7	772.2 ± 5.8 (+0.1 σ)
$\Omega_m h^3$	0.09582	0.09591 ± 0.00078 (+0.0 σ)	k_{eq}	0.010410	0.01041 ± 0.00015 (−0.0 σ)	χ_{prior}^2	1.32	7.3 ± 3.7 (−0.0 σ)
σ_8	0.8113	0.8117 ± 0.0095 (−0.0 σ)	$100\theta_{eq}$	0.8109	0.8111 ± 0.0092 (+0.0 σ)	χ_{CMB}^2	1178.2	1193.1 ± 5.7 (+0.2 σ)
S_8	0.8392	0.839 ± 0.024 (−0.0 σ)	$100\theta_{s,eq}$	0.44831	0.4484 ± 0.0047 (+0.0 σ)			

Best-fit $\chi_{eff}^2 = 1179.56$; $\Delta\chi_{eff}^2 = -0.01$; $\bar{\chi}_{eff}^2 = 1200.43$; $\Delta\bar{\chi}_{eff}^2 = 0.85$; $R - 1 = 0.00562$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.83 (Δ -0.04) commander_dx12_v3.2.29: 23.69 (Δ 0.09) plik_rd12_HM_v22_TT: 758.72 (Δ -0.02)

20.2 base_yhe_plikHM_TT_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022249	0.02227 ± 0.00025 (+0.3 σ)	$\sigma_8 \Omega_m^{0.25}$	0.6030	0.6033 ± 0.0084 (+0.1 σ)	$H(0.38)$	83.023	83.07 ± 0.44 (+0.3 σ)
$\Omega_c h^2$	0.11890	0.1190 ± 0.0012 (+0.0 σ)	$\sigma_8/h^{0.5}$	0.9827	0.983 ± 0.012 (+0.1 σ)	$D_M(0.38)$	1528.1	1527 ± 11 (-0.3 σ)
$100\theta_{MC}$	1.04108	1.04125 ± 0.00074 (+0.7 σ)	$r_{drag}h$	99.86	99.87 ± 0.98 (+0.1 σ)	$H(0.51)$	89.715	89.76 ± 0.39 (+0.4 σ)
τ	0.0545	0.0536 ± 0.0078 (-0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4251	2.424 ± 0.029 (-0.2 σ)	$D_M(0.51)$	1979.9	1979 ± 13 (-0.3 σ)
Y_P	0.2484	0.253 ± 0.018	z_{re}	7.73	7.63 ± 0.81 (-0.0 σ)	$H(0.61)$	95.315	95.37 ± 0.35 (+0.4 σ)
$\ln(10^{10} A_s)$	3.0423	3.042 ± 0.017 (+0.1 σ)	$10^9 A_s$	2.0952	2.095 ± 0.036 (+0.1 σ)	$D_M(0.61)$	2304.2	2303 ± 14 (-0.3 σ)
n_s	0.9688	0.9693 ± 0.0082 (+0.7 σ)	$10^9 A_s e^{-2\tau}$	1.8788	1.881 ± 0.015 (+0.3 σ)	$H(2.33)$	235.73	235.84 ± 0.83 (+0.1 σ)
y_{cal}	1.00048	1.0005 ± 0.0025 (-0.0 σ)	D_{40}	1221.0	1221 ± 17 (-0.4 σ)	$D_M(2.33)$	5764.1	5761 ± 19 (-0.5 σ)
A_{217}^{CIB}	49.2	49 ± 7 (+0.1 σ)	D_{220}	5716.2	5720 ± 40 (-0.0 σ)	$f\sigma_8(0.15)$	0.4545	0.4547 ± 0.0078 (+0.0 σ)
$\xi^{tSZ \times CIB}$	0.24	—	D_{810}	2537.3	2537 ± 14 (+0.1 σ)	$\sigma_8(0.15)$	0.7473	0.7477 ± 0.0082 (+0.2 σ)
A_{143}^{tSZ}	7.03	4.9 ± 2.0 (-0.1 σ)	D_{1420}	816.0	814.5 ± 5.3 (-0.2 σ)	$f\sigma_8(0.38)$	0.4732	0.4735 ± 0.0068 (+0.1 σ)
A_{100}^{PS}	255.8	267 ± 28 (+0.1 σ)	D_{2000}	230.00	229.1 ± 2.4 (-0.5 σ)	$\sigma_8(0.38)$	0.6627	0.6630 ± 0.0072 (+0.3 σ)
A_{143}^{PS}	49.1	50 ± 9 (+0.3 σ)	$n_{s,0.002}$	0.9688	0.9693 ± 0.0082 (+0.7 σ)	$f\sigma_8(0.51)$	0.4721	0.4723 ± 0.0062 (+0.1 σ)
$A_{143 \times 217}^{PS}$	45.0	44 ± 9 (+0.1 σ)	Y_P	0.2484	0.253 ± 0.018 (+93.2 σ)	$\sigma_8(0.51)$	0.6202	0.6206 ± 0.0068 (+0.3 σ)
A_{217}^{PS}	118.6	115 ± 10 (+0.0 σ)	Y_P^{BBN}	0.2498	0.255 ± 0.019 (+93.2 σ)	$f\sigma_8(0.61)$	0.4673	0.4675 ± 0.0058 (+0.1 σ)
A^{kSZ}	0.02	< 5.26 (+0.1 σ)	Age/Gyr	13.8000	13.793 ± 0.043 (-0.5 σ)	$\sigma_8(0.61)$	0.5902	0.5906 ± 0.0065 (+0.3 σ)
A_{100}^{dustTT}	8.93	9.0 ± 1.8 (+0.0 σ)	z_*	1090.10	1090.29 ± 0.65 (+0.9 σ)	$f\sigma_8(2.33)$	0.29769	0.2978 ± 0.0033 (+0.3 σ)
A_{143}^{dustTT}	10.77	10.8 ± 1.8 (-0.0 σ)	r_*	144.798	144.73 ± 0.38 (-0.3 σ)	$\sigma_8(2.33)$	0.30699	0.3072 ± 0.0035 (+0.3 σ)
$A_{143 \times 217}^{dustTT}$	19.46	18.3 ± 3.3 (+0.0 σ)	$100\theta_*$	1.041207	1.04123 ± 0.00043 (+0.1 σ)	f_{2000}^{143}	30.74	32 ± 4 (+0.4 σ)
A_{217}^{dustTT}	94.8	93.1 ± 7.3 (-0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9067	13.900 ± 0.038 (-0.3 σ)	$f_{2000}^{143 \times 217}$	33.40	34.2 ± 2.8 (+0.5 σ)
c_{100}	0.99961	0.99961 ± 0.00062 (+0.0 σ)	z_{drag}	1059.67	1059.9 ± 1.1 (+0.9 σ)	f_{2000}^{217}	107.88	108.7 ± 2.6 (+0.4 σ)
c_{217}	0.99828	0.99827 ± 0.00062 (+0.0 σ)	r_{drag}	147.510	147.44 ± 0.43 (-0.3 σ)	χ_{simall}^2	396.06	397.0 ± 1.8 (-0.1 σ)
H_0	67.70	67.74 ± 0.62 (+0.2 σ)	k_D	0.14021	0.14009 ± 0.00058 (-0.4 σ)	χ_{lowl}^2	22.64	22.8 ± 1.3 (-0.4 σ)
Ω_Λ	0.6906	0.6906 ± 0.0076 (+0.1 σ)	$100\theta_D$	0.16112	0.16133 ± 0.00073 (+1.2 σ)	χ_{plik}^2	760.1	773.3 ± 5.7 (+0.2 σ)
Ω_m	0.3094	0.3094 ± 0.0076 (-0.1 σ)	z_{eq}	3373.0	3376 ± 29 (+0.1 σ)	χ_{6DF}^2	0.0162	0.056 ± 0.075 (-0.0 σ)
$\Omega_m h^2$	0.14179	0.1419 ± 0.0012 (+0.1 σ)	k_{eq}	0.010295	0.010304 ± 0.000089 (+0.1 σ)	χ_{MGS}^2	1.34	1.41 ± 0.55 (+0.1 σ)
$\Omega_m h^3$	0.09599	0.09613 ± 0.00074 (+0.5 σ)	$100\theta_{eq}$	0.8183	0.8180 ± 0.0053 (-0.0 σ)	$\chi_{DR12BAO}^2$	4.05	4.7 ± 1.6 (-0.1 σ)
σ_8	0.8085	0.8089 ± 0.0090 (+0.2 σ)	$100\theta_{s,eq}$	0.45211	0.4519 ± 0.0028 (-0.0 σ)	χ_{prior}^2	1.51	7.3 ± 3.7 (-0.0 σ)
S_8	0.8211	0.822 ± 0.015 (+0.0 σ)	$H(0.15)$	72.95	73.00 ± 0.55 (+0.3 σ)	χ_{BAO}^2	5.41	6.2 ± 1.3 (-0.0 σ)
$\sigma_8 \Omega_m^{0.5}$	0.4497	0.4500 ± 0.0083 (+0.0 σ)	$D_M(0.15)$	640.5	640.2 ± 5.3 (-0.2 σ)	χ_{CMB}^2	1178.8	1193.1 ± 5.6 (+0.1 σ)

Best-fit $\chi_{eff}^2 = 1185.74$; $\Delta\chi_{eff}^2 = -0.00$; $\bar{\chi}_{eff}^2 = 1206.53$; $\Delta\bar{\chi}_{eff}^2 = 0.51$; $R - 1 = 0.01126$
 χ_{eff}^2 : BAO - 6DF: 0.02 (Δ -0.01) MGS: 1.34 (Δ 0.06) DR12BAO: 4.05 (Δ -0.13) CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.17) commander_dx12_v3_2_29: 22.64 (Δ -0.18) plik_rd12_HM_v22_TT: 760.12 (Δ 0.02)

20.3 base_yhe_plikHM_TT_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022126	0.02213 ± 0.00028 (-0.0σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4568	0.4572 ± 0.0090 $(+0.0\sigma)$	$H(0.15)$	72.36	72.37 ± 0.77 (-0.1σ)
$\Omega_{\mathrm{c}}h^2$	0.12014	0.1203 ± 0.0016 $(+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6081	0.6085 ± 0.0077 (-0.0σ)	$D_{\mathrm{M}}(0.15)$	646.5	646.4 ± 7.7 $(+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	1.04064	1.04078 ± 0.00085 (-0.0σ)	$\sigma_8/h^{0.5}$	0.9890	0.990 ± 0.011 (-0.0σ)	$H(0.38)$	82.57	82.60 ± 0.61 (-0.1σ)
τ	0.0525	0.0519 ± 0.0079 (-0.1σ)	$r_{\mathrm{drag}}h$	98.74	98.7 ± 1.4 (-0.0σ)	$D_{\mathrm{M}}(0.38)$	1540.2	1540 ± 16 $(+0.1\sigma)$
Y_{P}	0.2394	0.244 ± 0.020	$\langle d^2 \rangle^{1/2}$	2.4478	2.448 ± 0.029 $(+0.0\sigma)$	$H(0.51)$	89.35	89.38 ± 0.52 (-0.1σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0392	3.039 ± 0.017 (-0.1σ)	z_{re}	7.53	7.47 ± 0.82 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	1994.1	1994 ± 19 $(+0.1\sigma)$
n_{s}	0.9626	0.9629 ± 0.0099 (-0.1σ)	$10^9 A_{\mathrm{s}}$	2.0889	2.089 ± 0.035 (-0.1σ)	$H(0.61)$	95.015	95.05 ± 0.45 (-0.1σ)
y_{cal}	1.00055	1.0004 ± 0.0025 (-0.0σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8806	1.882 ± 0.014 (-0.0σ)	$D_{\mathrm{M}}(0.61)$	2319.5	2319 ± 20 $(+0.1\sigma)$
A_{217}^{CIB}	47.8	48 ± 7 $(+0.0\sigma)$	D_{40}	1232.7	1233 ± 19 $(+0.1\sigma)$	$H(2.33)$	236.39	236.48 ± 0.95 $(+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.46	—	D_{220}	5715.4	5716 ± 41 $(+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	5778.0	5776 ± 23 $(+0.1\sigma)$
A_{143}^{tSZ}	6.93	5.0 ± 2.0 $(+0.0\sigma)$	D_{810}	2537.6	2536 ± 14 (-0.0σ)	$f\sigma_8(0.15)$	0.4608	0.4612 ± 0.0082 $(+0.0\sigma)$
A_{100}^{PS}	252.4	264 ± 29 $(+0.0\sigma)$	D_{1420}	816.7	814.4 ± 5.3 (-0.0σ)	$\sigma_8(0.15)$	0.7475	0.7479 ± 0.0072 (-0.1σ)
A_{143}^{PS}	50.2	49 ± 9 (-0.0σ)	D_{2000}	230.72	229.6 ± 2.4 (-0.0σ)	$f\sigma_8(0.38)$	0.4776	0.4779 ± 0.0063 (-0.0σ)
$A_{143 \times 217}^{\mathrm{PS}}$	49.5	43 ± 9 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9626	0.9629 ± 0.0099 (-0.1σ)	$\sigma_8(0.38)$	0.6618	0.6622 ± 0.0067 (-0.1σ)
A_{217}^{PS}	119.9	115 ± 10 (-0.0σ)	Y_{P}	0.2394	0.244 ± 0.020 (-10.7σ)	$f\sigma_8(0.51)$	0.4754	0.4756 ± 0.0055 (-0.0σ)
A^{kSZ}	0.00	< 5.00 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2407	0.246 ± 0.020 (-10.7σ)	$\sigma_8(0.51)$	0.6191	0.6194 ± 0.0064 (-0.1σ)
$A_{100}^{\mathrm{dust}TT}$	8.86	8.9 ± 1.9 (-0.0σ)	Age/Gyr	13.831	13.827 ± 0.053 $(+0.1\sigma)$	$f\sigma_8(0.61)$	0.46988	0.4701 ± 0.0050 (-0.0σ)
$A_{143}^{\mathrm{dust}TT}$	10.77	10.7 ± 1.8 $(+0.0\sigma)$	z_*	1090.00	1090.23 ± 0.64 (-0.0σ)	$\sigma_8(0.61)$	0.5889	0.5892 ± 0.0063 (-0.1σ)
$A_{143 \times 217}^{\mathrm{dust}TT}$	19.49	18.3 ± 3.3 $(+0.0\sigma)$	r_*	144.601	144.55 ± 0.39 (-0.0σ)	$f\sigma_8(2.33)$	0.29665	0.2968 ± 0.0034 (-0.1σ)
$A_{217}^{\mathrm{dust}TT}$	94.8	93.2 ± 7.2 (-0.0σ)	$100\theta_*$	1.041002	1.04101 ± 0.00048 (-0.0σ)	$\sigma_8(2.33)$	0.30555	0.3057 ± 0.0037 (-0.1σ)
c_{100}	0.99965	0.99961 ± 0.00062 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8906	13.886 ± 0.037 (-0.0σ)	f_{2000}^{143}	29.57	31 ± 4 (-0.0σ)
c_{217}	0.99824	0.99827 ± 0.00063 $(+0.0\sigma)$	z_{drag}	1059.17	1059.4 ± 1.2 (-0.1σ)	$f_{2000}^{143 \times 217}$	32.63	33.6 ± 2.9 (-0.0σ)
H_0	67.01	67.02 ± 0.88 (-0.1σ)	r_{drag}	147.345	147.30 ± 0.42 (-0.0σ)	f_{2000}^{217}	107.03	108.1 ± 2.6 (-0.0σ)
Ω_{Λ}	0.6817	0.681 ± 0.011 (-0.1σ)	k_{D}	0.14065	0.14049 ± 0.00067 $(+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	8.83	9.48 ± 0.91 $(+0.0\sigma)$
Ω_{m}	0.3183	0.319 ± 0.011 $(+0.1\sigma)$	$100\theta_{\mathrm{D}}$	0.16080	0.16105 ± 0.00076 (-0.1σ)	χ_{small}^2	395.86	396.8 ± 1.6 (-0.0σ)
$\Omega_{\mathrm{m}}h^2$	0.14291	0.1430 ± 0.0015 $(+0.0\sigma)$	z_{eq}	3399.8	3403 ± 36 $(+0.0\sigma)$	χ_{lowl}^2	23.69	23.9 ± 1.8 $(+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	0.09577	0.09585 ± 0.00078 (-0.0σ)	k_{eq}	0.010376	0.01038 ± 0.00011 $(+0.0\sigma)$	χ_{plik}^2	758.8	771.8 ± 5.6 $(+0.1\sigma)$
σ_8	0.8096	0.8101 ± 0.0076 (-0.1σ)	$100\theta_{\mathrm{eq}}$	0.8128	0.8125 ± 0.0069 (-0.0σ)	χ_{prior}^2	1.30	7.3 ± 3.7 $(+0.0\sigma)$
S_8	0.8339	0.835 ± 0.016 $(+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.44932	0.4492 ± 0.0035 (-0.0σ)	χ_{CMB}^2	1187.2	1202.1 ± 5.7 $(+0.2\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 1188.45$; $\Delta\chi_{\mathrm{eff}}^2 = -0.12$; $\bar{\chi}_{\mathrm{eff}}^2 = 1209.39$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.98$; $R - 1 = 0.00784$

χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.83 (Δ -0.07) small_100x143_offlike5_EE_Aplanck_B: 395.86 (Δ -0.00) commander_dx12_v3_2_29: 23.69 (Δ 0.46) plik_rd12_HM_v22_TT: 758.77 (Δ -0.55)

20.4 base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022238	0.02226 ± 0.00025 (+0.3 σ)	$\sigma_8/h^{0.5}$	0.9849	0.9850 ± 0.0096 (+0.1 σ)	$H(0.51)$	89.663	89.72 ± 0.38 (+0.3 σ)
$\Omega_{\mathrm{c}}h^2$	0.11918	0.1191 ± 0.0011 (+0.0 σ)	$r_{\mathrm{drag}}h$	99.65	99.74 ± 0.90 (+0.1 σ)	$D_{\mathrm{M}}(0.51)$	1982.2	1981 ± 13 (-0.3 σ)
$100\theta_{\mathrm{MC}}$	1.04106	1.04118 ± 0.00074 (+0.5 σ)	$\langle d^2 \rangle^{1/2}$	2.4323	2.431 ± 0.023 (-0.2 σ)	$H(0.61)$	95.276	95.33 ± 0.35 (+0.4 σ)
τ	0.0549	0.0548 ± 0.0073 (-0.0 σ)	z_{re}	7.77	7.76 ± 0.74 (-0.0 σ)	$D_{\mathrm{M}}(0.61)$	2306.6	2305 ± 14 (-0.3 σ)
Y_{P}	0.2480	0.251 ± 0.018	$10^9 A_{\mathrm{s}}$	2.0982	2.100 ± 0.032 (+0.1 σ)	$H(2.33)$	235.90	235.91 ± 0.75 (+0.1 σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0437	3.045 ± 0.015 (+0.1 σ)	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8802	1.882 ± 0.014 (+0.3 σ)	$D_{\mathrm{M}}(2.33)$	5765.6	5763 ± 19 (-0.4 σ)
n_{s}	0.9674	0.9681 ± 0.0082 (+0.5 σ)	D_{40}	1224.6	1224 ± 17 (-0.3 σ)	$f\sigma_8(0.15)$	0.4562	0.4560 ± 0.0063 (+0.0 σ)
y_{cal}	1.00054	1.0006 ± 0.0024 (-0.1 σ)	D_{220}	5720.1	5724 ± 40 (-0.0 σ)	$\sigma_8(0.15)$	0.7482	0.7487 ± 0.0072 (+0.2 σ)
A_{217}^{CIB}	50.2	48 ± 7 (+0.1 σ)	D_{810}	2537.4	2538 ± 14 (+0.1 σ)	$f\sigma_8(0.38)$	0.4746	0.4746 ± 0.0054 (+0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.12	—	D_{1420}	815.7	814.9 ± 5.2 (-0.2 σ)	$\sigma_8(0.38)$	0.6633	0.6638 ± 0.0065 (+0.2 σ)
A_{143}^{tSZ}	7.21	4.9 ± 2.0 (-0.1 σ)	D_{2000}	229.90	229.4 ± 2.4 (-0.4 σ)	$f\sigma_8(0.51)$	0.47324	0.4733 ± 0.0050 (+0.1 σ)
A_{100}^{PS}	256.4	266 ± 28 (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9674	0.9681 ± 0.0082 (+0.5 σ)	$\sigma_8(0.51)$	0.6207	0.6213 ± 0.0061 (+0.2 σ)
A_{143}^{PS}	46.8	50 ± 9 (+0.2 σ)	Y_{P}	0.2480	0.251 ± 0.018 (+75.0 σ)	$f\sigma_8(0.61)$	0.46831	0.4684 ± 0.0047 (+0.1 σ)
$A_{143 \times 217}^{\mathrm{PS}}$	41.9	44 ± 9 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2494	0.253 ± 0.019 (+75.0 σ)	$\sigma_8(0.61)$	0.5906	0.5912 ± 0.0059 (+0.2 σ)
A_{217}^{PS}	117.1	115 ± 10 (+0.0 σ)	Age/Gyr	13.8032	13.797 ± 0.043 (-0.4 σ)	$f\sigma_8(2.33)$	0.29783	0.2981 ± 0.0031 (+0.2 σ)
A^{kSZ}	0.00	< 5.18 (+0.1 σ)	z_*	1090.13	1090.25 ± 0.64 (+0.7 σ)	$\sigma_8(2.33)$	0.30706	0.3074 ± 0.0033 (+0.2 σ)
$A_{100}^{\mathrm{dustTT}}$	8.95	9.0 ± 1.8 (+0.0 σ)	r_*	144.736	144.72 ± 0.35 (-0.2 σ)	f_{2000}^{143}	30.76	32 ± 4 (+0.3 σ)
$A_{143}^{\mathrm{dustTT}}$	10.80	10.7 ± 1.8 (+0.0 σ)	$100\theta_*$	1.041187	1.04121 ± 0.00043 (+0.1 σ)	$f_{2000}^{143 \times 217}$	33.49	34.0 ± 2.8 (+0.3 σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.20	18.3 ± 3.3 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.9010	13.899 ± 0.035 (-0.2 σ)	f_{2000}^{217}	107.99	108.6 ± 2.5 (+0.3 σ)
$A_{217}^{\mathrm{dustTT}}$	94.2	93.2 ± 7.2 (-0.0 σ)	z_{drag}	1059.67	1059.8 ± 1.1 (+0.8 σ)	$\chi_{\mathrm{lensing}}^2$	8.88	9.36 ± 0.76 (+0.1 σ)
c_{100}	0.99965	0.99962 ± 0.00063 (-0.0 σ)	r_{drag}	147.448	147.42 ± 0.40 (-0.2 σ)	χ_{small}^2	396.18	397.0 ± 1.8 (-0.1 σ)
c_{217}	0.99826	0.99827 ± 0.00062 (+0.0 σ)	k_{D}	0.14028	0.14018 ± 0.00057 (-0.3 σ)	χ_{lowl}^2	22.92	23.0 ± 1.3 (-0.3 σ)
H_0	67.58	67.65 ± 0.59 (+0.2 σ)	$100\theta_{\mathrm{D}}$	0.16110	0.16125 ± 0.00072 (+0.9 σ)	χ_{plik}^2	759.5	772.7 ± 5.6 (+0.2 σ)
Ω_{Λ}	0.6890	0.6895 ± 0.0070 (+0.1 σ)	z_{eq}	3379.3	3379 ± 26 (+0.1 σ)	$\chi_{6\mathrm{DF}}^2$	0.0293	0.057 ± 0.073 (-0.0 σ)
Ω_{m}	0.3110	0.3105 ± 0.0070 (-0.1 σ)	k_{eq}	0.010314	0.010313 ± 0.000080 (+0.1 σ)	χ_{MGS}^2	1.217	1.33 ± 0.50 (+0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14206	0.1421 ± 0.0011 (+0.1 σ)	$100\theta_{\mathrm{eq}}$	0.81714	0.8174 ± 0.0047 (+0.0 σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.37	4.8 ± 1.6 (-0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09601	0.09610 ± 0.00074 (+0.4 σ)	$100\theta_{\mathrm{s,eq}}$	0.45149	0.4516 ± 0.0025 (-0.0 σ)	χ_{prior}^2	1.54	7.3 ± 3.7 (-0.0 σ)
σ_8	0.8096	0.8101 ± 0.0077 (+0.2 σ)	$H(0.15)$	72.85	72.92 ± 0.52 (+0.2 σ)	χ_{CMB}^2	1187.5	1202.1 ± 5.6 (+0.2 σ)
S_8	0.8244	0.824 ± 0.012 (-0.0 σ)	$D_{\mathrm{M}}(0.15)$	641.5	640.9 ± 5.1 (-0.2 σ)	χ_{BAO}^2	5.62	6.2 ± 1.3 (-0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515	0.4514 ± 0.0067 (-0.0 σ)	$H(0.38)$	82.954	83.01 ± 0.43 (+0.3 σ)			
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6046	0.6047 ± 0.0067 (+0.1 σ)	$D_{\mathrm{M}}(0.38)$	1530.1	1529 ± 11 (-0.2 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 1194.68$; $\Delta\chi_{\mathrm{eff}}^2 = -0.00$; $\bar{\chi}_{\mathrm{eff}}^2 = 1215.53$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.80$; $R - 1 = 0.01408$
 χ_{eff}^2 : BAO - 6DF: 0.03 (Δ 0.00) MGS: 1.22 (Δ 0.00) DR12BAO: 4.37 (Δ 0.00) CMB - smicadx12_Dec5_ftl_mv2_ndclpp-p.teb.consext8: 8.88 (Δ 0.00) small_100x143_offlike5_EE_Aplanck.L
396.18 (Δ 0.09) commander_dx12.v3.2.29: 22.92 (Δ -0.04) plik_rd12_HM.v22.TT: 759.54 (Δ -0.26)

20.5 base_yhe_plikHM_TT_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022537	0.02257 ± 0.00028 (+0.9 σ)	$\sigma_8 \Omega_m^{0.5}$	0.4379	0.437 ± 0.012 (−0.1 σ)	$H(0.15)$	74.00	$74.14^{+0.83}_{-0.98}$ (+0.7 σ)
$\Omega_c h^2$	0.11695	$0.1168^{+0.0021}_{-0.0019}$ (−0.2 σ)	$\sigma_8 \Omega_m^{0.25}$	0.5940	0.594 ± 0.011 (+0.1 σ)	$D_M(0.15)$	630.5	$629.3^{+9.0}_{-8.1}$ (−0.6 σ)
$100\theta_{MC}$	1.04184	1.04204 ± 0.00081 (+1.6 σ)	$\sigma_8/h^{0.5}$	0.9709	0.970 ± 0.016 (+0.1 σ)	$H(0.38)$	83.83	$83.96^{+0.65}_{-0.75}$ (+0.8 σ)
τ	0.0566	$0.0567^{+0.0079}_{-0.0089}$ (+0.1 σ)	$r_{drag}h$	101.72	$101.9^{+1.5}_{-1.9}$ (+0.4 σ)	$D_M(0.38)$	1507.6	1505^{+18}_{-17} (−0.7 σ)
Y_P	0.2625	$0.268^{+0.020}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	2.3869	$2.382^{+0.042}_{-0.038}$ (−0.5 σ)	$H(0.51)$	90.39	$90.50^{+0.55}_{-0.62}$ (+0.9 σ)
$\ln(10^{10} A_s)$	3.0460	$3.047^{+0.016}_{-0.019}$ (+0.3 σ)	z_{re}	7.91	7.91 ± 0.86 (+0.1 σ)	$D_M(0.51)$	1955.5	1952^{+22}_{-20} (−0.7 σ)
n_s	0.9787	0.981 ± 0.010 (+1.8 σ)	$10^9 A_s$	2.1030	$2.105^{+0.033}_{-0.040}$ (+0.3 σ)	$H(0.61)$	95.89	95.99 ± 0.49 (+1.1 σ)
y_{cal}	1.00063	1.0004 ± 0.0027 (−0.1 σ)	$10^9 A_s e^{-2\tau}$	1.8778	$1.879^{+0.016}_{-0.014}$ (+0.7 σ)	$D_M(0.61)$	2277.5	2274^{+24}_{-22} (−0.7 σ)
A_{217}^{CIB}	50.3	50 ± 7 (+0.3 σ)	D_{40}	1203.8	1201^{+22}_{-20} (−1.1 σ)	$H(2.33)$	234.81	234.8 ± 1.2 (+0.1 σ)
$\xi^{tSZ \times CIB}$	0.17	—	D_{220}	5729.5	5729 ± 44 (−0.1 σ)	$D_M(2.33)$	5737.2	5733 ± 23 (−1.2 σ)
A_{143}^{tSZ}	6.87	4.7 ± 2.0 (−0.2 σ)	D_{810}	2539.4	2538 ± 15 (+0.2 σ)	$f\sigma_8(0.15)$	0.4437	0.443 ± 0.012 (−0.1 σ)
A_{100}^{PS}	258.8	271 ± 28 (+0.3 σ)	D_{1420}	816.3	814.7 ± 5.4 (−0.5 σ)	$\sigma_8(0.15)$	0.7462	$0.7467^{+0.0079}_{-0.0095}$ (+0.5 σ)
A_{143}^{PS}	49.2	52 ± 9 (+0.6 σ)	D_{2000}	229.42	228.5 ± 2.4 (−1.2 σ)	$f\sigma_8(0.38)$	0.4656	0.4650 ± 0.0094 (+0.0 σ)
$A_{143 \times 217}^{PS}$	43.9	44^{+9}_{-10} (+0.2 σ)	$n_{s,0.002}$	0.9787	0.981 ± 0.010 (+1.8 σ)	$\sigma_8(0.38)$	0.6633	$0.6638^{+0.0066}_{-0.0081}$ (+0.7 σ)
A_{217}^{PS}	117.7	114 ± 10 (+0.0 σ)	Y_P	0.2625	$0.268^{+0.020}_{-0.018}$ (+265.5 σ)	$f\sigma_8(0.51)$	0.4661	0.4657 ± 0.0082 (+0.1 σ)
A^{kSZ}	0.60	$4.4^{+1.6}_{-4.0}$ (+0.3 σ)	Y_P^{BBN}	0.2639	$0.270^{+0.020}_{-0.018}$ (+265.4 σ)	$\sigma_8(0.51)$	0.6215	$0.6221^{+0.0062}_{-0.0075}$ (+0.7 σ)
A_{100}^{dustTT}	8.98	9.0 ± 1.9 (−0.1 σ)	Age/Gyr	13.740	13.730 ± 0.053 (−1.3 σ)	$f\sigma_8(0.61)$	0.4624	0.4622 ± 0.0075 (+0.2 σ)
A_{143}^{dustTT}	10.87	10.8 ± 1.8 (+0.1 σ)	z_*	1090.14	1090.34 ± 0.64 (+1.8 σ)	$\sigma_8(0.61)$	0.5918	$0.5924^{+0.0059}_{-0.0071}$ (+0.8 σ)
$A_{143 \times 217}^{dustTT}$	19.16	18.3 ± 3.3 (+0.1 σ)	r_*	145.035	145.03 ± 0.47 (−0.3 σ)	$f\sigma_8(2.33)$	0.29905	$0.2994^{+0.0031}_{-0.0036}$ (+0.9 σ)
A_{217}^{dustTT}	93.9	92.4 ± 7.2 (−0.1 σ)	$100\theta_*$	1.041563	1.04160 ± 0.00047 (+0.3 σ)	$\sigma_8(2.33)$	0.30906	$0.3095^{+0.0034}_{-0.0039}$ (+1.0 σ)
c_{100}	0.99963	0.99963 ± 0.00064 (+0.0 σ)	$D_M(z_*)/\text{Gpc}$	13.9247	13.924 ± 0.045 (−0.4 σ)	f_{2000}^{143}	31.75	33.1 ± 3.7 (+1.0 σ)
c_{217}	0.99825	0.99827 ± 0.00060 (+0.0 σ)	z_{drag}	1060.66	1060.9 ± 1.1 (+2.6 σ)	$f_{2000}^{143 \times 217}$	34.33	35.1 ± 2.8 (+1.2 σ)
H_0	68.88	$69.04^{+0.95}_{-1.1}$ (+0.6 σ)	r_{drag}	147.67	147.65 ± 0.49 (−0.4 σ)	f_{2000}^{217}	108.73	109.5 ± 2.6 (+1.1 σ)
Ω_Λ	0.7047	0.706 ± 0.012 (+0.4 σ)	k_D	0.13970	0.13949 ± 0.00072 (−1.1 σ)	χ_{simall}^2	396.26	397.3 ± 2.2 (+0.0 σ)
Ω_m	0.2953	0.294 ± 0.012 (−0.4 σ)	$100\theta_D$	0.16150	0.16176 ± 0.00075 (+3.3 σ)	χ_{lowl}^2	21.31	21.4 ± 1.1 (−1.0 σ)
$\Omega_m h^2$	0.14014	0.1400 ± 0.0019 (−0.1 σ)	z_{eq}	3333.4	3331 ± 45 (−0.1 σ)	χ_{plik}^2	764.1	778.0 ± 6.8 (+0.3 σ)
$\Omega_m h^3$	0.09653	0.09666 ± 0.00074 (+1.4 σ)	k_{eq}	0.010174	0.01017 ± 0.00014 (−0.1 σ)	$\chi_{H073p45}^2$	7.56	7.4 ± 3.3 (−0.6 σ)
σ_8	0.8058	$0.8061^{+0.0091}_{-0.011}$ (+0.4 σ)	$100\theta_{eq}$	0.8270	$0.8279^{+0.0081}_{-0.0097}$ (+0.2 σ)	χ_{prior}^2	1.63	7.5 ± 3.9 (+0.0 σ)
S_8	0.7995	0.798 ± 0.022 (−0.1 σ)	$100\theta_{s,eq}$	0.45643	$0.4569^{+0.0042}_{-0.0050}$ (+0.2 σ)	χ_{CMB}^2	1181.6	1196.7 ± 6.4 (+0.2 σ)

Best-fit $\chi_{eff}^2 = 1190.84$; $\Delta\chi_{eff}^2 = -0.73$; $\bar{\chi}_{eff}^2 = 1211.61$; $\Delta\bar{\chi}_{eff}^2 = -0.47$; $R - 1 = 0.08259$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.26 (Δ 0.19) commander_dx12_v3.2_29: 21.31 (Δ -0.77) plik_rd12_HM_v22_TT: 764.07 (Δ 1.05) Hubble - H073p45: 7.57 (Δ -1.42)

20.6 base_yhe_plikHM_TT_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02213 \pm 0.00030 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.460 \pm 0.013 \quad (-0.0\sigma)$	$H(0.15)$	$72.33 \pm 0.95 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1205 \pm 0.0021 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.611 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$647.0 \pm 9.5 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00088 \quad (+0.1\sigma)$	$\sigma_8/h^{0.5}$	$0.993 \pm 0.016 \quad (-0.0\sigma)$	$H(0.38)$	$82.58 \pm 0.72 \quad (+0.1\sigma)$
τ	$0.0536^{+0.0046}_{-0.0083} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.6 \pm 1.8 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 19 \quad (-0.1\sigma)$
Y_{P}	0.247 ± 0.020	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.042 \quad (-0.1\sigma)$	$H(0.51)$	$89.37 \pm 0.60 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.017} \quad (-0.0\sigma)$	z_{re}	$7.66^{+0.52}_{-0.84} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 23 \quad (-0.1\sigma)$
n_{s}	$0.964 \pm 0.011 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.098^{+0.026}_{-0.036} \quad (-0.0\sigma)$	$H(0.61)$	$95.05 \pm 0.51 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.885 \pm 0.015 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320 \pm 25 \quad (-0.1\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1233 \pm 22 \quad (-0.1\sigma)$	$H(2.33)$	$236.7 \pm 1.3 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5713 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5776 \pm 25 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.464 \pm 0.012 \quad (-0.0\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (+0.0\sigma)$	D_{1420}	$814.2 \pm 5.3 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7503^{+0.0073}_{-0.0082} \quad (+0.0\sigma)$
A_{143}^{PS}	$49 \pm 9 \quad (+0.1\sigma)$	D_{2000}	$229.4 \pm 2.4 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4800 \pm 0.0095 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.964 \pm 0.011 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6642^{+0.0060}_{-0.0072} \quad (+0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.247 \pm 0.020 \quad (+13.2\sigma)$	$f\sigma_8(0.51)$	$0.4776 \pm 0.0081 \quad (-0.0\sigma)$
A^{kSZ}	$< 5.01 \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.248 \pm 0.020 \quad (+13.2\sigma)$	$\sigma_8(0.51)$	$0.6212^{+0.0056}_{-0.0067} \quad (+0.0\sigma)$
$A_{100}^{\mathrm{dust}TT}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	Age/Gyr	$13.825 \pm 0.058 \quad (-0.1\sigma)$	$f\sigma_8(0.61)$	$0.4720 \pm 0.0071 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dust}TT}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.34 \pm 0.65 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5909^{+0.0053}_{-0.0065} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}TT}$	$18.3 \pm 3.3 \quad (-0.0\sigma)$	r_*	$144.47 \pm 0.48 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2976^{+0.0028}_{-0.0034} \quad (+0.0\sigma)$
$A_{217}^{\mathrm{dust}TT}$	$93.2 \pm 7.3 \quad (-0.0\sigma)$	$100\theta_*$	$1.04101 \pm 0.00050 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0031}_{-0.0037} \quad (+0.1\sigma)$
c_{100}	$0.99961 \pm 0.00062 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.878 \pm 0.045 \quad (-0.0\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.1\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.5 \pm 1.2 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.7 \pm 2.9 \quad (+0.1\sigma)$
H_0	$67.0 \pm 1.1 \quad (+0.1\sigma)$	r_{drag}	$147.22 \pm 0.50 \quad (-0.0\sigma)$	f_{2000}^{217}	$108.3 \pm 2.6 \quad (+0.1\sigma)$
Ω_{Λ}	$0.680 \pm 0.015 \quad (+0.0\sigma)$	k_{D}	$0.14049 \pm 0.00075 \quad (-0.1\sigma)$	χ_{small}^2	$396.8 \pm 1.6 \quad (-0.0\sigma)$
Ω_{m}	$0.320 \pm 0.015 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16114 \pm 0.00076 \quad (+0.3\sigma)$	χ_{lowl}^2	$23.9 \pm 2.0 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1433 \pm 0.0020 \quad (-0.0\sigma)$	z_{eq}	$3409 \pm 48 \quad (-0.0\sigma)$	χ_{plik}^2	$772.1 \pm 5.8 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09594 \pm 0.00078 \quad (+0.1\sigma)$	k_{eq}	$0.01040 \pm 0.00015 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
σ_8	$0.8129 \pm 0.0090 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8115 \pm 0.0092 \quad (+0.0\sigma)$	χ_{CMB}^2	$1192.9 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.839 \pm 0.025 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4486 \pm 0.0047 \quad (+0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.15$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.83$; $R - 1 = 0.00514$

20.7 base_yhe_plikHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02228 \pm 0.00025 \quad (+0.3\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.6039 \pm 0.0082 \quad (+0.1\sigma)$	$H(0.38)$	$83.08 \pm 0.44 \quad (+0.3\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1190 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8 / h^{0.5}$	$0.984 \pm 0.012 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527 \pm 11 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04126 \pm 0.00074 \quad (+0.7\sigma)$	$r_{\mathrm{drag}} h$	$99.89 \pm 0.98 \quad (+0.1\sigma)$	$H(0.51)$	$89.77 \pm 0.39 \quad (+0.4\sigma)$
τ	$0.0549^{+0.0054}_{-0.0078} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426 \pm 0.028 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 13 \quad (-0.3\sigma)$
Y_{P}	0.253 ± 0.018	z_{re}	$7.76^{+0.58}_{-0.81} \quad (-0.0\sigma)$	$H(0.61)$	$95.37 \pm 0.35 \quad (+0.4\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.013}_{-0.017} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.100^{+0.027}_{-0.037} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 14 \quad (-0.3\sigma)$
n_{s}	$0.9695 \pm 0.0082 \quad (+0.7\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.881 \pm 0.015 \quad (+0.3\sigma)$	$H(2.33)$	$235.83 \pm 0.84 \quad (+0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1221 \pm 17 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761 \pm 19 \quad (-0.5\sigma)$
A_{217}^{CIB}	$49 \pm 7 \quad (+0.1\sigma)$	D_{220}	$5719 \pm 40 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4551 \pm 0.0077 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	$2537 \pm 14 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7486^{+0.0071}_{-0.0082} \quad (+0.3\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{1420}	$814.5 \pm 5.3 \quad (-0.2\sigma)$	$f\sigma_8(0.38)$	$0.4739 \pm 0.0066 \quad (+0.1\sigma)$
A_{100}^{PS}	$267 \pm 28 \quad (+0.1\sigma)$	D_{2000}	$229.1 \pm 2.4 \quad (-0.5\sigma)$	$\sigma_8(0.38)$	$0.6638^{+0.0062}_{-0.0072} \quad (+0.3\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.9695 \pm 0.0082 \quad (+0.7\sigma)$	$f\sigma_8(0.51)$	$0.4728 \pm 0.0060 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.1\sigma)$	Y_{P}	$0.253 \pm 0.018 \quad (+94.9\sigma)$	$\sigma_8(0.51)$	$0.6213^{+0.0058}_{-0.0067} \quad (+0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.255 \pm 0.019 \quad (+94.8\sigma)$	$f\sigma_8(0.61)$	$0.4680^{+0.0053}_{-0.0059} \quad (+0.1\sigma)$
A^{kSZ}	$< 5.26 \quad (+0.1\sigma)$	Age/Gyr	$13.792 \pm 0.043 \quad (-0.5\sigma)$	$\sigma_8(0.61)$	$0.5913^{+0.0055}_{-0.0064} \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	z_*	$1090.29 \pm 0.65 \quad (+0.9\sigma)$	$f\sigma_8(2.33)$	$0.2982^{+0.0028}_{-0.0033} \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.74 \pm 0.38 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3076^{+0.0029}_{-0.0034} \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$100\theta_*$	$1.04124 \pm 0.00043 \quad (+0.1\sigma)$	f_{2000}^{143}	$32 \pm 4 \quad (+0.4\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.1 \pm 7.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.900 \pm 0.038 \quad (-0.3\sigma)$	$f_{2000}^{143 \times 217}$	$34.2 \pm 2.8 \quad (+0.5\sigma)$
c_{100}	$0.99961 \pm 0.00063 \quad (+0.0\sigma)$	z_{drag}	$1059.9 \pm 1.1 \quad (+0.9\sigma)$	f_{2000}^{217}	$108.7 \pm 2.6 \quad (+0.4\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	r_{drag}	$147.44 \pm 0.43 \quad (-0.3\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.1\sigma)$
H_0	$67.75 \pm 0.62 \quad (+0.2\sigma)$	k_{D}	$0.14009 \pm 0.00058 \quad (-0.4\sigma)$	χ_{lowl}^2	$22.8 \pm 1.3 \quad (-0.4\sigma)$
Ω_{Λ}	$0.6907 \pm 0.0076 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16133 \pm 0.00073 \quad (+1.2\sigma)$	χ_{plik}^2	$773.2 \pm 5.7 \quad (+0.2\sigma)$
Ω_{m}	$0.3093 \pm 0.0076 \quad (-0.1\sigma)$	z_{eq}	$3376 \pm 29 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.074 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1419 \pm 0.0012 \quad (+0.1\sigma)$	k_{eq}	$0.010303 \pm 0.000090 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.43 \pm 0.55 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09614 \pm 0.00074 \quad (+0.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8181 \pm 0.0053 \quad (-0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.6 \quad (-0.1\sigma)$
σ_8	$0.8099^{+0.0079}_{-0.0091} \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4520 \pm 0.0028 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
S_8	$0.822 \pm 0.015 \quad (+0.0\sigma)$	$H(0.15)$	$73.01 \pm 0.55 \quad (+0.3\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (-0.0\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4504 \pm 0.0082 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.1 \pm 5.3 \quad (-0.2\sigma)$	χ_{CMB}^2	$1192.9 \pm 5.6 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1206.38; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.62; R - 1 = 0.01225$$

20.8 base_yhe_plikHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02215 \pm 0.00028 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4569 \pm 0.0090 \quad (+0.0\sigma)$	$H(0.15)$	$72.45 \pm 0.75 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0016 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6087 \pm 0.0077 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.7 \pm 7.5 \quad (+0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04083 \pm 0.00084 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$H(0.38)$	$82.65 \pm 0.59 \quad (-0.0\sigma)$
τ	$0.0536^{+0.0048}_{-0.0079} \quad (-0.1\sigma)$	$r_{\mathrm{drag}}h$	$98.9 \pm 1.3 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1538 \pm 15 \quad (+0.0\sigma)$
Y_{P}	0.245 ± 0.020	$\langle d^2 \rangle^{1/2}$	$2.448 \pm 0.029 \quad (-0.0\sigma)$	$H(0.51)$	$89.42 \pm 0.50 \quad (-0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.012}_{-0.016} \quad (-0.0\sigma)$	z_{re}	$7.64^{+0.52}_{-0.82} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1992 \pm 18 \quad (+0.0\sigma)$
n_{s}	$0.9636 \pm 0.0097 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.024}_{-0.034} \quad (-0.0\sigma)$	$H(0.61)$	$95.08 \pm 0.44 \quad (-0.0\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.882 \pm 0.014 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2317 \pm 20 \quad (+0.0\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.0\sigma)$	D_{40}	$1232 \pm 19 \quad (+0.0\sigma)$	$H(2.33)$	$236.40 \pm 0.93 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5716 \pm 41 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5775 \pm 23 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$5.0 \pm 2.0 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 14 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4610 \pm 0.0082 \quad (+0.0\sigma)$
A_{100}^{PS}	$264 \pm 29 \quad (+0.0\sigma)$	D_{1420}	$814.4 \pm 5.3 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7488^{+0.0062}_{-0.0070} \quad (-0.0\sigma)$
A_{143}^{PS}	$49 \pm 9 \quad (+0.0\sigma)$	D_{2000}	$229.5 \pm 2.4 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4780 \pm 0.0063 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$43 \pm 9 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9636 \pm 0.0097 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6631^{+0.0057}_{-0.0065} \quad (-0.0\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	Y_{P}	$0.245 \pm 0.020 \quad (-1.4\sigma)$	$f\sigma_8(0.51)$	$0.4759 \pm 0.0054 \quad (-0.0\sigma)$
A^{kSZ}	$< 4.98 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246 \pm 0.020 \quad (-1.4\sigma)$	$\sigma_8(0.51)$	$0.6203^{+0.0054}_{-0.0063} \quad (-0.0\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.9 \quad (-0.0\sigma)$	Age/Gyr	$13.823 \pm 0.052 \quad (+0.0\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0049 \quad (-0.0\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (-0.0\sigma)$	z_*	$1090.23 \pm 0.64 \quad (+0.0\sigma)$	$\sigma_8(0.61)$	$0.5901^{+0.0052}_{-0.0061} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	r_*	$144.58 \pm 0.38 \quad (-0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0028}_{-0.0033} \quad (-0.0\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.1 \pm 7.2 \quad (-0.0\sigma)$	$100\theta_*$	$1.04103 \pm 0.00047 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3063^{+0.0031}_{-0.0036} \quad (-0.0\sigma)$
c_{100}	$0.99961 \pm 0.00063 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.037 \quad (-0.0\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.0\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	z_{drag}	$1059.4 \pm 1.2 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$33.6 \pm 2.9 \quad (+0.0\sigma)$
H_0	$67.11 \pm 0.85 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.42 \quad (-0.0\sigma)$	f_{2000}^{217}	$108.1 \pm 2.6 \quad (+0.0\sigma)$
Ω_{Λ}	$0.682 \pm 0.011 \quad (-0.0\sigma)$	k_{D}	$0.14045 \pm 0.00066 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.46 \pm 0.91 \quad (+0.0\sigma)$
Ω_{m}	$0.318 \pm 0.011 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16107 \pm 0.00076 \quad (+0.0\sigma)$	χ_{small}^2	$396.7 \pm 1.5 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0015 \quad (+0.0\sigma)$	z_{eq}	$3399 \pm 35 \quad (+0.0\sigma)$	χ_{lowl}^2	$23.8 \pm 1.8 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09588 \pm 0.00078 \quad (+0.0\sigma)$	k_{eq}	$0.01038 \pm 0.00011 \quad (+0.0\sigma)$	χ_{plik}^2	$771.8 \pm 5.6 \quad (+0.2\sigma)$
σ_8	$0.8110^{+0.0068}_{-0.0076} \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8132 \pm 0.0067 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (+0.0\sigma)$
S_8	$0.834 \pm 0.016 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4495 \pm 0.0034 \quad (-0.0\sigma)$	χ_{CMB}^2	$1201.8 \pm 5.6 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1209.13$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.97$; $R - 1 = 0.00826$

20.9 base_yhe_plikHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00025 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9854 \pm 0.0095 \quad (+0.1\sigma)$	$H(0.51)$	$89.73 \pm 0.38 \quad (+0.4\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0011 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.76 \pm 0.89 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1980 \pm 13 \quad (-0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04119 \pm 0.00074 \quad (+0.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.023 \quad (-0.2\sigma)$	$H(0.61)$	$95.33 \pm 0.35 \quad (+0.4\sigma)$
τ	$0.0556^{+0.0057}_{-0.0074} \quad (-0.1\sigma)$	z_{re}	$7.83^{+0.61}_{-0.75} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304 \pm 14 \quad (-0.3\sigma)$
Y_{P}	0.251 ± 0.018	$10^9 A_{\mathrm{s}}$	$2.103^{+0.026}_{-0.033} \quad (+0.1\sigma)$	$H(2.33)$	$235.89 \pm 0.75 \quad (+0.1\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.016} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.014 \quad (+0.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5763 \pm 19 \quad (-0.4\sigma)$
n_{s}	$0.9683 \pm 0.0082 \quad (+0.6\sigma)$	D_{40}	$1224 \pm 17 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4561 \pm 0.0063 \quad (+0.0\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.1\sigma)$	D_{220}	$5723 \pm 40 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7492 \pm 0.0069 \quad (+0.2\sigma)$
A_{217}^{CIB}	$48 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4748 \pm 0.0054 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	$814.8 \pm 5.2 \quad (-0.2\sigma)$	$\sigma_8(0.38)$	$0.6642 \pm 0.0062 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$4.9 \pm 2.0 \quad (-0.1\sigma)$	D_{2000}	$229.4 \pm 2.4 \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4735 \pm 0.0049 \quad (+0.1\sigma)$
A_{100}^{PS}	$266 \pm 28 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9683 \pm 0.0082 \quad (+0.6\sigma)$	$\sigma_8(0.51)$	$0.6217 \pm 0.0059 \quad (+0.2\sigma)$
A_{143}^{PS}	$50 \pm 9 \quad (+0.2\sigma)$	Y_{P}	$0.251 \pm 0.018 \quad (+76.5\sigma)$	$f\sigma_8(0.61)$	$0.4687 \pm 0.0046 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44 \pm 9 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.253 \pm 0.018 \quad (+76.5\sigma)$	$\sigma_8(0.61)$	$0.5916 \pm 0.0056 \quad (+0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	Age/Gyr	$13.797 \pm 0.043 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2983 \pm 0.0029 \quad (+0.3\sigma)$
A^{kSZ}	$< 5.17 \quad (+0.1\sigma)$	z_*	$1090.24 \pm 0.64 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3076^{+0.0029}_{-0.0033} \quad (+0.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.8 \quad (+0.0\sigma)$	r_*	$144.72 \pm 0.35 \quad (-0.2\sigma)$	f_{2000}^{143}	$32 \pm 4 \quad (+0.3\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.7 \pm 1.8 \quad (+0.0\sigma)$	$100\theta_*$	$1.04121 \pm 0.00043 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$34.0 \pm 2.8 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.3 \pm 3.3 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.899 \pm 0.035 \quad (-0.2\sigma)$	f_{2000}^{217}	$108.6 \pm 2.5 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.2 \pm 7.2 \quad (-0.0\sigma)$	z_{drag}	$1059.8 \pm 1.1 \quad (+0.8\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.32 \pm 0.71 \quad (+0.1\sigma)$
c_{100}	$0.99962 \pm 0.00063 \quad (-0.0\sigma)$	r_{drag}	$147.43 \pm 0.41 \quad (-0.3\sigma)$	χ_{simall}^2	$397.0 \pm 1.8 \quad (-0.1\sigma)$
c_{217}	$0.99827 \pm 0.00062 \quad (+0.0\sigma)$	k_{D}	$0.14017 \pm 0.00057 \quad (-0.3\sigma)$	χ_{lowl}^2	$23.0 \pm 1.3 \quad (-0.3\sigma)$
H_0	$67.67 \pm 0.58 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16126 \pm 0.00072 \quad (+0.9\sigma)$	χ_{plik}^2	$772.6 \pm 5.6 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6898 \pm 0.0070 \quad (+0.1\sigma)$	z_{eq}	$3378 \pm 26 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.070 \quad (-0.0\sigma)$
Ω_{m}	$0.3102 \pm 0.0070 \quad (-0.1\sigma)$	k_{eq}	$0.010311 \pm 0.000080 \quad (+0.1\sigma)$	χ_{MGS}^2	$1.35 \pm 0.49 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8175 \pm 0.0047 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00074 \quad (+0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0024 \quad (-0.0\sigma)$	χ_{prior}^2	$7.3 \pm 3.7 \quad (-0.0\sigma)$
σ_8	$0.8106 \pm 0.0074 \quad (+0.2\sigma)$	$H(0.15)$	$72.94 \pm 0.52 \quad (+0.3\sigma)$	χ_{CMB}^2	$1202.0 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.824 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.8 \pm 5.0 \quad (-0.2\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4515 \pm 0.0067 \quad (-0.0\sigma)$	$H(0.38)$	$83.02 \pm 0.42 \quad (+0.3\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6049 \pm 0.0066 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529 \pm 10 \quad (-0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.38$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.80$; $R - 1 = 0.01428$

20.10 base_yhe_plikHM_TT_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02258 \pm 0.00028 \quad (+0.9\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.437 \pm 0.012 \quad (-0.2\sigma)$	$H(0.15)$	$74.17^{+0.85}_{-0.97} \quad (+0.7\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1168^{+0.0021}_{-0.0019} \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.594 \pm 0.011 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$629.0^{+9.0}_{-8.2} \quad (-0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04205 \pm 0.00082 \quad (+1.7\sigma)$	$\sigma_8/h^{0.5}$	$0.971 \pm 0.016 \quad (+0.0\sigma)$	$H(0.38)$	$83.97^{+0.66}_{-0.75} \quad (+0.9\sigma)$
τ	$0.0576^{+0.0065}_{-0.0089} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$102.0^{+1.5}_{-1.9} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.38)$	$1504^{+19}_{-17} \quad (-0.7\sigma)$
Y_{P}	$0.268^{+0.020}_{-0.018}$	$\langle d^2 \rangle^{1/2}$	$2.383^{+0.043}_{-0.037} \quad (-0.6\sigma)$	$H(0.51)$	$90.52 \pm 0.58 \quad (+1.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.048^{+0.014}_{-0.019} \quad (+0.3\sigma)$	z_{re}	$8.00^{+0.65}_{-0.91} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1952^{+22}_{-20} \quad (-0.8\sigma)$
n_{s}	$0.981 \pm 0.010 \quad (+1.9\sigma)$	$10^9 A_{\mathrm{s}}$	$2.109^{+0.028}_{-0.040} \quad (+0.3\sigma)$	$H(0.61)$	$96.00 \pm 0.50 \quad (+1.1\sigma)$
y_{cal}	$1.0004 \pm 0.0027 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879^{+0.016}_{-0.014} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2273^{+24}_{-22} \quad (-0.8\sigma)$
A_{217}^{CIB}	$50 \pm 7 \quad (+0.3\sigma)$	D_{40}	$1201^{+22}_{-20} \quad (-1.1\sigma)$	$H(2.33)$	$234.7 \pm 1.2 \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	$5729 \pm 44 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5732 \pm 23 \quad (-1.3\sigma)$
A_{143}^{tSZ}	$4.7 \pm 2.0 \quad (-0.2\sigma)$	D_{810}	$2538 \pm 15 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.443 \pm 0.012 \quad (-0.1\sigma)$
A_{100}^{PS}	$271 \pm 28 \quad (+0.3\sigma)$	D_{1420}	$814.6 \pm 5.4 \quad (-0.5\sigma)$	$\sigma_8(0.15)$	$0.7472^{+0.0075}_{-0.0093} \quad (+0.5\sigma)$
A_{143}^{PS}	$52 \pm 9 \quad (+0.6\sigma)$	D_{2000}	$228.5 \pm 2.4 \quad (-1.2\sigma)$	$f\sigma_8(0.38)$	$0.4652 \pm 0.0095 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$44^{+9}_{-10} \quad (+0.2\sigma)$	$n_{\mathrm{s},0.002}$	$0.981 \pm 0.010 \quad (+1.9\sigma)$	$\sigma_8(0.38)$	$0.6644^{+0.0062}_{-0.0080} \quad (+0.7\sigma)$
A_{217}^{PS}	$114 \pm 10 \quad (+0.0\sigma)$	Y_{P}	$0.268^{+0.020}_{-0.018} \quad (+269.3\sigma)$	$f\sigma_8(0.51)$	$0.4659 \pm 0.0083 \quad (+0.1\sigma)$
A^{kSZ}	$4.4^{+1.6}_{-4.0} \quad (+0.3\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.270^{+0.020}_{-0.018} \quad (+269.3\sigma)$	$\sigma_8(0.51)$	$0.6226^{+0.0056}_{-0.0074} \quad (+0.8\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$9.0 \pm 1.9 \quad (-0.1\sigma)$	Age/Gyr	$13.728 \pm 0.053 \quad (-1.3\sigma)$	$f\sigma_8(0.61)$	$0.4624 \pm 0.0074 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (+0.1\sigma)$	z_*	$1090.34 \pm 0.64 \quad (+1.8\sigma)$	$\sigma_8(0.61)$	$0.5929^{+0.0054}_{-0.0070} \quad (+0.8\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.2 \pm 3.3 \quad (+0.1\sigma)$	r_*	$145.04 \pm 0.48 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2997^{+0.0028}_{-0.0035} \quad (+0.9\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$92.4 \pm 7.1 \quad (-0.1\sigma)$	$100\theta_*$	$1.04161 \pm 0.00047 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3098^{+0.0031}_{-0.0038} \quad (+1.0\sigma)$
c_{100}	$0.99963 \pm 0.00065 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.924 \pm 0.045 \quad (-0.4\sigma)$	f_{2000}^{143}	$33.1 \pm 3.7 \quad (+1.0\sigma)$
c_{217}	$0.99827 \pm 0.00060 \quad (+0.0\sigma)$	z_{drag}	$1061.0 \pm 1.1 \quad (+2.7\sigma)$	$f_{2000}^{143 \times 217}$	$35.1 \pm 2.8 \quad (+1.2\sigma)$
H_0	$69.07^{+0.96}_{-1.1} \quad (+0.7\sigma)$	r_{drag}	$147.66 \pm 0.49 \quad (-0.4\sigma)$	f_{2000}^{217}	$109.5 \pm 2.6 \quad (+1.1\sigma)$
Ω_{Λ}	$0.706 \pm 0.012 \quad (+0.5\sigma)$	k_{D}	$0.13948 \pm 0.00073 \quad (-1.1\sigma)$	χ_{small}^2	$397.3 \pm 2.2 \quad (-0.0\sigma)$
Ω_{m}	$0.294 \pm 0.012 \quad (-0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16177 \pm 0.00075 \quad (+3.3\sigma)$	χ_{lowl}^2	$21.4 \pm 1.1 \quad (-1.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1400 \pm 0.0019 \quad (-0.1\sigma)$	z_{eq}	$3330 \pm 45 \quad (-0.1\sigma)$	χ_{plik}^2	$777.9 \pm 6.7 \quad (+0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09667 \pm 0.00074 \quad (+1.4\sigma)$	k_{eq}	$0.01016 \pm 0.00014 \quad (-0.1\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$7.3 \pm 3.2 \quad (-0.6\sigma)$
σ_8	$0.8067^{+0.0089}_{-0.011} \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8281^{+0.0082}_{-0.0098} \quad (+0.2\sigma)$	χ_{prior}^2	$7.5 \pm 3.9 \quad (+0.0\sigma)$
S_8	$0.798 \pm 0.023 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4570^{+0.0042}_{-0.0050} \quad (+0.2\sigma)$	χ_{CMB}^2	$1196.6 \pm 6.3 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 1211.44; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.37; R - 1 = 0.09941$$

20.11 base_yhe_plikHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022281	0.02229 ± 0.00020 (-0.5σ)	$\Omega_{\mathrm{m}}h^2$	0.14325	0.1432 ± 0.0013 (-0.0σ)	$100\theta_{\mathrm{eq}}$	0.8118	0.8122 ± 0.0058 (-0.0σ)
$\Omega_{\mathrm{c}}h^2$	0.12033	0.1202 ± 0.0014 $(+0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	0.09606	0.09611 ± 0.00053 (-0.8σ)	$100\theta_{\mathrm{s,eq}}$	0.44865	0.4489 ± 0.0030 (-0.0σ)
$100\theta_{\mathrm{MC}}$	1.04058	1.04069 ± 0.00055 (-0.7σ)	σ_8	0.8109	0.8105 ± 0.0082 (-0.2σ)	$H(0.15)$	72.41	72.48 ± 0.60 (-0.3σ)
τ	0.0540	0.0538 ± 0.0081 (-0.1σ)	S_8	0.8357	0.834 ± 0.016 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	646.0	645.4 ± 6.0 $(+0.3\sigma)$
Y_{P}	0.2365	0.240 ± 0.013	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4577	0.4569 ± 0.0088 $(+0.0\sigma)$	$H(0.38)$	82.642	82.70 ± 0.46 (-0.3σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0431	3.042 ± 0.017 (-0.1σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6093	0.6085 ± 0.0083 (-0.1σ)	$D_{\mathrm{M}}(0.38)$	1539.0	1538 ± 12 $(+0.3\sigma)$
n_{s}	0.9621	0.9622 ± 0.0072 (-0.6σ)	$\sigma_8/h^{0.5}$	0.9903	0.989 ± 0.012 (-0.1σ)	$H(0.51)$	89.430	89.48 ± 0.38 (-0.4σ)
y_{cal}	1.00057	1.0006 ± 0.0024 $(+0.0\sigma)$	$r_{\mathrm{drag}}h$	98.65	98.8 ± 1.1 (-0.2σ)	$D_{\mathrm{M}}(0.51)$	1992.5	1991 ± 14 $(+0.3\sigma)$
A_{217}^{CIB}	44.3	46 ± 7 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4544	2.452 ± 0.030 $(+0.1\sigma)$	$H(0.61)$	95.102	95.15 ± 0.33 (-0.4σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.85	—	z_{re}	7.63	7.61 ± 0.82 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2317.7	2316 ± 15 $(+0.3\sigma)$
A_{143}^{tSZ}	6.95	5.5 ± 2.0 $(+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	2.0970	2.096 ± 0.036 (-0.1σ)	$H(2.33)$	236.66	236.62 ± 0.81 (-0.1σ)
A_{100}^{PS}	244.6	257 ± 28 (-0.0σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8823	1.882 ± 0.012 (-0.2σ)	$D_{\mathrm{M}}(2.33)$	5772.5	5770 ± 16 $(+0.5\sigma)$
A_{143}^{PS}	51.3	45 ± 8 (-0.1σ)	D_{40}	1236.4	1236 ± 16 $(+0.4\sigma)$	$f\sigma_8(0.15)$	0.4617	0.4610 ± 0.0082 (-0.0σ)
$A_{143 \times 217}^{\mathrm{PS}}$	56.6	42 ± 9 (-0.1σ)	D_{220}	5732.6	5733 ± 39 $(+0.1\sigma)$	$\sigma_8(0.15)$	0.7487	0.7483 ± 0.0074 (-0.2σ)
A_{217}^{PS}	123.5	115 ± 10 (-0.0σ)	D_{810}	2541.3	2538 ± 13 (-0.1σ)	$f\sigma_8(0.38)$	0.4785	0.4779 ± 0.0067 (-0.1σ)
A^{kSZ}	0.01	< 4.10 (-0.0σ)	D_{1420}	819.43	817.5 ± 4.7 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6629	0.6626 ± 0.0065 (-0.3σ)
$A_{100}^{\mathrm{dustTT}}$	8.71	8.9 ± 1.8 $(+0.0\sigma)$	D_{2000}	232.13	231.2 ± 1.8 $(+0.2\sigma)$	$f\sigma_8(0.51)$	0.4763	0.4757 ± 0.0060 (-0.1σ)
$A_{143}^{\mathrm{dustTT}}$	10.88	10.8 ± 1.8 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9621	0.9622 ± 0.0072 (-0.6σ)	$\sigma_8(0.51)$	0.6200	0.6198 ± 0.0061 (-0.3σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.13	18.5 ± 3.3 (-0.0σ)	Y_{P}	0.2365	0.240 ± 0.013 (-99.5σ)	$f\sigma_8(0.61)$	0.4707	0.4702 ± 0.0055 (-0.1σ)
$A_{217}^{\mathrm{dustTT}}$	95.7	93.7 ± 7.3 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2378	0.241 ± 0.013 (-99.5σ)	$\sigma_8(0.61)$	0.5898	0.5896 ± 0.0058 (-0.3σ)
$A_{100}^{\mathrm{dustTE}}$	0.1140	0.114 ± 0.038 (-0.0σ)	Age/Gyr	13.8179	13.813 ± 0.037 $(+0.6\sigma)$	$f\sigma_8(2.33)$	0.29708	0.2970 ± 0.0030 (-0.3σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1345	0.134 ± 0.030 (-0.0σ)	z_*	1089.707	1089.81 ± 0.42 (-0.5σ)	$\sigma_8(2.33)$	0.30597	0.3060 ± 0.0032 (-0.3σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.484	0.482 ± 0.085 $(+0.0\sigma)$	r_*	144.445	144.45 ± 0.32 $(+0.2\sigma)$	f_{2000}^{143}	27.45	28.9 ± 3.1 (-0.2σ)
$A_{143}^{\mathrm{dustTE}}$	0.224	0.224 ± 0.053 (-0.0σ)	$100\theta_*$	1.041004	1.04103 ± 0.00033 (-0.2σ)	$f_{2000}^{143 \times 217}$	31.09	31.7 ± 2.2 (-0.2σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.665	0.666 ± 0.080 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8756	13.876 ± 0.030 $(+0.2\sigma)$	f_{2000}^{217}	105.68	106.6 ± 2.1 (-0.2σ)
$A_{217}^{\mathrm{dustTE}}$	2.089	2.09 ± 0.27 (-0.0σ)	z_{drag}	1059.47	1059.58 ± 0.78 (-1.1σ)	χ_{simall}^2	396.06	397.1 ± 2.0 (-0.0σ)
c_{100}	0.99975	0.99967 ± 0.00061 $(+0.0\sigma)$	r_{drag}	147.129	147.13 ± 0.33 $(+0.3\sigma)$	χ_{lowl}^2	23.94	24.1 ± 1.5 $(+0.5\sigma)$
c_{217}	0.99815	0.99819 ± 0.00063 $(+0.0\sigma)$	k_{D}	0.141113	0.14099 ± 0.00041 $(+0.3\sigma)$	χ_{plik}^2	2343.8	2359.9 ± 6.0 $(+0.1\sigma)$
H_0	67.05	67.13 ± 0.69 (-0.2σ)	$100\theta_{\mathrm{D}}$	0.160447	0.16059 ± 0.00046 (-1.0σ)	χ_{prior}^2	1.44	11.5 ± 4.5 (-0.0σ)
Ω_{Λ}	0.6814	0.6821 ± 0.0090 (-0.2σ)	z_{eq}	3407.9	3406 ± 31 (-0.0σ)	χ_{CMB}^2	2763.8	2781.1 ± 6.0 $(+0.2\sigma)$
Ω_{m}	0.3186	0.3179 ± 0.0090 $(+0.2\sigma)$	k_{eq}	0.010401	0.010396 ± 0.000093 (-0.0σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 2765.27$; $\Delta\chi_{\mathrm{eff}}^2 = -0.51$; $\bar{\chi}_{\mathrm{eff}}^2 = 2792.56$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.80$; $R - 1 = 0.00867$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 (Δ 0.01) commander_dx12_v3.2.29: 23.95 (Δ 0.69) plik_rd12_HM_v22b_TTTEEE: 2343.82 (Δ -0.83)

20.12 base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022389	0.02239 ± 0.00018 (-0.2σ)	$\Omega_{\text{m}}h^3$	0.09619	0.09623 ± 0.00051 (-0.4σ)	$H(0.15)$	72.868	72.90 ± 0.44 (-0.1σ)
$\Omega_{\text{c}}h^2$	0.11930	0.1193 ± 0.0010 (-0.0σ)	σ_8	0.8090	0.8090 ± 0.0083 (-0.1σ)	$D_{\text{M}}(0.15)$	641.45	641.1 ± 4.3 $(+0.1\sigma)$
$100\theta_{\text{MC}}$	1.04082	1.04091 ± 0.00051 (-0.3σ)	S_8	0.8244	0.824 ± 0.013 (-0.0σ)	$H(0.38)$	82.984	83.01 ± 0.34 (-0.1σ)
τ	0.0553	0.0556 ± 0.0082 (-0.0σ)	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4516	0.4514 ± 0.0071 (-0.0σ)	$D_{\text{M}}(0.38)$	1529.8	1529.1 ± 8.8 $(+0.1\sigma)$
Y_{P}	0.2402	0.243 ± 0.012	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6044	0.6043 ± 0.0074 (-0.1σ)	$H(0.51)$	89.704	89.73 ± 0.30 (-0.2σ)
$\ln(10^{10}A_{\text{s}})$	3.0444	3.044 ± 0.018 (-0.1σ)	$\sigma_8/h^{0.5}$	0.9840	0.984 ± 0.011 (-0.1σ)	$D_{\text{M}}(0.51)$	1981.7	1981 ± 10 $(+0.1\sigma)$
n_{s}	0.9658	0.9658 ± 0.0062 (-0.3σ)	$r_{\text{drag}}h$	99.54	99.59 ± 0.80 (-0.0σ)	$H(0.61)$	95.325	95.35 ± 0.26 (-0.2σ)
y_{cal}	1.00071	1.0006 ± 0.0024 $(+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	2.4372	2.437 ± 0.026 $(+0.0\sigma)$	$D_{\text{M}}(0.61)$	2305.9	2305 ± 11 $(+0.1\sigma)$
A_{217}^{CIB}	44.9	47 ± 7 $(+0.0\sigma)$	z_{re}	7.75	7.76 ± 0.83 (-0.0σ)	$H(2.33)$	236.11	236.10 ± 0.65 (-0.1σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.78	—	$10^9 A_{\text{s}}$	2.0998	2.100 ± 0.037 (-0.1σ)	$D_{\text{M}}(2.33)$	5762.4	5761 ± 14 $(+0.3\sigma)$
A_{143}^{tSZ}	6.99	$5.5^{+2.2}_{-1.9}$ (-0.0σ)	$10^9 A_{\text{s}} e^{-2\tau}$	1.8798	1.879 ± 0.012 (-0.1σ)	$f\sigma_8(0.15)$	0.4561	0.4560 ± 0.0067 (-0.1σ)
A_{100}^{PS}	245.8	257 ± 28 (-0.0σ)	D_{40}	1229.6	1229 ± 15 $(+0.2\sigma)$	$\sigma_8(0.15)$	0.7475	0.7476 ± 0.0076 (-0.1σ)
A_{143}^{PS}	50.9	45 ± 8 (-0.1σ)	D_{220}	5738.9	5737 ± 39 $(+0.0\sigma)$	$f\sigma_8(0.38)$	0.4744	0.4743 ± 0.0059 (-0.1σ)
$A_{143 \times 217}^{\text{PS}}$	55.1	42 ± 9 (-0.0σ)	D_{810}	2541.4	2539 ± 13 (-0.0σ)	$\sigma_8(0.38)$	0.6626	0.6627 ± 0.0067 (-0.1σ)
A_{217}^{PS}	122.6	115 ± 10 (-0.0σ)	D_{1420}	819.78	817.9 ± 4.7 $(+0.0\sigma)$	$f\sigma_8(0.51)$	0.4730	0.4729 ± 0.0055 (-0.1σ)
A^{kSZ}	0.00	< 4.18 (-0.0σ)	D_{2000}	232.10	231.3 ± 1.8 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6201	0.6202 ± 0.0063 (-0.1σ)
A_{100}^{dustTT}	8.79	8.9 ± 1.8 $(+0.0\sigma)$	$n_{\text{s},0.002}$	0.9658	0.9658 ± 0.0062 (-0.3σ)	$f\sigma_8(0.61)$	0.4680	0.4680 ± 0.0052 (-0.1σ)
A_{143}^{dustTT}	10.95	10.9 ± 1.8 (-0.0σ)	Y_{P}	0.2402	0.243 ± 0.012 (-53.1σ)	$\sigma_8(0.61)$	0.5900	0.5902 ± 0.0060 (-0.1σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.17	18.6 ± 3.3 (-0.0σ)	$Y_{\text{P}}^{\text{BBN}}$	0.2415	0.244 ± 0.012 (-53.1σ)	$f\sigma_8(2.33)$	0.29749	0.2976 ± 0.0031 (-0.1σ)
A_{217}^{dustTT}	95.7	93.7 ± 7.3 (-0.0σ)	Age/Gyr	13.7954	13.793 ± 0.031 $(+0.3\sigma)$	$\sigma_8(2.33)$	0.30669	0.3068 ± 0.0032 (-0.2σ)
A_{100}^{dustTE}	0.1135	0.113 ± 0.038 (-0.0σ)	z_*	1089.623	1089.73 ± 0.41 (-0.3σ)	f_{2000}^{143}	27.76	29.0 ± 3.1 (-0.1σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1355	0.134 ± 0.030 (-0.0σ)	r_*	144.617	144.61 ± 0.28 $(+0.2\sigma)$	$f_{2000}^{143 \times 217}$	31.26	31.7 ± 2.2 (-0.1σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.482 ± 0.086 $(+0.0\sigma)$	$100\theta_*$	1.041145	1.04116 ± 0.00030 (-0.1σ)	f_{2000}^{217}	105.85	106.6 ± 2.1 (-0.1σ)
A_{143}^{dustTE}	0.227	0.222 ± 0.053 (-0.1σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8902	13.890 ± 0.027 $(+0.2\sigma)$	χ_{simall}^2	396.22	397.4 ± 2.2 $(+0.0\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.664	0.665 ± 0.079 (-0.0σ)	z_{drag}	1059.74	1059.84 ± 0.73 (-0.6σ)	χ_{lowl}^2	23.25	23.4 ± 1.2 $(+0.3\sigma)$
A_{217}^{dustTE}	2.072	2.08 ± 0.27 (-0.0σ)	r_{drag}	147.273	147.27 ± 0.30 $(+0.2\sigma)$	χ_{plik}^2	2344.9	2360.4 ± 6.0 $(+0.1\sigma)$
c_{100}	0.99974	0.99966 ± 0.00061 (-0.0σ)	k_{D}	0.140902	0.14080 ± 0.00036 $(+0.1\sigma)$	$\chi_{6\text{DF}}^2$	0.0379	0.061 ± 0.071 $(+0.1\sigma)$
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	$100\theta_{\text{D}}$	0.160519	0.16064 ± 0.00045 (-0.5σ)	χ_{MGS}^2	1.156	1.24 ± 0.43 (-0.0σ)
H_0	67.59	67.62 ± 0.50 (-0.1σ)	z_{eq}	3385.8	3385 ± 23 (-0.1σ)	χ_{DR12BAO}^2	4.62	5.0 ± 1.5 $(+0.1\sigma)$
Ω_{Λ}	0.6884	0.6887 ± 0.0063 (-0.0σ)	k_{eq}	0.010334	0.010333 ± 0.000071 (-0.1σ)	χ_{prior}^2	1.55	11.6 ± 4.5 (-0.0σ)
Ω_{m}	0.3116	0.3113 ± 0.0063 $(+0.0\sigma)$	$100\theta_{\text{eq}}$	0.81621	0.8164 ± 0.0043 $(+0.0\sigma)$	χ_{BAO}^2	5.82	6.3 ± 1.3 $(+0.1\sigma)$
$\Omega_{\text{m}}h^2$	0.14233	0.14231 ± 0.00098 (-0.1σ)	$100\theta_{\text{s,eq}}$	0.45089	0.4510 ± 0.0022 $(+0.0\sigma)$	χ_{CMB}^2	2764.3	2781.1 ± 6.0 $(+0.2\sigma)$

Best-fit $\chi_{\text{eff}}^2 = 2771.70$; $\Delta\chi_{\text{eff}}^2 = -0.21$; $\bar{\chi}_{\text{eff}}^2 = 2798.91$; $\Delta\bar{\chi}_{\text{eff}}^2 = 1.00$; $R - 1 = 0.02958$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.62 (Δ 0.21) CMB - simall-100x143_offlike5_EE_Aplanck_B: 396.22 (Δ 0.02) commander_dx12_v3_2_29: 23.25 (Δ 0.38) plik_rd12_HM_v22b_TTTEEE: 2344.87 (Δ -0.64)

20.13 base_yhe_plikHM_TTTEEE_lowl_lowE_post_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022304	0.02230 ± 0.00020 (-0.5σ)	$\Omega_{\mathrm{m}}h^2$	0.14297	0.1430 ± 0.0011 $(+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	0.8131	0.8129 ± 0.0051 (-0.1σ)
$\Omega_{\mathrm{c}}h^2$	0.12002	0.1201 ± 0.0012 $(+0.1\sigma)$	$\Omega_{\mathrm{m}}h^3$	0.09606	0.09609 ± 0.00053 (-0.8σ)	$100\theta_{\mathrm{s,eq}}$	0.44931	0.4492 ± 0.0026 (-0.1σ)
$100\theta_{\mathrm{MC}}$	1.04061	1.04067 ± 0.00055 (-0.8σ)	σ_8	0.8097	0.8095 ± 0.0069 (-0.3σ)	$H(0.15)$	72.52	72.53 ± 0.55 (-0.3σ)
τ	0.0541	0.0537 ± 0.0077 (-0.1σ)	S_8	0.8319	0.832 ± 0.013 $(+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	644.9	644.9 ± 5.4 $(+0.3\sigma)$
Y_{P}	0.2366	0.239 ± 0.013	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4557	0.4557 ± 0.0069 $(+0.0\sigma)$	$H(0.38)$	82.724	82.73 ± 0.42 (-0.4σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0422	3.042 ± 0.016 (-0.2σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6074	0.6073 ± 0.0064 (-0.1σ)	$D_{\mathrm{M}}(0.38)$	1536.7	1537 ± 11 $(+0.4\sigma)$
n_{s}	0.9629	0.9621 ± 0.0070 (-0.7σ)	$\sigma_8/h^{0.5}$	0.9878	0.9876 ± 0.0091 (-0.1σ)	$H(0.51)$	89.492	89.50 ± 0.36 (-0.5σ)
y_{cal}	1.00046	1.0005 ± 0.0024 (-0.0σ)	$r_{\mathrm{drag}}h$	98.89	98.9 ± 1.0 (-0.2σ)	$D_{\mathrm{M}}(0.51)$	1989.8	1990 ± 13 $(+0.4\sigma)$
A_{217}^{CIB}	44.7	46 ± 7 (-0.1σ)	$\langle d^2 \rangle^{1/2}$	2.4484	2.450 ± 0.023 $(+0.2\sigma)$	$H(0.61)$	95.150	95.16 ± 0.31 (-0.5σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.78	—	z_{re}	7.64	7.59 ± 0.78 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2314.8	2315 ± 14 $(+0.4\sigma)$
A_{143}^{tSZ}	7.00	$5.5_{-1.9}^{+2.1}$ $(+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	2.0951	2.094 ± 0.033 (-0.2σ)	$H(2.33)$	236.48	236.51 ± 0.72 (-0.1σ)
A_{100}^{PS}	244.9	257 ± 28 (-0.1σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8801	1.881 ± 0.012 (-0.3σ)	$D_{\mathrm{M}}(2.33)$	5770.5	5770 ± 16 $(+0.6\sigma)$
A_{143}^{PS}	50.0	45 ± 8 (-0.2σ)	D_{40}	1234.0	1236 ± 15 $(+0.4\sigma)$	$f\sigma_8(0.15)$	0.4598	0.4598 ± 0.0064 $(+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	54.6	42 ± 9 (-0.1σ)	D_{220}	5731.3	5735 ± 39 (-0.0σ)	$\sigma_8(0.15)$	0.7477	0.7475 ± 0.0064 (-0.3σ)
A_{217}^{PS}	122.5	115 ± 10 $(+0.0\sigma)$	D_{810}	2540.0	2538 ± 13 (-0.1σ)	$f\sigma_8(0.38)$	0.4770	0.4769 ± 0.0052 (-0.1σ)
A^{kSZ}	0.01	< 4.10 (-0.1σ)	D_{1420}	819.29	817.5 ± 4.8 $(+0.1\sigma)$	$\sigma_8(0.38)$	0.6622	0.6620 ± 0.0058 (-0.4σ)
$A_{100}^{\mathrm{dustTT}}$	8.70	8.9 ± 1.8 $(+0.0\sigma)$	D_{2000}	232.10	231.3 ± 1.8 $(+0.3\sigma)$	$f\sigma_8(0.51)$	0.47498	0.4749 ± 0.0047 (-0.1σ)
$A_{143}^{\mathrm{dustTT}}$	10.94	10.8 ± 1.8 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9629	0.9621 ± 0.0070 (-0.7σ)	$\sigma_8(0.51)$	0.6195	0.6193 ± 0.0056 (-0.4σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	20.05	18.6 ± 3.3 $(+0.0\sigma)$	Y_{P}	0.2366	0.239 ± 0.013 (-115.7σ)	$f\sigma_8(0.61)$	0.46959	0.4695 ± 0.0043 (-0.1σ)
$A_{217}^{\mathrm{dustTT}}$	95.7	93.9 ± 7.3 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2379	0.240 ± 0.013 (-115.8σ)	$\sigma_8(0.61)$	0.5893	0.5891 ± 0.0054 (-0.4σ)
$A_{100}^{\mathrm{dustTE}}$	0.1152	0.113 ± 0.038 (-0.0σ)	Age/Gyr	13.8135	13.812 ± 0.036 $(+0.7\sigma)$	$f\sigma_8(2.33)$	0.29694	0.2968 ± 0.0028 (-0.4σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1356	0.134 ± 0.030 (-0.0σ)	z_*	1089.656	1089.76 ± 0.41 (-0.6σ)	$\sigma_8(2.33)$	0.30591	0.3058 ± 0.0031 (-0.4σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.482	0.482 ± 0.086 $(+0.0\sigma)$	r_*	144.508	144.49 ± 0.28 $(+0.2\sigma)$	f_{2000}^{143}	27.38	28.8 ± 3.1 (-0.3σ)
$A_{143}^{\mathrm{dustTE}}$	0.226	0.224 ± 0.054 (-0.0σ)	$100\theta_*$	1.041023	1.04103 ± 0.00032 (-0.2σ)	$f_{2000}^{143 \times 217}$	31.01	31.6 ± 2.2 (-0.4σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.666	0.667 ± 0.080 (-0.0σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8813	13.880 ± 0.027 $(+0.3\sigma)$	f_{2000}^{217}	105.61	106.5 ± 2.1 (-0.3σ)
$A_{217}^{\mathrm{dustTE}}$	2.091	2.08 ± 0.27 (-0.0σ)	z_{drag}	1059.51	1059.56 ± 0.77 (-1.3σ)	$\chi_{\mathrm{lensing}}^2$	8.756	9.18 ± 0.69 (-0.1σ)
c_{100}	0.99973	0.99967 ± 0.00061 (-0.0σ)	r_{drag}	147.185	147.17 ± 0.30 $(+0.3\sigma)$	χ_{small}^2	396.05	397.0 ± 1.7 (-0.0σ)
c_{217}	0.99818	0.99819 ± 0.00062 (-0.0σ)	k_{D}	0.141070	0.14098 ± 0.00039 $(+0.4\sigma)$	χ_{lowl}^2	23.75	24.0 ± 1.4 $(+0.6\sigma)$
H_0	67.19	67.19 ± 0.63 (-0.3σ)	$100\theta_{\mathrm{D}}$	0.160430	0.16055 ± 0.00045 (-1.2σ)	χ_{plik}^2	2344.0	2359.6 ± 5.9 $(+0.0\sigma)$
Ω_{Λ}	0.6833	0.6831 ± 0.0081 (-0.2σ)	z_{eq}	3401.0	3402 ± 27 $(+0.0\sigma)$	χ_{prior}^2	1.51	11.5 ± 4.5 (-0.0σ)
Ω_{m}	0.3167	0.3169 ± 0.0081 $(+0.2\sigma)$	k_{eq}	0.010380	0.010384 ± 0.000082 $(+0.0\sigma)$	χ_{CMB}^2	2772.6	2789.9 ± 6.0 $(+0.1\sigma)$

Best-fit $\chi_{\mathrm{eff}}^2 = 2774.06$; $\Delta\chi_{\mathrm{eff}}^2 = -0.57$; $\bar{\chi}_{\mathrm{eff}}^2 = 2801.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.65$; $R - 1 = 0.01603$
 χ_{eff}^2 : CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p.teb.consext8: 8.76 (Δ -0.11) small_100x143_offlike5_EE_Aplanck_B: 396.05 (Δ -0.00) commander_dx12_v3_2_29: 23.75 (Δ 0.50) plik_rd12_HM_v22b_TTTEEE: 2344.00 (Δ -0.93)

20.14 base_yhe_plikHM_TTTEEE_lowl_lowE_post_BAO_lensing

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022390	0.02239 ± 0.00018 (-0.3σ)	σ_8	0.8089	0.8095 ± 0.0070 (-0.1σ)	$H(0.38)$	82.983	83.00 ± 0.34 (-0.2σ)
$\Omega_{\mathrm{c}}h^2$	0.11926	0.11930 ± 0.00094 (-0.0σ)	S_8	0.8243	0.825 ± 0.011 (-0.0σ)	$D_{\mathrm{M}}(0.38)$	1529.8	1529.5 ± 8.5 $(+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	1.04080	1.04088 ± 0.00051 (-0.4σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515	0.4518 ± 0.0058 (-0.0σ)	$H(0.51)$	89.702	89.72 ± 0.29 (-0.3σ)
τ	0.0559	0.0562 ± 0.0075 $(+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6043	0.6047 ± 0.0060 (-0.1σ)	$D_{\mathrm{M}}(0.51)$	1981.7	1981 ± 10 $(+0.2\sigma)$
Y_{P}	0.2395	0.242 ± 0.012	$\sigma_8/h^{0.5}$	0.9840	0.9846 ± 0.0088 (-0.0σ)	$H(0.61)$	95.321	95.34 ± 0.26 (-0.3σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0450	3.046 ± 0.016 (-0.1σ)	$r_{\mathrm{drag}}h$	99.55	99.56 ± 0.76 (-0.1σ)	$D_{\mathrm{M}}(0.61)$	2305.9	2306 ± 11 $(+0.2\sigma)$
n_{s}	0.9653	0.9653 ± 0.0062 (-0.3σ)	$\langle d^2 \rangle^{1/2}$	2.4386	2.440 ± 0.022 $(+0.1\sigma)$	$H(2.33)$	236.08	236.11 ± 0.60 (-0.1σ)
y_{cal}	1.00070	1.0007 ± 0.0024 (-0.0σ)	z_{re}	7.80	7.82 ± 0.75 $(+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	5762.6	5762 ± 14 $(+0.4\sigma)$
A_{217}^{CIB}	46.0	46 ± 7 (-0.1σ)	$10^9 A_{\mathrm{s}}$	2.1011	2.103 ± 0.033 (-0.0σ)	$f\sigma_8(0.15)$	0.4561	0.4564 ± 0.0055 (-0.0σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.57	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8788	1.879 ± 0.011 (-0.2σ)	$\sigma_8(0.15)$	0.7475	0.7480 ± 0.0065 (-0.1σ)
A_{143}^{tSZ}	7.15	$5.5_{-1.9}^{+2.2}$ $(+0.1\sigma)$	D_{40}	1230.4	1231 ± 14 $(+0.2\sigma)$	$f\sigma_8(0.38)$	0.47437	0.4747 ± 0.0048 (-0.1σ)
A_{100}^{PS}	247.5	257 ± 28 (-0.1σ)	D_{220}	5739.5	5740 ± 38 (-0.0σ)	$\sigma_8(0.38)$	0.6626	0.6631 ± 0.0058 (-0.1σ)
A_{143}^{PS}	47.5	45 ± 8 (-0.1σ)	D_{810}	2540.4	2539 ± 13 (-0.0σ)	$f\sigma_8(0.51)$	0.47297	0.4733 ± 0.0045 (-0.1σ)
$A_{143 \times 217}^{\mathrm{PS}}$	49.7	42 ± 9 (-0.1σ)	D_{1420}	819.44	818.2 ± 4.7 $(+0.1\sigma)$	$\sigma_8(0.51)$	0.6201	0.6205 ± 0.0055 (-0.1σ)
A_{217}^{PS}	120.5	115 ± 10 (-0.0σ)	D_{2000}	232.04	231.4 ± 1.8 $(+0.2\sigma)$	$f\sigma_8(0.61)$	0.46800	0.4683 ± 0.0043 (-0.1σ)
A^{kSZ}	0.00	< 4.08 (-0.1σ)	$n_{\mathrm{s},0.002}$	0.9653	0.9653 ± 0.0062 (-0.3σ)	$\sigma_8(0.61)$	0.5900	0.5904 ± 0.0053 (-0.1σ)
$A_{100}^{\mathrm{dustTT}}$	8.80	8.9 ± 1.8 $(+0.0\sigma)$	Y_{P}	0.2395	0.242 ± 0.012 (-68.3σ)	$f\sigma_8(2.33)$	0.29749	0.2977 ± 0.0027 (-0.2σ)
$A_{143}^{\mathrm{dustTT}}$	10.92	10.9 ± 1.8 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2408	0.243 ± 0.012 (-68.4σ)	$\sigma_8(2.33)$	0.30670	0.3069 ± 0.0029 (-0.2σ)
$A_{143 \times 217}^{\mathrm{dustTT}}$	19.83	18.6 ± 3.3 $(+0.0\sigma)$	Age/Gyr	13.7960	13.794 ± 0.031 $(+0.4\sigma)$	f_{2000}^{143}	27.80	28.8 ± 3.1 (-0.2σ)
$A_{217}^{\mathrm{dustTT}}$	95.3	93.8 ± 7.3 $(+0.0\sigma)$	z_*	1089.594	1089.70 ± 0.40 (-0.4σ)	$f_{2000}^{143 \times 217}$	31.23	31.6 ± 2.2 (-0.2σ)
$A_{100}^{\mathrm{dustTE}}$	0.1140	0.112 ± 0.038 (-0.0σ)	r_*	144.627	144.61 ± 0.26 $(+0.2\sigma)$	f_{2000}^{217}	105.95	106.5 ± 2.1 (-0.2σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1339	0.134 ± 0.030 (-0.1σ)	$100\theta_*$	1.041135	1.04115 ± 0.00030 (-0.1σ)	$\chi_{\mathrm{lensing}}^2$	8.664	9.08 ± 0.61 (-0.0σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.483	0.482 ± 0.086 $(+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8913	13.890 ± 0.026 $(+0.2\sigma)$	χ_{small}^2	396.33	397.3 ± 2.0 $(+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	0.224	0.222 ± 0.054 (-0.1σ)	z_{drag}	1059.74	1059.81 ± 0.73 (-0.7σ)	χ_{lowl}^2	23.34	23.5 ± 1.2 $(+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.664	0.666 ± 0.079 (-0.0σ)	r_{drag}	147.281	147.27 ± 0.29 $(+0.3\sigma)$	χ_{plik}^2	2344.6	2360.0 ± 5.9 $(+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	2.079	2.08 ± 0.27 $(+0.0\sigma)$	k_{D}	0.140918	0.14083 ± 0.00035 $(+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	0.0372	0.060 ± 0.068 $(+0.1\sigma)$
c_{100}	0.99974	0.99966 ± 0.00061 (-0.0σ)	$100\theta_{\mathrm{D}}$	0.160488	0.16061 ± 0.00045 (-0.7σ)	χ_{MGS}^2	1.156	1.22 ± 0.41 (-0.1σ)
c_{217}	0.99818	0.99819 ± 0.00062 $(+0.0\sigma)$	z_{eq}	3385.1	3386 ± 22 (-0.1σ)	$\chi_{\mathrm{DR12BAO}}^2$	4.61	5.0 ± 1.5 $(+0.1\sigma)$
H_0	67.588	67.60 ± 0.48 (-0.1σ)	k_{eq}	0.010332	0.010334 ± 0.000066 (-0.1σ)	χ_{prior}^2	1.65	11.6 ± 4.5 $(+0.0\sigma)$
Ω_{Λ}	0.6885	0.6885 ± 0.0060 (-0.1σ)	$100\theta_{\mathrm{eq}}$	0.81633	0.8163 ± 0.0040 $(+0.0\sigma)$	χ_{CMB}^2	2773.0	2789.8 ± 6.0 $(+0.1\sigma)$
Ω_{m}	0.3115	0.3115 ± 0.0060 $(+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	0.45095	0.4509 ± 0.0020 $(+0.0\sigma)$	χ_{BAO}^2	5.80	6.2 ± 1.2 $(+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14230	0.14233 ± 0.00090 (-0.1σ)	$H(0.15)$	72.870	72.88 ± 0.42 (-0.2σ)			
$\Omega_{\mathrm{m}}h^3$	0.09618	0.09621 ± 0.00051 (-0.5σ)	$D_{\mathrm{M}}(0.15)$	641.42	641.3 ± 4.2 $(+0.2\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 2780.41$; $\Delta\chi_{\mathrm{eff}}^2 = -0.29$; $\bar{\chi}_{\mathrm{eff}}^2 = 2807.64$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.79$; $R - 1 = 0.02881$
 χ_{eff}^2 : BAO - 6DF: 0.04 (Δ 0.01) MGS: 1.16 (Δ -0.06) DR12BAO: 4.61 (Δ 0.19) CMB - smicadx12_Dec5_ftl_mv2_ndclpp_p_teb_consext8: 8.66 (Δ -0.07) simall_100x143_offlike5_EE_Aplanck
396.33 (Δ -0.19) commander_dx12_v3.2_29: 23.34 (Δ 0.45) plik_rd12_HM_v22b.TTTEEE: 2344.62 (Δ -0.70)

20.15 base_yhe_plikHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\text{b}}h^2$	0.022494	0.02250 ± 0.00019 (+0.1 σ)	$\Omega_{\text{m}}h^2$	0.14177	0.1417 ± 0.0012 (−0.0 σ)	$100\theta_{\text{eq}}$	0.8191	0.8195 ± 0.0055 (+0.0 σ)
$\Omega_{\text{c}}h^2$	0.11863	0.1186 ± 0.0013 (−0.0 σ)	$\Omega_{\text{m}}h^3$	0.09639	0.09644 ± 0.00052 (+0.2 σ)	$100\theta_{\text{s,eq}}$	0.45232	0.4525 ± 0.0028 (+0.0 σ)
$100\theta_{\text{MC}}$	1.04107	1.04118 ± 0.00054 (+0.3 σ)	σ_8	0.8080	$0.8090^{+0.0080}_{-0.0090}$ (+0.1 σ)	$H(0.15)$	73.22	73.28 ± 0.55 (+0.1 σ)
τ	0.0563	$0.0575^{+0.0074}_{-0.0088}$ (+0.0 σ)	S_8	0.8169	0.817 ± 0.015 (−0.0 σ)	$D_{\text{M}}(0.15)$	638.0	637.5 ± 5.4 (−0.1 σ)
Y_{P}	0.2448	0.247 ± 0.012	$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4475	0.4476 ± 0.0082 (−0.0 σ)	$H(0.38)$	83.260	83.31 ± 0.43 (+0.1 σ)
$\ln(10^{10}A_{\text{s}})$	3.0454	$3.048^{+0.016}_{-0.019}$ (+0.1 σ)	$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6013	0.6017 ± 0.0081 (+0.0 σ)	$D_{\text{M}}(0.38)$	1522.7	1522 ± 11 (−0.1 σ)
n_{s}	0.9694	0.9697 ± 0.0068 (+0.2 σ)	$\sigma_8/h^{0.5}$	0.9799	0.981 ± 0.012 (+0.0 σ)	$H(0.51)$	89.934	89.98 ± 0.36 (+0.1 σ)
y_{cal}	1.00050	1.0007 ± 0.0024 (+0.0 σ)	$r_{\text{drag}}h$	100.16	100.3 ± 1.0 (+0.1 σ)	$D_{\text{M}}(0.51)$	1973.2	1972 ± 13 (−0.1 σ)
A_{217}^{CIB}	45.6	47 ± 7 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4233	$2.425^{+0.027}_{-0.030}$ (−0.1 σ)	$H(0.61)$	95.520	95.56 ± 0.31 (+0.2 σ)
$\xi^{\text{tSZ} \times \text{CIB}}$	0.70	—	z_{re}	7.83	$7.94^{+0.76}_{-0.85}$ (+0.0 σ)	$D_{\text{M}}(0.61)$	2296.8	2295 ± 14 (−0.1 σ)
A_{143}^{tSZ}	7.11	5.5 ± 1.9 (−0.0 σ)	$10^9 A_{\text{s}}$	2.1018	$2.108^{+0.034}_{-0.041}$ (+0.1 σ)	$H(2.33)$	235.80	235.78 ± 0.78 (−0.0 σ)
A_{100}^{PS}	247.4	259 ± 27 (+0.1 σ)	$10^9 A_{\text{s}}e^{-2\tau}$	1.8779	1.878 ± 0.012 (+0.1 σ)	$D_{\text{M}}(2.33)$	5753.1	5751 ± 15 (−0.2 σ)
A_{143}^{PS}	49.9	45 ± 8 (+0.1 σ)	D_{40}	1222.2	1223 ± 15 (−0.1 σ)	$f\sigma_8(0.15)$	0.4524	0.4526 ± 0.0077 (−0.0 σ)
$A_{143 \times 217}^{\text{PS}}$	53.4	42 ± 10 (+0.0 σ)	D_{220}	5738.3	5740 ± 38 (−0.0 σ)	$\sigma_8(0.15)$	0.7471	$0.7481^{+0.0072}_{-0.0082}$ (+0.1 σ)
A_{217}^{PS}	121.9	115 ± 10 (−0.0 σ)	D_{810}	2540.5	2539 ± 13 (+0.0 σ)	$f\sigma_8(0.38)$	0.4718	0.4721 ± 0.0066 (+0.0 σ)
A^{kSZ}	0.00	< 4.32 (+0.1 σ)	D_{1420}	819.55	818.3 ± 4.8 (−0.0 σ)	$\sigma_8(0.38)$	0.6628	$0.6638^{+0.0062}_{-0.0073}$ (+0.1 σ)
A_{100}^{dustTT}	8.82	9.0 ± 1.9 (+0.1 σ)	D_{2000}	231.85	231.3 ± 1.8 (−0.1 σ)	$f\sigma_8(0.51)$	0.4710	0.4713 ± 0.0060 (+0.0 σ)
A_{143}^{dustTT}	11.09	11.0 ± 1.8 (+0.0 σ)	$n_{\text{s},0.002}$	0.9694	0.9697 ± 0.0068 (+0.2 σ)	$\sigma_8(0.51)$	0.6205	$0.6214^{+0.0058}_{-0.0069}$ (+0.1 σ)
$A_{143 \times 217}^{\text{dustTT}}$	20.20	18.6 ± 3.2 (+0.0 σ)	Y_{P}	0.2448	0.247 ± 0.012 (+39.0 σ)	$f\sigma_8(0.61)$	0.4664	0.4668 ± 0.0056 (+0.0 σ)
A_{217}^{dustTT}	95.5	93.9 ± 7.2 (+0.0 σ)	$Y_{\text{P}}^{\text{BBN}}$	0.2461	0.249 ± 0.012 (+38.9 σ)	$\sigma_8(0.61)$	0.5905	$0.5914^{+0.0055}_{-0.0066}$ (+0.1 σ)
A_{100}^{dustTE}	0.1135	0.112 ± 0.037 (−0.0 σ)	Age/Gyr	13.7745	13.770 ± 0.035 (−0.2 σ)	$f\sigma_8(2.33)$	0.29794	$0.2984^{+0.0028}_{-0.0033}$ (+0.1 σ)
$A_{100 \times 143}^{\text{dustTE}}$	0.1350	0.133 ± 0.030 (−0.1 σ)	z_*	1089.620	1089.72 ± 0.41 (+0.3 σ)	$\sigma_8(2.33)$	0.30738	$0.3079^{+0.0030}_{-0.0035}$ (+0.1 σ)
$A_{100 \times 217}^{\text{dustTE}}$	0.481	0.484 ± 0.087 (+0.1 σ)	r_*	144.692	144.69 ± 0.32 (−0.0 σ)	f_{2000}^{143}	27.99	29.2 ± 3.1 (+0.1 σ)
A_{143}^{dustTE}	0.222	0.221 ± 0.053 (−0.0 σ)	$100\theta_*$	1.041265	$1.04130^{+0.00031}_{-0.00035}$ (+0.1 σ)	$f_{2000}^{143 \times 217}$	31.48	32.0 ± 2.2 (+0.1 σ)
$A_{143 \times 217}^{\text{dustTE}}$	0.661	0.665 ± 0.079 (+0.0 σ)	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8958	13.895 ± 0.030 (−0.0 σ)	f_{2000}^{217}	106.05	106.8 ± 2.1 (+0.2 σ)
A_{217}^{dustTE}	2.071	2.08 ± 0.27 (+0.0 σ)	z_{drag}	1060.12	1060.21 ± 0.74 (+0.4 σ)	χ_{simall}^2	396.34	397.7 ± 2.6 (+0.0 σ)
c_{100}	0.99973	0.99966 ± 0.00060 (−0.0 σ)	r_{drag}	147.315	147.32 ± 0.33 (−0.0 σ)	χ_{lowl}^2	22.65	22.8 ± 1.2 (−0.1 σ)
c_{217}	0.99817	$0.99819^{+0.00064}_{-0.00058}$ (+0.0 σ)	k_{D}	0.140749	$0.14064^{+0.00042}_{-0.00038}$ (−0.2 σ)	χ_{plik}^2	2346.5	2362.1 ± 6.6 (+0.2 σ)
H_0	67.99	68.06 ± 0.63 (+0.1 σ)	$100\theta_{\text{D}}$	0.160628	0.16076 ± 0.00045 (+0.5 σ)	χ_{H073p45}^2	10.82	10.7 ± 2.5 (−0.1 σ)
Ω_{Λ}	0.6933	0.6939 ± 0.0080 (+0.1 σ)	z_{eq}	3372.5	3371 ± 29 (−0.0 σ)	χ_{prior}^2	1.61	11.6 ± 4.8 (−0.0 σ)
Ω_{m}	0.3067	0.3061 ± 0.0080 (−0.1 σ)	k_{eq}	0.010293	0.010290 ± 0.000089 (−0.0 σ)	χ_{CMB}^2	2765.5	2782.6 ± 6.4 (+0.2 σ)

Best-fit $\chi_{\text{eff}}^2 = 2777.94$; $\Delta\chi_{\text{eff}}^2 = 0.01$; $\bar{\chi}_{\text{eff}}^2 = 2804.95$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.78$; $R - 1 = 0.08230$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.34 (Δ -0.13) commander_dx12_v3.2.29: 22.65 (Δ 0.11) plik_rd12_HM_v22b_TTTEEE: 2346.53 (Δ -0.23) Hubble
- H073p45: 10.82 (Δ 0.23)

20.16 base_yhe_plikHM_TTTEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02230 \pm 0.00020 \quad (-0.4\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1432 \pm 0.0013 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8124 \pm 0.0058 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1202 \pm 0.0014 \quad (+0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09613 \pm 0.00053 \quad (-0.7\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4490 \pm 0.0030 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04071 \pm 0.00055 \quad (-0.7\sigma)$	σ_8	$0.8115^{+0.0070}_{-0.0079} \quad (-0.2\sigma)$	$H(0.15)$	$72.50 \pm 0.60 \quad (-0.2\sigma)$
τ	$0.0552^{+0.0051}_{-0.0085} \quad (-0.0\sigma)$	S_8	$0.835 \pm 0.016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$645.2 \pm 5.9 \quad (+0.2\sigma)$
Y_{P}	0.240 ± 0.013	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4573 \pm 0.0087 \quad (+0.0\sigma)$	$H(0.38)$	$82.72 \pm 0.46 \quad (-0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.017} \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6091 \pm 0.0081 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1537 \pm 12 \quad (+0.3\sigma)$
n_{s}	$0.9625 \pm 0.0072 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$H(0.51)$	$89.49 \pm 0.38 \quad (-0.4\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.8 \pm 1.1 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1990 \pm 14 \quad (+0.3\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.455 \pm 0.029 \quad (+0.2\sigma)$	$H(0.61)$	$95.16 \pm 0.32 \quad (-0.4\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.75^{+0.56}_{-0.85} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2315 \pm 15 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101^{+0.026}_{-0.036} \quad (-0.1\sigma)$	$H(2.33)$	$236.61 \pm 0.81 \quad (-0.1\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.882 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5770 \pm 16 \quad (+0.5\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{40}	$1236 \pm 16 \quad (+0.4\sigma)$	$f\sigma_8(0.15)$	$0.4614 \pm 0.0081 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{220}	$5733 \pm 38 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7493^{+0.0061}_{-0.0072} \quad (-0.2\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4783 \pm 0.0066 \quad (-0.0\sigma)$
A^{kSZ}	$< 4.05 \quad (-0.0\sigma)$	D_{1420}	$817.5 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6635^{+0.0052}_{-0.0064} \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$231.3 \pm 1.8 \quad (+0.2\sigma)$	$f\sigma_8(0.51)$	$0.4762 \pm 0.0058 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9625 \pm 0.0072 \quad (-0.6\sigma)$	$\sigma_8(0.51)$	$0.6207^{+0.0048}_{-0.0061} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.5 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.240 \pm 0.013 \quad (-94.8\sigma)$	$f\sigma_8(0.61)$	$0.4708 \pm 0.0053 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.7 \pm 7.3 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.241 \pm 0.013 \quad (-94.9\sigma)$	$\sigma_8(0.61)$	$0.5904^{+0.0046}_{-0.0058} \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	Age/Gyr	$13.812 \pm 0.037 \quad (+0.5\sigma)$	$f\sigma_8(2.33)$	$0.2975^{+0.0023}_{-0.0030} \quad (-0.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.81 \pm 0.42 \quad (-0.5\sigma)$	$\sigma_8(2.33)$	$0.3064^{+0.0025}_{-0.0032} \quad (-0.3\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.481 \pm 0.085 \quad (+0.0\sigma)$	r_*	$144.45 \pm 0.32 \quad (+0.2\sigma)$	f_{2000}^{143}	$28.9 \pm 3.1 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04103 \pm 0.00033 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.2 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.666 \pm 0.080 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.876 \pm 0.030 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.09 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.61 \pm 0.78 \quad (-1.1\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (-0.0\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (+0.0\sigma)$	r_{drag}	$147.13 \pm 0.33 \quad (+0.3\sigma)$	χ_{lowl}^2	$24.1 \pm 1.5 \quad (+0.5\sigma)$
c_{217}	$0.99819 \pm 0.00063 \quad (+0.0\sigma)$	k_{D}	$0.14099 \pm 0.00041 \quad (+0.3\sigma)$	χ_{plik}^2	$2359.7 \pm 6.0 \quad (+0.1\sigma)$
H_0	$67.15 \pm 0.69 \quad (-0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16059 \pm 0.00046 \quad (-1.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6824 \pm 0.0090 \quad (-0.1\sigma)$	z_{eq}	$3406 \pm 31 \quad (-0.0\sigma)$	χ_{CMB}^2	$2780.8 \pm 5.9 \quad (+0.2\sigma)$
Ω_{m}	$0.3176 \pm 0.0090 \quad (+0.1\sigma)$	k_{eq}	$0.010394 \pm 0.000093 \quad (-0.0\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 2792.32$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.79$; $R - 1 = 0.01241$

20.17 base_yhe_plikHM_TTTEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00018 \quad (-0.2\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09624 \pm 0.00051 \quad (-0.3\sigma)$	$H(0.15)$	$72.91 \pm 0.44 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1193 \pm 0.0010 \quad (-0.0\sigma)$	σ_8	$0.8099^{+0.0071}_{-0.0083} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.0 \pm 4.3 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00051 \quad (-0.3\sigma)$	S_8	$0.825 \pm 0.013 \quad (-0.0\sigma)$	$H(0.38)$	$83.02 \pm 0.34 \quad (-0.1\sigma)$
τ	$0.0566^{+0.0058}_{-0.0083} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4517 \pm 0.0070 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1528.9 \pm 8.8 \quad (+0.1\sigma)$
Y_{P}	0.243 ± 0.012	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6048 \pm 0.0071 \quad (-0.1\sigma)$	$H(0.51)$	$89.74 \pm 0.29 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.014}_{-0.018} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.985 \pm 0.010 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 10 \quad (+0.1\sigma)$
n_{s}	$0.9660 \pm 0.0062 \quad (-0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.60 \pm 0.80 \quad (-0.0\sigma)$	$H(0.61)$	$95.36 \pm 0.26 \quad (-0.2\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.025 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 11 \quad (+0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (-0.0\sigma)$	z_{re}	$7.87^{+0.62}_{-0.84} \quad (-0.0\sigma)$	$H(2.33)$	$236.10 \pm 0.65 \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.104^{+0.028}_{-0.038} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5761 \pm 14 \quad (+0.2\sigma)$
A_{143}^{tSZ}	$5.5 \pm 2.0 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.012 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4563 \pm 0.0066 \quad (-0.0\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.0\sigma)$	D_{40}	$1229 \pm 15 \quad (+0.2\sigma)$	$\sigma_8(0.15)$	$0.7484^{+0.0064}_{-0.0076} \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{220}	$5736 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4747 \pm 0.0058 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6634^{+0.0055}_{-0.0067} \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$817.9 \pm 4.7 \quad (+0.0\sigma)$	$f\sigma_8(0.51)$	$0.4734 \pm 0.0053 \quad (-0.1\sigma)$
A^{kSZ}	$< 4.14 \quad (-0.0\sigma)$	D_{2000}	$231.3 \pm 1.8 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6209^{+0.0052}_{-0.0063} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9660 \pm 0.0062 \quad (-0.3\sigma)$	$f\sigma_8(0.61)$	$0.4684 \pm 0.0050 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.243 \pm 0.012 \quad (-49.6\sigma)$	$\sigma_8(0.61)$	$0.5908^{+0.0049}_{-0.0060} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.244 \pm 0.012 \quad (-49.6\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0025}_{-0.0031} \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	Age/Gyr	$13.792 \pm 0.031 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0026}_{-0.0032} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	z_*	$1089.73 \pm 0.41 \quad (-0.3\sigma)$	f_{2000}^{143}	$28.9 \pm 3.1 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	r_*	$144.61 \pm 0.28 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.7 \pm 2.2 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (+0.0\sigma)$	$100\theta_*$	$1.04117 \pm 0.00030 \quad (-0.1\sigma)$	f_{2000}^{217}	$106.6 \pm 2.1 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.222 \pm 0.053 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.027 \quad (+0.2\sigma)$	χ_{simall}^2	$397.3 \pm 2.3 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.665 \pm 0.079 \quad (-0.0\sigma)$	z_{drag}	$1059.86 \pm 0.73 \quad (-0.5\sigma)$	χ_{lowl}^2	$23.4 \pm 1.2 \quad (+0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	r_{drag}	$147.27 \pm 0.31 \quad (+0.2\sigma)$	χ_{plik}^2	$2360.2 \pm 6.0 \quad (+0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	k_{D}	$0.14080 \pm 0.00036 \quad (+0.1\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.060 \pm 0.070 \quad (+0.1\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16065 \pm 0.00045 \quad (-0.5\sigma)$	χ_{MGS}^2	$1.25 \pm 0.43 \quad (-0.0\sigma)$
H_0	$67.63 \pm 0.50 \quad (-0.1\sigma)$	z_{eq}	$3385 \pm 23 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6888 \pm 0.0063 \quad (-0.0\sigma)$	k_{eq}	$0.010332 \pm 0.000071 \quad (-0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3112 \pm 0.0063 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8164 \pm 0.0043 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.2 \pm 1.2 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14230 \pm 0.00098 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0022 \quad (+0.0\sigma)$	χ_{CMB}^2	$2780.9 \pm 5.9 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2798.67; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.96; R - 1 = 0.03223$$

20.18 base_yhe_plikHM_TTTEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02231 \pm 0.00020 \quad (-0.5\sigma)$	$\Omega_{\mathrm{m}}h^2$	$0.1430 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8133 \pm 0.0050 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1200 \pm 0.0012 \quad (+0.0\sigma)$	$\Omega_{\mathrm{m}}h^3$	$0.09610 \pm 0.00052 \quad (-0.8\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4494 \pm 0.0026 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04070 \pm 0.00054 \quad (-0.7\sigma)$	σ_8	$0.8103^{+0.0059}_{-0.0067} \quad (-0.2\sigma)$	$H(0.15)$	$72.56 \pm 0.54 \quad (-0.3\sigma)$
τ	$0.0549^{+0.0052}_{-0.0080} \quad (-0.1\sigma)$	S_8	$0.832 \pm 0.013 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$644.5 \pm 5.3 \quad (+0.3\sigma)$
Y_{P}	0.239 ± 0.013	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4557 \pm 0.0069 \quad (+0.0\sigma)$	$H(0.38)$	$82.76 \pm 0.42 \quad (-0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.016} \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6077 \pm 0.0063 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1536 \pm 11 \quad (+0.3\sigma)$
n_{s}	$0.9625 \pm 0.0069 \quad (-0.6\sigma)$	$\sigma_8/h^{0.5}$	$0.9882 \pm 0.0089 \quad (-0.1\sigma)$	$H(0.51)$	$89.52 \pm 0.35 \quad (-0.4\sigma)$
y_{cal}	$1.0005 \pm 0.0024 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.95 \pm 0.98 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1989 \pm 13 \quad (+0.3\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.451 \pm 0.023 \quad (+0.2\sigma)$	$H(0.61)$	$95.18 \pm 0.31 \quad (-0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.71^{+0.56}_{-0.81} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2314 \pm 14 \quad (+0.3\sigma)$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.099^{+0.025}_{-0.033} \quad (-0.2\sigma)$	$H(2.33)$	$236.48 \pm 0.71 \quad (-0.1\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.012 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5769 \pm 15 \quad (+0.6\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.2\sigma)$	D_{40}	$1236 \pm 15 \quad (+0.3\sigma)$	$f\sigma_8(0.15)$	$0.4599 \pm 0.0064 \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5735 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7483^{+0.0054}_{-0.0063} \quad (-0.3\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2538 \pm 13 \quad (-0.1\sigma)$	$f\sigma_8(0.38)$	$0.4771 \pm 0.0052 \quad (-0.0\sigma)$
A^{kSZ}	$< 4.08 \quad (-0.1\sigma)$	D_{1420}	$817.5 \pm 4.8 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6628^{+0.0048}_{-0.0058} \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	D_{2000}	$231.3 \pm 1.8 \quad (+0.3\sigma)$	$f\sigma_8(0.51)$	$0.4752 \pm 0.0046 \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.8 \pm 1.8 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9625 \pm 0.0069 \quad (-0.6\sigma)$	$\sigma_8(0.51)$	$0.6200^{+0.0045}_{-0.0055} \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (-0.0\sigma)$	Y_{P}	$0.239 \pm 0.013 \quad (-109.4\sigma)$	$f\sigma_8(0.61)$	$0.4698 \pm 0.0042 \quad (-0.1\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.240 \pm 0.013 \quad (-109.4\sigma)$	$\sigma_8(0.61)$	$0.5898^{+0.0043}_{-0.0053} \quad (-0.3\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.113 \pm 0.038 \quad (-0.0\sigma)$	Age/Gyr	$13.810 \pm 0.036 \quad (+0.6\sigma)$	$f\sigma_8(2.33)$	$0.2972^{+0.0023}_{-0.0028} \quad (-0.4\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.76 \pm 0.41 \quad (-0.6\sigma)$	$\sigma_8(2.33)$	$0.3062^{+0.0025}_{-0.0031} \quad (-0.4\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (+0.0\sigma)$	r_*	$144.50 \pm 0.28 \quad (+0.2\sigma)$	f_{2000}^{143}	$28.8 \pm 3.1 \quad (-0.3\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.224 \pm 0.054 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00032 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.2 \quad (-0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.667 \pm 0.080 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.880 \pm 0.027 \quad (+0.3\sigma)$	f_{2000}^{217}	$106.5 \pm 2.1 \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (-0.0\sigma)$	z_{drag}	$1059.59 \pm 0.77 \quad (-1.2\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.17 \pm 0.69 \quad (-0.1\sigma)$
c_{100}	$0.99967 \pm 0.00061 \quad (-0.0\sigma)$	r_{drag}	$147.18 \pm 0.30 \quad (+0.3\sigma)$	χ_{simall}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (-0.0\sigma)$	k_{D}	$0.14097 \pm 0.00039 \quad (+0.4\sigma)$	χ_{lowl}^2	$24.0 \pm 1.4 \quad (+0.5\sigma)$
H_0	$67.23 \pm 0.61 \quad (-0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.16056 \pm 0.00045 \quad (-1.1\sigma)$	χ_{plik}^2	$2359.5 \pm 5.8 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6836 \pm 0.0079 \quad (-0.2\sigma)$	z_{eq}	$3401 \pm 26 \quad (-0.0\sigma)$	χ_{prior}^2	$11.5 \pm 4.5 \quad (-0.0\sigma)$
Ω_{m}	$0.3164 \pm 0.0079 \quad (+0.2\sigma)$	k_{eq}	$0.010379 \pm 0.000081 \quad (-0.0\sigma)$	χ_{CMB}^2	$2789.6 \pm 5.9 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.11; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60; R - 1 = 0.01737$$

20.19 base_yhe_plikHM_TTTEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02239 \pm 0.00018 \quad (-0.3\sigma)$	σ_8	$0.8099^{+0.0062}_{-0.0070} \quad (-0.1\sigma)$	$H(0.38)$	$83.01 \pm 0.33 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11927 \pm 0.00093 \quad (-0.0\sigma)$	S_8	$0.825 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529.3 \pm 8.4 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04089 \pm 0.00050 \quad (-0.4\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4519 \pm 0.0058 \quad (-0.0\sigma)$	$H(0.51)$	$89.72 \pm 0.29 \quad (-0.2\sigma)$
τ	$0.0568^{+0.0059}_{-0.0076} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6050 \pm 0.0059 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 10 \quad (+0.2\sigma)$
Y_{P}	0.242 ± 0.012	$\sigma_8/h^{0.5}$	$0.9850 \pm 0.0086 \quad (-0.0\sigma)$	$H(0.61)$	$95.34 \pm 0.26 \quad (-0.3\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.013}_{-0.016} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.58 \pm 0.75 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 11 \quad (+0.2\sigma)$
n_{s}	$0.9655 \pm 0.0062 \quad (-0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.441 \pm 0.021 \quad (+0.1\sigma)$	$H(2.33)$	$236.10 \pm 0.60 \quad (-0.1\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (-0.0\sigma)$	z_{re}	$7.89^{+0.63}_{-0.76} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 13 \quad (+0.3\sigma)$
A_{217}^{CIB}	$46 \pm 7 \quad (-0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.106^{+0.027}_{-0.033} \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4565 \pm 0.0055 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.011 \quad (-0.2\sigma)$	$\sigma_8(0.15)$	$0.7484^{+0.0057}_{-0.0065} \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5 \pm 2.0 \quad (+0.1\sigma)$	D_{40}	$1231 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4749 \pm 0.0047 \quad (-0.0\sigma)$
A_{100}^{PS}	$257 \pm 28 \quad (-0.1\sigma)$	D_{220}	$5740 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6635^{+0.0050}_{-0.0059} \quad (-0.1\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (-0.1\sigma)$	D_{810}	$2539 \pm 13 \quad (-0.0\sigma)$	$f\sigma_8(0.51)$	$0.4735 \pm 0.0044 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{PS}}$	$42 \pm 9 \quad (-0.1\sigma)$	D_{1420}	$818.2 \pm 4.7 \quad (+0.1\sigma)$	$\sigma_8(0.51)$	$0.6209^{+0.0048}_{-0.0056} \quad (-0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{2000}	$231.4 \pm 1.8 \quad (+0.2\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0041 \quad (-0.1\sigma)$
A^{kSZ}	$< 4.06 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9655 \pm 0.0062 \quad (-0.3\sigma)$	$\sigma_8(0.61)$	$0.5908^{+0.0046}_{-0.0054} \quad (-0.1\sigma)$
$A_{100}^{\mathrm{dustTT}}$	$8.9 \pm 1.8 \quad (+0.0\sigma)$	Y_{P}	$0.242 \pm 0.012 \quad (-66.1\sigma)$	$f\sigma_8(2.33)$	$0.2979^{+0.0024}_{-0.0028} \quad (-0.1\sigma)$
$A_{143}^{\mathrm{dustTT}}$	$10.9 \pm 1.8 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.243 \pm 0.012 \quad (-66.1\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0025}_{-0.0030} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dustTT}}$	$18.6 \pm 3.3 \quad (+0.0\sigma)$	Age/Gyr	$13.793 \pm 0.031 \quad (+0.4\sigma)$	f_{2000}^{143}	$28.8 \pm 3.1 \quad (-0.2\sigma)$
$A_{217}^{\mathrm{dustTT}}$	$93.8 \pm 7.3 \quad (+0.0\sigma)$	z_*	$1089.70 \pm 0.40 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$31.6 \pm 2.2 \quad (-0.2\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.112 \pm 0.038 \quad (-0.0\sigma)$	r_*	$144.62 \pm 0.26 \quad (+0.2\sigma)$	f_{2000}^{217}	$106.5 \pm 2.1 \quad (-0.2\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.134 \pm 0.030 \quad (-0.1\sigma)$	$100\theta_*$	$1.04115 \pm 0.00030 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.05 \pm 0.57 \quad (-0.1\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.482 \pm 0.086 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.890 \pm 0.026 \quad (+0.2\sigma)$	χ_{small}^2	$397.3 \pm 2.1 \quad (+0.1\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.222 \pm 0.054 \quad (-0.0\sigma)$	z_{drag}	$1059.82 \pm 0.73 \quad (-0.7\sigma)$	χ_{lowl}^2	$23.5 \pm 1.2 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.665 \pm 0.079 \quad (-0.0\sigma)$	r_{drag}	$147.27 \pm 0.29 \quad (+0.3\sigma)$	χ_{plik}^2	$2359.9 \pm 5.9 \quad (+0.1\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.08 \pm 0.27 \quad (+0.0\sigma)$	k_{D}	$0.14082 \pm 0.00035 \quad (+0.2\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.058 \pm 0.065 \quad (+0.1\sigma)$
c_{100}	$0.99966 \pm 0.00061 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16061 \pm 0.00045 \quad (-0.6\sigma)$	χ_{MGS}^2	$1.23 \pm 0.41 \quad (-0.1\sigma)$
c_{217}	$0.99819 \pm 0.00062 \quad (+0.0\sigma)$	z_{eq}	$3385 \pm 21 \quad (-0.1\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.9 \pm 1.4 \quad (+0.1\sigma)$
H_0	$67.62 \pm 0.48 \quad (-0.1\sigma)$	k_{eq}	$0.010332 \pm 0.000065 \quad (-0.1\sigma)$	χ_{prior}^2	$11.6 \pm 4.5 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6887 \pm 0.0059 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8164 \pm 0.0040 \quad (+0.0\sigma)$	χ_{CMB}^2	$2789.7 \pm 5.9 \quad (+0.1\sigma)$
Ω_{m}	$0.3113 \pm 0.0059 \quad (+0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4510 \pm 0.0020 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.2 \pm 1.1 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14231 \pm 0.00090 \quad (-0.1\sigma)$	$H(0.15)$	$72.90 \pm 0.42 \quad (-0.2\sigma)$		
$\Omega_{\mathrm{m}}h^3$	$0.09622 \pm 0.00051 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.2 \pm 4.1 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.47; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.75; R - 1 = 0.03003$$

20.20 base_yhe_plikHM_TTTEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	$0.02251 \pm 0.00019 \quad (+0.1\sigma)$	$\Omega_{\text{m}}h^2$	$0.1417 \pm 0.0012 \quad (-0.0\sigma)$	$100\theta_{\text{eq}}$	$0.8196 \pm 0.0056 \quad (+0.1\sigma)$
$\Omega_{\text{c}}h^2$	$0.1186 \pm 0.0013 \quad (-0.0\sigma)$	$\Omega_{\text{m}}h^3$	$0.09645 \pm 0.00052 \quad (+0.3\sigma)$	$100\theta_{\text{s,eq}}$	$0.4526 \pm 0.0028 \quad (+0.0\sigma)$
$100\theta_{\text{MC}}$	$1.04119 \pm 0.00054 \quad (+0.3\sigma)$	σ_8	$0.8096^{+0.0074}_{-0.0089} \quad (+0.1\sigma)$	$H(0.15)$	$73.30 \pm 0.55 \quad (+0.1\sigma)$
τ	$0.0583^{+0.0061}_{-0.0088} \quad (+0.1\sigma)$	S_8	$0.818 \pm 0.015 \quad (-0.0\sigma)$	$D_{\text{M}}(0.15)$	$637.3 \pm 5.4 \quad (-0.1\sigma)$
Y_{P}	0.248 ± 0.012	$\sigma_8\Omega_{\text{m}}^{0.5}$	$0.4478 \pm 0.0082 \quad (-0.0\sigma)$	$H(0.38)$	$83.32 \pm 0.43 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\text{s}})$	$3.050^{+0.014}_{-0.019} \quad (+0.1\sigma)$	$\sigma_8\Omega_{\text{m}}^{0.25}$	$0.6021 \pm 0.0080 \quad (+0.0\sigma)$	$D_{\text{M}}(0.38)$	$1521 \pm 11 \quad (-0.1\sigma)$
n_{s}	$0.9699 \pm 0.0068 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.981 \pm 0.011 \quad (+0.0\sigma)$	$H(0.51)$	$89.99 \pm 0.36 \quad (+0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	$r_{\text{drag}}h$	$100.3 \pm 1.0 \quad (+0.1\sigma)$	$D_{\text{M}}(0.51)$	$1972 \pm 13 \quad (-0.1\sigma)$
A_{217}^{CIB}	$47 \pm 7 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.426^{+0.027}_{-0.030} \quad (-0.1\sigma)$	$H(0.61)$	$95.57 \pm 0.31 \quad (+0.2\sigma)$
$\xi^{\text{tSZ} \times \text{CIB}}$	—	z_{re}	$8.02^{+0.63}_{-0.88} \quad (+0.1\sigma)$	$D_{\text{M}}(0.61)$	$2295 \pm 14 \quad (-0.1\sigma)$
A_{143}^{tSZ}	$5.5 \pm 1.9 \quad (-0.1\sigma)$	$10^9 A_{\text{s}}$	$2.111^{+0.029}_{-0.040} \quad (+0.1\sigma)$	$H(2.33)$	$235.77 \pm 0.78 \quad (-0.0\sigma)$
A_{100}^{PS}	$259 \pm 27 \quad (+0.1\sigma)$	$10^9 A_{\text{s}} e^{-2\tau}$	$1.878 \pm 0.012 \quad (+0.1\sigma)$	$D_{\text{M}}(2.33)$	$5751 \pm 15 \quad (-0.2\sigma)$
A_{143}^{PS}	$45 \pm 8 \quad (+0.1\sigma)$	D_{40}	$1223 \pm 15 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4528 \pm 0.0077 \quad (-0.0\sigma)$
$A_{143 \times 217}^{\text{PS}}$	$42 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5740 \pm 38 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7487^{+0.0066}_{-0.0081} \quad (+0.1\sigma)$
A_{217}^{PS}	$115 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2539 \pm 13 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4723 \pm 0.0065 \quad (+0.0\sigma)$
A^{kSZ}	$< 4.31 \quad (+0.1\sigma)$	D_{1420}	$818.3 \pm 4.7 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6643^{+0.0056}_{-0.0072} \quad (+0.1\sigma)$
A_{100}^{dustTT}	$9.0 \pm 1.9 \quad (+0.1\sigma)$	D_{2000}	$231.3 \pm 1.8 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4716 \pm 0.0058 \quad (+0.0\sigma)$
A_{143}^{dustTT}	$11.0 \pm 1.8 \quad (+0.1\sigma)$	$n_{\text{s},0.002}$	$0.9699 \pm 0.0068 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6219^{+0.0052}_{-0.0068} \quad (+0.1\sigma)$
$A_{143 \times 217}^{\text{dustTT}}$	$18.6 \pm 3.2 \quad (+0.0\sigma)$	Y_{P}	$0.248 \pm 0.012 \quad (+43.1\sigma)$	$f\sigma_8(0.61)$	$0.4671 \pm 0.0054 \quad (+0.0\sigma)$
A_{217}^{dustTT}	$93.9 \pm 7.2 \quad (+0.0\sigma)$	$Y_{\text{P}}^{\text{BBN}}$	$0.249 \pm 0.012 \quad (+43.1\sigma)$	$\sigma_8(0.61)$	$0.5919^{+0.0049}_{-0.0065} \quad (+0.1\sigma)$
A_{100}^{dustTE}	$0.111 \pm 0.037 \quad (-0.0\sigma)$	Age/Gyr	$13.769 \pm 0.035 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2987^{+0.0025}_{-0.0033} \quad (+0.2\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	$0.133 \pm 0.030 \quad (-0.0\sigma)$	z_*	$1089.72 \pm 0.41 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3082^{+0.0026}_{-0.0035} \quad (+0.2\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	$0.484 \pm 0.087 \quad (+0.1\sigma)$	r_*	$144.69 \pm 0.32 \quad (-0.0\sigma)$	f_{2000}^{143}	$29.2 \pm 3.1 \quad (+0.1\sigma)$
A_{143}^{dustTE}	$0.222 \pm 0.053 \quad (-0.0\sigma)$	$100\theta_*$	$1.04130^{+0.00031}_{-0.00035} \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.2 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	$0.666 \pm 0.079 \quad (+0.0\sigma)$	$D_{\text{M}}(z_*)/\text{Gpc}$	$13.896 \pm 0.030 \quad (-0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 2.1 \quad (+0.2\sigma)$
A_{217}^{dustTE}	$2.08 \pm 0.27 \quad (+0.0\sigma)$	z_{drag}	$1060.22 \pm 0.74 \quad (+0.4\sigma)$	χ_{simall}^2	$397.7 \pm 2.7 \quad (+0.0\sigma)$
c_{100}	$0.99966 \pm 0.00060 \quad (-0.0\sigma)$	r_{drag}	$147.32 \pm 0.34 \quad (-0.0\sigma)$	χ_{lowl}^2	$22.8 \pm 1.2 \quad (-0.1\sigma)$
c_{217}	$0.99819 \pm 0.00061 \quad (+0.0\sigma)$	k_{D}	$0.14064 \pm 0.00041 \quad (-0.2\sigma)$	χ_{plik}^2	$2362.0 \pm 6.6 \quad (+0.2\sigma)$
H_0	$68.07 \pm 0.63 \quad (+0.1\sigma)$	$100\theta_{\text{D}}$	$0.16076 \pm 0.00045 \quad (+0.6\sigma)$	χ_{H073p45}^2	$10.6 \pm 2.5 \quad (-0.1\sigma)$
Ω_{Λ}	$0.6941 \pm 0.0080 \quad (+0.1\sigma)$	z_{eq}	$3371 \pm 29 \quad (-0.0\sigma)$	χ_{prior}^2	$11.6 \pm 4.8 \quad (-0.0\sigma)$
Ω_{m}	$0.3059 \pm 0.0080 \quad (-0.1\sigma)$	k_{eq}	$0.010288 \pm 0.000089 \quad (-0.0\sigma)$	χ_{CMB}^2	$2782.5 \pm 6.4 \quad (+0.2\sigma)$

$\bar{\chi}_{\text{eff}}^2 = 2804.74$; $\Delta\bar{\chi}_{\text{eff}}^2 = 0.86$; $R - 1 = 0.08577$

20.21 base_yhe_CamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022134	0.02211 ± 0.00030 (-0.1σ)	S_8	0.8367	0.838 ± 0.025 $(+0.0\sigma)$	$100\theta_{s,eq}$	0.44880	0.4486 ± 0.0049 (-0.0σ)
$\Omega_c h^2$	0.12043	0.1205 ± 0.0022 $(+0.0\sigma)$	$\sigma_8 \Omega_m^{0.5}$	0.4583	0.459 ± 0.014 $(+0.0\sigma)$	$H(0.15)$	72.37	72.27 ± 0.99 (-0.1σ)
$100\theta_{MC}$	1.04094	1.04075 ± 0.00089 (-0.2σ)	$\sigma_8 \Omega_m^{0.25}$	0.6099	0.610 ± 0.012 $(+0.0\sigma)$	$D_M(0.15)$	646.4	647.5 ± 9.9 $(+0.1\sigma)$
τ	0.0525	0.0522 ± 0.0082 $(+0.0\sigma)$	$\sigma_8/h^{0.5}$	0.9914	0.991 ± 0.016 $(+0.0\sigma)$	$H(0.38)$	82.61	82.53 ± 0.74 (-0.1σ)
Y_P	0.2478	0.242 ± 0.021	$r_{drag} h$	98.67	98.5 ± 1.9 (-0.1σ)	$D_M(0.38)$	1539.8	1542 ± 20 $(+0.1\sigma)$
$\ln(10^{10} A_s)$	3.0397	3.038 ± 0.018 (-0.0σ)	$\langle d^2 \rangle^{1/2}$	2.4470	2.451 ± 0.044 $(+0.1\sigma)$	$H(0.51)$	89.39	89.33 ± 0.61 (-0.1σ)
n_s	0.9644	0.963 ± 0.011 (-0.2σ)	z_{re}	7.57	7.50 ± 0.85 $(+0.0\sigma)$	$D_M(0.51)$	1993.5	1996 ± 24 $(+0.1\sigma)$
y_{cal}	1.00033	1.0004 ± 0.0025 (-0.0σ)	$10^9 A_s$	2.0899	2.088 ± 0.037 (-0.0σ)	$H(0.61)$	95.07	95.01 ± 0.52 (-0.1σ)
A_{100}^{PS}	246.8	242 ± 26 (-0.0σ)	$10^9 A_s e^{-2\tau}$	1.8815	1.880 ± 0.015 (-0.1σ)	$D_M(0.61)$	2318.8	2322 ± 26 $(+0.1\sigma)$
A_{143}^{PS}	38.4	40 ± 10 (-0.1σ)	D_{40}	1228.0	1232 ± 22 $(+0.1\sigma)$	$H(2.33)$	236.61	236.6 ± 1.3 $(+0.0\sigma)$
A_{217}^{PS}	99.1	101 ± 10 $(+0.0\sigma)$	D_{220}	5701.1	5703 ± 42 (-0.0σ)	$D_M(2.33)$	5774.6	5778 ± 26 $(+0.2\sigma)$
A_{217}^{CIB}	43.2	41_{-8}^{+7} (-0.0σ)	D_{810}	2532.9	2534 ± 14 (-0.1σ)	$f\sigma_8(0.15)$	0.4623	0.463 ± 0.013 $(+0.0\sigma)$
A_{143}^{tSZ}	3.96	$3.7_{-2.6}^{+1.8}$ (-0.0σ)	D_{1420}	813.2	814.4 ± 5.4 $(+0.0\sigma)$	$\sigma_8(0.15)$	0.7492	0.7482 ± 0.0086 (-0.0σ)
$r_{143 \times 217}^{PS}$	0.554	0.65 ± 0.13 $(+0.0\sigma)$	D_{2000}	229.03	229.8 ± 2.5 $(+0.1\sigma)$	$f\sigma_8(0.38)$	0.4790	0.4790 ± 0.0099 $(+0.0\sigma)$
$r_{143 \times 217}^{CIB}$	0.631	$0.57_{-0.13}^{+0.42}$ (-0.0σ)	$n_{s,0.002}$	0.9644	0.963 ± 0.011 (-0.2σ)	$\sigma_8(0.38)$	0.6633	0.6623 ± 0.0074 (-0.1σ)
$\xi^{tSZ \times CIB}$	0.00	—	Y_P	0.2478	0.242 ± 0.021 (-31.8σ)	$f\sigma_8(0.51)$	0.4767	0.4765 ± 0.0084 $(+0.0\sigma)$
A^{kSZ}	4.3	—	Y_P^{BBN}	0.2491	0.244 ± 0.021 (-31.8σ)	$\sigma_8(0.51)$	0.6204	0.6194 ± 0.0070 (-0.1σ)
A_{100}^{dust}	1.008	1.01 ± 0.20 (-0.0σ)	Age/Gyr	13.823	13.831 ± 0.058 $(+0.2\sigma)$	$f\sigma_8(0.61)$	0.4711	0.4708 ± 0.0075 (-0.0σ)
A_{143}^{dust}	0.979	0.97 ± 0.17 (-0.0σ)	z_*	1090.36	1090.20 ± 0.68 (-0.2σ)	$\sigma_8(0.61)$	0.5901	0.5892 ± 0.0067 (-0.1σ)
A_{217}^{dust}	0.962	0.97 ± 0.10 $(+0.0\sigma)$	r_*	144.492	144.50 ± 0.49 $(+0.0\sigma)$	$f\sigma_8(2.33)$	0.29726	0.2967 ± 0.0035 (-0.1σ)
$A_{143 \times 217}^{dust}$	1.011	1.03 ± 0.16 (-0.0σ)	$100\theta_*$	1.041077	1.04103 ± 0.00050 (-0.1σ)	$\sigma_8(2.33)$	0.30615	0.3056 ± 0.0038 (-0.1σ)
c_{100}	0.99736	0.9975 ± 0.0011 $(+0.0\sigma)$	$D_M(z_*)/\text{Gpc}$	13.8791	13.881 ± 0.046 $(+0.0\sigma)$	f_{2000}^{143}	31.72	30 ± 4 (-0.1σ)
c_{217}	1.00131	1.0012 ± 0.0016 (-0.0σ)	z_{drag}	1059.51	1059.3 ± 1.2 (-0.3σ)	f_{2000}^{217}	108.13	107.3 ± 2.8 (-0.1σ)
H_0	67.01	66.9 ± 1.1 (-0.1σ)	r_{drag}	147.233	147.25 ± 0.50 $(+0.0\sigma)$	$f_{2000}^{143 \times 217}$	33.48	32.7 ± 3.1 (-0.1σ)
Ω_Λ	0.6811	$0.679_{-0.014}^{+0.016}$ (-0.1σ)	k_D	0.14043	0.14060 ± 0.00078 $(+0.1\sigma)$	χ_{small}^2	395.89	397.0 ± 1.7 $(+0.0\sigma)$
Ω_m	0.3189	0.321 ± 0.015 $(+0.1\sigma)$	$100\theta_D$	0.16118	0.16097 ± 0.00080 (-0.3σ)	χ_{lowl}^2	23.34	23.9 ± 2.1 $(+0.3\sigma)$
$\Omega_m h^2$	0.14321	0.1433 ± 0.0021 $(+0.0\sigma)$	z_{eq}	3406.8	3409 ± 50 $(+0.0\sigma)$	$\chi_{CamSpec}^2$	7050.2	7063.9 ± 5.6 $(+0.1\sigma)$
$\Omega_m h^3$	0.09597	0.09585 ± 0.00076 (-0.2σ)	k_{eq}	0.010398	0.01040 ± 0.00015 $(+0.0\sigma)$	χ_{prior}^2	2.38	7.6 ± 3.4 (-0.0σ)
σ_8	0.8116	0.8107 ± 0.0098 (-0.0σ)	$100\theta_{eq}$	0.8118	0.8114 ± 0.0096 (-0.0σ)	χ_{CMB}^2	7469.4	7484.8 ± 5.7 $(+0.2\sigma)$

Best-fit $\chi_{eff}^2 = 7471.80$; $\Delta\chi_{eff}^2 = 0.06$; $\bar{\chi}_{eff}^2 = 7492.39$; $\Delta\bar{\chi}_{eff}^2 = 0.85$; $R - 1 = 0.00648$

χ_{eff}^2 : CMB - small_100x143_offlike5_EE_Aplanck_B: 395.89 (Δ 0.05) commander_dx12_v3.2.29: 23.34 (Δ -0.06) CamSpec like_10.7HM: 7050.19 (Δ -0.15)

20.22 base_yhe_CamSpecHM_TT_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00024 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6025 \pm 0.0085 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527 \pm 11 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.982 \pm 0.012 \quad (+0.1\sigma)$	$H(0.51)$	$89.75 \pm 0.38 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04119 \pm 0.00074 \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.91 \pm 0.98 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 13 \quad (-0.2\sigma)$
τ	$0.0541 \pm 0.0079 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.422 \pm 0.029 \quad (-0.1\sigma)$	$H(0.61)$	$95.35 \pm 0.35 \quad (+0.2\sigma)$
Y_{P}	0.250 ± 0.019	z_{re}	$7.67 \pm 0.81 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 14 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.018 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092 \pm 0.037 \quad (+0.1\sigma)$	$H(2.33)$	$235.76 \pm 0.82 \quad (+0.1\sigma)$
n_{s}	$0.9691 \pm 0.0083 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877 \pm 0.015 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 18 \quad (-0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1219 \pm 17 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4540 \pm 0.0078 \quad (+0.0\sigma)$
A_{100}^{PS}	$244 \pm 26 \quad (+0.1\sigma)$	D_{220}	$5709 \pm 41 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7469 \pm 0.0084 \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4728 \pm 0.0068 \quad (+0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$814.6 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6623 \pm 0.0074 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41_{-8}^{+7} \quad (+0.1\sigma)$	D_{2000}	$229.5 \pm 2.5 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4717 \pm 0.0063 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.7_{-2.7}^{+1.7} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9691 \pm 0.0083 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6199 \pm 0.0069 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.250 \pm 0.019 \quad (+52.5\sigma)$	$f\sigma_8(0.61)$	$0.4669 \pm 0.0059 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.463 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.251 \pm 0.019 \quad (+52.5\sigma)$	$\sigma_8(0.61)$	$0.5899 \pm 0.0066 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.796 \pm 0.043 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2976 \pm 0.0034 \quad (+0.2\sigma)$
A^{kSZ}	—	z_*	$1090.16 \pm 0.68 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3069 \pm 0.0035 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	r_*	$144.78 \pm 0.37 \quad (-0.1\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00042 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.8 \pm 2.7 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.904 \pm 0.037 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 3.0 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.8 \pm 1.1 \quad (+0.5\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{100}	$0.9975_{-0.00099}^{+0.0011} \quad (-0.0\sigma)$	r_{drag}	$147.49 \pm 0.42 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.7 \pm 1.3 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14018 \pm 0.00061 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.8 \pm 5.6 \quad (+0.2\sigma)$
H_0	$67.74 \pm 0.62 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16119 \pm 0.00076 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.074 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6908 \pm 0.0076 \quad (+0.1\sigma)$	z_{eq}	$3374 \pm 29 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.43 \pm 0.56 \quad (+0.1\sigma)$
Ω_{m}	$0.3092 \pm 0.0076 \quad (-0.1\sigma)$	k_{eq}	$0.010297 \pm 0.000089 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8184 \pm 0.0053 \quad (+0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00072 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4521 \pm 0.0027 \quad (-0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (+0.0\sigma)$
σ_8	$0.8080 \pm 0.0092 \quad (+0.2\sigma)$	$H(0.15)$	$72.99 \pm 0.55 \quad (+0.1\sigma)$	χ_{CMB}^2	$7484.5 \pm 5.5 \quad (+0.1\sigma)$
S_8	$0.820 \pm 0.015 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.2 \pm 5.3 \quad (-0.1\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4493 \pm 0.0083 \quad (+0.0\sigma)$	$H(0.38)$	$83.06 \pm 0.44 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7498.32$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.77$; $R - 1 = 0.01513$

20.23 base_yhe_CamSpecHM_TT_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02211 \pm 0.00028 \quad (-0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4574 \pm 0.0091 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.9 \pm 7.8 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1203 \pm 0.0016 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6086 \pm 0.0078 \quad (-0.0\sigma)$	$H(0.38)$	$82.56 \pm 0.61 \quad (-0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04071 \pm 0.00085 \quad (-0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 16 \quad (+0.1\sigma)$
τ	$0.0526 \pm 0.0081 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.7 \pm 1.4 \quad (-0.1\sigma)$	$H(0.51)$	$89.35 \pm 0.52 \quad (-0.2\sigma)$
Y_{P}	0.241 ± 0.021	$\langle d^2 \rangle^{1/2}$	$2.449 \pm 0.029 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 19 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.038 \pm 0.017 \quad (-0.1\sigma)$	z_{re}	$7.52 \pm 0.83 \quad (-0.0\sigma)$	$H(0.61)$	$95.02 \pm 0.45 \quad (-0.2\sigma)$
n_{s}	$0.962 \pm 0.010 \quad (-0.3\sigma)$	$10^9 A_{\mathrm{s}}$	$2.087 \pm 0.036 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320 \pm 21 \quad (+0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.014 \quad (-0.1\sigma)$	$H(2.33)$	$236.48 \pm 0.97 \quad (-0.0\sigma)$
A_{100}^{PS}	$241 \pm 26 \quad (-0.1\sigma)$	D_{40}	$1232 \pm 19 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5778 \pm 23 \quad (+0.2\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (-0.2\sigma)$	D_{220}	$5707 \pm 41 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4613 \pm 0.0083 \quad (+0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7475 \pm 0.0073 \quad (-0.1\sigma)$
A_{217}^{CIB}	$40_{-8}^{+7} \quad (-0.1\sigma)$	D_{1420}	$814.7 \pm 5.3 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4779 \pm 0.0064 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.8_{-2.6}^{+1.8} \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 2.5 \quad (+0.3\sigma)$	$\sigma_8(0.38)$	$0.6618 \pm 0.0068 \quad (-0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.962 \pm 0.010 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4756 \pm 0.0055 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.57_{-0.14}^{+0.42} \quad (-0.1\sigma)$	Y_{P}	$0.241 \pm 0.021 \quad (-53.8\sigma)$	$\sigma_8(0.51)$	$0.6190 \pm 0.0066 \quad (-0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.242 \pm 0.021 \quad (-53.8\sigma)$	$f\sigma_8(0.61)$	$0.4701 \pm 0.0050 \quad (-0.1\sigma)$
A^{kSZ}	—	Age/Gyr	$13.831 \pm 0.053 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5888 \pm 0.0064 \quad (-0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.10 \pm 0.67 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2966 \pm 0.0035 \quad (-0.2\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	r_*	$144.57 \pm 0.39 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3055 \pm 0.0039 \quad (-0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04103 \pm 0.00047 \quad (-0.1\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.887 \pm 0.037 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.1 \pm 2.8 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1059.2 \pm 1.2 \quad (-0.5\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 3.1 \quad (-0.3\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	r_{drag}	$147.31 \pm 0.41 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.50 \pm 0.91 \quad (-0.0\sigma)$
H_0	$66.97 \pm 0.90 \quad (-0.1\sigma)$	k_{D}	$0.14061 \pm 0.00069 \quad (+0.3\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{Λ}	$0.681 \pm 0.011 \quad (-0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16089 \pm 0.00079 \quad (-0.6\sigma)$	χ_{lowl}^2	$23.9 \pm 1.8 \quad (+0.4\sigma)$
Ω_{m}	$0.319 \pm 0.011 \quad (+0.1\sigma)$	z_{eq}	$3403 \pm 36 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.4 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1431 \pm 0.0015 \quad (+0.0\sigma)$	k_{eq}	$0.01039 \pm 0.00011 \quad (+0.0\sigma)$	χ_{prior}^2	$7.5 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09580 \pm 0.00076 \quad (-0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8123 \pm 0.0070 \quad (-0.0\sigma)$	χ_{CMB}^2	$7493.8 \pm 5.6 \quad (+0.2\sigma)$
σ_8	$0.8098 \pm 0.0078 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4491 \pm 0.0036 \quad (-0.0\sigma)$		
S_8	$0.835 \pm 0.017 \quad (+0.0\sigma)$	$H(0.15)$	$72.33 \pm 0.79 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7501.32; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.07; R - 1 = 0.00730$$

20.24 base_yhe_CamSpecHM_TT_lowl_lowE_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02225 \pm 0.00024 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6046 \pm 0.0067 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529 \pm 10 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0011 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9849 \pm 0.0096 \quad (+0.1\sigma)$	$H(0.51)$	$89.70 \pm 0.37 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04112 \pm 0.00073 \quad (+0.2\sigma)$	$r_{\mathrm{drag}}h$	$99.73 \pm 0.89 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 13 \quad (-0.2\sigma)$
τ	$0.0558 \pm 0.0074 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.432 \pm 0.024 \quad (-0.1\sigma)$	$H(0.61)$	$95.31 \pm 0.34 \quad (+0.2\sigma)$
Y_{P}	0.248 ± 0.019	z_{re}	$7.84 \pm 0.74 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 14 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045 \pm 0.016 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.101 \pm 0.033 \quad (+0.1\sigma)$	$H(2.33)$	$235.88 \pm 0.73 \quad (+0.0\sigma)$
n_{s}	$0.9678 \pm 0.0082 \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.014 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 18 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	D_{40}	$1223 \pm 17 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4560 \pm 0.0062 \quad (+0.0\sigma)$
A_{100}^{PS}	$243 \pm 26 \quad (+0.0\sigma)$	D_{220}	$5715 \pm 40 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7485 \pm 0.0072 \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4745 \pm 0.0054 \quad (+0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.1 \pm 5.2 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6636 \pm 0.0066 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41_{-8}^{+7} \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 2.5 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4732 \pm 0.0050 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.7_{-2.7}^{+1.7} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9678 \pm 0.0082 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6211 \pm 0.0062 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.248 \pm 0.019 \quad (+32.5\sigma)$	$f\sigma_8(0.61)$	$0.4683 \pm 0.0047 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.461 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.249 \pm 0.019 \quad (+32.5\sigma)$	$\sigma_8(0.61)$	$0.5910 \pm 0.0060 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.800 \pm 0.042 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2980 \pm 0.0031 \quad (+0.2\sigma)$
A^{kSZ}	—	z_*	$1090.12 \pm 0.66 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3073 \pm 0.0033 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.74 \pm 0.34 \quad (-0.1\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	$100\theta_*$	$1.04124 \pm 0.00042 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.6 \pm 2.7 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.034 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 3.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.7 \pm 1.1 \quad (+0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.42 \pm 0.83 \quad (+0.0\sigma)$
c_{100}	$0.9975_{-0.00098}^{+0.0011} \quad (+0.0\sigma)$	r_{drag}	$147.45 \pm 0.39 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14028 \pm 0.00059 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.0 \pm 1.3 \quad (-0.1\sigma)$
H_0	$67.64 \pm 0.58 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16111 \pm 0.00075 \quad (+0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.1 \pm 5.4 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6895 \pm 0.0070 \quad (+0.1\sigma)$	z_{eq}	$3378 \pm 26 \quad (-0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.057 \pm 0.074 \quad (-0.0\sigma)$
Ω_{m}	$0.3105 \pm 0.0070 \quad (-0.1\sigma)$	k_{eq}	$0.010311 \pm 0.000078 \quad (-0.0\sigma)$	χ_{MGS}^2	$1.33 \pm 0.49 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8175 \pm 0.0047 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.8 \pm 1.6 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09605 \pm 0.00071 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0024 \quad (+0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8100 \pm 0.0078 \quad (+0.2\sigma)$	$H(0.15)$	$72.90 \pm 0.52 \quad (+0.1\sigma)$	χ_{CMB}^2	$7493.7 \pm 5.6 \quad (+0.2\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$641.1 \pm 5.1 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.2 \pm 1.3 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4513 \pm 0.0066 \quad (+0.0\sigma)$	$H(0.38)$	$83.00 \pm 0.42 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7507.45$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.97$; $R - 1 = 0.01905$

20.25 **base_yhe_CamSpecHM_TT_lowl_lowE_post_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02213 \pm 0.00029 \quad (-0.1\sigma)$	S_8	$0.838 \pm 0.025 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4488 \pm 0.0049 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1204 \pm 0.0022 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.459 \pm 0.014 \quad (+0.0\sigma)$	$H(0.15)$	$72.33 \pm 0.98 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04079 \pm 0.00088 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.610 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.9 \pm 9.8 \quad (+0.1\sigma)$
τ	$0.0540^{+0.0047}_{-0.0084} \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.992 \pm 0.016 \quad (+0.0\sigma)$	$H(0.38)$	$82.57 \pm 0.74 \quad (-0.1\sigma)$
Y_{P}	0.243 ± 0.021	$r_{\mathrm{drag}}h$	$98.6 \pm 1.8 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1541 \pm 20 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.013}_{-0.017} \quad (-0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.453 \pm 0.044 \quad (+0.1\sigma)$	$H(0.51)$	$89.36 \pm 0.61 \quad (-0.1\sigma)$
n_{s}	$0.963 \pm 0.011 \quad (-0.1\sigma)$	z_{re}	$7.69^{+0.52}_{-0.86} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1995 \pm 23 \quad (+0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.027}_{-0.036} \quad (-0.0\sigma)$	$H(0.61)$	$95.04 \pm 0.51 \quad (-0.1\sigma)$
A_{100}^{PS}	$242 \pm 26 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.880 \pm 0.015 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2320 \pm 25 \quad (+0.1\sigma)$
A_{143}^{PS}	$40 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1231 \pm 22 \quad (+0.1\sigma)$	$H(2.33)$	$236.6 \pm 1.3 \quad (+0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{220}	$5704 \pm 42 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5777 \pm 25 \quad (+0.1\sigma)$
A_{217}^{CIB}	$41 \pm 8 \quad (-0.0\sigma)$	D_{810}	$2534 \pm 14 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.463 \pm 0.013 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (-0.0\sigma)$	D_{1420}	$814.3 \pm 5.4 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7494 \pm 0.0080 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 2.5 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4793 \pm 0.0099 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.450 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.963 \pm 0.011 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6635^{+0.0062}_{-0.0072} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.243 \pm 0.021 \quad (-22.8\sigma)$	$f\sigma_8(0.51)$	$0.4770 \pm 0.0084 \quad (+0.0\sigma)$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.244 \pm 0.021 \quad (-22.8\sigma)$	$\sigma_8(0.51)$	$0.6205^{+0.0057}_{-0.0068} \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	Age/Gyr	$13.828 \pm 0.058 \quad (+0.1\sigma)$	$f\sigma_8(0.61)$	$0.4714 \pm 0.0074 \quad (+0.0\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	z_*	$1090.20 \pm 0.68 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5902^{+0.0055}_{-0.0065} \quad (-0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	r_*	$144.52 \pm 0.49 \quad (+0.0\sigma)$	$f\sigma_8(2.33)$	$0.2973^{+0.0028}_{-0.0034} \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00050 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3062^{+0.0032}_{-0.0037} \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0010 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.882 \pm 0.046 \quad (+0.0\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	z_{drag}	$1059.3 \pm 1.2 \quad (-0.2\sigma)$	f_{2000}^{217}	$107.4 \pm 2.8 \quad (-0.1\sigma)$
H_0	$67.0 \pm 1.1 \quad (-0.1\sigma)$	r_{drag}	$147.26 \pm 0.50 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.7 \pm 3.1 \quad (-0.1\sigma)$
Ω_{Λ}	$0.680^{+0.015}_{-0.014} \quad (-0.0\sigma)$	k_{D}	$0.14057 \pm 0.00077 \quad (+0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{m}	$0.320 \pm 0.015 \quad (+0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16100 \pm 0.00079 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.8 \pm 2.1 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1432 \pm 0.0021 \quad (+0.0\sigma)$	z_{eq}	$3407 \pm 50 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.8 \pm 5.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09588 \pm 0.00076 \quad (-0.1\sigma)$	k_{eq}	$0.01040 \pm 0.00015 \quad (+0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.4 \quad (-0.0\sigma)$
σ_8	$0.8119 \pm 0.0093 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8119 \pm 0.0095 \quad (-0.0\sigma)$	χ_{CMB}^2	$7484.5 \pm 5.6 \quad (+0.2\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 7492.12$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.86$; $R - 1 = 0.00634$

20.26 base_yhe_CamSpecHM_TT_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02227 \pm 0.00024 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6031 \pm 0.0082 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527 \pm 11 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0012 \quad (+0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.983 \pm 0.012 \quad (+0.1\sigma)$	$H(0.51)$	$89.76 \pm 0.38 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04121 \pm 0.00073 \quad (+0.4\sigma)$	$r_{\mathrm{drag}}h$	$99.93 \pm 0.98 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 13 \quad (-0.2\sigma)$
τ	$0.0553^{+0.0055}_{-0.0080} \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.028 \quad (-0.1\sigma)$	$H(0.61)$	$95.36 \pm 0.35 \quad (+0.3\sigma)$
Y_{P}	0.250 ± 0.019	z_{re}	$7.80^{+0.60}_{-0.82} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 14 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.014}_{-0.017} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.029}_{-0.037} \quad (+0.1\sigma)$	$H(2.33)$	$235.76 \pm 0.82 \quad (+0.1\sigma)$
n_{s}	$0.9692 \pm 0.0082 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.877^{+0.014}_{-0.016} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5762 \pm 18 \quad (-0.3\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	D_{40}	$1219 \pm 17 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4545 \pm 0.0077 \quad (+0.0\sigma)$
A_{100}^{PS}	$244 \pm 26 \quad (+0.1\sigma)$	D_{220}	$5710 \pm 41 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7478^{+0.0074}_{-0.0083} \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.1\sigma)$	D_{810}	$2534 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4733 \pm 0.0066 \quad (+0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$814.6 \pm 5.3 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6631^{+0.0065}_{-0.0072} \quad (+0.2\sigma)$
A_{217}^{CIB}	$41^{+7}_{-8} \quad (+0.1\sigma)$	D_{2000}	$229.5 \pm 2.5 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4722 \pm 0.0061 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.7} \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9692 \pm 0.0082 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6207^{+0.0061}_{-0.0068} \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.250 \pm 0.019 \quad (+56.4\sigma)$	$f\sigma_8(0.61)$	$0.4674 \pm 0.0057 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.464 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.251 \pm 0.019 \quad (+56.4\sigma)$	$\sigma_8(0.61)$	$0.5907^{+0.0058}_{-0.0064} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.795 \pm 0.042 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2979 \pm 0.0031 \quad (+0.2\sigma)$
A^{kSZ}	—	z_*	$1090.16 \pm 0.67 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3073 \pm 0.0033 \quad (+0.3\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	r_*	$144.78 \pm 0.37 \quad (-0.1\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.98 \pm 0.17 \quad (+0.0\sigma)$	$100\theta_*$	$1.04127 \pm 0.00042 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.8 \pm 2.7 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.904 \pm 0.037 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$33.2 \pm 3.0 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.8 \pm 1.1 \quad (+0.6\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (+0.0\sigma)$
c_{100}	$0.9975^{+0.0011}_{-0.00099} \quad (-0.0\sigma)$	r_{drag}	$147.49 \pm 0.42 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.7 \pm 1.3 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14018 \pm 0.00060 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.7 \pm 5.6 \quad (+0.2\sigma)$
H_0	$67.76 \pm 0.62 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16119 \pm 0.00075 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.053 \pm 0.072 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6910 \pm 0.0076 \quad (+0.1\sigma)$	z_{eq}	$3373 \pm 29 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.45 \pm 0.56 \quad (+0.1\sigma)$
Ω_{m}	$0.3090 \pm 0.0076 \quad (-0.1\sigma)$	k_{eq}	$0.010296 \pm 0.000089 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1418 \pm 0.0012 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8184 \pm 0.0053 \quad (+0.0\sigma)$	χ_{prior}^2	$7.7 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09608 \pm 0.00072 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4522 \pm 0.0027 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.1 \pm 1.3 \quad (-0.0\sigma)$
σ_8	$0.8090 \pm 0.0087 \quad (+0.2\sigma)$	$H(0.15)$	$73.01 \pm 0.55 \quad (+0.2\sigma)$	χ_{CMB}^2	$7484.4 \pm 5.5 \quad (+0.2\sigma)$
S_8	$0.821 \pm 0.015 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.1 \pm 5.3 \quad (-0.2\sigma)$		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4497 \pm 0.0082 \quad (+0.0\sigma)$	$H(0.38)$	$83.07 \pm 0.44 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7498.14$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.82$; $R - 1 = 0.01531$

20.27 base_yhe_CamSpecHM_TT_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02213 \pm 0.00028 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4571 \pm 0.0091 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$646.1 \pm 7.5 \quad (+0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1201 \pm 0.0016 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6087 \pm 0.0078 \quad (-0.0\sigma)$	$H(0.38)$	$82.62 \pm 0.59 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04076 \pm 0.00084 \quad (-0.2\sigma)$	$\sigma_8/h^{0.5}$	$0.990 \pm 0.011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1539 \pm 15 \quad (+0.1\sigma)$
τ	$0.0542^{+0.0048}_{-0.0084} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$98.8 \pm 1.4 \quad (-0.0\sigma)$	$H(0.51)$	$89.39 \pm 0.50 \quad (-0.1\sigma)$
Y_{P}	0.242 ± 0.021	$\langle d^2 \rangle^{1/2}$	$2.449 \pm 0.029 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1993 \pm 18 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.013}_{-0.017} \quad (-0.0\sigma)$	z_{re}	$7.69^{+0.53}_{-0.86} \quad (-0.0\sigma)$	$H(0.61)$	$95.06 \pm 0.44 \quad (-0.1\sigma)$
n_{s}	$0.9632 \pm 0.0097 \quad (-0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.094^{+0.026}_{-0.035} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2318 \pm 20 \quad (+0.1\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.014 \quad (-0.1\sigma)$	$H(2.33)$	$236.40 \pm 0.94 \quad (-0.0\sigma)$
A_{100}^{PS}	$241 \pm 26 \quad (-0.1\sigma)$	D_{40}	$1231 \pm 19 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5776 \pm 23 \quad (+0.2\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (-0.1\sigma)$	D_{220}	$5707 \pm 41 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4611 \pm 0.0083 \quad (-0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (+0.0\sigma)$	D_{810}	$2533 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7485 \pm 0.0069 \quad (-0.1\sigma)$
A_{217}^{CIB}	$41^{+7}_{-8} \quad (-0.1\sigma)$	D_{1420}	$814.7 \pm 5.3 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4780 \pm 0.0064 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.6} \quad (+0.0\sigma)$	D_{2000}	$230.0 \pm 2.5 \quad (+0.2\sigma)$	$\sigma_8(0.38)$	$0.6628^{+0.0058}_{-0.0066} \quad (-0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9632 \pm 0.0097 \quad (-0.2\sigma)$	$f\sigma_8(0.51)$	$0.4758 \pm 0.0055 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.444 \quad (-0.0\sigma)$	Y_{P}	$0.242 \pm 0.021 \quad (-42.7\sigma)$	$\sigma_8(0.51)$	$0.6200^{+0.0056}_{-0.0064} \quad (-0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.243 \pm 0.021 \quad (-42.8\sigma)$	$f\sigma_8(0.61)$	$0.4704 \pm 0.0050 \quad (-0.0\sigma)$
A^{kSZ}	—	Age/Gyr	$13.827 \pm 0.052 \quad (+0.2\sigma)$	$\sigma_8(0.61)$	$0.5898^{+0.0054}_{-0.0062} \quad (-0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	z_*	$1090.10 \pm 0.67 \quad (-0.3\sigma)$	$f\sigma_8(2.33)$	$0.2971^{+0.0029}_{-0.0034} \quad (-0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (-0.0\sigma)$	r_*	$144.59 \pm 0.38 \quad (+0.1\sigma)$	$\sigma_8(2.33)$	$0.3061^{+0.0032}_{-0.0037} \quad (-0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04106 \pm 0.00047 \quad (-0.0\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.037 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.2 \pm 2.8 \quad (-0.2\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	z_{drag}	$1059.3 \pm 1.2 \quad (-0.4\sigma)$	$f_{2000}^{143 \times 217}$	$32.5 \pm 3.1 \quad (-0.2\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (-0.0\sigma)$	r_{drag}	$147.33 \pm 0.41 \quad (+0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.48 \pm 0.91 \quad (-0.0\sigma)$
H_0	$67.06 \pm 0.86 \quad (-0.1\sigma)$	k_{D}	$0.14057 \pm 0.00068 \quad (+0.2\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{Λ}	$0.682 \pm 0.011 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16092 \pm 0.00079 \quad (-0.5\sigma)$	χ_{lowl}^2	$23.8 \pm 1.7 \quad (+0.3\sigma)$
Ω_{m}	$0.318 \pm 0.011 \quad (+0.0\sigma)$	z_{eq}	$3400 \pm 35 \quad (-0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7063.4 \pm 5.4 \quad (+0.2\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1429 \pm 0.0015 \quad (-0.0\sigma)$	k_{eq}	$0.01038 \pm 0.00011 \quad (-0.0\sigma)$	χ_{prior}^2	$7.5 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09584 \pm 0.00076 \quad (-0.2\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8130 \pm 0.0068 \quad (-0.0\sigma)$	χ_{CMB}^2	$7493.5 \pm 5.6 \quad (+0.2\sigma)$
σ_8	$0.8107 \pm 0.0074 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4494 \pm 0.0035 \quad (+0.0\sigma)$		
S_8	$0.835 \pm 0.017 \quad (-0.0\sigma)$	$H(0.15)$	$72.41 \pm 0.76 \quad (-0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 7501.05; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.04; R - 1 = 0.00841$$

20.28 base_yhe_CamSpecHM_TT_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226 \pm 0.00024 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6048 \pm 0.0066 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1529 \pm 10 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1191 \pm 0.0011 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.9852 \pm 0.0095 \quad (+0.1\sigma)$	$H(0.51)$	$89.71 \pm 0.37 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04113 \pm 0.00073 \quad (+0.3\sigma)$	$r_{\mathrm{drag}}h$	$99.76 \pm 0.88 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1981 \pm 12 \quad (-0.2\sigma)$
τ	$0.0564^{+0.0059}_{-0.0077} \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.433 \pm 0.023 \quad (-0.1\sigma)$	$H(0.61)$	$95.32 \pm 0.34 \quad (+0.2\sigma)$
Y_{P}	0.248 ± 0.019	z_{re}	$7.91^{+0.63}_{-0.75} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2305 \pm 14 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.014}_{-0.016} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}$	$2.103^{+0.028}_{-0.033} \quad (+0.1\sigma)$	$H(2.33)$	$235.87 \pm 0.73 \quad (+0.0\sigma)$
n_{s}	$0.9680 \pm 0.0082 \quad (+0.3\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878^{+0.013}_{-0.015} \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5764 \pm 18 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0024 \quad (+0.0\sigma)$	D_{40}	$1223 \pm 17 \quad (-0.2\sigma)$	$f\sigma_8(0.15)$	$0.4561 \pm 0.0062 \quad (+0.0\sigma)$
A_{100}^{PS}	$244 \pm 26 \quad (+0.0\sigma)$	D_{220}	$5715 \pm 40 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7489 \pm 0.0070 \quad (+0.2\sigma)$
A_{143}^{PS}	$41 \pm 9 \quad (+0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.1\sigma)$	$f\sigma_8(0.38)$	$0.4747 \pm 0.0053 \quad (+0.1\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.0\sigma)$	D_{1420}	$815.1 \pm 5.2 \quad (-0.0\sigma)$	$\sigma_8(0.38)$	$0.6640 \pm 0.0063 \quad (+0.2\sigma)$
A_{217}^{CIB}	$41^{+7}_{-8} \quad (+0.0\sigma)$	D_{2000}	$229.8 \pm 2.4 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4734 \pm 0.0049 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.7}_{-2.7} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9680 \pm 0.0082 \quad (+0.3\sigma)$	$\sigma_8(0.51)$	$0.6215 \pm 0.0060 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	Y_{P}	$0.248 \pm 0.019 \quad (+35.1\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0046 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.462 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.249 \pm 0.019 \quad (+35.1\sigma)$	$\sigma_8(0.61)$	$0.5914 \pm 0.0057 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Age/Gyr	$13.799 \pm 0.042 \quad (-0.2\sigma)$	$f\sigma_8(2.33)$	$0.2982 \pm 0.0030 \quad (+0.2\sigma)$
A^{kSZ}	—	z_*	$1090.12 \pm 0.66 \quad (+0.3\sigma)$	$\sigma_8(2.33)$	$0.3075 \pm 0.0032 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	r_*	$144.74 \pm 0.34 \quad (-0.1\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	$100\theta_*$	$1.04125 \pm 0.00042 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.6 \pm 2.7 \quad (+0.1\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.901 \pm 0.034 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$33.0 \pm 3.0 \quad (+0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (+0.0\sigma)$	z_{drag}	$1059.7 \pm 1.1 \quad (+0.4\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.38 \pm 0.78 \quad (+0.0\sigma)$
c_{100}	$0.9975^{+0.0011}_{-0.00098} \quad (+0.0\sigma)$	r_{drag}	$147.45 \pm 0.39 \quad (-0.1\sigma)$	χ_{small}^2	$397.2 \pm 1.9 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	k_{D}	$0.14027 \pm 0.00059 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.9 \pm 1.3 \quad (-0.1\sigma)$
H_0	$67.65 \pm 0.58 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16111 \pm 0.00075 \quad (+0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$7064.1 \pm 5.4 \quad (+0.2\sigma)$
Ω_{Λ}	$0.6897 \pm 0.0069 \quad (+0.1\sigma)$	z_{eq}	$3378 \pm 26 \quad (+0.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.055 \pm 0.071 \quad (-0.0\sigma)$
Ω_{m}	$0.3103 \pm 0.0069 \quad (-0.1\sigma)$	k_{eq}	$0.010309 \pm 0.000078 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.34 \pm 0.49 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1420 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8176 \pm 0.0046 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.5 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09606 \pm 0.00071 \quad (+0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4517 \pm 0.0024 \quad (+0.0\sigma)$	χ_{prior}^2	$7.6 \pm 3.5 \quad (+0.0\sigma)$
σ_8	$0.8104 \pm 0.0075 \quad (+0.2\sigma)$	$H(0.15)$	$72.92 \pm 0.52 \quad (+0.2\sigma)$	χ_{CMB}^2	$7493.6 \pm 5.5 \quad (+0.2\sigma)$
S_8	$0.824 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.9 \pm 5.0 \quad (-0.1\sigma)$	χ_{BAO}^2	$6.1 \pm 1.2 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4514 \pm 0.0066 \quad (+0.0\sigma)$	$H(0.38)$	$83.01 \pm 0.42 \quad (+0.2\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 7507.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 1.01$; $R - 1 = 0.01969$

20.29 base_yhe_CamSpecHM_TTTEEE_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022312	0.02230 ± 0.00021 (+0.1 σ)	σ_8	0.8081	0.8081 ± 0.0084 (−0.0 σ)	$100\theta_{\mathrm{s,eq}}$	0.45072	0.4504 ± 0.0031 (+0.0 σ)
$\Omega_{\mathrm{c}}h^2$	0.11944	0.1196 ± 0.0014 (−0.0 σ)	S_8	0.8248	0.826 ± 0.017 (−0.0 σ)	$H(0.15)$	72.79	72.74 ± 0.67 (+0.1 σ)
$100\theta_{\mathrm{MC}}$	1.04093	1.04090 ± 0.00071 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4517	0.4524 ± 0.0091 (−0.0 σ)	$D_{\mathrm{M}}(0.15)$	642.2	642.7 ± 6.6 (−0.1 σ)
τ	0.0532	0.0527 ± 0.0080 (−0.0 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6042	0.6046 ± 0.0085 (−0.0 σ)	$H(0.38)$	82.92	82.89 ± 0.52 (+0.1 σ)
Y_{P}	0.2463	0.246 ± 0.018	$\sigma_8/h^{0.5}$	0.9835	0.984 ± 0.012 (−0.0 σ)	$D_{\mathrm{M}}(0.38)$	1531.3	1532 ± 13 (−0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0389	3.039 ± 0.017 (−0.0 σ)	$r_{\mathrm{drag}}h$	99.43	99.3 ± 1.2 (+0.1 σ)	$H(0.51)$	89.651	89.62 ± 0.44 (+0.1 σ)
n_{s}	0.9671	0.9662 ± 0.0085 (+0.1 σ)	$\langle d^2 \rangle^{1/2}$	2.4297	2.433 ± 0.032 (−0.1 σ)	$D_{\mathrm{M}}(0.51)$	1983.5	1985 ± 16 (−0.1 σ)
y_{cal}	1.00025	1.0004 ± 0.0025 (−0.0 σ)	z_{re}	7.57	7.51 ± 0.82 (−0.0 σ)	$H(0.61)$	95.277	95.26 ± 0.38 (+0.1 σ)
A_{100}^{PS}	232.1	240 ± 26 (+0.0 σ)	$10^9 A_{\mathrm{s}}$	2.0883	2.088 ± 0.036 (−0.0 σ)	$D_{\mathrm{M}}(0.61)$	2307.9	2309 ± 17 (−0.1 σ)
A_{143}^{PS}	41.4	40 ± 9 (+0.0 σ)	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.8777	1.879 ± 0.013 (+0.0 σ)	$H(2.33)$	236.14	236.21 ± 0.84 (−0.0 σ)
A_{217}^{PS}	102.7	102 ± 10 (−0.0 σ)	D_{40}	1223.0	1226 ± 17 (−0.1 σ)	$D_{\mathrm{M}}(2.33)$	5764.8	5766 ± 19 (−0.1 σ)
A_{217}^{CIB}	44.1	40 ± 7 (+0.0 σ)	D_{220}	5714.1	5718 ± 39 (−0.0 σ)	$f\sigma_8(0.15)$	0.4562	0.4568 ± 0.0085 (−0.0 σ)
A_{143}^{tSZ}	6.67	$3.8_{-2.5}^{+1.8}$ (−0.0 σ)	D_{810}	2534.5	2535 ± 14 (−0.0 σ)	$\sigma_8(0.15)$	0.7466	0.7465 ± 0.0077 (−0.0 σ)
$r_{143 \times 217}^{\mathrm{PS}}$	0.625	0.66 ± 0.13 (+0.0 σ)	D_{1420}	815.7	815.5 ± 5.1 (−0.0 σ)	$f\sigma_8(0.38)$	0.4743	0.4747 ± 0.0069 (−0.0 σ)
$r_{143 \times 217}^{\mathrm{CIB}}$	0.797	$0.57_{-0.16}^{+0.41}$ (+0.0 σ)	D_{2000}	230.22	230.1 ± 2.3 (−0.0 σ)	$\sigma_8(0.38)$	0.6617	0.6615 ± 0.0068 (−0.0 σ)
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	0.21	—	$n_{\mathrm{s},0.002}$	0.9671	0.9662 ± 0.0085 (+0.1 σ)	$f\sigma_8(0.51)$	0.4728	0.4730 ± 0.0062 (−0.0 σ)
A^{kSZ}	0.02	$4.8_{-3.9}^{+2.3}$ (+0.0 σ)	Y_{P}	0.2463	0.246 ± 0.018 (+8.5 σ)	$\sigma_8(0.51)$	0.6192	0.6190 ± 0.0064 (−0.0 σ)
A_{100}^{dust}	1.008	1.01 ± 0.20 (+0.0 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2477	0.247 ± 0.018 (+8.5 σ)	$f\sigma_8(0.61)$	0.4677	0.4679 ± 0.0057 (−0.0 σ)
A_{143}^{dust}	0.979	0.96 ± 0.17 (−0.0 σ)	Age/Gyr	13.8009	13.803 ± 0.043 (−0.1 σ)	$\sigma_8(0.61)$	0.5891	0.5889 ± 0.0061 (−0.0 σ)
A_{217}^{dust}	0.973	0.97 ± 0.10 (−0.0 σ)	z_*	1089.98	1090.01 ± 0.58 (+0.1 σ)	$f\sigma_8(2.33)$	0.29701	0.2969 ± 0.0032 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{dust}}$	1.008	1.03 ± 0.16 (−0.0 σ)	r_*	144.616	144.59 ± 0.33 (+0.0 σ)	$\sigma_8(2.33)$	0.30616	0.3060 ± 0.0034 (+0.0 σ)
c_{100}	0.99764	0.9975 ± 0.0011 (−0.0 σ)	$100\theta_*$	1.041090	1.04107 ± 0.00035 (−0.0 σ)	f_{2000}^{143}	30.02	30 ± 4 (+0.0 σ)
c_{217}	1.00130	1.0012 ± 0.0016 (+0.0 σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.8908	13.889 ± 0.031 (+0.0 σ)	f_{2000}^{217}	106.81	107.0 ± 2.6 (+0.0 σ)
c_{TE}	0.9968	0.9969 ± 0.0054 (+0.0 σ)	z_{drag}	1059.78	1059.77 ± 0.96 (+0.1 σ)	$f_{2000}^{143 \times 217}$	32.21	32.3 ± 2.8 (+0.0 σ)
c_{EE}	0.9923	0.9925 ± 0.0066 (+0.1 σ)	r_{drag}	147.302	147.28 ± 0.34 (+0.0 σ)	χ_{simall}^2	395.88	396.9 ± 1.7 (−0.0 σ)
H_0	67.50	67.44 ± 0.77 (+0.1 σ)	k_{D}	0.14056	0.14058 ± 0.00058 (−0.1 σ)	χ_{lowl}^2	22.85	23.2 ± 1.4 (+0.0 σ)
Ω_{Λ}	0.6875	0.6865 ± 0.0097 (+0.0 σ)	$100\theta_{\mathrm{D}}$	0.16090	0.16090 ± 0.00069 (+0.2 σ)	$\chi_{\mathrm{CamSpec}}^2$	11499.8	11515.4 ± 5.8 (+0.1 σ)
Ω_{m}	0.3125	0.3135 ± 0.0097 (−0.0 σ)	z_{eq}	3387.5	3391 ± 32 (−0.0 σ)	χ_{prior}^2	2.19	7.9 ± 3.5 (+0.0 σ)
$\Omega_{\mathrm{m}}h^2$	0.14240	0.1425 ± 0.0013 (−0.0 σ)	k_{eq}	0.010339	0.010348 ± 0.000097 (−0.0 σ)	χ_{CMB}^2	11918.5	11935.5 ± 5.9 (+0.1 σ)
$\Omega_{\mathrm{m}}h^3$	0.09612	0.09612 ± 0.00060 (+0.0 σ)	$100\theta_{\mathrm{eq}}$	0.8158	0.8152 ± 0.0062 (+0.0 σ)			

Best-fit $\chi_{\mathrm{eff}}^2 = 11920.73$; $\Delta\chi_{\mathrm{eff}}^2 = -0.03$; $\bar{\chi}_{\mathrm{eff}}^2 = 11943.34$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.88$; $R - 1 = 0.01242$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ -0.02) commander_dx12_v3.2.29: 22.85 (Δ -0.15) CamSpec like_10.7HM_1400_unified: 11499.82 (Δ 0.17)

20.30 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00019 \quad (+0.2\sigma)$	S_8	$0.819 \pm 0.013 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.7 \pm 4.7 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0010 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4487 \pm 0.0071 \quad (-0.0\sigma)$	$H(0.38)$	$83.12 \pm 0.38 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04112 \pm 0.00064 \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6018 \pm 0.0075 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.2 \pm 9.6 \quad (-0.2\sigma)$
τ	$0.0536 \pm 0.0081 \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.980 \pm 0.011 \quad (+0.0\sigma)$	$H(0.51)$	$89.81 \pm 0.33 \quad (+0.3\sigma)$
Y_{P}	0.250 ± 0.017	$r_{\mathrm{drag}}h$	$99.91 \pm 0.85 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977 \pm 11 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.040 \pm 0.018 \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.421 \pm 0.027 \quad (-0.1\sigma)$	$H(0.61)$	$95.41 \pm 0.30 \quad (+0.3\sigma)$
n_{s}	$0.9691 \pm 0.0073 \quad (+0.4\sigma)$	z_{re}	$7.59 \pm 0.83 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 12 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.091 \pm 0.037 \quad (+0.0\sigma)$	$H(2.33)$	$235.87 \pm 0.66 \quad (+0.0\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.013 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5759 \pm 15 \quad (-0.3\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{40}	$1220 \pm 16 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4534 \pm 0.0068 \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5721 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7462 \pm 0.0078 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4723 \pm 0.0060 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8_{-2.6}^{+1.8} \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6618 \pm 0.0069 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 2.3 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4712 \pm 0.0056 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.440 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9691 \pm 0.0073 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6194 \pm 0.0065 \quad (+0.1\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.250 \pm 0.017 \quad (+77.5\sigma)$	$f\sigma_8(0.61)$	$0.4664 \pm 0.0053 \quad (+0.0\sigma)$
A^{kSZ}	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.251 \pm 0.017 \quad (+77.5\sigma)$	$\sigma_8(0.61)$	$0.5895 \pm 0.0062 \quad (+0.1\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	Age/Gyr	$13.787 \pm 0.036 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2973 \pm 0.0032 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.02 \pm 0.58 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3067 \pm 0.0033 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.69 \pm 0.29 \quad (-0.1\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00032 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.6 \quad (+0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.897 \pm 0.028 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.8 \quad (+0.3\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1060.01 \pm 0.88 \quad (+0.7\sigma)$	χ_{small}^2	$397.0 \pm 1.8 \quad (-0.0\sigma)$
c_{TE}	$0.9975 \pm 0.0053 \quad (+0.1\sigma)$	r_{drag}	$147.36 \pm 0.32 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.7 \pm 1.1 \quad (-0.2\sigma)$
c_{EE}	$0.9936 \pm 0.0063 \quad (+0.2\sigma)$	k_{D}	$0.14039 \pm 0.00051 \quad (-0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.5 \pm 5.7 \quad (+0.2\sigma)$
H_0	$67.80 \pm 0.54 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00067 \quad (+1.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.044 \pm 0.057 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6911 \pm 0.0066 \quad (+0.1\sigma)$	z_{eq}	$3377 \pm 24 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.42 \pm 0.49 \quad (+0.1\sigma)$
Ω_{m}	$0.3089 \pm 0.0066 \quad (-0.1\sigma)$	k_{eq}	$0.010306 \pm 0.000072 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.3 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14194 \pm 0.00099 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8181 \pm 0.0044 \quad (+0.0\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09623 \pm 0.00058 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0023 \quad (+0.0\sigma)$	χ_{BAO}^2	$6.0 \pm 1.0 \quad (-0.0\sigma)$
σ_8	$0.8073 \pm 0.0085 \quad (+0.1\sigma)$	$H(0.15)$	$73.05 \pm 0.48 \quad (+0.2\sigma)$	χ_{CMB}^2	$11935.2 \pm 5.7 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.00; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.71; R - 1 = 0.01838$$

20.31 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02228 \pm 0.00021 \quad (-0.1\sigma)$	σ_8	$0.8089 \pm 0.0072 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4501 \pm 0.0027 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1197 \pm 0.0012 \quad (+0.0\sigma)$	S_8	$0.828 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$72.67 \pm 0.60 \quad (-0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04082 \pm 0.00070 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4536 \pm 0.0072 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.5 \pm 5.9 \quad (+0.1\sigma)$
τ	$0.0536 \pm 0.0075 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6058 \pm 0.0066 \quad (+0.0\sigma)$	$H(0.38)$	$82.83 \pm 0.47 \quad (-0.1\sigma)$
Y_{P}	0.244 ± 0.017	$\sigma_8/h^{0.5}$	$0.9857 \pm 0.0093 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1534 \pm 12 \quad (+0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.041 \pm 0.016 \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.2 \pm 1.1 \quad (-0.0\sigma)$	$H(0.51)$	$89.57 \pm 0.40 \quad (-0.1\sigma)$
n_{s}	$0.9651 \pm 0.0081 \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.439 \pm 0.025 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1987 \pm 14 \quad (+0.1\sigma)$
y_{cal}	$1.0006 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.60 \pm 0.77 \quad (-0.0\sigma)$	$H(0.61)$	$95.21 \pm 0.35 \quad (-0.1\sigma)$
A_{100}^{PS}	$240 \pm 26 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.092 \pm 0.033 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311 \pm 16 \quad (+0.1\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.013 \quad (-0.0\sigma)$	$H(2.33)$	$236.27 \pm 0.73 \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1229 \pm 16 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5768 \pm 18 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5721 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4579 \pm 0.0066 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7472 \pm 0.0067 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$815.9 \pm 5.0 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4756 \pm 0.0053 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.42}_{-0.15} \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 2.2 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6620 \pm 0.0062 \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9651 \pm 0.0081 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4738 \pm 0.0048 \quad (-0.0\sigma)$
A^{kSZ}	$4.7^{+1.9}_{-4.3} \quad (-0.0\sigma)$	Y_{P}	$0.244 \pm 0.017 \quad (-23.1\sigma)$	$\sigma_8(0.51)$	$0.6194 \pm 0.0059 \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.245 \pm 0.018 \quad (-23.1\sigma)$	$f\sigma_8(0.61)$	$0.4686 \pm 0.0044 \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	Age/Gyr	$13.808 \pm 0.041 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5893 \pm 0.0057 \quad (-0.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.57 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2970 \pm 0.0030 \quad (-0.1\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.58 \pm 0.30 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3061 \pm 0.0033 \quad (-0.1\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04104 \pm 0.00034 \quad (-0.1\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.888 \pm 0.029 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 2.6 \quad (-0.0\sigma)$
c_{TE}	$0.9965 \pm 0.0054 \quad (-0.0\sigma)$	z_{drag}	$1059.68 \pm 0.94 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.0 \pm 2.8 \quad (-0.1\sigma)$
c_{EE}	$0.9919 \pm 0.0065 \quad (-0.0\sigma)$	r_{drag}	$147.27 \pm 0.31 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.29 \pm 0.74 \quad (-0.0\sigma)$
H_0	$67.36 \pm 0.69 \quad (-0.1\sigma)$	k_{D}	$0.14066 \pm 0.00056 \quad (+0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6855 \pm 0.0086 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16082 \pm 0.00068 \quad (-0.2\sigma)$	χ_{lowl}^2	$23.4 \pm 1.4 \quad (+0.2\sigma)$
Ω_{m}	$0.3145 \pm 0.0086 \quad (+0.0\sigma)$	z_{eq}	$3393 \pm 28 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.7 \pm 5.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0012 \quad (+0.0\sigma)$	k_{eq}	$0.010356 \pm 0.000084 \quad (+0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09607 \pm 0.00060 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8147 \pm 0.0054 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.3 \pm 5.8 \quad (+0.1\sigma)$
$\bar{\chi}_{\mathrm{eff}}^2 = 11952.12; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.68; R - 1 = 0.01489$					

20.32 **base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02236 \pm 0.00018 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4505 \pm 0.0059 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.7 \pm 9.2 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11908 \pm 0.00095 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6037 \pm 0.0060 \quad (+0.1\sigma)$	$H(0.51)$	$89.76 \pm 0.32 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04105 \pm 0.00064 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9834 \pm 0.0089 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.1\sigma)$
τ	$0.0554 \pm 0.0074 \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.76 \pm 0.79 \quad (+0.1\sigma)$	$H(0.61)$	$95.37 \pm 0.29 \quad (+0.2\sigma)$
Y_{P}	0.248 ± 0.016	$\langle d^2 \rangle^{1/2}$	$2.430 \pm 0.022 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.044 \pm 0.015 \quad (+0.1\sigma)$	z_{re}	$7.78 \pm 0.74 \quad (+0.0\sigma)$	$H(2.33)$	$235.95 \pm 0.61 \quad (+0.1\sigma)$
n_{s}	$0.9681 \pm 0.0072 \quad (+0.3\sigma)$	10^9A_{s}	$2.099 \pm 0.032 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760 \pm 15 \quad (-0.2\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (+0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.013 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4552 \pm 0.0055 \quad (+0.0\sigma)$
A_{100}^{PS}	$241 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1224 \pm 15 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7479 \pm 0.0067 \quad (+0.2\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5725 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4738 \pm 0.0048 \quad (+0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6631 \pm 0.0061 \quad (+0.2\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$816.0 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4726 \pm 0.0045 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.8_{-2.5}^{+1.8} \quad (-0.1\sigma)$	D_{2000}	$230.2 \pm 2.2 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6206 \pm 0.0058 \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9681 \pm 0.0072 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4678 \pm 0.0043 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.433 \quad (+0.1\sigma)$	Y_{P}	$0.248 \pm 0.016 \quad (+50.4\sigma)$	$\sigma_8(0.61)$	$0.5906 \pm 0.0056 \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.250 \pm 0.016 \quad (+50.4\sigma)$	$f\sigma_8(2.33)$	$0.2978 \pm 0.0029 \quad (+0.2\sigma)$
A^{kSZ}	$4.8_{-3.9}^{+2.3} \quad (+0.0\sigma)$	Age/Gyr	$13.791 \pm 0.035 \quad (-0.2\sigma)$	$\sigma_8(2.33)$	$0.3071 \pm 0.0031 \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.99 \pm 0.57 \quad (+0.5\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.67 \pm 0.27 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.1 \pm 2.5 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04115 \pm 0.00032 \quad (+0.0\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.8 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.027 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.33 \pm 0.78 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.94 \pm 0.87 \quad (+0.5\sigma)$	χ_{small}^2	$397.1 \pm 1.8 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	r_{drag}	$147.34 \pm 0.30 \quad (-0.1\sigma)$	χ_{lowl}^2	$22.9 \pm 1.2 \quad (-0.1\sigma)$
c_{TE}	$0.9970 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.14047 \pm 0.00050 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.8 \pm 5.6 \quad (+0.1\sigma)$
c_{EE}	$0.9932 \pm 0.0063 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16096 \pm 0.00066 \quad (+0.6\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.048 \pm 0.059 \quad (+0.0\sigma)$
H_0	$67.71 \pm 0.52 \quad (+0.1\sigma)$	z_{eq}	$3380 \pm 22 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.34 \pm 0.44 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6900 \pm 0.0062 \quad (+0.1\sigma)$	k_{eq}	$0.010316 \pm 0.000067 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.7 \pm 1.3 \quad (+0.0\sigma)$
Ω_{m}	$0.3100 \pm 0.0062 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8174 \pm 0.0041 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14209 \pm 0.00091 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4515 \pm 0.0021 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.2 \pm 5.8 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09620 \pm 0.00057 \quad (+0.3\sigma)$	$H(0.15)$	$72.98 \pm 0.46 \quad (+0.1\sigma)$	χ_{BAO}^2	$6.0 \pm 1.0 \quad (+0.0\sigma)$
σ_8	$0.8091 \pm 0.0072 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.4 \pm 4.4 \quad (-0.1\sigma)$		
S_8	$0.822 \pm 0.011 \quad (+0.0\sigma)$	$H(0.38)$	$83.06 \pm 0.37 \quad (+0.1\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.04; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.63; R - 1 = 0.02077$$

20.33 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02255 \pm 0.00021 \quad (+0.9\sigma)$	σ_8	$0.8068 \pm 0.0087 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4545 \pm 0.0030 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1178 \pm 0.0013 \quad (-0.2\sigma)$	S_8	$0.807 \pm 0.016 \quad (-0.2\sigma)$	$H(0.15)$	$73.71 \pm 0.63 \quad (+0.7\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04164 \pm 0.00067 \quad (+1.8\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4420 \pm 0.0086 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$633.3 \pm 6.0 \quad (-0.7\sigma)$
τ	$0.0555 \pm 0.0084 \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.5972 \pm 0.0084 \quad (-0.0\sigma)$	$H(0.38)$	$83.63 \pm 0.49 \quad (+0.9\sigma)$
Y_{P}	$0.261^{+0.018}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.975 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1513 \pm 12 \quad (-0.7\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.044 \pm 0.018 \quad (+0.2\sigma)$	$r_{\mathrm{drag}} h$	$101.1 \pm 1.1 \quad (+0.5\sigma)$	$H(0.51)$	$90.24 \pm 0.42 \quad (+1.0\sigma)$
n_{s}	$0.9762 \pm 0.0082 \quad (+1.5\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.398 \pm 0.030 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1962 \pm 15 \quad (-0.8\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	z_{re}	$7.78 \pm 0.85 \quad (+0.1\sigma)$	$H(0.61)$	$95.78 \pm 0.36 \quad (+1.1\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.099 \pm 0.037 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.61)$	$2285 \pm 16 \quad (-0.8\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.5\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.879 \pm 0.013 \quad (+0.5\sigma)$	$H(2.33)$	$235.33 \pm 0.79 \quad (-0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{40}	$1208 \pm 17 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5741 \pm 18 \quad (-1.3\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.2\sigma)$	D_{220}	$5727 \pm 37 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4474 \pm 0.0081 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7467 \pm 0.0079 \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4682 \pm 0.0069 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.442 \quad (+0.1\sigma)$	D_{2000}	$229.3 \pm 2.2 \quad (-0.9\sigma)$	$\sigma_8(0.38)$	$0.6632 \pm 0.0070 \quad (+0.5\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9762 \pm 0.0082 \quad (+1.5\sigma)$	$f\sigma_8(0.51)$	$0.4682 \pm 0.0062 \quad (+0.0\sigma)$
A^{kSZ}	$5.2^{+3.7}_{-2.4} \quad (+0.2\sigma)$	Y_{P}	$0.261^{+0.018}_{-0.016} \quad (+265.7\sigma)$	$\sigma_8(0.51)$	$0.6211 \pm 0.0066 \quad (+0.5\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.262^{+0.018}_{-0.016} \quad (+265.6\sigma)$	$f\sigma_8(0.61)$	$0.4641 \pm 0.0058 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.1\sigma)$	Age/Gyr	$13.748 \pm 0.041 \quad (-1.3\sigma)$	$\sigma_8(0.61)$	$0.5913 \pm 0.0063 \quad (+0.6\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.14 \pm 0.57 \quad (+1.7\sigma)$	$f\sigma_8(2.33)$	$0.2986 \pm 0.0032 \quad (+0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.04 \pm 0.16 \quad (+0.0\sigma)$	r_*	$144.82 \pm 0.32 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3084 \pm 0.0035 \quad (+0.7\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	$100\theta_*$	$1.04140 \pm 0.00033 \quad (+0.5\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.8\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.907 \pm 0.031 \quad (-0.3\sigma)$	f_{2000}^{217}	$108.1 \pm 2.6 \quad (+0.8\sigma)$
c_{TE}	$0.9990 \pm 0.0053 \quad (+0.4\sigma)$	z_{drag}	$1060.71 \pm 0.93 \quad (+2.5\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.7 \quad (+0.9\sigma)$
c_{EE}	$0.9964 \pm 0.0064 \quad (+0.8\sigma)$	r_{drag}	$147.44 \pm 0.34 \quad (-0.4\sigma)$	χ_{small}^2	$397.2 \pm 2.0 \quad (+0.0\sigma)$
H_0	$68.54 \pm 0.71 \quad (+0.7\sigma)$	k_{D}	$0.14000^{+0.00051}_{-0.00060} \quad (-1.2\sigma)$	χ_{lowl}^2	$21.8 \pm 1.1 \quad (-0.9\sigma)$
Ω_{Λ}	$0.6999^{+0.0091}_{-0.0082} \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16137^{+0.00071}_{-0.00063} \quad (+3.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11518.2 \pm 6.4 \quad (+0.3\sigma)$
Ω_{m}	$0.3001^{+0.0082}_{-0.0091} \quad (-0.5\sigma)$	z_{eq}	$3353 \pm 30 \quad (-0.1\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$8.9 \pm 2.6 \quad (-0.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1409 \pm 0.0012 \quad (-0.1\sigma)$	k_{eq}	$0.010233 \pm 0.000091 \quad (-0.1\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09660 \pm 0.00059 \quad (+1.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8233 \pm 0.0058 \quad (+0.3\sigma)$	χ_{CMB}^2	$11937.2 \pm 6.2 \quad (+0.2\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11954.03; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.24; R - 1 = 0.04865$$

20.34 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02231 \pm 0.00021 \quad (+0.1\sigma)$	σ_8	$0.8093^{+0.0072}_{-0.0081} \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4505 \pm 0.0031 \quad (+0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1195 \pm 0.0014 \quad (-0.0\sigma)$	S_8	$0.827 \pm 0.016 \quad (-0.0\sigma)$	$H(0.15)$	$72.77 \pm 0.67 \quad (+0.1\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04092 \pm 0.00071 \quad (+0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4529 \pm 0.0090 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$642.5 \pm 6.6 \quad (-0.1\sigma)$
τ	$0.0543^{+0.0047}_{-0.0082} \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6054 \pm 0.0082 \quad (-0.0\sigma)$	$H(0.38)$	$82.91 \pm 0.52 \quad (+0.1\sigma)$
Y_{P}	0.246 ± 0.018	$\sigma_8/h^{0.5}$	$0.985 \pm 0.012 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1532 \pm 13 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.013}_{-0.017} \quad (-0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.4 \pm 1.2 \quad (+0.1\sigma)$	$H(0.51)$	$89.64 \pm 0.43 \quad (+0.1\sigma)$
n_{s}	$0.9666 \pm 0.0084 \quad (+0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.435 \pm 0.031 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1984 \pm 16 \quad (-0.1\sigma)$
y_{cal}	$1.0004 \pm 0.0025 \quad (-0.0\sigma)$	z_{re}	$7.68^{+0.53}_{-0.82} \quad (-0.0\sigma)$	$H(0.61)$	$95.27 \pm 0.38 \quad (+0.1\sigma)$
A_{100}^{PS}	$240 \pm 26 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.094^{+0.026}_{-0.035} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2309 \pm 17 \quad (-0.1\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.013 \quad (+0.0\sigma)$	$H(2.33)$	$236.20 \pm 0.83 \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1225 \pm 17 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5765 \pm 19 \quad (-0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.0\sigma)$	D_{220}	$5717 \pm 39 \quad (-0.0\sigma)$	$f\sigma_8(0.15)$	$0.4573 \pm 0.0083 \quad (-0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7477^{+0.0064}_{-0.0073} \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (+0.0\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (-0.0\sigma)$	$f\sigma_8(0.38)$	$0.4752 \pm 0.0067 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.41}_{-0.16} \quad (+0.0\sigma)$	D_{2000}	$230.1 \pm 2.3 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6626^{+0.0056}_{-0.0065} \quad (+0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9666 \pm 0.0084 \quad (+0.1\sigma)$	$f\sigma_8(0.51)$	$0.4736 \pm 0.0059 \quad (-0.0\sigma)$
A^{kSZ}	$4.8^{+2.4}_{-3.9} \quad (+0.0\sigma)$	Y_{P}	$0.246 \pm 0.018 \quad (+15.2\sigma)$	$\sigma_8(0.51)$	$0.6200^{+0.0052}_{-0.0061} \quad (+0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.248 \pm 0.018 \quad (+15.2\sigma)$	$f\sigma_8(0.61)$	$0.4685 \pm 0.0054 \quad (-0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (-0.0\sigma)$	Age/Gyr	$13.801 \pm 0.043 \quad (-0.1\sigma)$	$\sigma_8(0.61)$	$0.5899^{+0.0050}_{-0.0059} \quad (+0.0\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.01 \pm 0.57 \quad (+0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0026}_{-0.0031} \quad (+0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.59 \pm 0.32 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0028}_{-0.0033} \quad (+0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$100\theta_*$	$1.04108 \pm 0.00035 \quad (+0.0\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.1\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.031 \quad (+0.0\sigma)$	f_{2000}^{217}	$107.0 \pm 2.6 \quad (+0.1\sigma)$
c_{TE}	$0.9968 \pm 0.0054 \quad (+0.0\sigma)$	z_{drag}	$1059.80 \pm 0.95 \quad (+0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.3 \pm 2.8 \quad (+0.1\sigma)$
c_{EE}	$0.9925 \pm 0.0066 \quad (+0.1\sigma)$	r_{drag}	$147.28 \pm 0.34 \quad (-0.0\sigma)$	χ_{small}^2	$396.8 \pm 1.7 \quad (-0.0\sigma)$
H_0	$67.47 \pm 0.76 \quad (+0.1\sigma)$	k_{D}	$0.14057 \pm 0.00058 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.2 \pm 1.4 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6868 \pm 0.0096 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.16091 \pm 0.00068 \quad (+0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.2 \pm 5.8 \quad (+0.1\sigma)$
Ω_{m}	$0.3132 \pm 0.0096 \quad (-0.1\sigma)$	z_{eq}	$3390 \pm 32 \quad (-0.0\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1425 \pm 0.0013 \quad (-0.0\sigma)$	k_{eq}	$0.010346 \pm 0.000096 \quad (-0.0\sigma)$	χ_{CMB}^2	$11935.1 \pm 5.8 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09613 \pm 0.00060 \quad (+0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8154 \pm 0.0061 \quad (+0.0\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.03; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.84; R - 1 = 0.01121$$

20.35 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02237 \pm 0.00019 \quad (+0.2\sigma)$	S_8	$0.820 \pm 0.013 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.6 \pm 4.6 \quad (-0.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1189 \pm 0.0010 \quad (-0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4492 \pm 0.0069 \quad (-0.0\sigma)$	$H(0.38)$	$83.13 \pm 0.38 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04113 \pm 0.00064 \quad (+0.5\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6026 \pm 0.0070 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1526.0 \pm 9.5 \quad (-0.2\sigma)$
τ	$0.0550^{+0.0052}_{-0.0080} \quad (-0.0\sigma)$	$\sigma_8/h^{0.5}$	$0.982 \pm 0.010 \quad (+0.0\sigma)$	$H(0.51)$	$89.82 \pm 0.33 \quad (+0.3\sigma)$
Y_{P}	0.250 ± 0.016	$r_{\mathrm{drag}}h$	$99.93 \pm 0.85 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1977 \pm 11 \quad (-0.2\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.013}_{-0.017} \quad (+0.0\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.424 \pm 0.025 \quad (-0.1\sigma)$	$H(0.61)$	$95.42 \pm 0.30 \quad (+0.3\sigma)$
n_{s}	$0.9693 \pm 0.0073 \quad (+0.5\sigma)$	z_{re}	$7.75^{+0.57}_{-0.81} \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2301 \pm 12 \quad (-0.2\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.097^{+0.027}_{-0.036} \quad (+0.0\sigma)$	$H(2.33)$	$235.87 \pm 0.66 \quad (+0.1\sigma)$
A_{100}^{PS}	$242 \pm 25 \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.878 \pm 0.013 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(2.33)$	$5758 \pm 15 \quad (-0.4\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.2\sigma)$	D_{40}	$1220 \pm 16 \quad (-0.3\sigma)$	$f\sigma_8(0.15)$	$0.4540 \pm 0.0066 \quad (-0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{220}	$5720 \pm 39 \quad (-0.0\sigma)$	$\sigma_8(0.15)$	$0.7473^{+0.0064}_{-0.0076} \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{810}	$2535 \pm 14 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4729 \pm 0.0057 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.0\sigma)$	D_{1420}	$815.5 \pm 5.1 \quad (-0.1\sigma)$	$\sigma_8(0.38)$	$0.6628^{+0.0056}_{-0.0068} \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{2000}	$229.9 \pm 2.3 \quad (-0.3\sigma)$	$f\sigma_8(0.51)$	$0.4718 \pm 0.0052 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.436 \quad (+0.1\sigma)$	$n_{\mathrm{s},0.002}$	$0.9693 \pm 0.0073 \quad (+0.5\sigma)$	$\sigma_8(0.51)$	$0.6204^{+0.0053}_{-0.0063} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	$0.250 \pm 0.016 \quad (+81.3\sigma)$	$f\sigma_8(0.61)$	$0.4671 \pm 0.0049 \quad (+0.1\sigma)$
A^{kSZ}	$4.9^{+2.8}_{-3.5} \quad (+0.1\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.251 \pm 0.017 \quad (+81.3\sigma)$	$\sigma_8(0.61)$	$0.5904^{+0.0050}_{-0.0061} \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	Age/Gyr	$13.786 \pm 0.036 \quad (-0.4\sigma)$	$f\sigma_8(2.33)$	$0.2978^{+0.0026}_{-0.0031} \quad (+0.2\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.0\sigma)$	z_*	$1090.02 \pm 0.57 \quad (+0.7\sigma)$	$\sigma_8(2.33)$	$0.3071^{+0.0027}_{-0.0033} \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	r_*	$144.69 \pm 0.29 \quad (-0.1\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.3\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.03 \pm 0.16 \quad (-0.0\sigma)$	$100\theta_*$	$1.04118 \pm 0.00032 \quad (+0.1\sigma)$	f_{2000}^{217}	$107.3 \pm 2.5 \quad (+0.3\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.897 \pm 0.028 \quad (-0.2\sigma)$	$f_{2000}^{143 \times 217}$	$32.6 \pm 2.8 \quad (+0.3\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.0\sigma)$	z_{drag}	$1060.03 \pm 0.87 \quad (+0.7\sigma)$	χ_{small}^2	$396.9 \pm 1.8 \quad (-0.0\sigma)$
c_{TE}	$0.9974 \pm 0.0053 \quad (+0.1\sigma)$	r_{drag}	$147.36 \pm 0.31 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.7 \pm 1.1 \quad (-0.2\sigma)$
c_{EE}	$0.9936 \pm 0.0063 \quad (+0.3\sigma)$	k_{D}	$0.14039 \pm 0.00051 \quad (-0.4\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11515.3 \pm 5.7 \quad (+0.2\sigma)$
H_0	$67.81 \pm 0.54 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16103 \pm 0.00066 \quad (+1.0\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.043 \pm 0.056 \quad (-0.0\sigma)$
Ω_{Λ}	$0.6912 \pm 0.0066 \quad (+0.1\sigma)$	z_{eq}	$3376 \pm 24 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.43 \pm 0.49 \quad (+0.1\sigma)$
Ω_{m}	$0.3088 \pm 0.0066 \quad (-0.1\sigma)$	k_{eq}	$0.010305 \pm 0.000072 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.3 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14193 \pm 0.00099 \quad (+0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8181 \pm 0.0044 \quad (+0.0\sigma)$	χ_{prior}^2	$7.9 \pm 3.4 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09624 \pm 0.00058 \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4519 \pm 0.0023 \quad (+0.0\sigma)$	χ_{BAO}^2	$5.95 \pm 0.98 \quad (-0.0\sigma)$
σ_8	$0.8084^{+0.0071}_{-0.0083} \quad (+0.1\sigma)$	$H(0.15)$	$73.06 \pm 0.48 \quad (+0.2\sigma)$	χ_{CMB}^2	$11934.9 \pm 5.7 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11948.72; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.73; R - 1 = 0.01724$$

20.36 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02229 \pm 0.00020 \quad (-0.0\sigma)$	σ_8	$0.8097 \pm 0.0067 \quad (-0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4503 \pm 0.0027 \quad (-0.0\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1196 \pm 0.0012 \quad (+0.0\sigma)$	S_8	$0.828 \pm 0.013 \quad (+0.0\sigma)$	$H(0.15)$	$72.70 \pm 0.59 \quad (-0.0\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04084 \pm 0.00069 \quad (-0.1\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4537 \pm 0.0071 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643.1 \pm 5.8 \quad (+0.0\sigma)$
τ	$0.0547^{+0.0050}_{-0.0078} \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6061 \pm 0.0065 \quad (+0.0\sigma)$	$H(0.38)$	$82.86 \pm 0.46 \quad (-0.0\sigma)$
Y_{P}	0.244 ± 0.017	$\sigma_8/h^{0.5}$	$0.9863 \pm 0.0091 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533 \pm 12 \quad (+0.0\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.3 \pm 1.1 \quad (-0.0\sigma)$	$H(0.51)$	$89.60 \pm 0.40 \quad (-0.0\sigma)$
n_{s}	$0.9655^{+0.0075}_{-0.0083} \quad (-0.1\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.440 \pm 0.024 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986 \pm 14 \quad (+0.0\sigma)$
y_{cal}	$1.0005 \pm 0.0025 \quad (+0.0\sigma)$	z_{re}	$7.72^{+0.55}_{-0.79} \quad (+0.0\sigma)$	$H(0.61)$	$95.23 \pm 0.35 \quad (-0.1\sigma)$
A_{100}^{PS}	$240 \pm 26 \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.096^{+0.025}_{-0.033} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2310 \pm 15 \quad (+0.0\sigma)$
A_{143}^{PS}	$39 \pm 9 \quad (-0.0\sigma)$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.013 \quad (-0.0\sigma)$	$H(2.33)$	$236.23 \pm 0.72 \quad (+0.0\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{40}	$1228 \pm 16 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5767 \pm 18 \quad (+0.1\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (-0.0\sigma)$	D_{220}	$5721 \pm 39 \quad (+0.0\sigma)$	$f\sigma_8(0.15)$	$0.4580 \pm 0.0066 \quad (+0.0\sigma)$
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.5} \quad (-0.0\sigma)$	D_{810}	$2535 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.15)$	$0.7479^{+0.0059}_{-0.0066} \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	D_{1420}	$815.8 \pm 5.0 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4758 \pm 0.0053 \quad (+0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.43}_{-0.14} \quad (+0.0\sigma)$	D_{2000}	$230.4 \pm 2.2 \quad (+0.1\sigma)$	$\sigma_8(0.38)$	$0.6627^{+0.0053}_{-0.0061} \quad (-0.0\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9655^{+0.0075}_{-0.0083} \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4741 \pm 0.0047 \quad (+0.0\sigma)$
A^{kSZ}	$4.7^{+1.9}_{-4.3} \quad (-0.0\sigma)$	Y_{P}	$0.244 \pm 0.017 \quad (-15.6\sigma)$	$\sigma_8(0.51)$	$0.6201^{+0.0051}_{-0.0059} \quad (-0.0\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.246 \pm 0.017 \quad (-15.7\sigma)$	$f\sigma_8(0.61)$	$0.4689 \pm 0.0043 \quad (+0.0\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	Age/Gyr	$13.806 \pm 0.041 \quad (+0.1\sigma)$	$\sigma_8(0.61)$	$0.5900^{+0.0049}_{-0.0057} \quad (-0.0\sigma)$
A_{217}^{dust}	$0.98 \pm 0.10 \quad (+0.0\sigma)$	z_*	$1089.96 \pm 0.57 \quad (-0.1\sigma)$	$f\sigma_8(2.33)$	$0.2974^{+0.0026}_{-0.0030} \quad (-0.0\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	r_*	$144.59 \pm 0.29 \quad (+0.0\sigma)$	$\sigma_8(2.33)$	$0.3065^{+0.0028}_{-0.0033} \quad (-0.0\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (+0.0\sigma)$	$100\theta_*$	$1.04105 \pm 0.00034 \quad (-0.0\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (-0.0\sigma)$
c_{217}	$1.0011 \pm 0.0016 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.889 \pm 0.028 \quad (+0.0\sigma)$	f_{2000}^{217}	$106.8 \pm 2.6 \quad (-0.0\sigma)$
c_{TE}	$0.9964 \pm 0.0054 \quad (-0.0\sigma)$	z_{drag}	$1059.71 \pm 0.93 \quad (-0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.1 \pm 2.8 \quad (-0.0\sigma)$
c_{EE}	$0.9920 \pm 0.0065 \quad (-0.0\sigma)$	r_{drag}	$147.28 \pm 0.31 \quad (+0.0\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.26 \pm 0.69 \quad (-0.0\sigma)$
H_0	$67.40 \pm 0.67 \quad (-0.0\sigma)$	k_{D}	$0.14064 \pm 0.00055 \quad (+0.1\sigma)$	χ_{small}^2	$396.9 \pm 1.7 \quad (+0.0\sigma)$
Ω_{Λ}	$0.6860 \pm 0.0084 \quad (-0.0\sigma)$	$100\theta_{\mathrm{D}}$	$0.16084 \pm 0.00068 \quad (-0.1\sigma)$	χ_{lowl}^2	$23.4 \pm 1.4 \quad (+0.2\sigma)$
Ω_{m}	$0.3140 \pm 0.0084 \quad (+0.0\sigma)$	z_{eq}	$3392 \pm 27 \quad (+0.0\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.6 \pm 5.6 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1426 \pm 0.0011 \quad (+0.0\sigma)$	k_{eq}	$0.010351 \pm 0.000083 \quad (+0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.4 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09608 \pm 0.00059 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8150 \pm 0.0053 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.1 \pm 5.8 \quad (+0.1\sigma)$

$$\bar{\chi}_{\mathrm{eff}}^2 = 11951.89; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.64; R - 1 = 0.01571$$

20.37 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02236 \pm 0.00018 \quad (+0.2\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4506 \pm 0.0058 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527.5 \pm 9.1 \quad (-0.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.11906 \pm 0.00094 \quad (+0.0\sigma)$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.6040 \pm 0.0059 \quad (+0.1\sigma)$	$H(0.51)$	$89.77 \pm 0.32 \quad (+0.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04105 \pm 0.00064 \quad (+0.3\sigma)$	$\sigma_8/h^{0.5}$	$0.9838 \pm 0.0086 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 11 \quad (-0.1\sigma)$
τ	$0.0561^{+0.0056}_{-0.0076} \quad (+0.0\sigma)$	$r_{\mathrm{drag}}h$	$99.79^{+0.74}_{-0.83} \quad (+0.1\sigma)$	$H(0.61)$	$95.38 \pm 0.29 \quad (+0.2\sigma)$
Y_{P}	0.248 ± 0.016	$\langle d^2 \rangle^{1/2}$	$2.431 \pm 0.022 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(0.61)$	$2303 \pm 12 \quad (-0.1\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.013}_{-0.016} \quad (+0.1\sigma)$	z_{re}	$7.85^{+0.61}_{-0.74} \quad (+0.0\sigma)$	$H(2.33)$	$235.94 \pm 0.61 \quad (+0.1\sigma)$
n_{s}	$0.9682 \pm 0.0072 \quad (+0.3\sigma)$	10^9A_{s}	$2.102^{+0.027}_{-0.033} \quad (+0.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5760 \pm 15 \quad (-0.3\sigma)$
y_{cal}	$1.0007 \pm 0.0025 \quad (-0.0\sigma)$	$10^9A_{\mathrm{s}}e^{-2\tau}$	$1.879 \pm 0.013 \quad (+0.2\sigma)$	$f\sigma_8(0.15)$	$0.4553 \pm 0.0055 \quad (+0.0\sigma)$
A_{100}^{PS}	$241 \pm 26 \quad (+0.1\sigma)$	D_{40}	$1224 \pm 15 \quad (-0.1\sigma)$	$\sigma_8(0.15)$	$0.7483 \pm 0.0064 \quad (+0.2\sigma)$
A_{143}^{PS}	$40 \pm 9 \quad (+0.1\sigma)$	D_{220}	$5725 \pm 38 \quad (+0.0\sigma)$	$f\sigma_8(0.38)$	$0.4740 \pm 0.0048 \quad (+0.1\sigma)$
A_{217}^{PS}	$102 \pm 10 \quad (-0.0\sigma)$	D_{810}	$2536 \pm 13 \quad (+0.0\sigma)$	$\sigma_8(0.38)$	$0.6635^{+0.0054}_{-0.0062} \quad (+0.2\sigma)$
A_{217}^{CIB}	$40 \pm 7 \quad (+0.1\sigma)$	D_{1420}	$815.9 \pm 5.0 \quad (-0.1\sigma)$	$f\sigma_8(0.51)$	$0.4728 \pm 0.0044 \quad (+0.1\sigma)$
A_{143}^{tSZ}	$3.8^{+1.8}_{-2.5} \quad (-0.1\sigma)$	D_{2000}	$230.2 \pm 2.2 \quad (-0.2\sigma)$	$\sigma_8(0.51)$	$0.6210^{+0.0051}_{-0.0059} \quad (+0.2\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.66 \pm 0.13 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.9682 \pm 0.0072 \quad (+0.3\sigma)$	$f\sigma_8(0.61)$	$0.4680 \pm 0.0042 \quad (+0.1\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.433 \quad (+0.1\sigma)$	Y_{P}	$0.248 \pm 0.016 \quad (+52.5\sigma)$	$\sigma_8(0.61)$	$0.5909^{+0.0049}_{-0.0056} \quad (+0.2\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.250 \pm 0.016 \quad (+52.4\sigma)$	$f\sigma_8(2.33)$	$0.2980^{+0.0026}_{-0.0029} \quad (+0.2\sigma)$
A^{kSZ}	$4.8^{+2.3}_{-3.9} \quad (+0.0\sigma)$	Age/Gyr	$13.790 \pm 0.035 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3073^{+0.0027}_{-0.0031} \quad (+0.2\sigma)$
A_{100}^{dust}	$1.01 \pm 0.20 \quad (+0.0\sigma)$	z_*	$1089.98 \pm 0.57 \quad (+0.5\sigma)$	f_{2000}^{143}	$30 \pm 4 \quad (+0.2\sigma)$
A_{143}^{dust}	$0.96 \pm 0.17 \quad (+0.0\sigma)$	r_*	$144.67 \pm 0.27 \quad (-0.1\sigma)$	f_{2000}^{217}	$107.1 \pm 2.5 \quad (+0.2\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (+0.0\sigma)$	$100\theta_*$	$1.04116 \pm 0.00031 \quad (+0.1\sigma)$	$f_{2000}^{143 \times 217}$	$32.4 \pm 2.8 \quad (+0.2\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.02 \pm 0.16 \quad (-0.0\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.895 \pm 0.027 \quad (-0.1\sigma)$	$\chi_{\mathrm{lensing}}^2$	$9.28 \pm 0.71 \quad (+0.0\sigma)$
c_{100}	$0.9976 \pm 0.0011 \quad (-0.0\sigma)$	z_{drag}	$1059.95 \pm 0.86 \quad (+0.5\sigma)$	χ_{simall}^2	$397.1 \pm 1.9 \quad (+0.0\sigma)$
c_{217}	$1.0012 \pm 0.0016 \quad (+0.1\sigma)$	r_{drag}	$147.34 \pm 0.30 \quad (-0.2\sigma)$	χ_{lowl}^2	$22.9 \pm 1.2 \quad (-0.1\sigma)$
c_{TE}	$0.9970 \pm 0.0053 \quad (+0.1\sigma)$	k_{D}	$0.14046 \pm 0.00050 \quad (-0.2\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11514.8 \pm 5.6 \quad (+0.1\sigma)$
c_{EE}	$0.9932 \pm 0.0063 \quad (+0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.16096 \pm 0.00066 \quad (+0.7\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.046 \pm 0.057 \quad (+0.0\sigma)$
H_0	$67.72^{+0.48}_{-0.53} \quad (+0.1\sigma)$	z_{eq}	$3379 \pm 22 \quad (+0.0\sigma)$	χ_{MGS}^2	$1.35 \pm 0.44 \quad (+0.1\sigma)$
Ω_{Λ}	$0.6902 \pm 0.0061 \quad (+0.1\sigma)$	k_{eq}	$0.010314 \pm 0.000066 \quad (+0.0\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.6 \pm 1.3 \quad (-0.0\sigma)$
Ω_{m}	$0.3098 \pm 0.0061 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8175 \pm 0.0040 \quad (-0.0\sigma)$	χ_{prior}^2	$7.8 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.14206 \pm 0.00091 \quad (+0.0\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4516 \pm 0.0021 \quad (-0.0\sigma)$	χ_{CMB}^2	$11944.0 \pm 5.7 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.09621 \pm 0.00057 \quad (+0.3\sigma)$	$H(0.15)$	$72.99^{+0.43}_{-0.47} \quad (+0.1\sigma)$	χ_{BAO}^2	$6.00 \pm 0.98 \quad (+0.0\sigma)$
σ_8	$0.8096 \pm 0.0069 \quad (+0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$640.3 \pm 4.4 \quad (-0.1\sigma)$		
S_8	$0.823 \pm 0.011 \quad (+0.0\sigma)$	$H(0.38)$	$83.07 \pm 0.37 \quad (+0.2\sigma)$		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11957.86; \Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.60; R - 1 = 0.02091$$

20.38 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_post_Riess18_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02256 \pm 0.00021 \quad (+0.9\sigma)$	σ_8	$0.8077^{+0.0077}_{-0.0086} \quad (+0.4\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4546 \pm 0.0030 \quad (+0.2\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1177 \pm 0.0013 \quad (-0.2\sigma)$	S_8	$0.808 \pm 0.016 \quad (-0.2\sigma)$	$H(0.15)$	$73.73 \pm 0.62 \quad (+0.8\sigma)$
$100\theta_{\mathrm{MC}}$	$1.04165 \pm 0.00067 \quad (+1.9\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.4423 \pm 0.0085 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.15)$	$633.2 \pm 6.0 \quad (-0.7\sigma)$
τ	$0.0567^{+0.0060}_{-0.0084} \quad (+0.0\sigma)$	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.5977 \pm 0.0081 \quad (-0.0\sigma)$	$H(0.38)$	$83.65 \pm 0.49 \quad (+0.9\sigma)$
Y_{P}	$0.261^{+0.018}_{-0.016}$	$\sigma_8/h^{0.5}$	$0.975 \pm 0.012 \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1513 \pm 12 \quad (-0.8\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.046^{+0.014}_{-0.017} \quad (+0.3\sigma)$	$r_{\mathrm{drag}} h$	$101.1 \pm 1.1 \quad (+0.5\sigma)$	$H(0.51)$	$90.25 \pm 0.41 \quad (+1.0\sigma)$
n_{s}	$0.9764 \pm 0.0082 \quad (+1.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.400 \pm 0.030 \quad (-0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1962 \pm 15 \quad (-0.8\sigma)$
y_{cal}	$1.0006 \pm 0.0024 \quad (-0.0\sigma)$	z_{re}	$7.90^{+0.64}_{-0.84} \quad (+0.1\sigma)$	$H(0.61)$	$95.79 \pm 0.36 \quad (+1.1\sigma)$
A_{100}^{PS}	$244 \pm 25 \quad (+0.2\sigma)$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.030}_{-0.037} \quad (+0.3\sigma)$	$D_{\mathrm{M}}(0.61)$	$2284 \pm 16 \quad (-0.8\sigma)$
A_{143}^{PS}	$42 \pm 9 \quad (+0.4\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878 \pm 0.013 \quad (+0.5\sigma)$	$H(2.33)$	$235.32 \pm 0.79 \quad (-0.0\sigma)$
A_{217}^{PS}	$101 \pm 10 \quad (-0.1\sigma)$	D_{40}	$1208 \pm 16 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(2.33)$	$5741 \pm 18 \quad (-1.3\sigma)$
A_{217}^{CIB}	$41 \pm 7 \quad (+0.2\sigma)$	D_{220}	$5727 \pm 37 \quad (-0.1\sigma)$	$f\sigma_8(0.15)$	$0.4478 \pm 0.0080 \quad (-0.2\sigma)$
A_{143}^{tSZ}	$3.7^{+1.7}_{-2.6} \quad (-0.1\sigma)$	D_{810}	$2537 \pm 13 \quad (+0.1\sigma)$	$\sigma_8(0.15)$	$0.7475^{+0.0069}_{-0.0079} \quad (+0.4\sigma)$
$r_{143 \times 217}^{\mathrm{PS}}$	$0.65 \pm 0.12 \quad (-0.1\sigma)$	D_{1420}	$815.4 \pm 5.1 \quad (-0.3\sigma)$	$f\sigma_8(0.38)$	$0.4686 \pm 0.0067 \quad (-0.0\sigma)$
$r_{143 \times 217}^{\mathrm{CIB}}$	$> 0.442 \quad (+0.1\sigma)$	D_{2000}	$229.3 \pm 2.2 \quad (-0.9\sigma)$	$\sigma_8(0.38)$	$0.6639^{+0.0060}_{-0.0070} \quad (+0.6\sigma)$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	$0.9764 \pm 0.0082 \quad (+1.6\sigma)$	$f\sigma_8(0.51)$	$0.4686 \pm 0.0060 \quad (+0.0\sigma)$
A^{kSZ}	$5.3^{+3.8}_{-2.4} \quad (+0.3\sigma)$	Y_{P}	$0.261^{+0.018}_{-0.016} \quad (+271.0\sigma)$	$\sigma_8(0.51)$	$0.6218^{+0.0056}_{-0.0066} \quad (+0.6\sigma)$
A_{100}^{dust}	$1.01 \pm 0.19 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.262^{+0.018}_{-0.016} \quad (+270.9\sigma)$	$f\sigma_8(0.61)$	$0.4646 \pm 0.0055 \quad (+0.1\sigma)$
A_{143}^{dust}	$0.97 \pm 0.17 \quad (+0.1\sigma)$	Age/Gyr	$13.747 \pm 0.041 \quad (-1.4\sigma)$	$\sigma_8(0.61)$	$0.5920^{+0.0054}_{-0.0063} \quad (+0.6\sigma)$
A_{217}^{dust}	$0.97 \pm 0.10 \quad (-0.0\sigma)$	z_*	$1090.14 \pm 0.57 \quad (+1.8\sigma)$	$f\sigma_8(2.33)$	$0.2990^{+0.0028}_{-0.0033} \quad (+0.7\sigma)$
$A_{143 \times 217}^{\mathrm{dust}}$	$1.04 \pm 0.16 \quad (+0.1\sigma)$	r_*	$144.82 \pm 0.32 \quad (-0.3\sigma)$	$\sigma_8(2.33)$	$0.3088^{+0.0030}_{-0.0035} \quad (+0.8\sigma)$
c_{100}	$0.9975 \pm 0.0011 \quad (-0.1\sigma)$	$100\theta_*$	$1.04140 \pm 0.00033 \quad (+0.5\sigma)$	f_{2000}^{143}	$31 \pm 4 \quad (+0.8\sigma)$
c_{217}	$1.0013 \pm 0.0016 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.907 \pm 0.031 \quad (-0.3\sigma)$	f_{2000}^{217}	$108.1 \pm 2.6 \quad (+0.8\sigma)$
c_{TE}	$0.9990 \pm 0.0053 \quad (+0.4\sigma)$	z_{drag}	$1060.73 \pm 0.93 \quad (+2.6\sigma)$	$f_{2000}^{143 \times 217}$	$33.5 \pm 2.7 \quad (+0.9\sigma)$
c_{EE}	$0.9964 \pm 0.0064 \quad (+0.8\sigma)$	r_{drag}	$147.44 \pm 0.34 \quad (-0.4\sigma)$	χ_{small}^2	$397.1 \pm 2.0 \quad (+0.0\sigma)$
H_0	$68.56 \pm 0.71 \quad (+0.7\sigma)$	k_{D}	$0.13999^{+0.00051}_{-0.00060} \quad (-1.2\sigma)$	χ_{lowl}^2	$21.8 \pm 1.1 \quad (-0.9\sigma)$
Ω_{Λ}	$0.7001^{+0.0091}_{-0.0081} \quad (+0.5\sigma)$	$100\theta_{\mathrm{D}}$	$0.16138^{+0.00071}_{-0.00063} \quad (+3.3\sigma)$	$\chi_{\mathrm{CamSpec}}^2$	$11518.1 \pm 6.4 \quad (+0.3\sigma)$
Ω_{m}	$0.2999^{+0.0081}_{-0.0091} \quad (-0.5\sigma)$	z_{eq}	$3352 \pm 30 \quad (-0.1\sigma)$	$\chi_{\mathrm{H073p45}}^2$	$8.9 \pm 2.5 \quad (-0.6\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1409 \pm 0.0012 \quad (-0.1\sigma)$	k_{eq}	$0.010232 \pm 0.000090 \quad (-0.1\sigma)$	χ_{prior}^2	$7.9 \pm 3.5 \quad (+0.0\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.09662 \pm 0.00059 \quad (+1.5\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8235 \pm 0.0058 \quad (+0.3\sigma)$	χ_{CMB}^2	$11937.0 \pm 6.1 \quad (+0.2\sigma)$
$\bar{\chi}_{\mathrm{eff}}^2 = 11953.75; \Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.26; R - 1 = 0.05858$					

20.39 base_yhe_plikHM_TE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022177	$0.02222^{+0.00033}_{-0.00038} \quad (-1.0\sigma)$	$r_{\text{drag}} h$	99.37	$99.6^{+2.0}_{-2.3} \quad (-0.9\sigma)$	$H(0.15)$	72.47	$72.6^{+1.1}_{-1.4} \quad (-1.3\sigma)$
$\Omega_c h^2$	0.11849	$0.1184 \pm 0.0021 \quad (+0.4\sigma)$	$\langle d^2 \rangle^{1/2}$	2.434	$2.426^{+0.064}_{-0.057} \quad (+1.0\sigma)$	$D_M(0.15)$	645.1	$644^{+13}_{-11} \quad (+1.3\sigma)$
$100\theta_{\text{MC}}$	1.03933	$1.0396^{+0.0014}_{-0.0022} \quad (-3.7\sigma)$	z_{re}	7.00	$6.89^{+0.88}_{-0.75} \quad (-0.2\sigma)$	$H(0.38)$	82.57	$82.70^{+0.85}_{-1.1} \quad (-1.5\sigma)$
τ	0.0498	$0.0488 \pm 0.0083 \quad (-0.1\sigma)$	$10^9 A_s$	2.0448	$2.042 \pm 0.040 \quad (-0.1\sigma)$	$D_M(0.38)$	1538.1	$1535^{+27}_{-23} \quad (+1.3\sigma)$
Y_P	0.186	$0.191^{+0.045}_{-0.063}$	$10^9 A_s e^{-2\tau}$	1.8509	$1.852 \pm 0.018 \quad (+0.0\sigma)$	$H(0.51)$	89.27	$89.39^{+0.72}_{-1.0} \quad (-1.6\sigma)$
$\ln(10^{10} A_s)$	3.0179	$3.016 \pm 0.020 \quad (-0.1\sigma)$	D_{40}	1251.4	$1247^{+46}_{-41} \quad (+1.3\sigma)$	$D_M(0.51)$	1992.2	$1989^{+33}_{-27} \quad (+1.4\sigma)$
n_s	0.9500	$0.952^{+0.017}_{-0.020} \quad (-1.3\sigma)$	D_{220}	5746	$5741 \pm 73 \quad (+0.9\sigma)$	$H(0.61)$	94.88	$94.99^{+0.62}_{-0.90} \quad (-1.8\sigma)$
A_{100}^{dustTE}	0.1142	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{810}	2531.9	$2530^{+34}_{-30} \quad (+0.9\sigma)$	$D_M(0.61)$	2318.1	$2314^{+36}_{-30} \quad (+1.4\sigma)$
$A_{100 \times 143}^{\text{dustTE}}$	0.1365	$0.135 \pm 0.030 \quad (-0.0\sigma)$	D_{1420}	826.4	$825^{+22}_{-18} \quad (+1.5\sigma)$	$H(2.33)$	235.22	$235.2 \pm 1.2 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\text{dustTE}}$	0.477	$0.479 \pm 0.084 \quad (+0.0\sigma)$	D_{2000}	237.6	$237^{+11}_{-8.5} \quad (+2.1\sigma)$	$D_M(2.33)$	5788.9	$5783^{+46}_{-33} \quad (+2.2\sigma)$
A_{143}^{dustTE}	0.223	$0.222 \pm 0.054 \quad (+0.0\sigma)$	$n_{s,0.002}$	0.9500	$0.952^{+0.017}_{-0.020} \quad (-1.3\sigma)$	$f\sigma_8(0.15)$	0.4465	$0.445 \pm 0.013 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\text{dustTE}}$	0.658	$0.657 \pm 0.080 \quad (-0.0\sigma)$	Y_P	0.186	$0.191^{+0.045}_{-0.061} \quad (-537.8\sigma)$	$\sigma_8(0.15)$	0.7302	$0.730 \pm 0.010 \quad (-0.4\sigma)$
A_{217}^{dustTE}	2.046	$2.04 \pm 0.27 \quad (+0.0\sigma)$	Y_P^{BBN}	0.187	$0.192^{+0.046}_{-0.062} \quad (-538.2\sigma)$	$f\sigma_8(0.38)$	0.4641	$0.463 \pm 0.010 \quad (+0.3\sigma)$
c_{100}	1.00016	$1.00016 \pm 0.00070 \quad (-0.0\sigma)$	Age/Gyr	13.858	$13.85^{+0.11}_{-0.076} \quad (+2.2\sigma)$	$\sigma_8(0.38)$	0.6471	$0.6471 \pm 0.0090 \quad (-0.6\sigma)$
c_{217}	0.99798	$0.99800 \pm 0.00065 \quad (+0.0\sigma)$	z_*	1087.79	$1088.0^{+1.2}_{-1.9} \quad (-3.7\sigma)$	$f\sigma_8(0.51)$	0.4625	$0.4618 \pm 0.0090 \quad (+0.2\sigma)$
y_{cal}	0.99999	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	r_*	145.17	$145.14 \pm 0.50 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	0.6055	$0.6056 \pm 0.0085 \quad (-0.7\sigma)$
H_0	67.19	$67.4^{+1.3}_{-1.5} \quad (-1.2\sigma)$	$100\theta_*$	1.04097	$1.04103^{+0.00066}_{-0.00078} \quad (-1.1\sigma)$	$f\sigma_8(0.61)$	0.4576	$0.4570 \pm 0.0081 \quad (+0.1\sigma)$
Ω_Λ	0.6870	$0.688 \pm 0.016 \quad (-0.9\sigma)$	$D_M(z_*)/\text{Gpc}$	13.945	$13.942 \pm 0.050 \quad (+0.6\sigma)$	$\sigma_8(0.61)$	0.5761	$0.5762 \pm 0.0082 \quad (-0.7\sigma)$
Ω_m	0.3130	$0.312 \pm 0.016 \quad (+0.9\sigma)$	z_{drag}	1057.53	$1057.9^{+1.7}_{-2.6} \quad (-4.0\sigma)$	$f\sigma_8(2.33)$	0.29044	$0.2905^{+0.0040}_{-0.0045} \quad (-0.9\sigma)$
$\Omega_m h^2$	0.14131	$0.1413 \pm 0.0020 \quad (+0.2\sigma)$	r_{drag}	147.88	$147.83 \pm 0.54 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	0.29936	$0.2996^{+0.0043}_{-0.0051} \quad (-1.0\sigma)$
$\Omega_m h^3$	0.09495	$0.0951^{+0.0010}_{-0.0015} \quad (-2.4\sigma)$	k_D	0.14219	$0.1420^{+0.0019}_{-0.0014} \quad (+2.8\sigma)$	χ_{simall}^2	395.56	$396.7 \pm 1.5 \quad (-0.0\sigma)$
σ_8	0.7904	$0.790 \pm 0.011 \quad (-0.3\sigma)$	$100\theta_D$	0.15843	$0.1587^{+0.0015}_{-0.0024} \quad (-6.5\sigma)$	χ_{plikTE}^2	851.83	$859.4 \pm 3.8 \quad (-0.1\sigma)$
S_8	0.8073	$0.805 \pm 0.026 \quad (+0.5\sigma)$	z_{eq}	3361.4	$3360 \pm 47 \quad (+0.2\sigma)$	χ_{prior}^2	0.44	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8 \Omega_m^{0.5}$	0.4422	$0.441 \pm 0.014 \quad (+0.5\sigma)$	k_{eq}	0.010259	$0.01026 \pm 0.00014 \quad (+0.2\sigma)$	χ_{CMB}^2	1247.39	$1256.1 \pm 4.1 \quad (-0.1\sigma)$
$\sigma_8 \Omega_m^{0.25}$	0.5912	$0.590 \pm 0.013 \quad (+0.2\sigma)$	$100\theta_{\text{eq}}$	0.8189	$0.8195 \pm 0.0097 \quad (-0.5\sigma)$			
$\sigma_8/h^{0.5}$	0.9642	$0.963 \pm 0.018 \quad (+0.2\sigma)$	$100\theta_{s,\text{eq}}$	0.45241	$0.4527 \pm 0.0050 \quad (-0.5\sigma)$			

Best-fit $\chi_{\text{eff}}^2 = 1247.84$; $\Delta\chi_{\text{eff}}^2 = -1.15$; $\bar{\chi}_{\text{eff}}^2 = 1263.54$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.46$; $R - 1 = 0.00777$
 χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.56 (Δ -0.12) plik_rd12_HM_v22_TE: 851.83 (Δ -1.02)

20.40 base_yhe_plikHM_TE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022249	0.02230 ± 0.00028 (-0.7σ)	$\langle d^2 \rangle^{1/2}$	2.4156	2.409 ± 0.038 $(+0.5\sigma)$	$H(0.38)$	82.87	$82.98^{+0.53}_{-0.60}$ (-1.2σ)
$\Omega_{\mathrm{c}}h^2$	0.11773	0.1178 ± 0.0013 (-0.3σ)	z_{re}	7.01	$6.95^{+0.88}_{-0.74}$ (-0.1σ)	$D_{\mathrm{M}}(0.38)$	1530.0	1528 ± 13 $(+1.0\sigma)$
$100\theta_{\mathrm{MC}}$	1.03971	$1.0400^{+0.0014}_{-0.0016}$ (-2.9σ)	$10^9 A_{\mathrm{s}}$	2.0425	2.041 ± 0.040 (-0.1σ)	$H(0.51)$	89.52	$89.62^{+0.49}_{-0.56}$ (-1.4σ)
τ	0.0498	$0.0493^{+0.0084}_{-0.0076}$ $(+0.0\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.8489	1.850 ± 0.017 (-0.2σ)	$D_{\mathrm{M}}(0.51)$	1982.7	1980 ± 16 $(+1.0\sigma)$
Y_{P}	0.1954	0.201 ± 0.044	D_{40}	1242.6	1237 ± 33 $(+0.9\sigma)$	$H(0.61)$	95.09	$95.19^{+0.47}_{-0.53}$ (-1.5σ)
$\ln(10^{10} A_{\mathrm{s}})$	3.0168	3.016 ± 0.020 (-0.1σ)	D_{220}	5742	5733 ± 69 $(+0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	2307.7	2305 ± 18 $(+1.0\sigma)$
n_{s}	0.9539	0.956 ± 0.014 (-0.9σ)	D_{810}	2528.3	2526 ± 30 $(+0.8\sigma)$	$H(2.33)$	234.82	234.92 ± 0.96 (-0.7σ)
y_{cal}	1.00013	1.0001 ± 0.0025 $(+0.0\sigma)$	D_{1420}	823.9	822 ± 19 $(+1.3\sigma)$	$D_{\mathrm{M}}(2.33)$	5778.9	5774 ± 27 $(+1.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	0.1137	0.114 ± 0.038 $(+0.0\sigma)$	D_{2000}	236.2	235.3 ± 8.9 $(+1.9\sigma)$	$f\sigma_8(0.15)$	0.4419	0.4418 ± 0.0083 (-0.1σ)
$A_{100 \times 143}^{\mathrm{dustTE}}$	0.1361	0.135 ± 0.029 (-0.0σ)	$n_{\mathrm{s},0.002}$	0.9539	0.956 ± 0.014 (-0.9σ)	$\sigma_8(0.15)$	0.7291	0.730 ± 0.010 (-0.5σ)
$A_{100 \times 217}^{\mathrm{dustTE}}$	0.478	0.479 ± 0.084 $(+0.0\sigma)$	Y_{P}	0.1954	0.201 ± 0.044 (-473.1σ)	$f\sigma_8(0.38)$	0.4607	0.4607 ± 0.0075 (-0.2σ)
$A_{143}^{\mathrm{dustTE}}$	0.222	0.220 ± 0.055 (-0.0σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.1966	0.203 ± 0.045 (-473.4σ)	$\sigma_8(0.38)$	0.6468	0.6475 ± 0.0091 (-0.6σ)
$A_{143 \times 217}^{\mathrm{dustTE}}$	0.658	0.655 ± 0.079 (-0.0σ)	Age/Gyr	13.836	$13.824^{+0.068}_{-0.061}$ $(+1.8\sigma)$	$f\sigma_8(0.51)$	0.4598	0.4599 ± 0.0071 (-0.3σ)
$A_{217}^{\mathrm{dustTE}}$	2.034	2.03 ± 0.27 (-0.0σ)	z_{*}	1087.98	$1088.2^{+1.4}_{-1.7}$ (-4.4σ)	$\sigma_8(0.51)$	0.6055	0.6062 ± 0.0086 (-0.6σ)
c_{100}	1.00018	1.00016 ± 0.00069 (-0.0σ)	r_{*}	145.281	145.21 ± 0.49 $(+1.1\sigma)$	$f\sigma_8(0.61)$	0.4553	0.4555 ± 0.0068 (-0.3σ)
c_{217}	0.99799	0.99799 ± 0.00065 $(+0.0\sigma)$	$100\theta_{*}$	1.04113	1.04119 ± 0.00057 (-0.7σ)	$\sigma_8(0.61)$	0.5762	0.5769 ± 0.0082 (-0.6σ)
H_0	67.65	67.77 ± 0.72 (-0.8σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.954	13.947 ± 0.051 $(+1.2\sigma)$	$f\sigma_8(2.33)$	0.29071	0.2911 ± 0.0042 (-0.7σ)
Ω_{Λ}	0.6928	0.6935 ± 0.0078 (-0.4σ)	z_{drag}	1057.95	$1058.3^{+1.7}_{-2.0}$ (-3.2σ)	$\sigma_8(2.33)$	0.29989	0.3003 ± 0.0044 (-0.7σ)
Ω_{m}	0.3072	0.3065 ± 0.0078 $(+0.4\sigma)$	r_{drag}	147.97	147.89 ± 0.55 $(+1.0\sigma)$	χ_{simall}^2	395.61	396.7 ± 1.5 (-0.1σ)
$\Omega_{\mathrm{m}}h^2$	0.14062	0.1407 ± 0.0013 (-0.4σ)	k_{D}	0.14179	0.1416 ± 0.0013 $(+2.2\sigma)$	χ_{plikTE}^2	852.01	859.0 ± 3.7 (-0.1σ)
$\Omega_{\mathrm{m}}h^3$	0.09514	$0.0954^{+0.0011}_{-0.0012}$ (-1.9σ)	$100\theta_{\mathrm{D}}$	0.15878	$0.1591^{+0.0016}_{-0.0019}$ (-5.5σ)	$\chi_{6\mathrm{DF}}^2$	0.0060	0.047 ± 0.065 $(+0.2\sigma)$
σ_8	0.7886	0.789 ± 0.011 (-0.5σ)	z_{eq}	3345.0	3347 ± 31 (-0.4σ)	χ_{MGS}^2	1.47	1.62 ± 0.61 (-0.4σ)
S_8	0.7981	0.798 ± 0.016 (-0.1σ)	k_{eq}	0.010209	0.010215 ± 0.000096 (-0.4σ)	$\chi_{\mathrm{DR12BAO}}^2$	3.79	4.4 ± 1.3 $(+0.5\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4371	0.4369 ± 0.0087 (-0.1σ)	$100\theta_{\mathrm{eq}}$	0.8224	0.8224 ± 0.0054 $(+0.2\sigma)$	χ_{prior}^2	0.43	7.4 ± 3.7 (-0.0σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5871	0.5872 ± 0.0094 (-0.2σ)	$100\theta_{\mathrm{s,eq}}$	0.45419	0.4542 ± 0.0028 $(+0.2\sigma)$	χ_{BAO}^2	5.26	6.0 ± 1.2 $(+0.2\sigma)$
$\sigma_8/h^{0.5}$	0.9588	0.959 ± 0.014 (-0.2σ)	$H(0.15)$	72.87	72.98 ± 0.66 (-0.9σ)	χ_{CMB}^2	1247.62	1255.7 ± 4.0 (-0.1σ)
$r_{\mathrm{drag}}h$	100.11	100.2 ± 1.0 (-0.4σ)	$D_{\mathrm{M}}(0.15)$	641.1	640.1 ± 6.3 $(+0.9\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 1253.32$; $\Delta\chi_{\mathrm{eff}}^2 = -0.92$; $\bar{\chi}_{\mathrm{eff}}^2 = 1269.20$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.22$; $R - 1 = 0.01067$
 χ_{eff}^2 : BAO - 6DF: 0.01 (Δ 0.01) MGS: 1.47 (Δ -0.27) DR12BAO: 3.79 (Δ 0.35) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.61 (Δ -0.05) plik_rd12_HM.v22_TE: 852.01 (Δ -0.92)

20.41 base_yhe_plikHM_TE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02226^{+0.00033}_{-0.00039} \quad (-0.9\sigma)$	$r_{\mathrm{drag}}h$	$99.8^{+2.0}_{-2.3} \quad (-0.8\sigma)$	$H(0.15)$	$72.7^{+1.1}_{-1.4} \quad (-1.2\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1182 \pm 0.0021 \quad (+0.3\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.429^{+0.064}_{-0.057} \quad (+1.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$643^{+13}_{-11} \quad (+1.2\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0397^{+0.0015}_{-0.0022} \quad (-3.4\sigma)$	z_{re}	$< 7.53 \quad (-0.2\sigma)$	$H(0.38)$	$82.80^{+0.86}_{-1.1} \quad (-1.3\sigma)$
τ	$0.0529^{+0.0034}_{-0.0070} \quad (+0.0\sigma)$	$10^9 A_{\mathrm{s}}$	$2.059^{+0.026}_{-0.035} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.38)$	$1533^{+27}_{-23} \quad (+1.2\sigma)$
Y_{P}	$0.196^{+0.048}_{-0.062}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.852 \pm 0.018 \quad (+0.0\sigma)$	$H(0.51)$	$89.48^{+0.73}_{-1.0} \quad (-1.5\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.025^{+0.013}_{-0.017} \quad (+0.0\sigma)$	D_{40}	$1243 \pm 43 \quad (+1.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1986^{+33}_{-27} \quad (+1.2\sigma)$
n_{s}	$0.955^{+0.017}_{-0.020} \quad (-1.2\sigma)$	D_{220}	$5736 \pm 73 \quad (+0.8\sigma)$	$H(0.61)$	$95.07^{+0.64}_{-0.90} \quad (-1.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (-0.0\sigma)$	D_{810}	$2529^{+35}_{-30} \quad (+0.9\sigma)$	$D_{\mathrm{M}}(0.61)$	$2311^{+36}_{-30} \quad (+1.3\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	D_{1420}	$824^{+22}_{-19} \quad (+1.4\sigma)$	$H(2.33)$	$235.2 \pm 1.2 \quad (+0.0\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.479 \pm 0.084 \quad (+0.0\sigma)$	D_{2000}	$236^{+11}_{-8.7} \quad (+2.0\sigma)$	$D_{\mathrm{M}}(2.33)$	$5779^{+46}_{-34} \quad (+2.0\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.054 \quad (+0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.955^{+0.017}_{-0.020} \quad (-1.2\sigma)$	$f\sigma_8(0.15)$	$0.446 \pm 0.013 \quad (+0.4\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.657 \pm 0.080 \quad (+0.0\sigma)$	Y_{P}	$0.196^{+0.047}_{-0.061} \quad (-493.3\sigma)$	$\sigma_8(0.15)$	$0.7333^{+0.0080}_{-0.0094} \quad (-0.4\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.04 \pm 0.27 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.197^{+0.047}_{-0.061} \quad (-493.7\sigma)$	$f\sigma_8(0.38)$	$0.465 \pm 0.010 \quad (+0.3\sigma)$
c_{100}	$1.00017 \pm 0.00070 \quad (-0.0\sigma)$	Age/Gyr	$13.84^{+0.11}_{-0.078} \quad (+2.0\sigma)$	$\sigma_8(0.38)$	$0.6502^{+0.0067}_{-0.0085} \quad (-0.5\sigma)$
c_{217}	$0.99800 \pm 0.00065 \quad (+0.0\sigma)$	z_*	$1088.1^{+1.3}_{-1.9} \quad (-3.4\sigma)$	$f\sigma_8(0.51)$	$0.4633 \pm 0.0087 \quad (+0.2\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	r_*	$145.14 \pm 0.51 \quad (+0.4\sigma)$	$\sigma_8(0.51)$	$0.6085^{+0.0063}_{-0.0081} \quad (-0.6\sigma)$
H_0	$67.5^{+1.3}_{-1.5} \quad (-1.1\sigma)$	$100\theta_*$	$1.04108^{+0.00067}_{-0.00078} \quad (-1.0\sigma)$	$f\sigma_8(0.61)$	$0.4586 \pm 0.0077 \quad (+0.1\sigma)$
Ω_{Λ}	$0.690 \pm 0.016 \quad (-0.9\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.941 \pm 0.050 \quad (+0.5\sigma)$	$\sigma_8(0.61)$	$0.5791^{+0.0060}_{-0.0078} \quad (-0.7\sigma)$
Ω_{m}	$0.310 \pm 0.016 \quad (+0.9\sigma)$	z_{drag}	$1058.1^{+1.8}_{-2.6} \quad (-3.7\sigma)$	$f\sigma_8(2.33)$	$0.2920^{+0.0032}_{-0.0042} \quad (-0.8\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1411 \pm 0.0020 \quad (+0.2\sigma)$	r_{drag}	$147.82 \pm 0.54 \quad (+0.5\sigma)$	$\sigma_8(2.33)$	$0.3012^{+0.0035}_{-0.0048} \quad (-1.0\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0952^{+0.0011}_{-0.0015} \quad (-2.1\sigma)$	k_{D}	$0.1419^{+0.0019}_{-0.0014} \quad (+2.5\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.0\sigma)$
σ_8	$0.7934^{+0.0093}_{-0.010} \quad (-0.2\sigma)$	$100\theta_{\mathrm{D}}$	$0.1589^{+0.0016}_{-0.0024} \quad (-6.0\sigma)$	χ_{plikTE}^2	$859.5 \pm 3.9 \quad (-0.1\sigma)$
S_8	$0.807 \pm 0.026 \quad (+0.5\sigma)$	z_{eq}	$3357 \pm 47 \quad (+0.2\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.442 \pm 0.014 \quad (+0.5\sigma)$	k_{eq}	$0.01025 \pm 0.00014 \quad (+0.2\sigma)$	χ_{CMB}^2	$1255.9 \pm 4.1 \quad (-0.1\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.592 \pm 0.012 \quad (+0.3\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8203^{+0.0092}_{-0.010} \quad (-0.4\sigma)$		
$\sigma_8/h^{0.5}$	$0.966 \pm 0.017 \quad (+0.3\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4531^{+0.0047}_{-0.0052} \quad (-0.4\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1263.26$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.38$; $R - 1 = 0.00933$

20.42 base_yhe_plikHM_TE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.02231 \pm 0.00028 \quad (-0.6\sigma)$	$\langle d^2 \rangle^{1/2}$	$2.417 \pm 0.036 \quad (+0.6\sigma)$	$H(0.38)$	$83.01^{+0.52}_{-0.60} \quad (-1.1\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1178 \pm 0.0013 \quad (-0.3\sigma)$	z_{re}	$7.35^{+0.23}_{-0.83} \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1527 \pm 13 \quad (+0.9\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0400^{+0.0013}_{-0.0016} \quad (-2.8\sigma)$	$10^9 A_{\mathrm{s}}$	$2.058^{+0.026}_{-0.035} \quad (-0.0\sigma)$	$H(0.51)$	$89.65^{+0.48}_{-0.56} \quad (-1.3\sigma)$
τ	$0.0531^{+0.0037}_{-0.0069} \quad (+0.1\sigma)$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.851 \pm 0.018 \quad (-0.2\sigma)$	$D_{\mathrm{M}}(0.51)$	$1979 \pm 16 \quad (+1.0\sigma)$
Y_{P}	0.203 ± 0.044	D_{40}	$1236 \pm 33 \quad (+0.9\sigma)$	$H(0.61)$	$95.21^{+0.46}_{-0.53} \quad (-1.5\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.024^{+0.013}_{-0.017} \quad (-0.0\sigma)$	D_{220}	$5731 \pm 69 \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.61)$	$2304^{+18}_{-17} \quad (+1.0\sigma)$
n_{s}	$0.958 \pm 0.014 \quad (-0.8\sigma)$	D_{810}	$2527 \pm 30 \quad (+0.8\sigma)$	$H(2.33)$	$234.93 \pm 0.97 \quad (-0.6\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	D_{1420}	$822 \pm 19 \quad (+1.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5772^{+29}_{-26} \quad (+1.7\sigma)$
$A_{100}^{\mathrm{dustTE}}$	$0.114 \pm 0.038 \quad (+0.0\sigma)$	D_{2000}	$235.4 \pm 8.8 \quad (+1.8\sigma)$	$f\sigma_8(0.15)$	$0.4436 \pm 0.0079 \quad (-0.1\sigma)$
$A_{100 \times 143}^{\mathrm{dustTE}}$	$0.135 \pm 0.029 \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.958 \pm 0.014 \quad (-0.8\sigma)$	$\sigma_8(0.15)$	$0.7331^{+0.0081}_{-0.0097} \quad (-0.6\sigma)$
$A_{100 \times 217}^{\mathrm{dustTE}}$	$0.478 \pm 0.084 \quad (+0.0\sigma)$	Y_{P}	$0.203 \pm 0.044 \quad (-454.4\sigma)$	$f\sigma_8(0.38)$	$0.4627 \pm 0.0070 \quad (-0.2\sigma)$
$A_{143}^{\mathrm{dustTE}}$	$0.221 \pm 0.055 \quad (-0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.204 \pm 0.044 \quad (-454.7\sigma)$	$\sigma_8(0.38)$	$0.6504^{+0.0072}_{-0.0086} \quad (-0.6\sigma)$
$A_{143 \times 217}^{\mathrm{dustTE}}$	$0.656 \pm 0.079 \quad (-0.0\sigma)$	Age/Gyr	$13.820^{+0.068}_{-0.060} \quad (+1.7\sigma)$	$f\sigma_8(0.51)$	$0.4619 \pm 0.0065 \quad (-0.3\sigma)$
$A_{217}^{\mathrm{dustTE}}$	$2.03 \pm 0.27 \quad (-0.0\sigma)$	z_{*}	$1088.3^{+1.4}_{-1.6} \quad (-4.2\sigma)$	$\sigma_8(0.51)$	$0.6089^{+0.0067}_{-0.0081} \quad (-0.7\sigma)$
c_{100}	$1.00015 \pm 0.00068 \quad (-0.0\sigma)$	r_{*}	$145.20 \pm 0.49 \quad (+1.0\sigma)$	$f\sigma_8(0.61)$	$0.4575 \pm 0.0062 \quad (-0.3\sigma)$
c_{217}	$0.99799 \pm 0.00066 \quad (-0.0\sigma)$	$100\theta_{*}$	$1.04121 \pm 0.00057 \quad (-0.7\sigma)$	$\sigma_8(0.61)$	$0.5796^{+0.0065}_{-0.0077} \quad (-0.7\sigma)$
H_0	$67.81 \pm 0.71 \quad (-0.8\sigma)$	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	$13.945 \pm 0.051 \quad (+1.1\sigma)$	$f\sigma_8(2.33)$	$0.2924^{+0.0033}_{-0.0039} \quad (-0.7\sigma)$
Ω_{Λ}	$0.6938 \pm 0.0078 \quad (-0.4\sigma)$	z_{drag}	$1058.4^{+1.7}_{-1.9} \quad (-3.1\sigma)$	$\sigma_8(2.33)$	$0.3017^{+0.0035}_{-0.0042} \quad (-0.8\sigma)$
Ω_{m}	$0.3062 \pm 0.0078 \quad (+0.4\sigma)$	r_{drag}	$147.87 \pm 0.55 \quad (+1.0\sigma)$	χ_{small}^2	$396.4 \pm 1.2 \quad (-0.0\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1407 \pm 0.0013 \quad (-0.4\sigma)$	k_{D}	$0.1416 \pm 0.0012 \quad (+2.1\sigma)$	χ_{plikTE}^2	$859.1 \pm 3.8 \quad (-0.1\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0954^{+0.0011}_{-0.0012} \quad (-1.8\sigma)$	$100\theta_{\mathrm{D}}$	$0.1591^{+0.0016}_{-0.0019} \quad (-5.3\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.046 \pm 0.064 \quad (+0.1\sigma)$
σ_8	$0.7928^{+0.0089}_{-0.010} \quad (-0.5\sigma)$	z_{eq}	$3347 \pm 31 \quad (-0.4\sigma)$	χ_{MGS}^2	$1.64 \pm 0.61 \quad (-0.4\sigma)$
S_8	$0.801 \pm 0.015 \quad (-0.0\sigma)$	k_{eq}	$0.010216 \pm 0.000096 \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.3 \pm 1.3 \quad (+0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.4387 \pm 0.0083 \quad (-0.0\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8225 \pm 0.0054 \quad (+0.1\sigma)$	χ_{prior}^2	$7.4 \pm 3.7 \quad (-0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.5897 \pm 0.0086 \quad (-0.2\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4542 \pm 0.0028 \quad (+0.2\sigma)$	χ_{BAO}^2	$6.0 \pm 1.1 \quad (+0.1\sigma)$
$\sigma_8/h^{0.5}$	$0.963 \pm 0.012 \quad (-0.2\sigma)$	$H(0.15)$	$73.02 \pm 0.65 \quad (-0.9\sigma)$	χ_{CMB}^2	$1255.4 \pm 4.0 \quad (-0.1\sigma)$
$r_{\mathrm{drag}}h$	$100.3 \pm 1.0 \quad (-0.4\sigma)$	$D_{\mathrm{M}}(0.15)$	$639.8 \pm 6.2 \quad (+0.8\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1268.83$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.16$; $R - 1 = 0.01490$

20.43 base_yhe_plikHM_EE_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02336	0.0235 ± 0.0014 (-0.4σ)	D_{40}	1259	1254^{+57}_{-45} $(+0.8\sigma)$	$H(0.38)$	83.65	$84.0^{+2.2}_{-2.5}$ (-0.4σ)
$\Omega_{\mathrm{c}}h^2$	0.11607	0.1160 ± 0.0047 $(+0.0\sigma)$	D_{220}	5977	5981 ± 200 $(+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	1511	1506 ± 56 $(+0.4\sigma)$
$100\theta_{\mathrm{MC}}$	1.03825	$1.0386^{+0.0019}_{-0.0030}$ (-1.6σ)	D_{810}	2611.6	2606^{+50}_{-45} $(+0.4\sigma)$	$H(0.51)$	90.22	$90.6^{+1.8}_{-2.2}$ (-0.4σ)
τ	0.0521	0.0520 ± 0.0088 (-0.1σ)	D_{1420}	859.4	856^{+30}_{-25} $(+0.6\sigma)$	$D_{\mathrm{M}}(0.51)$	1960	1954 ± 67 $(+0.4\sigma)$
Y_{P}	0.196	$0.204^{+0.034}_{-0.098}$	D_{2000}	249.1	247^{+14}_{-11} $(+0.9\sigma)$	$H(0.61)$	95.73	$96.0^{+1.6}_{-2.0}$ (-0.5σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0493	3.050 ± 0.022 (-0.1σ)	$n_{\mathrm{s},0.002}$	0.9659	$0.969^{+0.020}_{-0.027}$ (-0.8σ)	$D_{\mathrm{M}}(0.61)$	2283	2275 ± 74 $(+0.4\sigma)$
n_{s}	0.9659	$0.969^{+0.020}_{-0.027}$ (-0.8σ)	Y_{P}	0.196	$0.204^{+0.041}_{-0.090}$ (-89.0σ)	$H(2.33)$	234.70	234.9 ± 2.2 (-0.2σ)
y_{cal}	1.00009	1.0001 ± 0.0025 $(+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.197	$0.205^{+0.041}_{-0.090}$ (-89.1σ)	$D_{\mathrm{M}}(2.33)$	5746	5732^{+98}_{-86} $(+0.6\sigma)$
H_0	68.67	69.0 ± 3.2 (-0.3σ)	Age/Gyr	13.760	$13.73^{+0.22}_{-0.20}$ $(+0.6\sigma)$	$f\sigma_8(0.15)$	0.4379	0.437 ± 0.030 $(+0.1\sigma)$
Ω_{Λ}	0.7030	$0.703^{+0.037}_{-0.028}$ (-0.3σ)	z_*	1086.58	$1086.9^{+1.9}_{-2.5}$ (-0.5σ)	$\sigma_8(0.15)$	0.7344	0.734 ± 0.015 (-0.2σ)
Ω_{m}	0.2970	$0.297^{+0.028}_{-0.037}$ $(+0.3\sigma)$	r_*	144.85	$144.70^{+0.98}_{-0.82}$ $(+0.6\sigma)$	$f\sigma_8(0.38)$	0.4590	0.458 ± 0.023 $(+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	0.14008	0.1402 ± 0.0037 (-0.1σ)	$100\theta_*$	1.03950	$1.0396^{+0.0010}_{-0.0012}$ (-0.5σ)	$\sigma_8(0.38)$	0.6526	0.652 ± 0.012 (-0.4σ)
$\Omega_{\mathrm{m}}h^3$	0.09620	$0.0967^{+0.0025}_{-0.0033}$ (-0.8σ)	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.935	$13.92^{+0.10}_{-0.081}$ $(+0.7\sigma)$	$f\sigma_8(0.51)$	0.4594	0.458 ± 0.020 $(+0.0\sigma)$
σ_8	0.7933	0.793 ± 0.019 (-0.2σ)	z_{drag}	1060.39	$1061.1^{+3.9}_{-4.8}$ (-0.9σ)	$\sigma_8(0.51)$	0.6114	$0.6113^{+0.0097}_{-0.011}$ (-0.5σ)
S_8	0.789	$0.787^{+0.054}_{-0.062}$ $(+0.1\sigma)$	r_{drag}	147.18	$147.0^{+1.2}_{-0.95}$ $(+0.8\sigma)$	$f\sigma_8(0.61)$	0.4556	$0.454^{+0.018}_{-0.016}$ $(+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4323	$0.431^{+0.030}_{-0.034}$ $(+0.1\sigma)$	k_{D}	0.14341	$0.1433^{+0.0018}_{-0.0016}$ $(+0.5\sigma)$	$\sigma_8(0.61)$	0.5822	$0.5822^{+0.0089}_{-0.011}$ (-0.5σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.5856	0.584 ± 0.028 $(+0.1\sigma)$	$100\theta_{\mathrm{D}}$	0.15721	$0.1576^{+0.0019}_{-0.0028}$ (-1.0σ)	$f\sigma_8(2.33)$	0.2941	$0.2942^{+0.0044}_{-0.0058}$ (-0.6σ)
$\sigma_8/h^{0.5}$	0.9572	0.955 ± 0.040 $(+0.1\sigma)$	z_{eq}	3332	3334 ± 89 (-0.1σ)	$\sigma_8(2.33)$	0.3039	$0.3042^{+0.0050}_{-0.0066}$ (-0.7σ)
$r_{\mathrm{drag}}h$	101.07	101.5 ± 4.4 (-0.2σ)	k_{eq}	0.010170	0.01018 ± 0.00027 (-0.1σ)	χ_{small}^2	395.57	396.7 ± 1.5 (-0.0σ)
$\langle d^2 \rangle^{1/2}$	2.411	2.403 ± 0.091 $(+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	0.8267	0.828 ± 0.020 (-0.1σ)	χ_{plikEE}^2	738.53	744.0 ± 3.4 $(+0.0\sigma)$
z_{re}	6.99	6.97 ± 0.87 (-0.2σ)	$100\theta_{\mathrm{s,eq}}$	0.4556	0.4558 ± 0.0094 (-0.0σ)	χ_{prior}^2	0.001	0.99 ± 1.4 $(+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	2.1100	2.111 ± 0.047 (-0.1σ)	$H(0.15)$	73.80	74.2 ± 2.9 (-0.3σ)	χ_{CMB}^2	1134.10	1140.7 ± 3.7 $(+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.9013	1.902 ± 0.024 (-0.1σ)	$D_{\mathrm{M}}(0.15)$	632.3	630 ± 27 $(+0.4\sigma)$			

Best-fit $\chi_{\mathrm{eff}}^2 = 1134.10$; $\Delta\chi_{\mathrm{eff}}^2 = -0.45$; $\bar{\chi}_{\mathrm{eff}}^2 = 1141.72$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.10$; $R - 1 = 0.00767$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.57 (Δ -0.03) plik_rd12_HM_v22_EE: 738.53 (Δ -0.42)

20.44 base_yhe_plikHM_EE_lowE_post_BAO

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.02321	0.02326 ± 0.00070 (-0.3σ)	D_{220}	5981	5957 ± 160 ($+0.5\sigma$)	$H(0.51)$	89.97	$90.10^{+0.73}_{-0.88}$ (-0.7σ)
$\Omega_c h^2$	0.11641	$0.1167^{+0.0018}_{-0.0020}$ (-0.6σ)	D_{810}	2610.2	2605^{+51}_{-40} ($+0.7\sigma$)	$D_M(0.51)$	1968.3	1966 ± 22 ($+0.5\sigma$)
$100\theta_{MC}$	1.03789	$1.0384^{+0.0016}_{-0.0025}$ (-1.8σ)	D_{1420}	858.9	855^{+30}_{-22} ($+1.2\sigma$)	$H(0.61)$	95.50	$95.63^{+0.71}_{-0.88}$ (-0.8σ)
τ	0.0512	0.0518 ± 0.0082 ($+0.0\sigma$)	D_{2000}	249.3	248^{+14}_{-10} ($+1.6\sigma$)	$D_M(0.61)$	2291.8	2289 ± 25 ($+0.5\sigma$)
Y_P	0.188	$0.198^{+0.035}_{-0.088}$	$n_{s,0.002}$	0.9608	$0.965^{+0.014}_{-0.019}$ (-1.0σ)	$H(2.33)$	234.74	$235.0^{+1.4}_{-1.8}$ (-1.0σ)
$\ln(10^{10} A_s)$	3.0468	3.049 ± 0.021 (-0.0σ)	Y_P	0.188	$0.198^{+0.040}_{-0.079}$ (-183.4σ)	$D_M(2.33)$	5757.8	5750^{+50}_{-40} ($+0.9\sigma$)
n_s	0.9608	$0.965^{+0.014}_{-0.019}$ (-1.0σ)	Y_P^{BBN}	0.189	$0.199^{+0.041}_{-0.080}$ (-183.6σ)	$f\sigma_8(0.15)$	0.4397	0.442 ± 0.011 (-0.3σ)
y_{cal}	0.99994	1.0001 ± 0.0025 ($+0.0\sigma$)	Age/Gyr	13.787	$13.77^{+0.12}_{-0.095}$ ($+0.9\sigma$)	$\sigma_8(0.15)$	0.7332	$0.736^{+0.011}_{-0.014}$ (-0.7σ)
H_0	68.31	68.41 ± 0.96 (-0.4σ)	z_*	1086.49	$1087.0^{+1.4}_{-2.5}$ (-1.8σ)	$f\sigma_8(0.38)$	0.4600	$0.4620^{+0.0090}_{-0.010}$ (-0.4σ)
Ω_Λ	0.6994	0.6994 ± 0.0089 (-0.1σ)	r_*	144.90	$144.7^{+1.0}_{-0.77}$ ($+1.0\sigma$)	$\sigma_8(0.38)$	0.6511	$0.6540^{+0.0095}_{-0.012}$ (-0.7σ)
Ω_m	0.3006	0.3006 ± 0.0089 ($+0.1\sigma$)	$100\theta_*$	1.03934	$1.03951^{+0.00091}_{-0.0010}$ (-0.5σ)	$f\sigma_8(0.51)$	0.4599	$0.4619^{+0.0084}_{-0.0095}$ (-0.5σ)
$\Omega_m h^2$	0.14026	$0.1406^{+0.0018}_{-0.0023}$ (-0.8σ)	$D_M(z_*)/\text{Gpc}$	13.942	$13.92^{+0.11}_{-0.079}$ ($+1.1\sigma$)	$\sigma_8(0.51)$	0.6098	$0.6125^{+0.0088}_{-0.011}$ (-0.7σ)
$\Omega_m h^3$	0.09581	$0.0962^{+0.0017}_{-0.0024}$ (-1.0σ)	z_{drag}	1059.86	$1060.4^{+2.3}_{-3.5}$ (-1.3σ)	$f\sigma_8(0.61)$	0.4559	$0.4579^{+0.0079}_{-0.0092}$ (-0.5σ)
σ_8	0.7923	$0.796^{+0.012}_{-0.015}$ (-0.6σ)	r_{drag}	147.27	$147.1^{+1.2}_{-0.95}$ ($+0.8\sigma$)	$\sigma_8(0.61)$	0.5805	$0.5832^{+0.0084}_{-0.011}$ (-0.7σ)
S_8	0.7931	0.797 ± 0.020 (-0.3σ)	k_D	0.14351	$0.1432^{+0.0018}_{-0.0015}$ ($+0.8\sigma$)	$f\sigma_8(2.33)$	0.29315	$0.2945^{+0.0042}_{-0.0055}$ (-0.7σ)
$\sigma_8 \Omega_m^{0.5}$	0.4344	0.436 ± 0.011 (-0.3σ)	$100\theta_D$	0.15702	$0.1576^{+0.0017}_{-0.0029}$ (-2.1σ)	$\sigma_8(2.33)$	0.3027	$0.3041^{+0.0044}_{-0.0057}$ (-0.8σ)
$\sigma_8 \Omega_m^{0.25}$	0.5866	$0.589^{+0.011}_{-0.013}$ (-0.4σ)	z_{eq}	3336.4	3345^{+44}_{-54} (-0.8σ)	χ_{small}^2	395.52	396.7 ± 1.5 (-0.0σ)
$\sigma_8/h^{0.5}$	0.9586	0.962 ± 0.017 (-0.4σ)	k_{eq}	0.010183	$0.01021^{+0.00013}_{-0.00017}$ (-0.8σ)	χ_{plikEE}^2	738.52	743.1 ± 3.1 (-0.0σ)
$r_{drag} h$	100.60	100.6 ± 1.1 (-0.1σ)	$100\theta_{eq}$	0.8252	0.8242 ± 0.0074 ($+0.5\sigma$)	χ_{6DF}^2	0.0003	0.054 ± 0.077 (-0.0σ)
$\langle d^2 \rangle^{1/2}$	2.4234	2.419 ± 0.040 ($+0.5\sigma$)	$100\theta_{s,eq}$	0.45489	0.4544 ± 0.0039 ($+0.6\sigma$)	χ_{MGS}^2	1.75	1.84 ± 0.70 (-0.1σ)
z_{re}	6.91	6.99 ± 0.85 (-0.2σ)	$H(0.15)$	73.47	73.58 ± 0.90 (-0.5σ)	$\chi_{DR12BAO}^2$	3.72	4.5 ± 1.3 ($+0.1\sigma$)
$10^9 A_s$	2.1049	2.109 ± 0.044 (-0.0σ)	$D_M(0.15)$	635.4	634.6 ± 8.3 ($+0.4\sigma$)	χ_{prior}^2	0.001	0.98 ± 1.4 (-0.0σ)
$10^9 A_s e^{-2\tau}$	1.8998	1.902 ± 0.024 (-0.0σ)	$H(0.38)$	83.37	$83.50^{+0.76}_{-0.89}$ (-0.6σ)	χ_{BAO}^2	5.47	6.4 ± 1.3 (-0.0σ)
D_{40}	1269.1	1259^{+51}_{-42} ($+0.9\sigma$)	$D_M(0.38)$	1518.1	1516 ± 18 ($+0.5\sigma$)	χ_{CMB}^2	1134.05	1139.8 ± 3.5 (-0.0σ)

Best-fit $\chi_{\text{eff}}^2 = 1139.52$; $\Delta\chi_{\text{eff}}^2 = -0.65$; $\bar{\chi}_{\text{eff}}^2 = 1147.22$; $\Delta\bar{\chi}_{\text{eff}}^2 = -0.14$; $R - 1 = 0.01379$
 χ_{eff}^2 : BAO - 6DF: 0.00 (Δ -0.00) MGS: 1.75 (Δ -0.14) DR12BAO: 3.72 (Δ 0.13) CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.52 (Δ -0.09) plik_rd12_HM_v22_EE: 738.52 (Δ -0.52)

20.45 base_yhe_plikHM_EE_lowE_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	$0.0236 \pm 0.0014 \quad (-0.3\sigma)$	D_{40}	$1249^{+57}_{-46} \quad (+0.7\sigma)$	$H(0.38)$	$84.1^{+2.2}_{-2.5} \quad (-0.3\sigma)$
$\Omega_{\mathrm{c}}h^2$	$0.1160 \pm 0.0047 \quad (+0.1\sigma)$	D_{220}	$5966 \pm 200 \quad (+0.1\sigma)$	$D_{\mathrm{M}}(0.38)$	$1505 \pm 56 \quad (+0.3\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0389^{+0.0020}_{-0.0030} \quad (-1.3\sigma)$	D_{810}	$2602^{+51}_{-45} \quad (+0.3\sigma)$	$H(0.51)$	$90.6^{+1.9}_{-2.2} \quad (-0.4\sigma)$
τ	$0.0558^{+0.0048}_{-0.0077} \quad (-0.0\sigma)$	D_{1420}	$853^{+30}_{-25} \quad (+0.5\sigma)$	$D_{\mathrm{M}}(0.51)$	$1952 \pm 67 \quad (+0.3\sigma)$
Y_{P}	$0.211^{+0.047}_{-0.091}$	D_{2000}	$246^{+14}_{-11} \quad (+0.7\sigma)$	$H(0.61)$	$96.1^{+1.7}_{-2.1} \quad (-0.4\sigma)$
$\ln(10^{10}A_{\mathrm{s}})$	$3.057^{+0.017}_{-0.020} \quad (-0.0\sigma)$	$n_{\mathrm{s},0.002}$	$0.971^{+0.021}_{-0.027} \quad (-0.6\sigma)$	$D_{\mathrm{M}}(0.61)$	$2273 \pm 74 \quad (+0.3\sigma)$
n_{s}	$0.971^{+0.021}_{-0.027} \quad (-0.6\sigma)$	Y_{P}	$0.211^{+0.048}_{-0.087} \quad (-73.0\sigma)$	$H(2.33)$	$235.0 \pm 2.2 \quad (-0.2\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.212^{+0.049}_{-0.088} \quad (-73.1\sigma)$	$D_{\mathrm{M}}(2.33)$	$5728^{+99}_{-87} \quad (+0.5\sigma)$
H_0	$69.1 \pm 3.2 \quad (-0.3\sigma)$	Age/Gyr	$13.72^{+0.22}_{-0.20} \quad (+0.5\sigma)$	$f\sigma_8(0.15)$	$0.438 \pm 0.030 \quad (+0.1\sigma)$
Ω_{Λ}	$0.704^{+0.037}_{-0.028} \quad (-0.2\sigma)$	z_*	$1087.1^{+1.9}_{-2.5} \quad (-0.4\sigma)$	$\sigma_8(0.15)$	$0.738 \pm 0.014 \quad (-0.1\sigma)$
Ω_{m}	$0.296^{+0.028}_{-0.037} \quad (+0.2\sigma)$	r_*	$144.65^{+0.99}_{-0.83} \quad (+0.5\sigma)$	$f\sigma_8(0.38)$	$0.460 \pm 0.023 \quad (+0.1\sigma)$
$\Omega_{\mathrm{m}}h^2$	$0.1403 \pm 0.0037 \quad (-0.0\sigma)$	$100\theta_*$	$1.0397^{+0.0010}_{-0.0012} \quad (-0.4\sigma)$	$\sigma_8(0.38)$	$0.6557^{+0.0098}_{-0.012} \quad (-0.3\sigma)$
$\Omega_{\mathrm{m}}h^3$	$0.0969^{+0.0026}_{-0.0034} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.91^{+0.10}_{-0.083} \quad (+0.6\sigma)$	$f\sigma_8(0.51)$	$0.460 \pm 0.020 \quad (+0.1\sigma)$
σ_8	$0.797 \pm 0.018 \quad (-0.1\sigma)$	z_{drag}	$1061.4^{+4.0}_{-4.9} \quad (-0.8\sigma)$	$\sigma_8(0.51)$	$0.6144^{+0.0084}_{-0.011} \quad (-0.3\sigma)$
S_8	$0.791 \pm 0.059 \quad (+0.1\sigma)$	r_{drag}	$146.9^{+1.2}_{-0.97} \quad (+0.6\sigma)$	$f\sigma_8(0.61)$	$0.457^{+0.018}_{-0.016} \quad (+0.0\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	$0.433 \pm 0.032 \quad (+0.1\sigma)$	k_{D}	$0.1431^{+0.0018}_{-0.0016} \quad (+0.4\sigma)$	$\sigma_8(0.61)$	$0.5852^{+0.0076}_{-0.010} \quad (-0.4\sigma)$
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	$0.587 \pm 0.028 \quad (+0.1\sigma)$	$100\theta_{\mathrm{D}}$	$0.1579^{+0.0020}_{-0.0028} \quad (-0.7\sigma)$	$f\sigma_8(2.33)$	$0.2958^{+0.0038}_{-0.0055} \quad (-0.5\sigma)$
$\sigma_8/h^{0.5}$	$0.959 \pm 0.039 \quad (+0.1\sigma)$	z_{eq}	$3336 \pm 89 \quad (-0.0\sigma)$	$\sigma_8(2.33)$	$0.3058^{+0.0046}_{-0.0062} \quad (-0.6\sigma)$
$r_{\mathrm{drag}}h$	$101.6 \pm 4.4 \quad (-0.2\sigma)$	k_{eq}	$0.01018 \pm 0.00027 \quad (-0.0\sigma)$	χ_{simall}^2	$396.5 \pm 1.4 \quad (+0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.407 \pm 0.092 \quad (+0.4\sigma)$	$100\theta_{\mathrm{eq}}$	$0.828 \pm 0.020 \quad (-0.1\sigma)$	χ_{plikEE}^2	$744.0 \pm 3.4 \quad (+0.0\sigma)$
z_{re}	$< 7.58 \quad (-0.1\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4558 \pm 0.0094 \quad (-0.1\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.127^{+0.036}_{-0.043} \quad (-0.0\sigma)$	$H(0.15)$	$74.2 \pm 2.9 \quad (-0.3\sigma)$	χ_{CMB}^2	$1140.4 \pm 3.7 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}e^{-2\tau}$	$1.902 \pm 0.024 \quad (-0.1\sigma)$	$D_{\mathrm{M}}(0.15)$	$629 \pm 27 \quad (+0.3\sigma)$		

$\bar{\chi}_{\mathrm{eff}}^2 = 1141.45$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.14$; $R - 1 = 0.00566$

20.46 base_yhe_plikHM_EE_lowE_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	$0.02325 \pm 0.00070 \quad (-0.3\sigma)$	D_{220}	$5943 \pm 160 \quad (+0.4\sigma)$	$H(0.51)$	$90.13^{+0.74}_{-0.89} \quad (-0.6\sigma)$
$\Omega_{\mathrm{c}} h^2$	$0.1168^{+0.0018}_{-0.0020} \quad (-0.5\sigma)$	D_{810}	$2601^{+51}_{-42} \quad (+0.7\sigma)$	$D_{\mathrm{M}}(0.51)$	$1965 \pm 22 \quad (+0.5\sigma)$
$100\theta_{\mathrm{MC}}$	$1.0386^{+0.0016}_{-0.0026} \quad (-1.6\sigma)$	D_{1420}	$853^{+31}_{-23} \quad (+1.1\sigma)$	$H(0.61)$	$95.67^{+0.72}_{-0.89} \quad (-0.7\sigma)$
τ	$0.0554^{+0.0041}_{-0.0071} \quad (+0.1\sigma)$	D_{2000}	$246^{+14}_{-11} \quad (+1.4\sigma)$	$D_{\mathrm{M}}(0.61)$	$2288 \pm 25 \quad (+0.5\sigma)$
Y_{P}	$0.204^{+0.042}_{-0.084}$	$n_{\mathrm{s},0.002}$	$0.967^{+0.014}_{-0.019} \quad (-0.9\sigma)$	$H(2.33)$	$235.1^{+1.4}_{-1.9} \quad (-0.9\sigma)$
$\ln(10^{10} A_{\mathrm{s}})$	$3.056^{+0.016}_{-0.019} \quad (+0.0\sigma)$	Y_{P}	$0.204^{+0.047}_{-0.076} \quad (-163.3\sigma)$	$D_{\mathrm{M}}(2.33)$	$5748^{+51}_{-41} \quad (+0.8\sigma)$
n_{s}	$0.967^{+0.014}_{-0.019} \quad (-0.9\sigma)$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	$0.205^{+0.047}_{-0.076} \quad (-163.5\sigma)$	$f\sigma_8(0.15)$	$0.444 \pm 0.010 \quad (-0.3\sigma)$
y_{cal}	$1.0001 \pm 0.0025 \quad (+0.0\sigma)$	Age/Gyr	$13.76^{+0.12}_{-0.097} \quad (+0.8\sigma)$	$\sigma_8(0.15)$	$0.7399^{+0.0096}_{-0.013} \quad (-0.6\sigma)$
H_0	$68.43 \pm 0.96 \quad (-0.4\sigma)$	z_*	$1087.2^{+1.5}_{-2.5} \quad (-1.6\sigma)$	$f\sigma_8(0.38)$	$0.4642^{+0.0084}_{-0.0098} \quad (-0.4\sigma)$
Ω_{Λ}	$0.6993 \pm 0.0089 \quad (-0.1\sigma)$	r_*	$144.7^{+1.0}_{-0.80} \quad (+0.9\sigma)$	$\sigma_8(0.38)$	$0.6570^{+0.0083}_{-0.012} \quad (-0.7\sigma)$
Ω_{m}	$0.3007 \pm 0.0089 \quad (+0.1\sigma)$	$100\theta_*$	$1.03958^{+0.00092}_{-0.0010} \quad (-0.4\sigma)$	$f\sigma_8(0.51)$	$0.4641^{+0.0077}_{-0.0093} \quad (-0.4\sigma)$
$\Omega_{\mathrm{m}} h^2$	$0.1407^{+0.0019}_{-0.0023} \quad (-0.7\sigma)$	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	$13.92^{+0.11}_{-0.081} \quad (+1.0\sigma)$	$\sigma_8(0.51)$	$0.6154^{+0.0078}_{-0.011} \quad (-0.7\sigma)$
$\Omega_{\mathrm{m}} h^3$	$0.0963^{+0.0018}_{-0.0024} \quad (-0.9\sigma)$	z_{drag}	$1060.5^{+2.4}_{-3.5} \quad (-1.1\sigma)$	$f\sigma_8(0.61)$	$0.4601^{+0.0072}_{-0.0090} \quad (-0.5\sigma)$
σ_8	$0.800^{+0.011}_{-0.015} \quad (-0.6\sigma)$	r_{drag}	$147.1^{+1.2}_{-0.97} \quad (+0.8\sigma)$	$\sigma_8(0.61)$	$0.5859^{+0.0074}_{-0.011} \quad (-0.7\sigma)$
S_8	$0.800 \pm 0.020 \quad (-0.3\sigma)$	k_{D}	$0.1431^{+0.0018}_{-0.0015} \quad (+0.7\sigma)$	$f\sigma_8(2.33)$	$0.2958^{+0.0037}_{-0.0053} \quad (-0.7\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	$0.438 \pm 0.011 \quad (-0.3\sigma)$	$100\theta_{\mathrm{D}}$	$0.1578^{+0.0018}_{-0.0029} \quad (-1.8\sigma)$	$\sigma_8(2.33)$	$0.3055^{+0.0039}_{-0.0056} \quad (-0.7\sigma)$
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	$0.592^{+0.010}_{-0.012} \quad (-0.4\sigma)$	z_{eq}	$3348^{+44}_{-55} \quad (-0.7\sigma)$	χ_{simall}^2	$396.5 \pm 1.4 \quad (+0.0\sigma)$
$\sigma_8/h^{0.5}$	$0.967^{+0.014}_{-0.017} \quad (-0.3\sigma)$	k_{eq}	$0.01022^{+0.00014}_{-0.00017} \quad (-0.7\sigma)$	χ_{plikEE}^2	$743.1 \pm 3.1 \quad (-0.0\sigma)$
$r_{\mathrm{drag}} h$	$100.6 \pm 1.1 \quad (-0.1\sigma)$	$100\theta_{\mathrm{eq}}$	$0.8239 \pm 0.0074 \quad (+0.5\sigma)$	$\chi_{6\mathrm{DF}}^2$	$0.054 \pm 0.076 \quad (-0.0\sigma)$
$\langle d^2 \rangle^{1/2}$	$2.425 \pm 0.039 \quad (+0.5\sigma)$	$100\theta_{\mathrm{s,eq}}$	$0.4542 \pm 0.0040 \quad (+0.5\sigma)$	χ_{MGS}^2	$1.85 \pm 0.70 \quad (-0.1\sigma)$
z_{re}	$< 7.57 \quad (-0.1\sigma)$	$H(0.15)$	$73.60 \pm 0.91 \quad (-0.4\sigma)$	$\chi_{\mathrm{DR12BAO}}^2$	$4.5 \pm 1.3 \quad (+0.0\sigma)$
$10^9 A_{\mathrm{s}}$	$2.124^{+0.034}_{-0.041} \quad (+0.0\sigma)$	$D_{\mathrm{M}}(0.15)$	$634.4 \pm 8.3 \quad (+0.4\sigma)$	χ_{prior}^2	$1.0 \pm 1.4 \quad (-0.0\sigma)$
$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.901 \pm 0.025 \quad (-0.0\sigma)$	$H(0.38)$	$83.52^{+0.77}_{-0.90} \quad (-0.5\sigma)$	χ_{BAO}^2	$6.4 \pm 1.3 \quad (-0.0\sigma)$
D_{40}	$1256^{+51}_{-43} \quad (+0.8\sigma)$	$D_{\mathrm{M}}(0.38)$	$1516 \pm 18 \quad (+0.4\sigma)$	χ_{CMB}^2	$1139.6 \pm 3.4 \quad (-0.0\sigma)$

$\bar{\chi}_{\mathrm{eff}}^2 = 1146.96$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = -0.10$; $R - 1 = 0.01420$

20.47 base_yhe_plikHM_TT_lowl_lowE_Aver15

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02209 ± 0.00022	$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.460 ± 0.013	$H(0.15)$	72.21 ± 0.78
$\Omega_{\mathrm{c}} h^2$	0.1207 ± 0.0021	$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.611 ± 0.012	$D_{\mathrm{M}}(0.15)$	648.1 ± 7.9
$100\theta_{\mathrm{MC}}$	1.04074 ± 0.00049	$\sigma_8/h^{0.5}$	0.993 ± 0.016	$H(0.38)$	82.49 ± 0.56
τ	0.0519 ± 0.0081	$r_{\mathrm{drag}} h$	98.4 ± 1.6	$D_{\mathrm{M}}(0.38)$	1543 ± 16
Y_{P}	0.2437 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.455 ± 0.037	$H(0.51)$	89.29 ± 0.44
$\ln(10^{10} A_{\mathrm{s}})$	3.040 ± 0.016	z_{re}	7.48 ± 0.84	$D_{\mathrm{M}}(0.51)$	1997 ± 18
n_{s}	0.9621 ± 0.0059	$10^9 A_{\mathrm{s}}$	2.091 ± 0.034	$H(0.61)$	94.98 ± 0.35
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.884 ± 0.014	$D_{\mathrm{M}}(0.61)$	2323 ± 20
A_{217}^{CIB}	48 ± 7	D_{40}	1235 ± 15	$H(2.33)$	236.7 ± 1.3
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5712 ± 41	$D_{\mathrm{M}}(2.33)$	5779 ± 16
A_{143}^{tSZ}	5.1 ± 2.0	D_{810}	2536 ± 14	$f\sigma_8(0.15)$	0.464 ± 0.012
A_{100}^{PS}	263 ± 28	D_{1420}	814.7 ± 5.0	$\sigma_8(0.15)$	0.7490 ± 0.0075
A_{143}^{PS}	49 ± 8	D_{2000}	229.7 ± 1.8	$f\sigma_8(0.38)$	0.4799 ± 0.0094
$A_{143 \times 217}^{\mathrm{PS}}$	44 ± 9	$n_{\mathrm{s},0.002}$	0.9621 ± 0.0059	$\sigma_8(0.38)$	0.6629 ± 0.0060
A_{217}^{PS}	115 ± 10	Y_{P}	0.2437 ± 0.0040	$f\sigma_8(0.51)$	0.4773 ± 0.0080
A^{kSZ}	< 4.72	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0040	$\sigma_8(0.51)$	0.6199 ± 0.0055
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Age/Gyr	13.833 ± 0.037	$f\sigma_8(0.61)$	0.4716 ± 0.0071
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_*	1090.27 ± 0.41	$\sigma_8(0.61)$	0.5896 ± 0.0052
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	r_*	144.47 ± 0.48	$f\sigma_8(2.33)$	0.2969 ± 0.0026
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.4	$100\theta_*$	1.04099 ± 0.00046	$\sigma_8(2.33)$	0.3057 ± 0.0027
c_{100}	0.99960 ± 0.00061	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.879 ± 0.045	f_{2000}^{143}	31.0 ± 2.9
c_{217}	0.99826 ± 0.00062	z_{drag}	1059.29 ± 0.49	$f_{2000}^{143 \times 217}$	33.4 ± 2.1
H_0	66.84 ± 0.91	r_{drag}	147.23 ± 0.49	f_{2000}^{217}	108.0 ± 1.9
Ω_{Λ}	$0.679_{-0.012}^{+0.014}$	k_{D}	0.14057 ± 0.00054	χ_{simall}^2	397.0 ± 1.7
Ω_{m}	0.321 ± 0.013	$100\theta_{\mathrm{D}}$	0.16103 ± 0.00030	χ_{lowl}^2	24.0 ± 1.3
$\Omega_{\mathrm{m}} h^2$	0.1434 ± 0.0020	z_{eq}	3412 ± 48	χ_{plik}^2	771.3 ± 5.5
$\Omega_{\mathrm{m}} h^3$	0.09584 ± 0.00047	k_{eq}	0.01041 ± 0.00015	χ_{Aver15}^2	0.98 ± 1.4
σ_8	0.8116 ± 0.0088	$100\theta_{\mathrm{eq}}$	0.8108 ± 0.0089	χ_{prior}^2	7.3 ± 3.7
S_8	0.840 ± 0.024	$100\theta_{\mathrm{s,eq}}$	0.4483 ± 0.0046	χ_{CMB}^2	1192.2 ± 5.6

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.47$; $R - 1 = 0.00717$

20.48 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\text{b}}h^2$	0.02219 ± 0.00019	$\sigma_8/h^{0.5}$	0.982 ± 0.012	$H(0.51)$	89.63 ± 0.29
$\Omega_{\text{c}}h^2$	0.1190 ± 0.0012	$r_{\text{drag}}h$	99.74 ± 0.93	$D_{\text{M}}(0.51)$	1982 ± 11
$100\theta_{\text{MC}}$	1.04097 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.429 ± 0.028	$H(0.61)$	95.24 ± 0.25
τ	0.0540 ± 0.0079	z_{re}	7.64 ± 0.81	$D_{\text{M}}(0.61)$	2307 ± 12
Y_{P}	0.2440 ± 0.0039	$10^9 A_{\text{s}}$	2.091 ± 0.034	$H(2.33)$	235.71 ± 0.79
$\ln(10^{10} A_{\text{s}})$	3.040 ± 0.016	$10^9 A_{\text{s}} e^{-2\tau}$	1.877 ± 0.012	$D_{\text{M}}(2.33)$	5768 ± 12
n_{s}	0.9660 ± 0.0044	D_{40}	1226 ± 13	$f\sigma_8(0.15)$	0.4544 ± 0.0077
y_{cal}	1.0005 ± 0.0024	D_{220}	5719 ± 39	$\sigma_8(0.15)$	0.7460 ± 0.0069
A_{217}^{CIB}	48 ± 7	D_{810}	2535 ± 13	$f\sigma_8(0.38)$	0.4729 ± 0.0065
$\xi^{\text{tSZ} \times \text{CIB}}$	—	D_{1420}	815.5 ± 4.8	$\sigma_8(0.38)$	0.6613 ± 0.0059
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	230.0 ± 1.7	$f\sigma_8(0.51)$	0.4716 ± 0.0059
A_{100}^{PS}	262 ± 28	$n_{\text{s},0.002}$	0.9660 ± 0.0044	$\sigma_8(0.51)$	0.6190 ± 0.0055
A_{143}^{PS}	48 ± 8	Y_{P}	0.2440 ± 0.0039	$f\sigma_8(0.61)$	0.4667 ± 0.0054
$A_{143 \times 217}^{\text{PS}}$	43 ± 9	$Y_{\text{P}}^{\text{BBN}}$	0.2454 ± 0.0039	$\sigma_8(0.61)$	0.5890 ± 0.0052
A_{217}^{PS}	115 ± 10	Age/Gyr	13.810 ± 0.028	$f\sigma_8(2.33)$	0.2970 ± 0.0026
A^{kSZ}	< 4.73	z_*	1090.01 ± 0.31	$\sigma_8(2.33)$	0.3063 ± 0.0027
A_{100}^{dustTT}	8.9 ± 1.8	r_*	144.84 ± 0.32	f_{2000}^{143}	30.8 ± 2.9
A_{143}^{dustTT}	10.7 ± 1.8	$100\theta_*$	1.04121 ± 0.00041	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
$A_{143 \times 217}^{\text{dustTT}}$	18.3 ± 3.3	$D_{\text{M}}(z_*)/\text{Gpc}$	13.911 ± 0.032	f_{2000}^{217}	107.8 ± 1.9
A_{217}^{dustTT}	93.3 ± 7.4	z_{drag}	1059.40 ± 0.48	χ_{simall}^2	397.1 ± 1.9
c_{100}	0.99961 ± 0.00061	r_{drag}	147.57 ± 0.35	χ_{lowl}^2	23.15 ± 0.93
c_{217}	0.99824 ± 0.00062	k_{D}	0.14027 ± 0.00046	χ_{plik}^2	772.1 ± 5.4
H_0	67.59 ± 0.54	$100\theta_{\text{D}}$	0.16100 ± 0.00029	χ_{Aver15}^2	0.98 ± 1.4
Ω_{Λ}	0.6895 ± 0.0073	z_{eq}	3373 ± 29	$\chi_{6\text{DF}}^2$	0.060 ± 0.077
Ω_{m}	0.3105 ± 0.0073	k_{eq}	0.010296 ± 0.000087	χ_{MGS}^2	1.34 ± 0.52
$\Omega_{\text{m}}h^2$	0.1418 ± 0.0012	$100\theta_{\text{eq}}$	0.8181 ± 0.0053	χ_{DR12BAO}^2	4.8 ± 1.6
$\Omega_{\text{m}}h^3$	0.09584 ± 0.00047	$100\theta_{\text{s,eq}}$	0.4520 ± 0.0027	χ_{prior}^2	7.2 ± 3.6
σ_8	0.8072 ± 0.0078	$H(0.15)$	72.85 ± 0.47	χ_{BAO}^2	6.2 ± 1.3
S_8	0.821 ± 0.015	$D_{\text{M}}(0.15)$	641.5 ± 4.6	χ_{CMB}^2	1192.3 ± 5.4
$\sigma_8\Omega_{\text{m}}^{0.5}$	0.4498 ± 0.0082	$H(0.38)$	82.94 ± 0.35		
$\sigma_8\Omega_{\text{m}}^{0.25}$	0.6025 ± 0.0080	$D_{\text{M}}(0.38)$	1530.3 ± 9.3		

$\bar{\chi}_{\text{eff}}^2 = 1206.67; R - 1 = 0.01453$

20.49 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02212 ± 0.00021	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6087 ± 0.0076	$H(0.38)$	82.59 ± 0.45
$\Omega_{\mathrm{c}}h^2$	0.1202 ± 0.0016	$\sigma_8/h^{0.5}$	0.990 ± 0.010	$D_{\mathrm{M}}(0.38)$	1540 ± 12
$100\theta_{\mathrm{MC}}$	1.04078 ± 0.00046	$r_{\mathrm{drag}}h$	98.7 ± 1.2	$H(0.51)$	89.37 ± 0.36
τ	0.0522 ± 0.0079	$\langle d^2 \rangle^{1/2}$	2.448 ± 0.025	$D_{\mathrm{M}}(0.51)$	1994 ± 14
Y_{P}	0.2437 ± 0.0039	z_{re}	7.49 ± 0.81	$H(0.61)$	95.04 ± 0.30
$\ln(10^{10}A_{\mathrm{s}})$	3.039 ± 0.015	$10^9 A_{\mathrm{s}}$	2.090 ± 0.031	$D_{\mathrm{M}}(0.61)$	2319 ± 16
n_{s}	0.9628 ± 0.0050	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.012	$H(2.33)$	236.46 ± 0.96
y_{cal}	1.0005 ± 0.0024	D_{40}	1233 ± 13	$D_{\mathrm{M}}(2.33)$	5777 ± 14
A_{217}^{CIB}	48 ± 7	D_{220}	5715 ± 40	$f\sigma_8(0.15)$	0.4613 ± 0.0081
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2536 ± 13	$\sigma_8(0.15)$	0.7480 ± 0.0056
A_{143}^{tSZ}	5.1 ± 2.0	D_{1420}	814.8 ± 5.0	$f\sigma_8(0.38)$	0.4780 ± 0.0062
A_{100}^{PS}	263 ± 28	D_{2000}	229.8 ± 1.8	$\sigma_8(0.38)$	0.6623 ± 0.0049
A_{143}^{PS}	49 ± 8	$n_{\mathrm{s},0.002}$	0.9628 ± 0.0050	$f\sigma_8(0.51)$	0.4758 ± 0.0053
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	0.2437 ± 0.0039	$\sigma_8(0.51)$	0.6195 ± 0.0046
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0039	$f\sigma_8(0.61)$	0.4702 ± 0.0047
A^{kSZ}	< 4.76	Age/Gyr	13.828 ± 0.033	$\sigma_8(0.61)$	0.5893 ± 0.0044
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	z_*	1090.20 ± 0.36	$f\sigma_8(2.33)$	0.2968 ± 0.0024
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.57 ± 0.37	$\sigma_8(2.33)$	0.3057 ± 0.0026
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04103 ± 0.00044	f_{2000}^{143}	31.0 ± 3.0
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.887 ± 0.035	$f_{2000}^{143 \times 217}$	33.4 ± 2.1
c_{100}	0.99961 ± 0.00061	z_{drag}	1059.31 ± 0.49	f_{2000}^{217}	108.0 ± 1.9
c_{217}	0.99825 ± 0.00062	r_{drag}	147.31 ± 0.39	$\chi_{\mathrm{lensing}}^2$	9.45 ± 0.89
H_0	67.01 ± 0.71	k_{D}	0.14050 ± 0.00048	χ_{simall}^2	396.9 ± 1.6
Ω_{Λ}	0.6814 ± 0.0098	$100\theta_{\mathrm{D}}$	0.16102 ± 0.00030	χ_{lowl}^2	23.8 ± 1.1
Ω_{m}	0.3186 ± 0.0098	z_{eq}	3402 ± 36	χ_{plik}^2	771.1 ± 5.3
$\Omega_{\mathrm{m}}h^2$	0.1430 ± 0.0015	k_{eq}	0.01038 ± 0.00011	χ_{Aver15}^2	0.97 ± 1.4
$\Omega_{\mathrm{m}}h^3$	0.09583 ± 0.00047	$100\theta_{\mathrm{eq}}$	0.8126 ± 0.0067	χ_{prior}^2	7.2 ± 3.6
σ_8	0.8102 ± 0.0063	$100\theta_{\mathrm{s,eq}}$	0.4492 ± 0.0034	χ_{CMB}^2	1201.2 ± 5.5
S_8	0.835 ± 0.016	$H(0.15)$	72.36 ± 0.61		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4573 ± 0.0088	$D_{\mathrm{M}}(0.15)$	646.5 ± 6.1		
$\bar{\chi}_{\mathrm{eff}}^2 = 1209.34$; $R - 1 = 0.01600$					

20.50 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00019	$\sigma_8/h^{0.5}$	0.9842 ± 0.0089	$H(0.51)$	89.61 ± 0.27
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0011	$r_{\mathrm{drag}}h$	99.63 ± 0.84	$D_{\mathrm{M}}(0.51)$	1984 ± 10
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.436 ± 0.021	$H(0.61)$	95.22 ± 0.24
τ	0.0552 ± 0.0073	z_{re}	7.77 ± 0.74	$D_{\mathrm{M}}(0.61)$	2308 ± 11
Y_{P}	0.2440 ± 0.0039	$10^9 A_{\mathrm{s}}$	2.098 ± 0.030	$H(2.33)$	235.80 ± 0.71
$\ln(10^{10} A_{\mathrm{s}})$	3.043 ± 0.014	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878^{+0.011}_{-0.010}$	$D_{\mathrm{M}}(2.33)$	5769 ± 12
n_{s}	0.9655 ± 0.0042	D_{40}	1228 ± 12	$f\sigma_8(0.15)$	0.4559 ± 0.0061
y_{cal}	1.0006 ± 0.0024	D_{220}	5723 ± 39	$\sigma_8(0.15)$	0.7474 ± 0.0056
A_{217}^{CIB}	47 ± 7	D_{810}	2537 ± 13	$f\sigma_8(0.38)$	0.4742 ± 0.0050
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.7 ± 4.8	$\sigma_8(0.38)$	0.6625 ± 0.0049
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	230.1 ± 1.7	$f\sigma_8(0.51)$	0.4728 ± 0.0045
A_{100}^{PS}	262 ± 28	$n_{\mathrm{s},0.002}$	0.9655 ± 0.0042	$\sigma_8(0.51)$	0.6200 ± 0.0046
A_{143}^{PS}	48 ± 8	Y_{P}	0.2440 ± 0.0039	$f\sigma_8(0.61)$	0.4679 ± 0.0042
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0039	$\sigma_8(0.61)$	0.5900 ± 0.0044
A_{217}^{PS}	115 ± 10	Age/Gyr	13.811 ± 0.028	$f\sigma_8(2.33)$	0.2975 ± 0.0023
A^{kSZ}	< 4.68	z_*	1090.02 ± 0.30	$\sigma_8(2.33)$	0.3067 ± 0.0024
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	r_*	144.80 ± 0.29	f_{2000}^{143}	30.7 ± 2.9
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	$100\theta_*$	1.04119 ± 0.00041	$f_{2000}^{143 \times 217}$	33.1 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.907 ± 0.029	f_{2000}^{217}	107.8 ± 1.9
$A_{217}^{\mathrm{dust}TT}$	93.4 ± 7.4	z_{drag}	1059.41 ± 0.48	$\chi_{\mathrm{lensing}}^2$	9.25 ± 0.72
c_{100}	0.99961 ± 0.00061	r_{drag}	147.53 ± 0.33	χ_{simall}^2	397.1 ± 1.9
c_{217}	0.99824 ± 0.00062	k_{D}	0.14032 ± 0.00044	χ_{lowl}^2	23.30 ± 0.88
H_0	67.53 ± 0.49	$100\theta_{\mathrm{D}}$	0.16099 ± 0.00029	χ_{plik}^2	771.5 ± 5.2
Ω_{Λ}	0.6886 ± 0.0065	z_{eq}	3377 ± 26	χ_{Aver15}^2	0.98 ± 1.4
Ω_{m}	0.3114 ± 0.0065	k_{eq}	0.010306 ± 0.000078	$\chi_{6\mathrm{DF}}^2$	0.060 ± 0.072
$\Omega_{\mathrm{m}}h^2$	0.1420 ± 0.0011	$100\theta_{\mathrm{eq}}$	0.8174 ± 0.0047	χ_{MGS}^2	1.27 ± 0.46
$\Omega_{\mathrm{m}}h^3$	0.09586 ± 0.00047	$100\theta_{\mathrm{s,eq}}$	0.4517 ± 0.0024	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.5
σ_8	0.8088 ± 0.0062	$H(0.15)$	72.80 ± 0.43	χ_{prior}^2	7.2 ± 3.6
S_8	0.824 ± 0.012	$D_{\mathrm{M}}(0.15)$	642.0 ± 4.2	χ_{CMB}^2	1201.2 ± 5.4
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4513 ± 0.0065	$H(0.38)$	82.90 ± 0.33	χ_{BAO}^2	6.2 ± 1.3
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6041 ± 0.0062	$D_{\mathrm{M}}(0.38)$	1531.2 ± 8.6		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.53$; $R - 1 = 0.02107$

20.51 **base_yhe_plikHM_TT_lowl_lowE_Aver15_post_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02210 ± 0.00022	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.460 ± 0.013	$H(0.15)$	72.26 ± 0.77
$\Omega_{\mathrm{c}}h^2$	0.1206 ± 0.0021	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.611 ± 0.011	$D_{\mathrm{M}}(0.15)$	647.6 ± 7.8
$100\theta_{\mathrm{MC}}$	1.04075 ± 0.00049	$\sigma_8/h^{0.5}$	0.994 ± 0.016	$H(0.38)$	82.51 ± 0.56
τ	$0.0537^{+0.0045}_{-0.0084}$	$r_{\mathrm{drag}}h$	98.5 ± 1.6	$D_{\mathrm{M}}(0.38)$	1542 ± 16
Y_{P}	0.2437 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.457 ± 0.037	$H(0.51)$	89.32 ± 0.44
$\ln(10^{10}A_{\mathrm{s}})$	$3.043^{+0.012}_{-0.016}$	z_{re}	$7.66^{+0.50}_{-0.85}$	$D_{\mathrm{M}}(0.51)$	1996 ± 18
n_{s}	0.9624 ± 0.0058	$10^9 A_{\mathrm{s}}$	$2.097^{+0.024}_{-0.034}$	$H(0.61)$	95.00 ± 0.35
y_{cal}	1.0005 ± 0.0024	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.013	$D_{\mathrm{M}}(0.61)$	2322 ± 20
A_{217}^{CIB}	48 ± 7	D_{40}	1234 ± 15	$H(2.33)$	236.7 ± 1.3
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{220}	5712 ± 40	$D_{\mathrm{M}}(2.33)$	5778 ± 16
A_{143}^{tSZ}	5.1 ± 2.0	D_{810}	2536 ± 13	$f\sigma_8(0.15)$	0.464 ± 0.012
A_{100}^{PS}	262 ± 28	D_{1420}	814.7 ± 5.0	$\sigma_8(0.15)$	0.7500 ± 0.0070
A_{143}^{PS}	49 ± 8	D_{2000}	229.8 ± 1.8	$f\sigma_8(0.38)$	0.4802 ± 0.0094
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$n_{\mathrm{s},0.002}$	0.9624 ± 0.0058	$\sigma_8(0.38)$	$0.6638^{+0.0050}_{-0.0058}$
A_{217}^{PS}	115 ± 10	Y_{P}	0.2437 ± 0.0039	$f\sigma_8(0.51)$	0.4777 ± 0.0080
A^{kSZ}	< 4.68	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2451 ± 0.0040	$\sigma_8(0.51)$	$0.6208^{+0.0044}_{-0.0053}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Age/Gyr	13.832 ± 0.036	$f\sigma_8(0.61)$	0.4720 ± 0.0070
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	z_*	1090.25 ± 0.41	$\sigma_8(0.61)$	$0.5905^{+0.0040}_{-0.0050}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	r_*	144.50 ± 0.48	$f\sigma_8(2.33)$	$0.2974^{+0.0019}_{-0.0025}$
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.4	$100\theta_*$	1.04100 ± 0.00046	$\sigma_8(2.33)$	$0.3062^{+0.0019}_{-0.0027}$
c_{100}	0.99960 ± 0.00061	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.880 ± 0.044	f_{2000}^{143}	30.9 ± 2.9
c_{217}	0.99826 ± 0.00063	z_{drag}	1059.30 ± 0.49	$f_{2000}^{143 \times 217}$	33.4 ± 2.1
H_0	66.88 ± 0.90	r_{drag}	147.25 ± 0.48	f_{2000}^{217}	108.0 ± 1.9
Ω_{Λ}	0.679 ± 0.013	k_{D}	0.14056 ± 0.00054	χ_{simall}^2	396.8 ± 1.7
Ω_{m}	0.321 ± 0.013	$100\theta_{\mathrm{D}}$	0.16103 ± 0.00030	χ_{lowl}^2	24.0 ± 1.3
$\Omega_{\mathrm{m}}h^2$	0.1433 ± 0.0020	z_{eq}	3410 ± 47	χ_{plik}^2	771.1 ± 5.4
$\Omega_{\mathrm{m}}h^3$	0.09584 ± 0.00047	k_{eq}	0.01041 ± 0.00014	χ_{Aver15}^2	0.98 ± 1.4
σ_8	0.8126 ± 0.0084	$100\theta_{\mathrm{eq}}$	0.8112 ± 0.0088	χ_{prior}^2	7.2 ± 3.7
S_8	0.840 ± 0.024	$100\theta_{\mathrm{s,eq}}$	0.4485 ± 0.0045	χ_{CMB}^2	1191.9 ± 5.4

$\bar{\chi}_{\mathrm{eff}}^2 = 1200.15$; $R - 1 = 0.00690$

20.52 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}} h^2$	0.02219 ± 0.00020	$\sigma_8/h^{0.5}$	0.983 ± 0.011	$H(0.51)$	89.64 ± 0.29
$\Omega_{\mathrm{c}} h^2$	0.1189 ± 0.0012	$r_{\mathrm{drag}} h$	99.77 ± 0.93	$D_{\mathrm{M}}(0.51)$	1982 ± 11
$100\theta_{\mathrm{MC}}$	1.04098 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.431 ± 0.027	$H(0.61)$	95.25 ± 0.25
τ	$0.0550^{+0.0054}_{-0.0081}$	z_{re}	$7.76^{+0.58}_{-0.83}$	$D_{\mathrm{M}}(0.61)$	2307 ± 12
Y_{P}	0.2441 ± 0.0039	$10^9 A_{\mathrm{s}}$	$2.095^{+0.026}_{-0.034}$	$H(2.33)$	235.69 ± 0.79
$\ln(10^{10} A_{\mathrm{s}})$	$3.042^{+0.013}_{-0.016}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	1.877 ± 0.012	$D_{\mathrm{M}}(2.33)$	5768 ± 12
n_{s}	0.9662 ± 0.0044	D_{40}	1226 ± 13	$f\sigma_8(0.15)$	0.4547 ± 0.0076
y_{cal}	1.0005 ± 0.0024	D_{220}	5719 ± 39	$\sigma_8(0.15)$	$0.7467^{+0.0059}_{-0.0068}$
A_{217}^{CIB}	48 ± 7	D_{810}	2535 ± 13	$f\sigma_8(0.38)$	0.4733 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.5 ± 4.8	$\sigma_8(0.38)$	$0.6620^{+0.0049}_{-0.0058}$
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	230.0 ± 1.7	$f\sigma_8(0.51)$	0.4720 ± 0.0057
A_{100}^{PS}	262 ± 28	$n_{\mathrm{s},0.002}$	0.9662 ± 0.0044	$\sigma_8(0.51)$	$0.6196^{+0.0044}_{-0.0054}$
A_{143}^{PS}	48 ± 8	Y_{P}	0.2441 ± 0.0039	$f\sigma_8(0.61)$	0.4671 ± 0.0052
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2454 ± 0.0039	$\sigma_8(0.61)$	$0.5896^{+0.0041}_{-0.0051}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.809 ± 0.028	$f\sigma_8(2.33)$	$0.2973^{+0.0020}_{-0.0026}$
A^{kSZ}	< 4.72	z_*	1090.00 ± 0.31	$\sigma_8(2.33)$	$0.3066^{+0.0021}_{-0.0027}$
$A_{100}^{\mathrm{dustTT}}$	8.9 ± 1.8	r_*	144.85 ± 0.32	f_{2000}^{143}	30.7 ± 2.9
$A_{143}^{\mathrm{dustTT}}$	10.7 ± 1.8	$100\theta_*$	1.04121 ± 0.00041	$f_{2000}^{143 \times 217}$	33.2 ± 2.0
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.911 ± 0.032	f_{2000}^{217}	107.8 ± 1.9
$A_{217}^{\mathrm{dustTT}}$	93.4 ± 7.4	z_{drag}	1059.41 ± 0.48	χ_{small}^2	397.0 ± 1.9
c_{100}	0.99960 ± 0.00061	r_{drag}	147.57 ± 0.35	χ_{lowl}^2	23.16 ± 0.93
c_{217}	0.99824 ± 0.00062	k_{D}	0.14027 ± 0.00046	χ_{plik}^2	771.9 ± 5.3
H_0	67.60 ± 0.54	$100\theta_{\mathrm{D}}$	0.16100 ± 0.00029	χ_{Aver15}^2	0.97 ± 1.4
Ω_{Λ}	0.6897 ± 0.0072	z_{eq}	3373 ± 29	$\chi_{6\mathrm{DF}}^2$	0.058 ± 0.075
Ω_{m}	0.3103 ± 0.0072	k_{eq}	0.010294 ± 0.000087	χ_{MGS}^2	1.35 ± 0.52
$\Omega_{\mathrm{m}} h^2$	0.1418 ± 0.0012	$100\theta_{\mathrm{eq}}$	0.8182 ± 0.0053	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.6
$\Omega_{\mathrm{m}} h^3$	0.09584 ± 0.00047	$100\theta_{\mathrm{s,eq}}$	0.4521 ± 0.0027	χ_{prior}^2	7.2 ± 3.6
σ_8	$0.8079^{+0.0068}_{-0.0077}$	$H(0.15)$	72.87 ± 0.46	χ_{BAO}^2	6.2 ± 1.3
S_8	0.822 ± 0.015	$D_{\mathrm{M}}(0.15)$	641.4 ± 4.6	χ_{CMB}^2	1192.1 ± 5.3
$\sigma_8 \Omega_{\mathrm{m}}^{0.5}$	0.4501 ± 0.0081	$H(0.38)$	82.95 ± 0.35		
$\sigma_8 \Omega_{\mathrm{m}}^{0.25}$	0.6030 ± 0.0078	$D_{\mathrm{M}}(0.38)$	1530.0 ± 9.3		

$\bar{\chi}_{\mathrm{eff}}^2 = 1206.42$; $R - 1 = 0.01542$

20.53 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02213 ± 0.00021	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6088 ± 0.0077	$H(0.38)$	82.63 ± 0.44
$\Omega_{\mathrm{c}}h^2$	0.1201 ± 0.0015	$\sigma_8/h^{0.5}$	0.990 ± 0.010	$D_{\mathrm{M}}(0.38)$	1539 ± 12
$100\theta_{\mathrm{MC}}$	1.04079 ± 0.00046	$r_{\mathrm{drag}}h$	98.8 ± 1.2	$H(0.51)$	89.40 ± 0.35
τ	$0.0537^{+0.0048}_{-0.0081}$	$\langle d^2 \rangle^{1/2}$	2.449 ± 0.025	$D_{\mathrm{M}}(0.51)$	1993 ± 14
Y_{P}	0.2437 ± 0.0039	z_{re}	$7.66^{+0.52}_{-0.82}$	$H(0.61)$	95.06 ± 0.29
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.015}$	$10^9 A_{\mathrm{s}}$	$2.095^{+0.022}_{-0.031}$	$D_{\mathrm{M}}(0.61)$	2318 ± 15
n_{s}	0.9632 ± 0.0049	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.881 ± 0.011	$H(2.33)$	236.38 ± 0.94
y_{cal}	1.0005 ± 0.0024	D_{40}	1232 ± 13	$D_{\mathrm{M}}(2.33)$	5776 ± 14
A_{217}^{CIB}	48 ± 7	D_{220}	5715 ± 40	$f\sigma_8(0.15)$	0.4611 ± 0.0081
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{810}	2536 ± 13	$\sigma_8(0.15)$	0.7487 ± 0.0052
A_{143}^{tSZ}	5.1 ± 2.0	D_{1420}	814.8 ± 4.9	$f\sigma_8(0.38)$	0.4780 ± 0.0063
A_{100}^{PS}	263 ± 28	D_{2000}	229.8 ± 1.8	$\sigma_8(0.38)$	$0.6630^{+0.0040}_{-0.0047}$
A_{143}^{PS}	49 ± 8	$n_{\mathrm{s},0.002}$	0.9632 ± 0.0049	$f\sigma_8(0.51)$	0.4759 ± 0.0053
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	Y_{P}	0.2437 ± 0.0039	$\sigma_8(0.51)$	$0.6202^{+0.0037}_{-0.0045}$
A_{217}^{PS}	115 ± 10	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0039	$f\sigma_8(0.61)$	0.4704 ± 0.0047
A^{kSZ}	< 4.71	Age/Gyr	13.826 ± 0.032	$\sigma_8(0.61)$	$0.5900^{+0.0035}_{-0.0043}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	z_*	1090.18 ± 0.35	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0023}$
$A_{143}^{\mathrm{dust}TT}$	10.7 ± 1.8	r_*	144.60 ± 0.37	$\sigma_8(2.33)$	$0.3062^{+0.0019}_{-0.0026}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.3 ± 3.3	$100\theta_*$	1.04104 ± 0.00043	f_{2000}^{143}	30.9 ± 3.0
$A_{217}^{\mathrm{dust}TT}$	93.5 ± 7.4	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.890 ± 0.035	$f_{2000}^{143 \times 217}$	33.3 ± 2.0
c_{100}	0.99961 ± 0.00061	z_{drag}	1059.32 ± 0.49	f_{2000}^{217}	107.9 ± 1.9
c_{217}	0.99825 ± 0.00062	r_{drag}	147.34 ± 0.38	$\chi_{\mathrm{lensing}}^2$	9.43 ± 0.89
H_0	67.08 ± 0.69	k_{D}	0.14048 ± 0.00047	χ_{simall}^2	396.8 ± 1.6
Ω_{Λ}	0.6823 ± 0.0095	$100\theta_{\mathrm{D}}$	0.16101 ± 0.00030	χ_{lowl}^2	23.7 ± 1.0
Ω_{m}	0.3177 ± 0.0095	z_{eq}	3399 ± 35	χ_{plik}^2	770.9 ± 5.3
$\Omega_{\mathrm{m}}h^2$	0.1429 ± 0.0015	k_{eq}	0.01037 ± 0.00011	χ_{Aver15}^2	0.97 ± 1.4
$\Omega_{\mathrm{m}}h^3$	0.09583 ± 0.00047	$100\theta_{\mathrm{eq}}$	0.8132 ± 0.0065	χ_{prior}^2	7.2 ± 3.6
σ_8	0.8109 ± 0.0060	$100\theta_{\mathrm{s,eq}}$	0.4495 ± 0.0033	χ_{CMB}^2	1200.9 ± 5.5
S_8	0.834 ± 0.016	$H(0.15)$	72.42 ± 0.59		
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4570 ± 0.0088	$D_{\mathrm{M}}(0.15)$	645.9 ± 6.0		
$\bar{\chi}_{\mathrm{eff}}^2 = 1209.04$; $R - 1 = 0.01844$					

20.54 base_yhe_plikHM_TT_lowl_lowE_Aver15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02219 ± 0.00019	$\sigma_8/h^{0.5}$	0.9845 ± 0.0088	$H(0.51)$	89.62 ± 0.27
$\Omega_{\mathrm{c}}h^2$	0.1191 ± 0.0011	$r_{\mathrm{drag}}h$	99.66 ± 0.83	$D_{\mathrm{M}}(0.51)$	1983 ± 10
$100\theta_{\mathrm{MC}}$	1.04096 ± 0.00043	$\langle d^2 \rangle^{1/2}$	2.436 ± 0.021	$H(0.61)$	95.23 ± 0.24
τ	$0.0558^{+0.0058}_{-0.0075}$	z_{re}	$7.84^{+0.61}_{-0.75}$	$D_{\mathrm{M}}(0.61)$	2308 ± 11
Y_{P}	0.2440 ± 0.0039	$10^9 A_{\mathrm{s}}$	$2.100^{+0.025}_{-0.030}$	$H(2.33)$	235.78 ± 0.70
$\ln(10^{10} A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.014}$	$10^9 A_{\mathrm{s}} e^{-2\tau}$	$1.878^{+0.011}_{-0.010}$	$D_{\mathrm{M}}(2.33)$	5769 ± 12
n_{s}	0.9656 ± 0.0042	D_{40}	1228 ± 12	$f\sigma_8(0.15)$	0.4559 ± 0.0061
y_{cal}	1.0006 ± 0.0024	D_{220}	5722 ± 39	$\sigma_8(0.15)$	0.7477 ± 0.0054
A_{217}^{CIB}	47 ± 7	D_{810}	2536 ± 13	$f\sigma_8(0.38)$	0.4743 ± 0.0050
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	D_{1420}	815.7 ± 4.8	$\sigma_8(0.38)$	$0.6628^{+0.0043}_{-0.0049}$
A_{143}^{tSZ}	5.1 ± 2.0	D_{2000}	230.1 ± 1.7	$f\sigma_8(0.51)$	0.4730 ± 0.0045
A_{100}^{PS}	262 ± 28	$n_{\mathrm{s},0.002}$	0.9656 ± 0.0042	$\sigma_8(0.51)$	$0.6203^{+0.0040}_{-0.0046}$
A_{143}^{PS}	48 ± 8	Y_{P}	0.2440 ± 0.0039	$f\sigma_8(0.61)$	0.4680 ± 0.0041
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0039	$\sigma_8(0.61)$	$0.5903^{+0.0038}_{-0.0044}$
A_{217}^{PS}	115 ± 10	Age/Gyr	13.810 ± 0.028	$f\sigma_8(2.33)$	$0.2976^{+0.0019}_{-0.0023}$
A^{kSZ}	< 4.68	z_*	1090.01 ± 0.30	$\sigma_8(2.33)$	$0.3069^{+0.0021}_{-0.0024}$
$A_{100}^{\mathrm{dustTT}}$	8.9 ± 1.8	r_*	144.81 ± 0.29	f_{2000}^{143}	30.7 ± 2.9
$A_{143}^{\mathrm{dustTT}}$	10.7 ± 1.8	$100\theta_*$	1.04120 ± 0.00041	$f_{2000}^{143 \times 217}$	33.1 ± 2.0
$A_{143 \times 217}^{\mathrm{dustTT}}$	18.3 ± 3.3	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.908 ± 0.029	f_{2000}^{217}	107.8 ± 1.9
$A_{217}^{\mathrm{dustTT}}$	93.4 ± 7.4	z_{drag}	1059.41 ± 0.48	$\chi_{\mathrm{lensing}}^2$	9.22 ± 0.68
c_{100}	0.99961 ± 0.00061	r_{drag}	147.54 ± 0.33	χ_{simall}^2	397.1 ± 1.9
c_{217}	0.99824 ± 0.00062	k_{D}	0.14031 ± 0.00044	χ_{lowl}^2	23.30 ± 0.88
H_0	67.55 ± 0.49	$100\theta_{\mathrm{D}}$	0.16099 ± 0.00029	χ_{plik}^2	771.4 ± 5.2
Ω_{Λ}	0.6889 ± 0.0064	z_{eq}	3376 ± 25	χ_{Aver15}^2	0.97 ± 1.4
Ω_{m}	0.3111 ± 0.0064	k_{eq}	0.010304 ± 0.000077	$\chi_{6\mathrm{DF}}^2$	0.057 ± 0.069
$\Omega_{\mathrm{m}}h^2$	0.1419 ± 0.0011	$100\theta_{\mathrm{eq}}$	0.8176 ± 0.0046	χ_{MGS}^2	1.28 ± 0.45
$\Omega_{\mathrm{m}}h^3$	0.09586 ± 0.00047	$100\theta_{\mathrm{s,eq}}$	0.4517 ± 0.0024	$\chi_{\mathrm{DR12BAO}}^2$	4.8 ± 1.5
σ_8	0.8091 ± 0.0060	$H(0.15)$	72.82 ± 0.42	χ_{prior}^2	7.2 ± 3.5
S_8	0.824 ± 0.012	$D_{\mathrm{M}}(0.15)$	641.9 ± 4.2	χ_{CMB}^2	1201.0 ± 5.3
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4513 ± 0.0065	$H(0.38)$	82.91 ± 0.32	χ_{BAO}^2	6.1 ± 1.2
$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6043 ± 0.0062	$D_{\mathrm{M}}(0.38)$	1530.9 ± 8.5		

$\bar{\chi}_{\mathrm{eff}}^2 = 1215.36$; $R - 1 = 0.02251$

20.55 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022339	0.02233 ± 0.00015	Ω_m	0.3175	0.3172 ± 0.0085	z_{eq}	3408.9	3407 ± 31
$\Omega_c h^2$	0.12031	0.1202 ± 0.0014	$\Omega_m h^2$	0.14330	0.1432 ± 0.0013	k_{eq}	0.010404	0.010399 ± 0.000094
$100\theta_{\text{MC}}$	1.040806	1.04083 ± 0.00034	$\Omega_m h^3$	0.096267	0.09625 ± 0.00032	$100\theta_{\text{eq}}$	0.8119	0.8123 ± 0.0058
τ	0.0542	0.0541 ± 0.0079	σ_8	0.8123	0.8115 ± 0.0075	$100\theta_{\text{s,eq}}$	0.44869	0.4489 ± 0.0030
Y_{P}	0.24306	0.2433 ± 0.0038	S_8	0.8356	0.834 ± 0.016	$H(0.15)$	72.53	72.55 ± 0.52
$\ln(10^{10} A_{\text{s}})$	3.0445	3.044 ± 0.016	$\sigma_8 \Omega_{\text{m}}^{0.5}$	0.4577	0.4570 ± 0.0088	$D_{\text{M}}(0.15)$	644.9	644.7 ± 5.3
n_{s}	0.96472	0.9638 ± 0.0046	$\sigma_8 \Omega_{\text{m}}^{0.25}$	0.6097	0.6090 ± 0.0083	$H(0.38)$	82.749	82.77 ± 0.38
y_{cal}	1.00055	1.0006 ± 0.0025	$\sigma_8/h^{0.5}$	0.9910	0.990 ± 0.012	$D_{\text{M}}(0.38)$	1536.6	1536 ± 11
A_{217}^{CIB}	45.9	47 ± 7	$r_{\text{drag}} h$	98.79	98.9 ± 1.1	$H(0.51)$	89.531	89.54 ± 0.30
$\xi^{\text{tSZ} \times \text{CIB}}$	0.60	—	$\langle d^2 \rangle^{1/2}$	2.4499	2.450 ± 0.028	$D_{\text{M}}(0.51)$	1989.5	1989 ± 12
A_{143}^{tSZ}	7.09	$5.5^{+2.1}_{-1.9}$	z_{re}	7.67	7.64 ± 0.80	$H(0.61)$	95.199	95.21 ± 0.24
A_{100}^{PS}	248.1	257 ± 28	$10^9 A_{\text{s}}$	2.1000	2.099 ± 0.034	$D_{\text{M}}(0.61)$	2314.3	2314 ± 13
A_{143}^{PS}	49.4	46 ± 8	$10^9 A_{\text{s}} e^{-2\tau}$	1.8844	1.884 ± 0.012	$H(2.33)$	236.73	236.67 ± 0.82
$A_{143 \times 217}^{\text{PS}}$	51.7	43 ± 9	D_{40}	1231.4	1234 ± 13	$D_{\text{M}}(2.33)$	5767.2	5767 ± 11
A_{217}^{PS}	121.7	115 ± 10	D_{220}	5729.1	5732 ± 38	$f\sigma_8(0.15)$	0.4618	0.4611 ± 0.0082
A^{kSZ}	0.00	< 4.08	D_{810}	2541.3	2540 ± 14	$\sigma_8(0.15)$	0.7500	0.7493 ± 0.0066
A_{100}^{dustTT}	8.78	8.9 ± 1.8	D_{1420}	818.59	817.5 ± 4.8	$f\sigma_8(0.38)$	0.4788	0.4782 ± 0.0067
A_{143}^{dustTT}	11.01	10.9 ± 1.8	D_{2000}	231.49	231.1 ± 1.6	$\sigma_8(0.38)$	0.6641	0.6636 ± 0.0057
$A_{143 \times 217}^{\text{dustTT}}$	19.94	18.6 ± 3.3	$n_{\text{s},0.002}$	0.96472	0.9638 ± 0.0046	$f\sigma_8(0.51)$	0.4767	0.4761 ± 0.0059
A_{217}^{dustTT}	95.4	93.7 ± 7.3	Y_{P}	0.24306	0.2433 ± 0.0038	$\sigma_8(0.51)$	0.6213	0.6208 ± 0.0052
A_{100}^{dustTE}	0.1149	0.115 ± 0.038	$Y_{\text{P}}^{\text{BBN}}$	0.24437	0.2446 ± 0.0038	$f\sigma_8(0.61)$	0.4712	0.4707 ± 0.0054
$A_{100 \times 143}^{\text{dustTE}}$	0.1346	0.135 ± 0.029	Age/Gyr	13.8053	13.805 ± 0.026	$\sigma_8(0.61)$	0.59097	0.5905 ± 0.0050
$A_{100 \times 217}^{\text{dustTE}}$	0.482	0.484 ± 0.084	z_*	1089.894	1089.91 ± 0.29	$f\sigma_8(2.33)$	0.29774	0.2975 ± 0.0025
A_{143}^{dustTE}	0.224	0.225 ± 0.054	r_*	144.382	144.41 ± 0.31	$\sigma_8(2.33)$	0.30669	0.3065 ± 0.0026
$A_{143 \times 217}^{\text{dustTE}}$	0.666	0.668 ± 0.080	$100\theta_*$	1.041051	1.04107 ± 0.00031	χ_{small}^2	396.06	397.1 ± 1.8
A_{217}^{dustTE}	2.087	2.09 ± 0.27	$D_{\text{M}}(z_*)/\text{Gpc}$	13.8689	13.871 ± 0.029	χ_{lowl}^2	23.48	23.7 ± 1.0
c_{100}	0.99972	0.99967 ± 0.00061	z_{drag}	1059.818	1059.79 ± 0.37	χ_{plik}^2	2344.4	2359.5 ± 5.9
c_{217}	0.99816	0.99818 ± 0.00062	r_{drag}	147.050	147.08 ± 0.30	χ_{Aver15}^2	0.017	0.9 ± 1.2
H_0	67.18	67.21 ± 0.61	k_{D}	0.140981	0.14093 ± 0.00033	χ_{prior}^2	1.60	11.5 ± 4.5
Ω_{Λ}	0.6825	0.6828 ± 0.0085	$100\theta_{\text{D}}$	0.160674	0.16071 ± 0.00022	χ_{CMB}^2	2764.0	2780.3 ± 5.9

Best-fit $\chi_{\text{eff}}^2 = 2765.57$; $\bar{\chi}_{\text{eff}}^2 = 2792.71$; $R - 1 = 0.01459$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.02 CMB - simall_100x143_offlike5_EE_Aplanck_B: 396.06 commander_dx12_v3.2_29: 23.48 plik_rd12_HM_v22b_TTTEEE: 2344.42

20.56 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02239 ± 0.00014	σ_8	0.8092 ± 0.0072	$H(0.38)$	83.02 ± 0.29
$\Omega_{\mathrm{c}}h^2$	0.1193 ± 0.0010	S_8	0.824 ± 0.012	$D_{\mathrm{M}}(0.38)$	1529.0 ± 7.7
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00031	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4515 ± 0.0068	$H(0.51)$	89.74 ± 0.23
τ	0.0554 ± 0.0079	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6045 ± 0.0069	$D_{\mathrm{M}}(0.51)$	1980.7 ± 9.1
Y_{P}	0.2435 ± 0.0037	$\sigma_8/h^{0.5}$	0.984 ± 0.010	$H(0.61)$	95.36 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	3.044 ± 0.016	$r_{\mathrm{drag}}h$	99.59 ± 0.77	$D_{\mathrm{M}}(0.61)$	2304.8 ± 9.8
n_{s}	0.9661 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.025	$H(2.33)$	236.13 ± 0.62
y_{cal}	1.0007 ± 0.0025	z_{re}	7.75 ± 0.80	$D_{\mathrm{M}}(2.33)$	5760.6 ± 9.4
A_{217}^{CIB}	47 ± 7	$10^9 A_{\mathrm{s}}$	2.100 ± 0.034	$f\sigma_8(0.15)$	0.4561 ± 0.0065
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.011	$\sigma_8(0.15)$	0.7478 ± 0.0065
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.8}$	D_{40}	1229 ± 12	$f\sigma_8(0.38)$	0.4744 ± 0.0056
A_{100}^{PS}	257 ± 28	D_{220}	5737 ± 38	$\sigma_8(0.38)$	0.6629 ± 0.0057
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 13	$f\sigma_8(0.51)$	0.4731 ± 0.0051
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.0 ± 4.8	$\sigma_8(0.51)$	0.6204 ± 0.0053
A_{217}^{PS}	115 ± 10	D_{2000}	231.3 ± 1.6	$f\sigma_8(0.61)$	0.4681 ± 0.0048
A^{kSZ}	< 4.09	$n_{\mathrm{s},0.002}$	0.9661 ± 0.0040	$\sigma_8(0.61)$	0.5903 ± 0.0050
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2435 ± 0.0037	$f\sigma_8(2.33)$	0.2976 ± 0.0025
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2448 ± 0.0037	$\sigma_8(2.33)$	0.3069 ± 0.0026
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	Age/Gyr	13.791 ± 0.021	f_{2000}^{143}	29.1 ± 2.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	z_*	1089.76 ± 0.25	$f_{2000}^{143 \times 217}$	31.9 ± 1.9
$A_{100}^{\mathrm{dust}TE}$	0.115 ± 0.037	r_*	144.60 ± 0.24	f_{2000}^{217}	106.8 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	$100\theta_*$	1.04118 ± 0.00029	χ_{simall}^2	397.3 ± 2.0
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.482 ± 0.087	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.888 ± 0.023	χ_{lowl}^2	23.26 ± 0.86
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	z_{drag}	1059.88 ± 0.36	χ_{plik}^2	2359.8 ± 6.0
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.664 ± 0.081	r_{drag}	147.25 ± 0.25	χ_{Aver15}^2	0.9 ± 1.2
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14079 ± 0.00030	$\chi_{6\mathrm{DF}}^2$	0.059 ± 0.068
c_{100}	0.99967 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16067 ± 0.00021	χ_{MGS}^2	1.24 ± 0.42
c_{217}	0.99819 ± 0.00062	z_{eq}	3386 ± 23	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.5
H_0	67.63 ± 0.45	k_{eq}	0.010335 ± 0.000070	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.6887 ± 0.0061	$100\theta_{\mathrm{eq}}$	0.8163 ± 0.0043	χ_{BAO}^2	6.2 ± 1.2
Ω_{m}	0.3113 ± 0.0061	$100\theta_{\mathrm{s,eq}}$	0.4509 ± 0.0022	χ_{CMB}^2	2780.4 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.14235 ± 0.00096	$H(0.15)$	72.91 ± 0.39		
$\Omega_{\mathrm{m}}h^3$	0.09627 ± 0.00032	$D_{\mathrm{M}}(0.15)$	641.1 ± 3.8		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2799.01; R - 1 = 0.02003$$

20.57 base_yhe_plikHM_TTTEE_lowl_lowE_Aver15_post_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02234 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.09624 ± 0.00032	$H(0.15)$	72.63 ± 0.47
$\Omega_{\mathrm{c}}h^2$	0.1200 ± 0.0012	σ_8	0.8106 ± 0.0060	$D_{\mathrm{M}}(0.15)$	643.9 ± 4.7
$100\theta_{\mathrm{MC}}$	1.04084 ± 0.00033	S_8	0.832 ± 0.013	$H(0.38)$	82.82 ± 0.35
τ	0.0540 ± 0.0075	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4555 ± 0.0070	$D_{\mathrm{M}}(0.38)$	1534.6 ± 9.4
Y_{P}	0.2432 ± 0.0038	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6077 ± 0.0063	$H(0.51)$	89.58 ± 0.28
$\ln(10^{10}A_{\mathrm{s}})$	3.043 ± 0.014	$\sigma_8/h^{0.5}$	0.9881 ± 0.0090	$D_{\mathrm{M}}(0.51)$	1987 ± 11
n_{s}	0.9641 ± 0.0044	$r_{\mathrm{drag}}h$	99.01 ± 0.93	$H(0.61)$	95.24 ± 0.23
y_{cal}	1.0006 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.447 ± 0.022	$D_{\mathrm{M}}(0.61)$	2312 ± 12
A_{217}^{CIB}	47 ± 7	z_{re}	7.63 ± 0.75	$H(2.33)$	236.55 ± 0.72
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	2.097 ± 0.030	$D_{\mathrm{M}}(2.33)$	5766 ± 11
A_{143}^{tSZ}	$5.5^{+2.2}_{-1.9}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.011	$f\sigma_8(0.15)$	0.4598 ± 0.0064
A_{100}^{PS}	258 ± 28	D_{40}	1233 ± 12	$\sigma_8(0.15)$	0.7486 ± 0.0054
A_{143}^{PS}	46 ± 8	D_{220}	5734 ± 38	$f\sigma_8(0.38)$	0.4771 ± 0.0052
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{810}	2539 ± 13	$\sigma_8(0.38)$	0.6631 ± 0.0048
A_{217}^{PS}	115 ± 10	D_{1420}	817.5 ± 4.8	$f\sigma_8(0.51)$	0.4752 ± 0.0045
A^{kSZ}	< 4.20	D_{2000}	231.0 ± 1.6	$\sigma_8(0.51)$	0.6204 ± 0.0045
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$n_{\mathrm{s},0.002}$	0.9641 ± 0.0044	$f\sigma_8(0.61)$	0.4699 ± 0.0041
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	Y_{P}	0.2432 ± 0.0038	$\sigma_8(0.61)$	0.5902 ± 0.0043
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2445 ± 0.0038	$f\sigma_8(2.33)$	0.2974 ± 0.0023
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.4	Age/Gyr	13.802 ± 0.024	$\sigma_8(2.33)$	0.3064 ± 0.0024
$A_{100}^{\mathrm{dust}TE}$	0.115 ± 0.037	z_*	1089.87 ± 0.27	f_{2000}^{143}	29.3 ± 2.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	r_*	144.45 ± 0.27	$f_{2000}^{143 \times 217}$	32.1 ± 1.9
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483 ± 0.085	$100\theta_*$	1.04109 ± 0.00031	f_{2000}^{217}	106.9 ± 1.8
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.875 ± 0.025	$\chi_{\mathrm{lensing}}^2$	9.21 ± 0.67
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.080	z_{drag}	1059.80 ± 0.37	χ_{simall}^2	397.0 ± 1.7
$A_{217}^{\mathrm{dust}TE}$	2.09 ± 0.27	r_{drag}	147.12 ± 0.27	χ_{lowl}^2	23.64 ± 0.93
c_{100}	0.99966 ± 0.00061	k_{D}	0.14090 ± 0.00031	χ_{plik}^2	2359.3 ± 5.7
c_{217}	0.99819 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16069 ± 0.00021	χ_{Aver15}^2	0.9 ± 1.2
H_0	67.30 ± 0.55	z_{eq}	3402 ± 27	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.6841 ± 0.0075	k_{eq}	0.010384 ± 0.000082	χ_{CMB}^2	2789.1 ± 5.9
Ω_{m}	0.3159 ± 0.0075	$100\theta_{\mathrm{eq}}$	0.8132 ± 0.0051		
$\Omega_{\mathrm{m}}h^2$	0.1430 ± 0.0011	$100\theta_{\mathrm{s,eq}}$	0.4493 ± 0.0026		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.50; R - 1 = 0.01555$$

20.58 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	σ_8	0.8098 ± 0.0060	$H(0.38)$	83.02 ± 0.27
$\Omega_{\mathrm{c}}h^2$	0.11932 ± 0.00093	S_8	0.825 ± 0.010	$D_{\mathrm{M}}(0.38)$	1529.0 ± 7.3
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00031	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518 ± 0.0057	$H(0.51)$	89.74 ± 0.22
τ	0.0560 ± 0.0073	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6049 ± 0.0056	$D_{\mathrm{M}}(0.51)$	1980.8 ± 8.6
Y_{P}	0.2434 ± 0.0037	$\sigma_8/h^{0.5}$	0.9847 ± 0.0083	$H(0.61)$	95.36 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	3.046 ± 0.014	$r_{\mathrm{drag}}h$	99.58 ± 0.72	$D_{\mathrm{M}}(0.61)$	2304.9 ± 9.3
n_{s}	0.9659 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.020	$H(2.33)$	236.14 ± 0.57
y_{cal}	1.0007 ± 0.0024	z_{re}	7.81 ± 0.73	$D_{\mathrm{M}}(2.33)$	5760.6 ± 9.2
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	2.103 ± 0.030	$f\sigma_8(0.15)$	0.4564 ± 0.0054
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.010	$\sigma_8(0.15)$	0.7483 ± 0.0055
A_{143}^{tSZ}	$5.5_{-1.9}^{+2.1}$	D_{40}	1230 ± 11	$f\sigma_8(0.38)$	0.4748 ± 0.0046
A_{100}^{PS}	257 ± 28	D_{220}	5739 ± 37	$\sigma_8(0.38)$	0.6633 ± 0.0048
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 13	$f\sigma_8(0.51)$	0.4734 ± 0.0041
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.1 ± 4.8	$\sigma_8(0.51)$	0.6208 ± 0.0046
A_{217}^{PS}	115 ± 10	D_{2000}	231.3 ± 1.6	$f\sigma_8(0.61)$	0.4684 ± 0.0039
A^{kSZ}	< 4.10	$n_{\mathrm{s},0.002}$	0.9659 ± 0.0039	$\sigma_8(0.61)$	0.5907 ± 0.0044
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2434 ± 0.0037	$f\sigma_8(2.33)$	0.2978 ± 0.0022
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2448 ± 0.0038	$\sigma_8(2.33)$	0.3071 ± 0.0024
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	Age/Gyr	13.791 ± 0.021	f_{2000}^{143}	29.1 ± 2.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.3	z_*	1089.75 ± 0.24	$f_{2000}^{143 \times 217}$	31.9 ± 1.9
$A_{100}^{\mathrm{dust}TE}$	0.116 ± 0.037	r_*	144.59 ± 0.23	f_{2000}^{217}	106.8 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	$100\theta_*$	1.04118 ± 0.00029	$\chi_{\mathrm{lensing}}^2$	9.08 ± 0.56
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.482 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.888 ± 0.022	χ_{simall}^2	397.2 ± 1.9
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	z_{drag}	1059.88 ± 0.36	χ_{lowl}^2	23.32 ± 0.82
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.665 ± 0.081	r_{drag}	147.25 ± 0.24	χ_{plik}^2	2359.4 ± 5.8
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14080 ± 0.00029	χ_{Aver15}^2	0.9 ± 1.2
c_{100}	0.99967 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16067 ± 0.00021	$\chi_{6\mathrm{DF}}^2$	0.056 ± 0.062
c_{217}	0.99818 ± 0.00062	z_{eq}	3387 ± 21	χ_{MGS}^2	1.23 ± 0.39
H_0	67.62 ± 0.42	k_{eq}	0.010336 ± 0.000065	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.4
Ω_{Λ}	0.6886 ± 0.0057	$100\theta_{\mathrm{eq}}$	0.8162 ± 0.0040	χ_{prior}^2	11.5 ± 4.5
Ω_{m}	0.3114 ± 0.0057	$100\theta_{\mathrm{s,eq}}$	0.4509 ± 0.0020	χ_{CMB}^2	2789.1 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.14236 ± 0.00089	$H(0.15)$	72.91 ± 0.37	χ_{BAO}^2	6.2 ± 1.1
$\Omega_{\mathrm{m}}h^3$	0.09627 ± 0.00032	$D_{\mathrm{M}}(0.15)$	641.1 ± 3.6		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.65; R - 1 = 0.02242$$

20.59 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00015	$\Omega_{\mathrm{m}}h^2$	0.1432 ± 0.0013	$100\theta_{\mathrm{eq}}$	0.8125 ± 0.0058
$\Omega_{\mathrm{c}}h^2$	0.1202 ± 0.0014	$\Omega_{\mathrm{m}}h^3$	0.09625 ± 0.00032	$100\theta_{\mathrm{s,eq}}$	0.4490 ± 0.0030
$100\theta_{\mathrm{MC}}$	1.04084 ± 0.00034	σ_8	0.8123 ± 0.0070	$H(0.15)$	72.57 ± 0.52
τ	$0.0553^{+0.0054}_{-0.0081}$	S_8	0.835 ± 0.016	$D_{\mathrm{M}}(0.15)$	644.5 ± 5.3
Y_{P}	0.2433 ± 0.0038	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4573 ± 0.0088	$H(0.38)$	82.78 ± 0.38
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.012}_{-0.016}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6095 ± 0.0081	$D_{\mathrm{M}}(0.38)$	1536 ± 11
n_{s}	0.9640 ± 0.0046	$\sigma_8/h^{0.5}$	0.991 ± 0.011	$H(0.51)$	89.55 ± 0.30
y_{cal}	1.0006 ± 0.0025	$r_{\mathrm{drag}}h$	98.9 ± 1.1	$D_{\mathrm{M}}(0.51)$	1989 ± 12
A_{217}^{CIB}	47 ± 7	$\langle d^2 \rangle^{1/2}$	2.452 ± 0.028	$H(0.61)$	95.22 ± 0.24
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	z_{re}	$7.77^{+0.59}_{-0.80}$	$D_{\mathrm{M}}(0.61)$	2313 ± 13
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_{\mathrm{s}}$	$2.104^{+0.025}_{-0.034}$	$H(2.33)$	236.65 ± 0.82
A_{100}^{PS}	257 ± 28	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.883 ± 0.012	$D_{\mathrm{M}}(2.33)$	5767 ± 11
A_{143}^{PS}	46 ± 8	D_{40}	1234 ± 13	$f\sigma_8(0.15)$	0.4614 ± 0.0082
$A_{143 \times 217}^{\mathrm{PS}}$	43 ± 9	D_{220}	5732 ± 38	$\sigma_8(0.15)$	$0.7501^{+0.0057}_{-0.0064}$
A_{217}^{PS}	115 ± 10	D_{810}	2539 ± 13	$f\sigma_8(0.38)$	0.4786 ± 0.0066
A^{kSZ}	< 4.05	D_{1420}	817.5 ± 4.8	$\sigma_8(0.38)$	$0.6643^{+0.0046}_{-0.0055}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	D_{2000}	231.1 ± 1.6	$f\sigma_8(0.51)$	0.4765 ± 0.0058
$A_{143}^{\mathrm{dust}TT}$	10.8 ± 1.8	$n_{\mathrm{s},0.002}$	0.9640 ± 0.0046	$\sigma_8(0.51)$	$0.6215^{+0.0042}_{-0.0051}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.5 ± 3.3	Y_{P}	0.2433 ± 0.0038	$f\sigma_8(0.61)$	0.4711 ± 0.0052
$A_{217}^{\mathrm{dust}TT}$	93.7 ± 7.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2446 ± 0.0038	$\sigma_8(0.61)$	$0.5912^{+0.0039}_{-0.0049}$
$A_{100}^{\mathrm{dust}TE}$	0.115 ± 0.038	Age/Gyr	13.804 ± 0.026	$f\sigma_8(2.33)$	$0.2979^{+0.0019}_{-0.0025}$
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	z_*	1089.90 ± 0.29	$\sigma_8(2.33)$	$0.3069^{+0.0020}_{-0.0026}$
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.484 ± 0.084	r_*	144.42 ± 0.30	f_{2000}^{143}	29.2 ± 2.8
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	$100\theta_*$	1.04108 ± 0.00032	$f_{2000}^{143 \times 217}$	32.0 ± 1.9
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.668 ± 0.080	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.872 ± 0.028	f_{2000}^{217}	106.9 ± 1.8
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	z_{drag}	1059.80 ± 0.37	χ_{simall}^2	397.1 ± 1.9
c_{100}	0.99967 ± 0.00061	r_{drag}	147.09 ± 0.30	χ_{lowl}^2	23.7 ± 1.0
c_{217}	0.99818 ± 0.00062	k_{D}	0.14093 ± 0.00033	χ_{plik}^2	2359.3 ± 5.8
H_0	67.23 ± 0.61	$100\theta_{\mathrm{D}}$	0.16070 ± 0.00022	χ_{Aver15}^2	0.9 ± 1.2
Ω_{Λ}	0.6831 ± 0.0085	z_{eq}	3406 ± 31	χ_{prior}^2	11.5 ± 4.5
Ω_{m}	0.3169 ± 0.0085	k_{eq}	0.010396 ± 0.000094	χ_{CMB}^2	2780.1 ± 5.8

$\bar{\chi}_{\mathrm{eff}}^2 = 2792.46$; $R - 1 = 0.01390$

20.60 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	σ_8	$0.8099^{+0.0062}_{-0.0072}$	$H(0.38)$	83.03 ± 0.29
$\Omega_{\mathrm{c}}h^2$	0.1193 ± 0.0010	S_8	0.825 ± 0.012	$D_{\mathrm{M}}(0.38)$	1528.8 ± 7.7
$100\theta_{\mathrm{MC}}$	1.04096 ± 0.00031	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4518 ± 0.0068	$H(0.51)$	89.74 ± 0.23
τ	$0.0563^{+0.0057}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6049 ± 0.0067	$D_{\mathrm{M}}(0.51)$	1980.5 ± 9.1
Y_{P}	0.2436 ± 0.0037	$\sigma_8/h^{0.5}$	0.9848 ± 0.0097	$H(0.61)$	95.36 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	$3.046^{+0.013}_{-0.016}$	$r_{\mathrm{drag}}h$	99.60 ± 0.77	$D_{\mathrm{M}}(0.61)$	2304.6 ± 9.8
n_{s}	0.9662 ± 0.0040	$\langle d^2 \rangle^{1/2}$	2.438 ± 0.024	$H(2.33)$	236.12 ± 0.62
y_{cal}	1.0007 ± 0.0025	z_{re}	$7.85^{+0.62}_{-0.81}$	$D_{\mathrm{M}}(2.33)$	5760.4 ± 9.4
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	$2.104^{+0.026}_{-0.035}$	$f\sigma_8(0.15)$	0.4564 ± 0.0064
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.011	$\sigma_8(0.15)$	$0.7485^{+0.0055}_{-0.0065}$
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.8}$	D_{40}	1229 ± 12	$f\sigma_8(0.38)$	0.4748 ± 0.0054
A_{100}^{PS}	257 ± 28	D_{220}	5737 ± 38	$\sigma_8(0.38)$	$0.6635^{+0.0046}_{-0.0057}$
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 13	$f\sigma_8(0.51)$	0.4734 ± 0.0049
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.0 ± 4.8	$\sigma_8(0.51)$	$0.6209^{+0.0043}_{-0.0053}$
A_{217}^{PS}	115 ± 10	D_{2000}	231.3 ± 1.6	$f\sigma_8(0.61)$	0.4685 ± 0.0046
A^{kSZ}	< 4.08	$n_{\mathrm{s},0.002}$	0.9662 ± 0.0040	$\sigma_8(0.61)$	$0.5908^{+0.0040}_{-0.0050}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2436 ± 0.0037	$f\sigma_8(2.33)$	$0.2979^{+0.0020}_{-0.0026}$
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2449 ± 0.0037	$\sigma_8(2.33)$	$0.3072^{+0.0021}_{-0.0027}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	Age/Gyr	13.791 ± 0.021	f_{2000}^{143}	29.1 ± 2.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.4	z_*	1089.75 ± 0.25	$f_{2000}^{143 \times 217}$	31.9 ± 1.9
$A_{100}^{\mathrm{dust}TE}$	0.116 ± 0.037	r_*	144.60 ± 0.24	f_{2000}^{217}	106.8 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	$100\theta_*$	1.04119 ± 0.00029	χ_{simall}^2	397.2 ± 2.1
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483 ± 0.087	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.888 ± 0.023	χ_{lowl}^2	23.27 ± 0.87
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.054	z_{drag}	1059.88 ± 0.36	χ_{plik}^2	2359.7 ± 6.0
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.664 ± 0.081	r_{drag}	147.26 ± 0.25	χ_{Aver15}^2	0.9 ± 1.2
$A_{217}^{\mathrm{dust}TE}$	2.07 ± 0.27	k_{D}	0.14079 ± 0.00030	$\chi_{6\mathrm{DF}}^2$	0.058 ± 0.067
c_{100}	0.99966 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16067 ± 0.00021	χ_{MGS}^2	1.25 ± 0.42
c_{217}	0.99819 ± 0.00062	z_{eq}	3386 ± 23	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.5
H_0	67.64 ± 0.45	k_{eq}	0.010334 ± 0.000070	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.6888 ± 0.0061	$100\theta_{\mathrm{eq}}$	0.8163 ± 0.0043	χ_{BAO}^2	6.2 ± 1.2
Ω_{m}	0.3112 ± 0.0061	$100\theta_{\mathrm{s,eq}}$	0.4510 ± 0.0022	χ_{CMB}^2	2780.2 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.14233 ± 0.00096	$H(0.15)$	72.92 ± 0.39		
$\Omega_{\mathrm{m}}h^3$	0.09627 ± 0.00032	$D_{\mathrm{M}}(0.15)$	641.0 ± 3.8		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2798.81; R - 1 = 0.02120$$

20.61 base_yhe_plikHM_TTTEE_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02235 ± 0.00015	$\Omega_{\mathrm{m}}h^3$	0.09625 ± 0.00032	$H(0.15)$	72.65 ± 0.46
$\Omega_{\mathrm{c}}h^2$	0.1200 ± 0.0012	σ_8	0.8111 ± 0.0057	$D_{\mathrm{M}}(0.15)$	643.7 ± 4.6
$100\theta_{\mathrm{MC}}$	1.04085 ± 0.00033	S_8	0.832 ± 0.013	$H(0.38)$	82.84 ± 0.34
τ	$0.0550^{+0.0055}_{-0.0076}$	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4556 ± 0.0070	$D_{\mathrm{M}}(0.38)$	1534.1 ± 9.2
Y_{P}	0.2433 ± 0.0038	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6079 ± 0.0063	$H(0.51)$	89.60 ± 0.27
$\ln(10^{10}A_{\mathrm{s}})$	$3.045^{+0.011}_{-0.014}$	$\sigma_8/h^{0.5}$	0.9886 ± 0.0088	$D_{\mathrm{M}}(0.51)$	1987 ± 11
n_{s}	0.9643 ± 0.0043	$r_{\mathrm{drag}}h$	99.06 ± 0.92	$H(0.61)$	95.25 ± 0.22
y_{cal}	1.0006 ± 0.0025	$\langle d^2 \rangle^{1/2}$	2.448 ± 0.021	$D_{\mathrm{M}}(0.61)$	2311 ± 12
A_{217}^{CIB}	47 ± 7	z_{re}	$7.73^{+0.59}_{-0.76}$	$H(2.33)$	236.51 ± 0.70
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}$	$2.101^{+0.023}_{-0.031}$	$D_{\mathrm{M}}(2.33)$	5765 ± 11
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.882 ± 0.011	$f\sigma_8(0.15)$	0.4598 ± 0.0064
A_{100}^{PS}	257 ± 28	D_{40}	1233 ± 12	$\sigma_8(0.15)$	0.7492 ± 0.0050
A_{143}^{PS}	45 ± 8	D_{220}	5734 ± 38	$f\sigma_8(0.38)$	0.4773 ± 0.0051
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{810}	2539 ± 13	$\sigma_8(0.38)$	$0.6636^{+0.0041}_{-0.0047}$
A_{217}^{PS}	115 ± 10	D_{1420}	817.4 ± 4.8	$f\sigma_8(0.51)$	0.4754 ± 0.0045
A^{kSZ}	< 4.20	D_{2000}	231.1 ± 1.6	$\sigma_8(0.51)$	$0.6209^{+0.0038}_{-0.0045}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	$n_{\mathrm{s},0.002}$	0.9643 ± 0.0043	$f\sigma_8(0.61)$	0.4701 ± 0.0041
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	Y_{P}	0.2433 ± 0.0038	$\sigma_8(0.61)$	$0.5907^{+0.0036}_{-0.0043}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2446 ± 0.0038	$f\sigma_8(2.33)$	$0.2977^{+0.0018}_{-0.0023}$
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.4	Age/Gyr	13.801 ± 0.024	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0024}$
$A_{100}^{\mathrm{dust}TE}$	0.116 ± 0.037	z_*	1089.86 ± 0.27	f_{2000}^{143}	29.3 ± 2.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.135 ± 0.029	r_*	144.47 ± 0.26	$f_{2000}^{143 \times 217}$	32.0 ± 1.9
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.484 ± 0.085	$100\theta_*$	1.04109 ± 0.00031	f_{2000}^{217}	106.9 ± 1.8
$A_{143}^{\mathrm{dust}TE}$	0.225 ± 0.053	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.876 ± 0.025	$\chi_{\mathrm{lensing}}^2$	9.20 ± 0.67
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.666 ± 0.080	z_{drag}	1059.81 ± 0.37	χ_{simall}^2	396.9 ± 1.7
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	r_{drag}	147.13 ± 0.27	χ_{lowl}^2	23.62 ± 0.93
c_{100}	0.99965 ± 0.00061	k_{D}	0.14089 ± 0.00031	χ_{plik}^2	2359.1 ± 5.7
c_{217}	0.99819 ± 0.00062	$100\theta_{\mathrm{D}}$	0.16069 ± 0.00021	χ_{Aver15}^2	0.9 ± 1.3
H_0	67.33 ± 0.54	z_{eq}	3401 ± 26	χ_{prior}^2	11.5 ± 4.5
Ω_{Λ}	0.6845 ± 0.0073	k_{eq}	0.010380 ± 0.000081	χ_{CMB}^2	2788.9 ± 5.8
Ω_{m}	0.3155 ± 0.0073	$100\theta_{\mathrm{eq}}$	0.8135 ± 0.0050		
$\Omega_{\mathrm{m}}h^2$	0.1430 ± 0.0011	$100\theta_{\mathrm{s,eq}}$	0.4495 ± 0.0025		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2801.26; R - 1 = 0.01556$$

20.62 base_yhe_plikHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02240 ± 0.00014	σ_8	0.8101 ± 0.0057	$H(0.38)$	83.03 ± 0.27
$\Omega_{\mathrm{c}}h^2$	0.11929 ± 0.00093	S_8	0.825 ± 0.010	$D_{\mathrm{M}}(0.38)$	1528.8 ± 7.3
$100\theta_{\mathrm{MC}}$	1.04095 ± 0.00031	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4519 ± 0.0057	$H(0.51)$	89.74 ± 0.22
τ	$0.0566^{+0.0058}_{-0.0076}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6051 ± 0.0056	$D_{\mathrm{M}}(0.51)$	1980.5 ± 8.5
Y_{P}	0.2435 ± 0.0037	$\sigma_8/h^{0.5}$	0.9851 ± 0.0081	$H(0.61)$	95.36 ± 0.19
$\ln(10^{10}A_{\mathrm{s}})$	$3.047^{+0.012}_{-0.015}$	$r_{\mathrm{drag}}h$	99.60 ± 0.72	$D_{\mathrm{M}}(0.61)$	2304.7 ± 9.2
n_{s}	0.9660 ± 0.0039	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.020	$H(2.33)$	236.13 ± 0.57
y_{cal}	1.0007 ± 0.0024	z_{re}	$7.87^{+0.62}_{-0.74}$	$D_{\mathrm{M}}(2.33)$	5760.4 ± 9.2
A_{217}^{CIB}	46 ± 7	$10^9 A_{\mathrm{s}}$	$2.105^{+0.025}_{-0.031}$	$f\sigma_8(0.15)$	0.4565 ± 0.0054
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.880 ± 0.010	$\sigma_8(0.15)$	0.7486 ± 0.0052
A_{143}^{tSZ}	$5.5^{+2.1}_{-1.9}$	D_{40}	1230 ± 11	$f\sigma_8(0.38)$	0.4749 ± 0.0045
A_{100}^{PS}	257 ± 28	D_{220}	5739 ± 37	$\sigma_8(0.38)$	$0.6636^{+0.0043}_{-0.0049}$
A_{143}^{PS}	45 ± 8	D_{810}	2539 ± 13	$f\sigma_8(0.51)$	0.4736 ± 0.0041
$A_{143 \times 217}^{\mathrm{PS}}$	42 ± 9	D_{1420}	818.1 ± 4.8	$\sigma_8(0.51)$	$0.6211^{+0.0040}_{-0.0046}$
A_{217}^{PS}	115 ± 10	D_{2000}	231.3 ± 1.6	$f\sigma_8(0.61)$	0.4686 ± 0.0038
A^{kSZ}	< 4.10	$n_{\mathrm{s},0.002}$	0.9660 ± 0.0039	$\sigma_8(0.61)$	$0.5910^{+0.0038}_{-0.0044}$
$A_{100}^{\mathrm{dust}TT}$	8.9 ± 1.8	Y_{P}	0.2435 ± 0.0037	$f\sigma_8(2.33)$	$0.2980^{+0.0019}_{-0.0023}$
$A_{143}^{\mathrm{dust}TT}$	10.9 ± 1.8	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2448 ± 0.0038	$\sigma_8(2.33)$	$0.3072^{+0.0020}_{-0.0024}$
$A_{143 \times 217}^{\mathrm{dust}TT}$	18.6 ± 3.3	Age/Gyr	13.791 ± 0.021	f_{2000}^{143}	29.1 ± 2.8
$A_{217}^{\mathrm{dust}TT}$	93.8 ± 7.4	z_*	1089.75 ± 0.24	$f_{2000}^{143 \times 217}$	31.8 ± 1.9
$A_{100}^{\mathrm{dust}TE}$	0.116 ± 0.037	r_*	144.60 ± 0.22	f_{2000}^{217}	106.8 ± 1.8
$A_{100 \times 143}^{\mathrm{dust}TE}$	0.134 ± 0.029	$100\theta_*$	1.04118 ± 0.00029	$\chi_{\mathrm{lensing}}^2$	9.05 ± 0.52
$A_{100 \times 217}^{\mathrm{dust}TE}$	0.483 ± 0.086	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.888 ± 0.022	χ_{simall}^2	397.2 ± 1.9
$A_{143}^{\mathrm{dust}TE}$	0.224 ± 0.053	z_{drag}	1059.89 ± 0.36	χ_{lowl}^2	23.32 ± 0.82
$A_{143 \times 217}^{\mathrm{dust}TE}$	0.664 ± 0.081	r_{drag}	147.25 ± 0.24	χ_{plik}^2	2359.4 ± 5.8
$A_{217}^{\mathrm{dust}TE}$	2.08 ± 0.27	k_{D}	0.14080 ± 0.00029	χ_{Aver15}^2	0.9 ± 1.2
c_{100}	0.99966 ± 0.00061	$100\theta_{\mathrm{D}}$	0.16066 ± 0.00021	$\chi_{6\mathrm{DF}}^2$	0.055 ± 0.061
c_{217}	0.99818 ± 0.00062	z_{eq}	3386 ± 21	χ_{MGS}^2	1.24 ± 0.39
H_0	67.64 ± 0.42	k_{eq}	0.010335 ± 0.000064	$\chi_{\mathrm{DR12BAO}}^2$	4.9 ± 1.3
Ω_{Λ}	0.6888 ± 0.0056	$100\theta_{\mathrm{eq}}$	0.8163 ± 0.0039	χ_{prior}^2	11.5 ± 4.5
Ω_{m}	0.3112 ± 0.0056	$100\theta_{\mathrm{s,eq}}$	0.4509 ± 0.0020	χ_{CMB}^2	2789.0 ± 5.9
$\Omega_{\mathrm{m}}h^2$	0.14234 ± 0.00088	$H(0.15)$	72.92 ± 0.36	χ_{BAO}^2	6.2 ± 1.1
$\Omega_{\mathrm{m}}h^3$	0.09627 ± 0.00032	$D_{\mathrm{M}}(0.15)$	641.0 ± 3.6		

$$\bar{\chi}_{\mathrm{eff}}^2 = 2807.50; R - 1 = 0.02309$$

20.63 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_b h^2$	0.022378	0.02228 ± 0.00016	σ_8	0.8229	0.8075 ± 0.0076	$100\theta_{s,eq}$	0.45159	0.4503 ± 0.0031
$\Omega_c h^2$	0.11902	0.1196 ± 0.0014	S_8	0.8360	0.826 ± 0.016	$H(0.15)$	72.99	72.68 ± 0.54
$100\theta_{MC}$	1.040990	1.04081 ± 0.00035	$\sigma_8 \Omega_m^{0.5}$	0.4579	0.4526 ± 0.0090	$D_M(0.15)$	640.2	643.3 ± 5.4
τ	0.0706	0.0526 ± 0.0079	$\sigma_8 \Omega_m^{0.25}$	0.6138	0.6045 ± 0.0084	$H(0.38)$	83.071	82.84 ± 0.39
Y_P	0.24470	0.2438 ± 0.0038	$\sigma_8/h^{0.5}$	0.9999	0.984 ± 0.012	$D_M(0.38)$	1527.4	1534 ± 11
$\ln(10^{10} A_s)$	3.0785	3.038 ± 0.016	$r_{drag} h$	99.79	99.2 ± 1.1	$H(0.51)$	89.771	89.58 ± 0.31
n_s	0.96812	0.9651 ± 0.0048	$\langle d^2 \rangle^{1/2}$	2.4714	2.434 ± 0.029	$D_M(0.51)$	1978.9	1986 ± 13
y_{cal}	1.00295	1.0004 ± 0.0025	z_{re}	9.24	7.49 ± 0.82	$H(0.61)$	95.377	95.21 ± 0.25
A_{100}^{PS}	234.5	240 ± 25	$10^9 A_s$	2.1726	2.086 ± 0.034	$D_M(0.61)$	2302.9	2311 ± 14
A_{143}^{PS}	42.8	39 ± 8	$10^9 A_s e^{-2\tau}$	1.8866	1.877 ± 0.012	$H(2.33)$	235.93	236.21 ± 0.85
A_{217}^{PS}	105.0	102 ± 10	D_{40}	1234.2	1227 ± 13	$D_M(2.33)$	5760.1	5768 ± 12
A_{217}^{CIB}	40.7	40 ± 7	D_{220}	5752.7	5717 ± 39	$f\sigma_8(0.15)$	0.4627	0.4569 ± 0.0084
A_{143}^{tSZ}	5.24	$3.9_{-2.6}^{+1.8}$	D_{810}	2548.6	2534 ± 13	$\sigma_8(0.15)$	0.7605	0.7459 ± 0.0067
$r_{143 \times 217}^{PS}$	0.674	0.66 ± 0.13	D_{1420}	821.00	815.5 ± 4.8	$f\sigma_8(0.38)$	0.4818	0.4746 ± 0.0069
$r_{143 \times 217}^{CIB}$	0.730	$0.56_{-0.17}^{+0.40}$	D_{2000}	232.37	230.3 ± 1.6	$\sigma_8(0.38)$	0.6744	0.6609 ± 0.0057
$\xi^{tSZ \times CIB}$	0.54	—	$n_{s,0.002}$	0.96812	0.9651 ± 0.0048	$f\sigma_8(0.51)$	0.4806	0.4729 ± 0.0061
A^{kSZ}	1.73	$4.7_{-3.9}^{+2.4}$	Y_P	0.24470	0.2438 ± 0.0038	$\sigma_8(0.51)$	0.6312	0.6184 ± 0.0053
A_{100}^{dust}	1.009	1.01 ± 0.20	Y_P^{BBN}	0.24602	0.2451 ± 0.0039	$f\sigma_8(0.61)$	0.4756	0.4677 ± 0.0055
A_{143}^{dust}	0.953	0.96 ± 0.18	Age/Gyr	13.7905	13.808 ± 0.026	$\sigma_8(0.61)$	0.60063	0.5884 ± 0.0050
A_{217}^{dust}	0.981	0.97 ± 0.10	z_*	1089.795	1089.94 ± 0.31	$f\sigma_8(2.33)$	0.30292	0.2966 ± 0.0025
$A_{143 \times 217}^{dust}$	0.997	1.03 ± 0.16	r_*	144.681	144.61 ± 0.32	$\sigma_8(2.33)$	0.31238	0.3056 ± 0.0026
c_{100}	0.99773	0.9975 ± 0.0011	$100\theta_*$	1.041190	1.04105 ± 0.00031	f_{2000}^{143}	28.79	29.6 ± 2.9
c_{217}	1.00116	1.0011 ± 0.0016	$D_M(z_*)/\text{Gpc}$	13.8957	13.890 ± 0.030	f_{2000}^{217}	106.37	106.8 ± 1.9
c_{TE}	0.99506	0.9965 ± 0.0049	z_{drag}	1059.856	1059.64 ± 0.39	$f_{2000}^{143 \times 217}$	31.21	32.1 ± 2.1
c_{EE}	0.99156	0.9918 ± 0.0050	r_{drag}	147.344	147.30 ± 0.32	χ_{small}^2	402.51	396.9 ± 1.7
H_0	67.73	67.38 ± 0.63	k_D	0.140635	0.14064 ± 0.00037	χ_{lowl}^2	23.31	23.3 ± 1.0
Ω_Λ	0.6903	0.6859 ± 0.0087	$100\theta_D$	0.160759	0.16082 ± 0.00024	$\chi_{CamSpec}^2$	11498.1	11514.6 ± 5.6
Ω_m	0.3097	0.3141 ± 0.0087	z_{eq}	3379.0	3391 ± 32	χ_{Aver15}^2	0.079	0.9 ± 1.3
$\Omega_m h^2$	0.14204	0.1425 ± 0.0013	k_{eq}	0.010313	0.010350 ± 0.000097	χ_{prior}^2	3.37	7.8 ± 3.4
$\Omega_m h^3$	0.096203	0.09604 ± 0.00034	$100\theta_{eq}$	0.8175	0.8150 ± 0.0060	χ_{CMB}^2	11923.9	11934.8 ± 5.7

Best-fit $\chi_{eff}^2 = 11927.35$; $\bar{\chi}_{eff}^2 = 11943.52$; $R - 1 = 0.01118$

χ_{eff}^2 : Abund - Yp_Aver2015: 0.08 CMB - simall_100x143_offlike5_EE_Aplanck_B: 402.51 commander_dx12_v3.2_29: 23.31 CamSpec like_10.7HM_1400_unified: 11498.08

20.64 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4484 ± 0.0070	$D_{\mathrm{M}}(0.38)$	1528.2 ± 7.9
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0010	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6011 ± 0.0070	$H(0.51)$	89.73 ± 0.24
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00033	$\sigma_8/h^{0.5}$	0.979 ± 0.010	$D_{\mathrm{M}}(0.51)$	1979.9 ± 9.3
τ	0.0535 ± 0.0079	$r_{\mathrm{drag}}h$	99.81 ± 0.79	$H(0.61)$	95.33 ± 0.20
Y_{P}	0.2439 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.424 ± 0.025	$D_{\mathrm{M}}(0.61)$	2304 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	3.038 ± 0.016	z_{re}	7.56 ± 0.80	$H(2.33)$	235.80 ± 0.64
n_{s}	0.9668 ± 0.0042	$10^9 A_{\mathrm{s}}$	2.087 ± 0.034	$D_{\mathrm{M}}(2.33)$	5763.2 ± 9.8
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.875 ± 0.011	$f\sigma_8(0.15)$	0.4531 ± 0.0066
A_{100}^{PS}	239 ± 25	D_{40}	1224 ± 12	$\sigma_8(0.15)$	0.7447 ± 0.0065
A_{143}^{PS}	39 ± 8	D_{220}	5721 ± 39	$f\sigma_8(0.38)$	0.4717 ± 0.0057
A_{217}^{PS}	102 ± 10	D_{810}	2534 ± 13	$\sigma_8(0.38)$	0.6604 ± 0.0057
A_{217}^{CIB}	40 ± 7	D_{1420}	816.0 ± 4.7	$f\sigma_8(0.51)$	0.4705 ± 0.0052
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6}$	D_{2000}	230.4 ± 1.6	$\sigma_8(0.51)$	0.6181 ± 0.0053
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9668 ± 0.0042	$f\sigma_8(0.61)$	0.4657 ± 0.0048
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.38}_{-0.19}$	Y_{P}	0.2439 ± 0.0038	$\sigma_8(0.61)$	0.5882 ± 0.0050
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0038	$f\sigma_8(2.33)$	0.2966 ± 0.0025
A^{kSZ}	$4.7^{+2.1}_{-4.1}$	Age/Gyr	13.798 ± 0.022	$\sigma_8(2.33)$	0.3059 ± 0.0026
A_{100}^{dust}	1.00 ± 0.20	z_*	1089.83 ± 0.26	f_{2000}^{143}	29.5 ± 2.9
A_{143}^{dust}	0.97 ± 0.18	r_*	144.75 ± 0.25	f_{2000}^{217}	106.6 ± 2.0
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04113 ± 0.00029	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.903 ± 0.024	χ_{small}^2	397.0 ± 1.7
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.70 ± 0.38	χ_{lowl}^2	22.93 ± 0.86
c_{217}	1.0011 ± 0.0016	r_{drag}	147.44 ± 0.27	$\chi_{\mathrm{CamSpec}}^2$	11514.7 ± 5.6
c_{TE}	0.9966 ± 0.0049	k_{D}	0.14053 ± 0.00034	χ_{Aver15}^2	0.9 ± 1.3
c_{EE}	0.9922 ± 0.0050	$100\theta_{\mathrm{D}}$	0.16080 ± 0.00024	$\chi_{6\mathrm{DF}}^2$	0.046 ± 0.058
H_0	67.69 ± 0.46	z_{eq}	3375 ± 24	χ_{MGS}^2	1.36 ± 0.45
Ω_{Λ}	0.6903 ± 0.0062	k_{eq}	0.010301 ± 0.000072	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
Ω_{m}	0.3097 ± 0.0062	$100\theta_{\mathrm{eq}}$	0.8180 ± 0.0044	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.14188 ± 0.00098	$100\theta_{\mathrm{s,eq}}$	0.4519 ± 0.0023	χ_{BAO}^2	6.0 ± 1.0
$\Omega_{\mathrm{m}}h^3$	0.09604 ± 0.00034	$H(0.15)$	72.95 ± 0.40	χ_{CMB}^2	11934.6 ± 5.6
σ_8	0.8057 ± 0.0073	$D_{\mathrm{M}}(0.15)$	640.6 ± 3.9		
S_8	0.819 ± 0.013	$H(0.38)$	83.03 ± 0.30		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.33; R - 1 = 0.01547$$

20.65 **base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02228 ± 0.00016	S_8	0.828 ± 0.013	$D_{\mathrm{M}}(0.15)$	643.6 ± 4.8
$\Omega_{\mathrm{c}}h^2$	0.1197 ± 0.0012	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4536 ± 0.0071	$H(0.38)$	82.81 ± 0.36
$100\theta_{\mathrm{MC}}$	1.04080 ± 0.00034	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6057 ± 0.0065	$D_{\mathrm{M}}(0.38)$	1534.3 ± 9.7
τ	0.0535 ± 0.0076	$\sigma_8/h^{0.5}$	0.9855 ± 0.0092	$H(0.51)$	89.56 ± 0.29
Y_{P}	0.2437 ± 0.0038	$r_{\mathrm{drag}}h$	99.17 ± 0.96	$D_{\mathrm{M}}(0.51)$	1987 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	3.040 ± 0.015	$\langle d^2 \rangle^{1/2}$	2.439 ± 0.022	$H(0.61)$	95.20 ± 0.23
n_{s}	0.9646 ± 0.0046	z_{re}	7.59 ± 0.77	$D_{\mathrm{M}}(0.61)$	2312 ± 12
y_{cal}	1.0005 ± 0.0025	$10^9 A_{\mathrm{s}}$	2.091 ± 0.031	$H(2.33)$	236.27 ± 0.74
A_{100}^{PS}	240 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$D_{\mathrm{M}}(2.33)$	5769 ± 11
A_{143}^{PS}	39 ± 8	D_{40}	1229 ± 12	$f\sigma_8(0.15)$	0.4579 ± 0.0066
A_{217}^{PS}	102 ± 10	D_{220}	5720 ± 40	$\sigma_8(0.15)$	0.7470 ± 0.0055
A_{217}^{CIB}	40_{-7}^{+7}	D_{810}	2535 ± 13	$f\sigma_8(0.38)$	0.4755 ± 0.0053
A_{143}^{tSZ}	$3.9_{-2.6}^{+1.8}$	D_{1420}	815.6 ± 4.8	$\sigma_8(0.38)$	0.6618 ± 0.0049
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.3 ± 1.6	$f\sigma_8(0.51)$	0.4737 ± 0.0047
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56_{-0.16}^{+0.42}$	$n_{\mathrm{s},0.002}$	0.9646 ± 0.0046	$\sigma_8(0.51)$	0.6192 ± 0.0046
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.2437 ± 0.0038	$f\sigma_8(0.61)$	0.4685 ± 0.0042
A^{kSZ}	$4.7_{-4.3}^{+1.9}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0038	$\sigma_8(0.61)$	0.5891 ± 0.0044
A_{100}^{dust}	1.00 ± 0.20	Age/Gyr	13.809 ± 0.025	$f\sigma_8(2.33)$	0.2969 ± 0.0023
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.95 ± 0.29	$\sigma_8(2.33)$	0.3059 ± 0.0025
A_{217}^{dust}	0.97 ± 0.10	r_*	144.58 ± 0.28	f_{2000}^{143}	29.6 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04103 ± 0.00031	f_{2000}^{217}	106.8 ± 2.0
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.888 ± 0.026	$f_{2000}^{143 \times 217}$	32.1 ± 2.1
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.64 ± 0.39	$\chi_{\mathrm{lensing}}^2$	9.28 ± 0.70
c_{TE}	0.9964 ± 0.0049	r_{drag}	147.27 ± 0.29	χ_{simall}^2	396.9 ± 1.6
c_{EE}	0.9918 ± 0.0050	k_{D}	0.14067 ± 0.00034	χ_{lowl}^2	23.40 ± 0.94
H_0	67.34 ± 0.56	$100\theta_{\mathrm{D}}$	0.16081 ± 0.00024	$\chi_{\mathrm{CamSpec}}^2$	11514.0 ± 5.4
Ω_{Λ}	0.6853 ± 0.0077	z_{eq}	3393 ± 28	χ_{Aver15}^2	0.9 ± 1.3
Ω_{m}	0.3147 ± 0.0077	k_{eq}	0.010357 ± 0.000085	χ_{prior}^2	7.9 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1426 ± 0.0012	$100\theta_{\mathrm{eq}}$	0.8146 ± 0.0052	χ_{CMB}^2	11943.6 ± 5.7
$\Omega_{\mathrm{m}}h^3$	0.09605 ± 0.00034	$100\theta_{\mathrm{s,eq}}$	0.4501 ± 0.0027		
σ_8	0.8087 ± 0.0061	$H(0.15)$	72.65 ± 0.48		

$\bar{\chi}_{\mathrm{eff}}^2 = 11952.40$; $R - 1 = 0.01479$

20.66 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02232 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4502 ± 0.0059	$D_{\mathrm{M}}(0.38)$	1529.1 ± 7.5
$\Omega_{\mathrm{c}}h^2$	0.11907 ± 0.00095	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6031 ± 0.0058	$H(0.51)$	89.70 ± 0.23
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00033	$\sigma_8/h^{0.5}$	0.9824 ± 0.0085	$D_{\mathrm{M}}(0.51)$	1981.0 ± 8.9
τ	0.0553 ± 0.0073	$r_{\mathrm{drag}}h$	99.69 ± 0.74	$H(0.61)$	95.31 ± 0.20
Y_{P}	0.2439 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.432 ± 0.021	$D_{\mathrm{M}}(0.61)$	2305.3 ± 9.6
$\ln(10^{10}A_{\mathrm{s}})$	3.042 ± 0.015	z_{re}	7.75 ± 0.73	$H(2.33)$	235.90 ± 0.59
n_{s}	0.9663 ± 0.0041	$10^9 A_{\mathrm{s}}$	2.096 ± 0.030	$D_{\mathrm{M}}(2.33)$	5763.8 ± 9.7
y_{cal}	1.0006 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.011	$f\sigma_8(0.15)$	0.4548 ± 0.0055
A_{100}^{PS}	239^{+26}_{-23}	D_{40}	1226 ± 12	$\sigma_8(0.15)$	0.7466 ± 0.0055
A_{143}^{PS}	39 ± 8	D_{220}	5725 ± 39	$f\sigma_8(0.38)$	0.4733 ± 0.0047
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 13	$\sigma_8(0.38)$	0.6619 ± 0.0049
A_{217}^{CIB}	39 ± 7	D_{1420}	816.2 ± 4.7	$f\sigma_8(0.51)$	0.4720 ± 0.0043
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	D_{2000}	230.5 ± 1.6	$\sigma_8(0.51)$	0.6195 ± 0.0046
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9663 ± 0.0041	$f\sigma_8(0.61)$	0.4672 ± 0.0040
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	Y_{P}	0.2439 ± 0.0038	$\sigma_8(0.61)$	0.5895 ± 0.0044
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0038	$f\sigma_8(2.33)$	0.2973 ± 0.0023
A^{kSZ}	< 6.13	Age/Gyr	13.799 ± 0.022	$\sigma_8(2.33)$	0.3065 ± 0.0024
A_{100}^{dust}	1.00 ± 0.20	z_*	1089.84 ± 0.25	f_{2000}^{143}	29.4 ± 2.8
A_{143}^{dust}	0.96 ± 0.18	r_*	144.71 ± 0.24	f_{2000}^{217}	106.6 ± 1.9
A_{217}^{dust}	0.98 ± 0.10	$100\theta_*$	1.04112 ± 0.00029	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.900 ± 0.023	$\chi_{\mathrm{lensing}}^2$	9.29 ± 0.77
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.71 ± 0.38	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0011 ± 0.0016	r_{drag}	147.40 ± 0.25	χ_{lowl}^2	23.11 ± 0.83
c_{TE}	0.9965 ± 0.0048	k_{D}	0.14057 ± 0.00032	$\chi_{\mathrm{CamSpec}}^2$	11514.1 ± 5.5
c_{EE}	0.9921 ± 0.0050	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00023	χ_{Aver15}^2	0.9 ± 1.3
H_0	67.63 ± 0.44	z_{eq}	3379 ± 22	$\chi_{6\mathrm{DF}}^2$	0.050 ± 0.059
Ω_{Λ}	0.6894 ± 0.0058	k_{eq}	0.010312 ± 0.000067	χ_{MGS}^2	1.29 ± 0.41
Ω_{m}	0.3106 ± 0.0058	$100\theta_{\mathrm{eq}}$	0.8174 ± 0.0041	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.3
$\Omega_{\mathrm{m}}h^2$	0.14204 ± 0.00091	$100\theta_{\mathrm{s,eq}}$	0.4515 ± 0.0021	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09606 ± 0.00034	$H(0.15)$	72.90 ± 0.38	χ_{CMB}^2	11943.5 ± 5.6
σ_8	0.8079 ± 0.0061	$D_{\mathrm{M}}(0.15)$	641.1 ± 3.7	χ_{BAO}^2	6.1 ± 1.0
S_8	0.822 ± 0.011	$H(0.38)$	83.00 ± 0.28		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.34; R - 1 = 0.01579$$

20.67 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02228 ± 0.00016	σ_8	0.8086 ± 0.0070	$100\theta_{\mathrm{s,eq}}$	0.4505 ± 0.0031
$\Omega_{\mathrm{c}}h^2$	0.1196 ± 0.0014	S_8	0.827 ± 0.016	$H(0.15)$	72.71 ± 0.54
$100\theta_{\mathrm{MC}}$	1.04082 ± 0.00035	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4529 ± 0.0090	$D_{\mathrm{M}}(0.15)$	643.1 ± 5.4
τ	$0.0542^{+0.0047}_{-0.0081}$	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6052 ± 0.0083	$H(0.38)$	82.85 ± 0.39
Y_{P}	0.2438 ± 0.0038	$\sigma_8/h^{0.5}$	0.985 ± 0.012	$D_{\mathrm{M}}(0.38)$	1533 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	$r_{\mathrm{drag}}h$	99.3 ± 1.1	$H(0.51)$	89.59 ± 0.31
n_{s}	0.9653 ± 0.0048	$\langle d^2 \rangle^{1/2}$	2.437 ± 0.028	$D_{\mathrm{M}}(0.51)$	1986 ± 13
y_{cal}	1.0004 ± 0.0025	z_{re}	$7.66^{+0.52}_{-0.82}$	$H(0.61)$	95.23 ± 0.25
A_{100}^{PS}	240 ± 25	$10^9 A_{\mathrm{s}}$	$2.092^{+0.024}_{-0.034}$	$D_{\mathrm{M}}(0.61)$	2310 ± 14
A_{143}^{PS}	39 ± 8	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.877 ± 0.012	$H(2.33)$	236.18 ± 0.84
A_{217}^{PS}	102 ± 10	D_{40}	1227 ± 13	$D_{\mathrm{M}}(2.33)$	5768 ± 12
A_{217}^{CIB}	40 ± 7	D_{220}	5717 ± 40	$f\sigma_8(0.15)$	0.4573 ± 0.0084
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.6}$	D_{810}	2534 ± 13	$\sigma_8(0.15)$	0.7470 ± 0.0061
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{1420}	815.5 ± 4.8	$f\sigma_8(0.38)$	0.4751 ± 0.0068
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.39}_{-0.18}$	D_{2000}	230.3 ± 1.6	$\sigma_8(0.38)$	$0.6619^{+0.0046}_{-0.0055}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$n_{\mathrm{s},0.002}$	0.9653 ± 0.0048	$f\sigma_8(0.51)$	0.4734 ± 0.0059
A^{kSZ}	$4.7^{+2.3}_{-3.9}$	Y_{P}	0.2438 ± 0.0038	$\sigma_8(0.51)$	$0.6194^{+0.0041}_{-0.0051}$
A_{100}^{dust}	1.01 ± 0.19	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2451 ± 0.0038	$f\sigma_8(0.61)$	0.4683 ± 0.0053
A_{143}^{dust}	0.96 ± 0.18	Age/Gyr	13.807 ± 0.026	$\sigma_8(0.61)$	$0.5893^{+0.0038}_{-0.0048}$
A_{217}^{dust}	0.97 ± 0.10	z_*	1089.93 ± 0.30	$f\sigma_8(2.33)$	$0.2970^{+0.0018}_{-0.0024}$
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	r_*	144.62 ± 0.32	$\sigma_8(2.33)$	$0.3061^{+0.0019}_{-0.0026}$
c_{100}	0.9975 ± 0.0011	$100\theta_*$	1.04105 ± 0.00031	f_{2000}^{143}	29.6 ± 2.9
c_{217}	1.0011 ± 0.0016	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.891 ± 0.030	f_{2000}^{217}	106.7 ± 1.9
c_{TE}	0.9964 ± 0.0049	z_{drag}	1059.65 ± 0.39	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{EE}	0.9918 ± 0.0050	r_{drag}	147.31 ± 0.32	χ_{small}^2	396.8 ± 1.7
H_0	67.40 ± 0.63	k_{D}	0.14063 ± 0.00037	χ_{lowl}^2	23.3 ± 1.0
Ω_{Λ}	0.6862 ± 0.0086	$100\theta_{\mathrm{D}}$	0.16081 ± 0.00024	$\chi_{\mathrm{CamSpec}}^2$	11514.4 ± 5.6
Ω_{m}	0.3138 ± 0.0086	z_{eq}	3390 ± 32	χ_{Aver15}^2	0.9 ± 1.3
$\Omega_{\mathrm{m}}h^2$	0.1425 ± 0.0013	k_{eq}	0.010346 ± 0.000097	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09604 ± 0.00034	$100\theta_{\mathrm{eq}}$	0.8153 ± 0.0060	χ_{CMB}^2	11934.5 ± 5.6

$$\bar{\chi}_{\mathrm{eff}}^2 = 11943.23; R - 1 = 0.01041$$

20.68 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4488 ± 0.0069	$D_{\mathrm{M}}(0.38)$	1527.9 ± 7.9
$\Omega_{\mathrm{c}}h^2$	0.1189 ± 0.0010	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6017 ± 0.0068	$H(0.51)$	89.73 ± 0.24
$100\theta_{\mathrm{MC}}$	1.04091 ± 0.00033	$\sigma_8/h^{0.5}$	0.9804 ± 0.0099	$D_{\mathrm{M}}(0.51)$	1979.6 ± 9.3
τ	$0.0549^{+0.0050}_{-0.0082}$	$r_{\mathrm{drag}}h$	99.83 ± 0.79	$H(0.61)$	95.33 ± 0.20
Y_{P}	0.2440 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.427 ± 0.024	$D_{\mathrm{M}}(0.61)$	2304 ± 10
$\ln(10^{10}A_{\mathrm{s}})$	$3.041^{+0.012}_{-0.016}$	z_{re}	$7.71^{+0.55}_{-0.83}$	$H(2.33)$	235.78 ± 0.64
n_{s}	0.9670 ± 0.0042	$10^9 A_{\mathrm{s}}$	$2.092^{+0.024}_{-0.035}$	$D_{\mathrm{M}}(2.33)$	5763.0 ± 9.8
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.874 ± 0.011	$f\sigma_8(0.15)$	0.4535 ± 0.0065
A_{100}^{PS}	239 ± 25	D_{40}	1224 ± 12	$\sigma_8(0.15)$	$0.7457^{+0.0054}_{-0.0065}$
A_{143}^{PS}	39 ± 8	D_{220}	5721 ± 39	$f\sigma_8(0.38)$	0.4722 ± 0.0055
A_{217}^{PS}	102 ± 10	D_{810}	2534 ± 13	$\sigma_8(0.38)$	$0.6612^{+0.0045}_{-0.0056}$
A_{217}^{CIB}	40 ± 7	D_{1420}	815.9 ± 4.7	$f\sigma_8(0.51)$	0.4711 ± 0.0050
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6}$	D_{2000}	230.4 ± 1.6	$\sigma_8(0.51)$	$0.6189^{+0.0041}_{-0.0052}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9670 ± 0.0042	$f\sigma_8(0.61)$	0.4663 ± 0.0046
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	Y_{P}	0.2440 ± 0.0038	$\sigma_8(0.61)$	$0.5889^{+0.0039}_{-0.0050}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2453 ± 0.0038	$f\sigma_8(2.33)$	$0.2970^{+0.0019}_{-0.0025}$
A^{kSZ}	$4.7^{+1.9}_{-4.2}$	Age/Gyr	13.797 ± 0.022	$\sigma_8(2.33)$	$0.3063^{+0.0020}_{-0.0026}$
A_{100}^{dust}	1.00 ± 0.19	z_*	1089.82 ± 0.26	f_{2000}^{143}	29.4 ± 2.9
A_{143}^{dust}	0.97 ± 0.18	r_*	144.76 ± 0.25	f_{2000}^{217}	106.6 ± 1.9
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04113 ± 0.00030	$f_{2000}^{143 \times 217}$	31.9 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.904 ± 0.024	χ_{small}^2	396.9 ± 1.8
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.71 ± 0.38	χ_{lowl}^2	22.95 ± 0.86
c_{217}	1.0011 ± 0.0016	r_{drag}	147.44 ± 0.27	$\chi_{\mathrm{CamSpec}}^2$	11514.5 ± 5.6
c_{TE}	0.9965 ± 0.0049	k_{D}	0.14052 ± 0.00034	χ_{Aver15}^2	0.9 ± 1.3
c_{EE}	0.9922 ± 0.0050	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00024	$\chi_{6\mathrm{DF}}^2$	0.044 ± 0.057
H_0	67.71 ± 0.46	z_{eq}	3375 ± 24	χ_{MGS}^2	1.37 ± 0.45
Ω_{Λ}	0.6905 ± 0.0062	k_{eq}	0.010300 ± 0.000072	$\chi_{\mathrm{DR12BAO}}^2$	4.6 ± 1.3
Ω_{m}	0.3095 ± 0.0062	$100\theta_{\mathrm{eq}}$	0.8182 ± 0.0044	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.14186 ± 0.00099	$100\theta_{\mathrm{s,eq}}$	0.4520 ± 0.0023	χ_{BAO}^2	5.97 ± 0.99
$\Omega_{\mathrm{m}}h^3$	0.09605 ± 0.00034	$H(0.15)$	72.97 ± 0.40	χ_{CMB}^2	11934.4 ± 5.6
σ_8	$0.8067^{+0.0061}_{-0.0072}$	$D_{\mathrm{M}}(0.15)$	640.5 ± 3.9		
S_8	0.819 ± 0.013	$H(0.38)$	83.04 ± 0.30		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11949.07; R - 1 = 0.01536$$

20.69 base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_lensing_zre6p5

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02228 ± 0.00016	S_8	0.828 ± 0.013	$D_{\mathrm{M}}(0.15)$	643.3 ± 4.7
$\Omega_{\mathrm{c}}h^2$	0.1196 ± 0.0012	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4537 ± 0.0071	$H(0.38)$	82.83 ± 0.35
$100\theta_{\mathrm{MC}}$	1.04081 ± 0.00034	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6059 ± 0.0064	$D_{\mathrm{M}}(0.38)$	1533.6 ± 9.4
τ	$0.0547^{+0.0051}_{-0.0078}$	$\sigma_8/h^{0.5}$	0.9861 ± 0.0090	$H(0.51)$	89.58 ± 0.28
Y_{P}	0.2437 ± 0.0038	$r_{\mathrm{drag}}h$	99.23 ± 0.94	$D_{\mathrm{M}}(0.51)$	1986 ± 11
$\ln(10^{10}A_{\mathrm{s}})$	$3.042^{+0.011}_{-0.015}$	$\langle d^2 \rangle^{1/2}$	2.441 ± 0.022	$H(0.61)$	$95.21^{+0.22}_{-0.24}$
n_{s}	0.9649 ± 0.0045	z_{re}	$7.71^{+0.55}_{-0.78}$	$D_{\mathrm{M}}(0.61)$	2311 ± 12
y_{cal}	1.0004 ± 0.0025	$10^9 A_{\mathrm{s}}$	$2.095^{+0.023}_{-0.031}$	$H(2.33)$	236.23 ± 0.73
A_{100}^{PS}	240 ± 25	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.878 ± 0.011	$D_{\mathrm{M}}(2.33)$	5768 ± 11
A_{143}^{PS}	39 ± 8	D_{40}	1229 ± 12	$f\sigma_8(0.15)$	0.4580 ± 0.0066
A_{217}^{PS}	102 ± 10	D_{220}	5720 ± 40	$\sigma_8(0.15)$	0.7476 ± 0.0051
A_{217}^{CIB}	40^{+7}_{-7}	D_{810}	2534 ± 13	$f\sigma_8(0.38)$	0.4757 ± 0.0053
A_{143}^{tSZ}	$3.9^{+1.8}_{-2.7}$	D_{1420}	815.6 ± 4.8	$\sigma_8(0.38)$	$0.6624^{+0.0041}_{-0.0047}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	D_{2000}	230.3 ± 1.6	$f\sigma_8(0.51)$	0.4740 ± 0.0046
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.56^{+0.41}_{-0.17}$	$n_{\mathrm{s},0.002}$	0.9649 ± 0.0045	$\sigma_8(0.51)$	$0.6198^{+0.0038}_{-0.0045}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	Y_{P}	0.2437 ± 0.0038	$f\sigma_8(0.61)$	0.4688 ± 0.0041
A^{kSZ}	$4.7^{+1.8}_{-4.4}$	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2450 ± 0.0038	$\sigma_8(0.61)$	$0.5897^{+0.0036}_{-0.0043}$
A_{100}^{dust}	1.00 ± 0.20	Age/Gyr	13.808 ± 0.025	$f\sigma_8(2.33)$	$0.2972^{+0.0018}_{-0.0023}$
A_{143}^{dust}	0.96 ± 0.18	z_*	1089.93 ± 0.28	$\sigma_8(2.33)$	$0.3063^{+0.0019}_{-0.0024}$
A_{217}^{dust}	0.97 ± 0.10	r_*	144.60 ± 0.28	f_{2000}^{143}	29.6 ± 2.9
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$100\theta_*$	1.04104 ± 0.00031	f_{2000}^{217}	106.7 ± 1.9
c_{100}	0.9975 ± 0.0011	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.890 ± 0.026	$f_{2000}^{143 \times 217}$	32.0 ± 2.0
c_{217}	1.0011 ± 0.0016	z_{drag}	1059.65 ± 0.39	$\chi_{\mathrm{lensing}}^2$	9.23 ± 0.66
c_{TE}	0.9964 ± 0.0049	r_{drag}	147.29 ± 0.28	χ_{simall}^2	396.9 ± 1.6
c_{EE}	0.9918 ± 0.0049	k_{D}	0.14066 ± 0.00034	χ_{lowl}^2	23.38 ± 0.93
H_0	67.37 ± 0.55	$100\theta_{\mathrm{D}}$	0.16081 ± 0.00024	$\chi_{\mathrm{CamSpec}}^2$	11513.9 ± 5.4
Ω_{Λ}	0.6858 ± 0.0074	z_{eq}	3392 ± 27	χ_{Aver15}^2	0.9 ± 1.3
Ω_{m}	0.3142 ± 0.0074	k_{eq}	0.010352 ± 0.000083	χ_{prior}^2	7.9 ± 3.4
$\Omega_{\mathrm{m}}h^2$	0.1426 ± 0.0011	$100\theta_{\mathrm{eq}}$	0.8149 ± 0.0051	χ_{CMB}^2	11943.4 ± 5.6
$\Omega_{\mathrm{m}}h^3$	0.09605 ± 0.00034	$100\theta_{\mathrm{s,eq}}$	0.4503 ± 0.0026		
σ_8	0.8094 ± 0.0057	$H(0.15)$	72.68 ± 0.47		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11952.14; R - 1 = 0.01491$$

20.70 **base_yhe_CamSpecHM_TTTEEE_lowl_lowE_Aver15_post_BAO_lensing_zre6p5**

Parameter	68% limits	Parameter	68% limits	Parameter	68% limits
$\Omega_{\mathrm{b}}h^2$	0.02233 ± 0.00015	$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4503 ± 0.0059	$D_{\mathrm{M}}(0.38)$	1528.9 ± 7.5
$\Omega_{\mathrm{c}}h^2$	0.11904 ± 0.00095	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6033 ± 0.0057	$H(0.51)$	89.71 ± 0.23
$100\theta_{\mathrm{MC}}$	1.04089 ± 0.00033	$\sigma_8/h^{0.5}$	0.9828 ± 0.0082	$D_{\mathrm{M}}(0.51)$	1980.8 ± 8.8
τ	$0.0560^{+0.0055}_{-0.0077}$	$r_{\mathrm{drag}}h$	99.71 ± 0.74	$H(0.61)$	95.32 ± 0.20
Y_{P}	0.2439 ± 0.0038	$\langle d^2 \rangle^{1/2}$	2.433 ± 0.020	$D_{\mathrm{M}}(0.61)$	2305.0 ± 9.5
$\ln(10^{10}A_{\mathrm{s}})$	$3.044^{+0.012}_{-0.015}$	z_{re}	$7.82^{+0.59}_{-0.76}$	$H(2.33)$	235.88 ± 0.59
n_{s}	0.9664 ± 0.0040	$10^9 A_{\mathrm{s}}$	$2.099^{+0.025}_{-0.031}$	$D_{\mathrm{M}}(2.33)$	5763.6 ± 9.7
y_{cal}	1.0006 ± 0.0025	$10^9 A_{\mathrm{s}}e^{-2\tau}$	1.876 ± 0.011	$f\sigma_8(0.15)$	0.4550 ± 0.0055
A_{100}^{PS}	239 ± 25	D_{40}	1226 ± 12	$\sigma_8(0.15)$	0.7471 ± 0.0052
A_{143}^{PS}	39 ± 8	D_{220}	5725 ± 39	$f\sigma_8(0.38)$	0.4735 ± 0.0046
A_{217}^{PS}	102 ± 10	D_{810}	2535 ± 13	$\sigma_8(0.38)$	$0.6623^{+0.0043}_{-0.0049}$
A_{217}^{CIB}	39 ± 7	D_{1420}	816.2 ± 4.7	$f\sigma_8(0.51)$	0.4723 ± 0.0042
A_{143}^{tSZ}	$3.9^{+1.9}_{-2.6}$	D_{2000}	230.5 ± 1.6	$\sigma_8(0.51)$	$0.6199^{+0.0040}_{-0.0046}$
$r_{143 \times 217}^{\mathrm{PS}}$	0.66 ± 0.13	$n_{\mathrm{s},0.002}$	0.9664 ± 0.0040	$f\sigma_8(0.61)$	0.4674 ± 0.0039
$r_{143 \times 217}^{\mathrm{CIB}}$	$0.55^{+0.39}_{-0.19}$	Y_{P}	0.2439 ± 0.0038	$\sigma_8(0.61)$	$0.5899^{+0.0038}_{-0.0044}$
$\xi^{\mathrm{tSZ} \times \mathrm{CIB}}$	—	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2452 ± 0.0038	$f\sigma_8(2.33)$	$0.2975^{+0.0019}_{-0.0023}$
A^{kSZ}	< 6.11	Age/Gyr	13.799 ± 0.022	$\sigma_8(2.33)$	$0.3067^{+0.0020}_{-0.0024}$
A_{100}^{dust}	1.00 ± 0.20	z_*	1089.84 ± 0.25	f_{2000}^{143}	29.4 ± 2.8
A_{143}^{dust}	0.96 ± 0.18	r_*	144.72 ± 0.24	f_{2000}^{217}	106.6 ± 1.9
A_{217}^{dust}	0.97 ± 0.10	$100\theta_*$	1.04112 ± 0.00029	$f_{2000}^{143 \times 217}$	31.8 ± 2.0
$A_{143 \times 217}^{\mathrm{dust}}$	1.03 ± 0.16	$D_{\mathrm{M}}(z_*)/\mathrm{Gpc}$	13.900 ± 0.023	$\chi_{\mathrm{lensing}}^2$	9.23 ± 0.70
c_{100}	0.9975 ± 0.0011	z_{drag}	1059.71 ± 0.38	χ_{simall}^2	397.1 ± 1.8
c_{217}	1.0011 ± 0.0016	r_{drag}	147.40 ± 0.25	χ_{lowl}^2	23.11 ± 0.84
c_{TE}	0.9964 ± 0.0048	k_{D}	0.14056 ± 0.00032	$\chi_{\mathrm{CamSpec}}^2$	11514.0 ± 5.5
c_{EE}	0.9921 ± 0.0049	$100\theta_{\mathrm{D}}$	0.16079 ± 0.00023	χ_{Aver15}^2	0.9 ± 1.3
H_0	67.65 ± 0.43	z_{eq}	3378 ± 22	$\chi_{6\mathrm{DF}}^2$	0.048 ± 0.057
Ω_{Λ}	0.6896 ± 0.0058	k_{eq}	0.010311 ± 0.000066	χ_{MGS}^2	1.30 ± 0.41
Ω_{m}	0.3104 ± 0.0058	$100\theta_{\mathrm{eq}}$	0.8175 ± 0.0041	$\chi_{\mathrm{DR12BAO}}^2$	4.7 ± 1.3
$\Omega_{\mathrm{m}}h^2$	0.14201 ± 0.00091	$100\theta_{\mathrm{s,eq}}$	0.4516 ± 0.0021	χ_{prior}^2	7.8 ± 3.4
$\Omega_{\mathrm{m}}h^3$	0.09606 ± 0.00034	$H(0.15)$	72.91 ± 0.38	χ_{CMB}^2	11943.4 ± 5.6
σ_8	0.8083 ± 0.0058	$D_{\mathrm{M}}(0.15)$	641.0 ± 3.7	χ_{BAO}^2	6.02 ± 0.99
S_8	0.822 ± 0.011	$H(0.38)$	83.00 ± 0.28		

$$\bar{\chi}_{\mathrm{eff}}^2 = 11958.15; R - 1 = 0.01663$$

20.71 base_yhe_CleanedCamSpecHM_TT_lowl_lowE

Parameter	Best fit	68% limits	Parameter	Best fit	68% limits	Parameter	Best fit	68% limits
$\Omega_{\mathrm{b}}h^2$	0.022137	0.02212 ± 0.00030 (+0.1 σ)	$\sigma_8\Omega_{\mathrm{m}}^{0.25}$	0.6098	0.608 ± 0.012 (−0.1 σ)	$H(0.15)$	72.42	72.38 ± 0.98 (+0.1 σ)
$\Omega_{\mathrm{c}}h^2$	0.12037	0.1203 ± 0.0022 (−0.1 σ)	$\sigma_8/h^{0.5}$	0.9914	0.989 ± 0.016 (−0.1 σ)	$D_{\mathrm{M}}(0.15)$	645.9	646.5 ± 9.9 (−0.1 σ)
$100\theta_{\mathrm{MC}}$	1.04103	1.04084 ± 0.00091 (+0.1 σ)	$r_{\mathrm{drag}}h$	98.75	98.7 ± 1.8 (+0.1 σ)	$H(0.38)$	82.64	82.60 ± 0.75 (+0.1 σ)
τ	0.0524	0.0520 ± 0.0081 (+0.0 σ)	$\langle d^2 \rangle^{1/2}$	2.4465	2.447 ± 0.044 (−0.0 σ)	$D_{\mathrm{M}}(0.38)$	1538.8	1540 ± 20 (−0.1 σ)
Y_{P}	0.2526	0.246 ± 0.022	z_{re}	7.57	7.49 ± 0.84 (+0.0 σ)	$H(0.51)$	89.43	89.39 ± 0.62 (+0.1 σ)
$\ln(10^{10}A_{\mathrm{s}})$	3.0406	3.038 ± 0.018 (+0.0 σ)	10^9A_{s}	2.0917	2.087 ± 0.037 (+0.0 σ)	$D_{\mathrm{M}}(0.51)$	1992.4	1994 ± 24 (−0.1 σ)
n_{s}	0.9647	0.963 ± 0.011 (+0.1 σ)	$10^9A_{\mathrm{s}}e^{-2\tau}$	1.8836	1.880 ± 0.016 (−0.0 σ)	$H(0.61)$	95.10	95.05 ± 0.53 (+0.1 σ)
y_{cal}	1.00040	1.0004 ± 0.0025 (+0.0 σ)	D_{40}	1228.5	1231 ± 22 (−0.0 σ)	$D_{\mathrm{M}}(0.61)$	2317.5	2319 ± 26 (−0.1 σ)
A_{100}^{PS}	259.7	257 ± 30 (+0.1 σ)	D_{220}	5706.4	5707 ± 41 (+0.1 σ)	$H(2.33)$	236.58	236.5 ± 1.3 (−0.1 σ)
A_{143}^{tSZ}	6.00	$3.8^{+1.7}_{-2.8}$ (+0.0 σ)	D_{810}	2532.5	2531 ± 14 (−0.0 σ)	$D_{\mathrm{M}}(2.33)$	5773.1	5776 ± 26 (−0.1 σ)
A^{kSZ}	0.6	—	D_{1420}	811.5	812.4 ± 5.6 (−0.0 σ)	$f\sigma_8(0.15)$	0.4621	0.461 ± 0.013 (−0.1 σ)
A_{100}^{dust}	1.001	1.01 ± 0.19 (+0.0 σ)	D_{2000}	228.06	228.8 ± 2.6 (−0.0 σ)	$\sigma_8(0.15)$	0.7496	0.7476 ± 0.0086 (−0.0 σ)
A_{143}^{power}	13.42	$10.7^{+2.5}_{-3.2}$ (+0.1 σ)	$n_{\mathrm{s},0.002}$	0.9647	0.963 ± 0.011 (+0.1 σ)	$f\sigma_8(0.38)$	0.4789	0.4777 ± 0.0098 (−0.1 σ)
A_{217}^{power}	12.85	$8.5^{+1.7}_{-3.5}$ (+0.1 σ)	Y_{P}	0.2526	0.246 ± 0.022 (+4.9 σ)	$\sigma_8(0.38)$	0.6637	0.6619 ± 0.0074 (+0.0 σ)
$A_{143 \times 217}^{\mathrm{power}}$	9.04	$4.6^{+1.7}_{-3.5}$ (+0.1 σ)	$Y_{\mathrm{P}}^{\mathrm{BBN}}$	0.2540	0.247 ± 0.022 (+4.9 σ)	$f\sigma_8(0.51)$	0.4767	0.4755 ± 0.0083 (−0.1 σ)
$\gamma_{143}^{\mathrm{power}}$	1.266	$1.32^{+0.41}_{-0.54}$ (−0.0 σ)	Age/Gyr	13.819	13.827 ± 0.060 (−0.1 σ)	$\sigma_8(0.51)$	0.6208	0.6191 ± 0.0070 (+0.0 σ)
$\gamma_{217}^{\mathrm{power}}$	1.06	$1.34^{+0.73}_{-0.64}$ (−0.0 σ)	z_{*}	1090.55	1090.31 ± 0.69 (+0.0 σ)	$f\sigma_8(0.61)$	0.4712	0.4699 ± 0.0074 (−0.0 σ)
$\gamma_{143 \times 217}^{\mathrm{power}}$	1.04	1.30 ± 0.59 (−0.1 σ)	r_{*}	144.488	144.55 ± 0.48 (+0.0 σ)	$\sigma_8(0.61)$	0.5905	0.5889 ± 0.0067 (+0.0 σ)
c_{100}	0.99799	0.9978 ± 0.0011 (+0.0 σ)	$100\theta_{*}$	1.04104	1.04102 ± 0.00050 (+0.0 σ)	$f\sigma_8(2.33)$	0.29749	0.2967 ± 0.0035 (+0.0 σ)
c_{217}	0.99944	$0.9994^{+0.0013}_{-0.0017}$ (+0.0 σ)	$D_{\mathrm{M}}(z_{*})/\mathrm{Gpc}$	13.8792	13.885 ± 0.045 (+0.0 σ)	$\sigma_8(2.33)$	0.30641	0.3056 ± 0.0038 (+0.1 σ)
H_0	67.07	67.0 ± 1.1 (+0.1 σ)	z_{drag}	1059.67	1059.4 ± 1.2 (+0.1 σ)	f_{2000}^{143}	25.17	24 ± 4 (+0.1 σ)
Ω_{Λ}	0.6818	$0.681^{+0.016}_{-0.014}$ (+0.1 σ)	r_{drag}	147.232	147.30 ± 0.50 (+0.0 σ)	f_{2000}^{217}	18.03	17.1 ± 2.9 (+0.1 σ)
Ω_{m}	0.3182	$0.319^{+0.014}_{-0.016}$ (−0.1 σ)	k_{D}	0.14024	0.14042 ± 0.00076 (−0.1 σ)	$f_{2000}^{143 \times 217}$	12.76	$11.4^{+3.0}_{-3.3}$ (+0.1 σ)
$\Omega_{\mathrm{m}}h^2$	0.14315	0.1431 ± 0.0020 (−0.1 σ)	$100\theta_{\mathrm{D}}$	0.16140	0.16113 ± 0.00081 (+0.1 σ)	χ_{small}^2	395.88	396.9 ± 1.7 (+0.0 σ)
$\Omega_{\mathrm{m}}h^3$	0.09601	0.09586 ± 0.00079 (+0.1 σ)	z_{eq}	3405.4	3403 ± 49 (−0.1 σ)	χ_{lowl}^2	23.34	23.9 ± 2.1 (+0.1 σ)
σ_8	0.8119	0.8098 ± 0.0098 (−0.0 σ)	k_{eq}	0.010394	0.01039 ± 0.00015 (−0.1 σ)	$\chi_{\mathrm{CamSpec}}^2$	6704.6	6717.0 ± 5.5 (+0.1 σ)
S_8	0.8362	0.835 ± 0.025 (−0.1 σ)	$100\theta_{\mathrm{eq}}$	0.8122	0.8125 ± 0.0094 (+0.1 σ)	χ_{prior}^2	1.18	5.3 ± 2.9 (+0.0 σ)
$\sigma_8\Omega_{\mathrm{m}}^{0.5}$	0.4580	0.457 ± 0.014 (−0.1 σ)	$100\theta_{\mathrm{s,eq}}$	0.44896	0.4491 ± 0.0048 (+0.1 σ)	χ_{CMB}^2	7123.8	7137.8 ± 5.5 (+0.2 σ)

Best-fit $\chi_{\mathrm{eff}}^2 = 7125.00$; $\Delta\chi_{\mathrm{eff}}^2 = -0.12$; $\bar{\chi}_{\mathrm{eff}}^2 = 7143.10$; $\Delta\bar{\chi}_{\mathrm{eff}}^2 = 0.90$; $R - 1 = 0.00767$

χ_{eff}^2 : CMB - simall_100x143_offlike5_EE_Aplanck_B: 395.88 (Δ 0.10) commander_dx12_v3.2_29: 23.34 (Δ -0.37) CamSpec like_10.7cleaned: 6704.60 (Δ 0.17)